

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: <b>Enterprise Field Services, LLC</b>	OGRID: <b>241602</b>
Contact Name: <b>Thomas Long</b>	Contact Telephone: <b>505-599-2286</b>
Contact email: <b>tjlong@eprod.com</b>	Incident # (assigned by OCD) <b>nAPP2206337228</b>
Contact mailing address: <b>614 Reilly Ave, Farmington, NM 87401</b>	

### Location of Release Source

Latitude **36.438720** Longitude **-107.611543** (NAD 83 in decimal degrees to 5 decimal places)

Site Name <b>Lateral 2C-6</b>	Site Type <b>Natural Gas Gathering Pipeline</b>
Date Release Discovered: <b>03/14/2022</b>	Serial Number (if applicable): <b>N/A</b>

Unit Letter	Section	Township	Range	County
<b>P</b>	<b>31</b>	<b>26N</b>	<b>7W</b>	<b>Rio Arriba</b>

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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls): <b>3-5 BBLS</b>	Volume Recovered (bbls): <b>None</b>
<input checked="" type="checkbox"/> Natural Gas	Volume Released (Mcf): <b>34 MCF</b>	Volume Recovered (Mcf): <b>None</b>
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

**Cause of Release:** On March 2, 2022, Enterprise had a release of natural gas and condensate from the Lateral 2C-6. The pipeline was isolated, depressurized, locked and tagged out. No residents were affected. No washes were affected. No emergency services responded.. An area of approximately 224 feet long by one foot wide was affected by the release fluids. The final excavation dimensions measured approximately 32 feet long by 6 feet wide by 6 feet deep. Approximately 168 cubic yards of hydrocarbon impacted soil was excavated and transported to a New Mexico Oil Conservation Division (NMOCD) approved land farm. A third party closure report is included with this "Final." C-141.

Incident ID	
District RP	
Facility ID	
Application ID	

## Closure

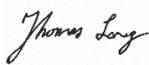
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled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

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

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

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

Printed Name: Thomas Long Title: Senior Environmental Scientist

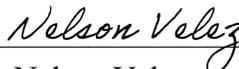
Signature:  Date: 05-26-2022

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

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

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

Closure Approved by:  Date: 06/24/2022

Printed Name: Nelson Velez Title: Environmental Specialist – Adv



**CLOSURE REPORT**

Property:

**Lateral 2C-6 (3/2/22)  
Unit Letter P, S31 T26N R7W  
Rio Arriba County, New Mexico**

**New Mexico EMNRD OCD Incident ID No. NAPP2206337228**

May 23, 2022  
Ensolum Project No. 05A1226186

Prepared for:

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

Prepared by:

A handwritten signature in blue ink, appearing to read "L. Daniell", written over a horizontal line.

Landon Daniell  
Staff Geologist

A handwritten signature in blue ink, appearing to read "K. Summers", written over a horizontal line.

Kyle Summers  
Senior Project Manager

Closure Report  
Enterprise Field Services, LLC  
Lateral 2C-6 (3/2/22)  
May 23, 2022



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Closure Report  
Enterprise Field Services, LLC  
Lateral 2C-6 (3/2/22)  
May 23, 2022



## 1.0 INTRODUCTION

### 1.1 Site Description & Background

<b>Operator:</b>	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
<b>Site Name:</b>	Lateral 2C-6 (3/2/22) (Site)
<b>Incident ID</b>	NAPP2206337228
<b>Location:</b>	36.438720° North, 107.611543° West Unit Letter P, Section 31, Township 26 North, Range 7 West Rio Arriba County, New Mexico
<b>Property:</b>	United States Bureau of Land Management (BLM)
<b>Regulatory:</b>	New Mexico (NM) Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On March 2, 2022, a release of natural gas and associated liquids from the Lateral 2C-6 pipeline was discovered at the Site. The release was characterized by discoloration of the ground surface and a flow path that traveled northwest from the release point. Enterprise verified a leak and subsequently isolated and locked the pipeline out of service. On March 8, 2022, Enterprise initiated activities to repair the pipeline and remediate petroleum hydrocarbon impact.

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

### 1.2 Project Objective

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

## 2.0 CLOSURE CRITERIA

The Site is subject to regulatory oversight by the NM EMNRD OCD. To address activities related to oil and gas releases, the NM EMNRD OCD references NM Administrative Code (NMAC) 19.15.29 *Releases*, which establishes investigation and abatement action requirements for oil and gas release sites that are subject to reporting and/or corrective action. The appropriate closure criteria for sites are determined using the siting requirements outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC. Ensolum utilized the general site characteristics and information available from NM state agency databases and federal agency geospatial databases 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. One POD (SJ-02406) was identified in an adjacent section. POD SJ-02406 is located approximately 1.4 miles northwest of the Site and is approximately 664 feet lower in elevation than the Site. The records for POD SJ-02406 indicate a depth to water of 180 feet below grade surface (bgs) (**Figure A, Appendix B**).

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

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

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

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

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

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Lateral 2C-6 (3/2/22)  
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The closure criteria (reclamation requirements of NMAC 19.15.29.13(D)(1)) for the upper four feet of soils at the Site include:

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

### 3.0 SOIL REMEDIATION ACTIVITIES

On March 8, 2022, Enterprise initiated activities to repair the pipeline and remediate petroleum hydrocarbon impact resulting from the release. During the remediation and corrective action activities, West States Energy Contractors (West States) provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

The final primary excavation measured approximately 32 feet long and 6 feet wide at the maximum extents. The maximum depth of the excavation measured approximately 6 feet bgs. The flow path excavation measured approximately 224 feet long and 8 feet wide at the maximum extents. The maximum depth of the flow path excavation measured approximately 1.5 feet bgs. The lithology encountered during the completion of remediation activities consisted primarily of sandy silt underlain by sandstone.

An estimated total of 168 cubic yards of petroleum hydrocarbon affected soil was 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 pipeline and flow path 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<sup>®</sup> 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 11 composite soil samples (S-1 through S-11) from the primary and flow path excavations for laboratory analysis. The composite samples were comprised of five aliquots each and represent an estimated 200 square foot (ft<sup>2</sup>) sample area per guidelines outlined in Section D of 19.15.29.12 NMAC. Hand tools were utilized to obtain fresh aliquots from each area of the excavation. Regulatory correspondence is provided in **Appendix E**.

#### **First Sampling Event**

On March 9, 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 sample S-1 (6') was collected from the floor of the excavation. Composite soil samples S-2 (0'-6'), S-3 (0'-6'), S-4 (0'-6'), and S-5 (0'-6') were collected from the walls and sloped walls of the primary excavation.

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Lateral 2C-6 (3/2/22)  
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## **Second Sampling Event**

On March 11, 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 soil samples S-6 (0'-1.5'), S-7 (0'-0.5'), S-8 (0'-0.5'), S-9 (0'-1.5'), S-10 (0'-1.5'), and S-11(0'-0.5') were collected from the excavated flow path floor and sidewalls.

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 1 (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-1 through S-11) to the applicable NM EMNRD OCD closure criteria. The laboratory analytical results are summarized in **Table 1 (Appendix F)**.

- The laboratory analytical results for the composite soil samples 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 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-1 through S-7 indicate combined TPH GRO/DRO concentrations ranging from 10 mg/kg (S-6 and S-7) to 160 mg/kg (S-1), which are less than the applicable NM EMNRD OCD closure criteria of 100 mg/kg or 1,000 mg/kg (depending on the depth of the represented soil). The laboratory analytical results for all other composite soil samples indicate combined TPH GRO/DRO is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the applicable NM EMNRD OCD closure criteria of 100 mg/kg 1,000 mg/kg (depending on the depth of the represented soil).
- The laboratory analytical results for composite soil samples S-1 through S-7 indicate combined TPH GRO/DRO/MRO concentrations ranging from 10 mg/kg (S-6 and S-7) to 210 mg/kg (S-1), which are less than the applicable NM EMNRD OCD closure criteria of 100 mg/kg or 2,500 mg/kg (depending on the depth of the represented soil.) The laboratory analytical results for all other composite soil samples indicate combined TPH GRO/DRO/MRO concentrations are not present at concentrations greater than the laboratory PQLs/RLs, which are less than the applicable NM EMNRD OCD closure criteria of 100 mg/kg 2,500 mg/kg (depending on the depth of the represented soil).

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Lateral 2C-6 (3/2/22)  
May 23, 2022



- The laboratory analytical results for composite soil samples S-1, S-4, and S-5 indicate chloride concentrations of 67 mg/kg, 67 mg/kg, and 160 mg/kg, respectively, which are less than the applicable NM EMNRD OCD closure criteria of 600 mg/kg or 10,000 mg/kg (depending on depth of the represented soil). The laboratory analytical results for all other composite soil samples indicate chloride is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the applicable NM EMNRD OCD closure criteria of 600 mg/kg or 10,000 mg/kg (depending on the depth of the represented soil).

## 7.0 RECLAMATION AND REVEGETATION

The excavation was backfilled with clean imported fill and then contoured to the surrounding topography.

## 8.0 FINDINGS AND RECOMMENDATION

- Eleven composite soil samples were collected from the Site. Based on laboratory analytical results, no benzene, BTEX, combined TPH GRO/DRO/MRO, or chloride exceedances were identified in the soils remaining at the Site.
- Approximately 168 cubic yards of petroleum hydrocarbon affected soil was 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.

Closure Report  
Enterprise Field Services, LLC  
Lateral 2C-6 (3/2/22)  
May 23, 2022

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### 9.3 Reliance

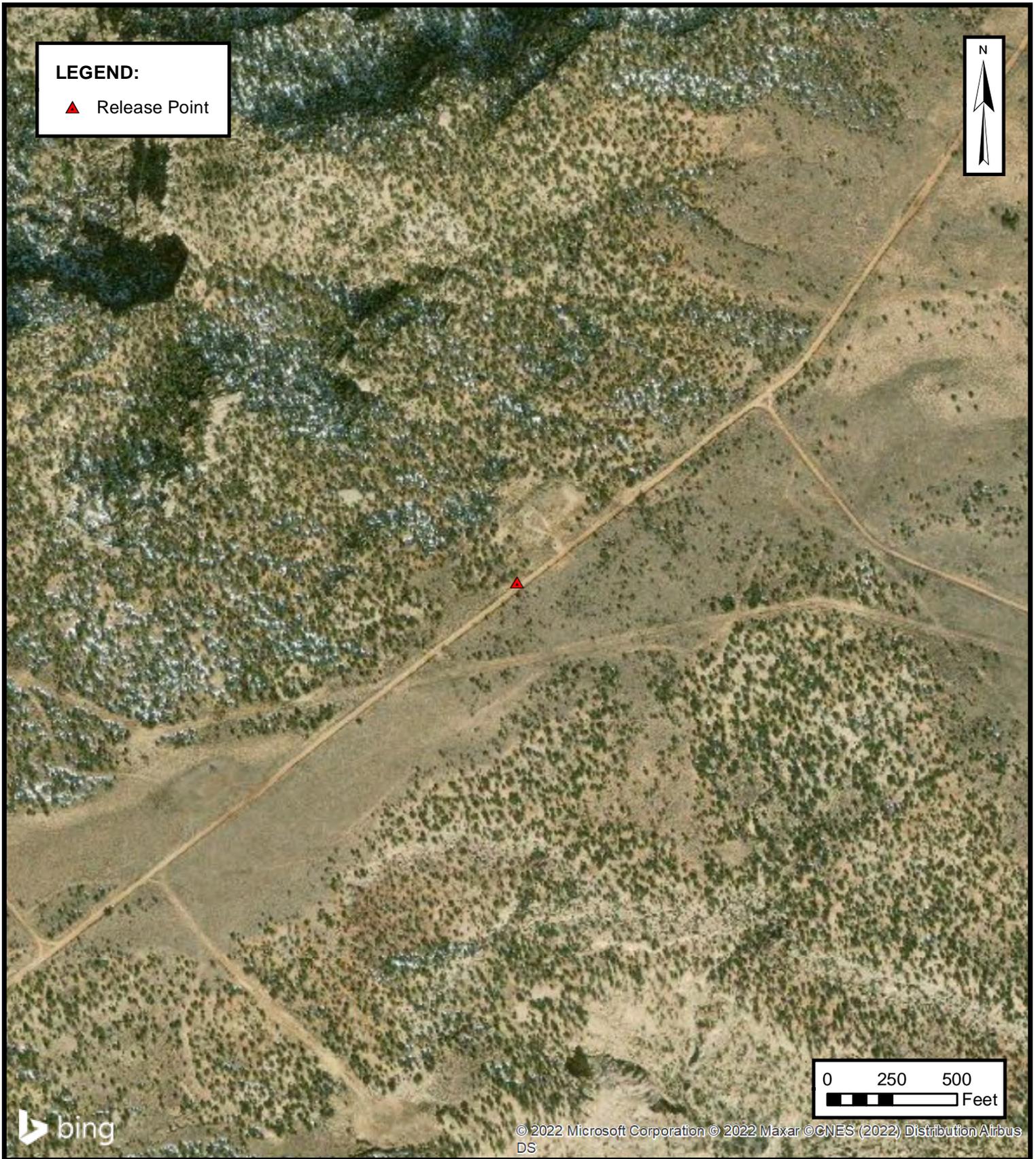
This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Enterprise and Ensolum. Any unauthorized distribution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



## APPENDIX A

### Figures

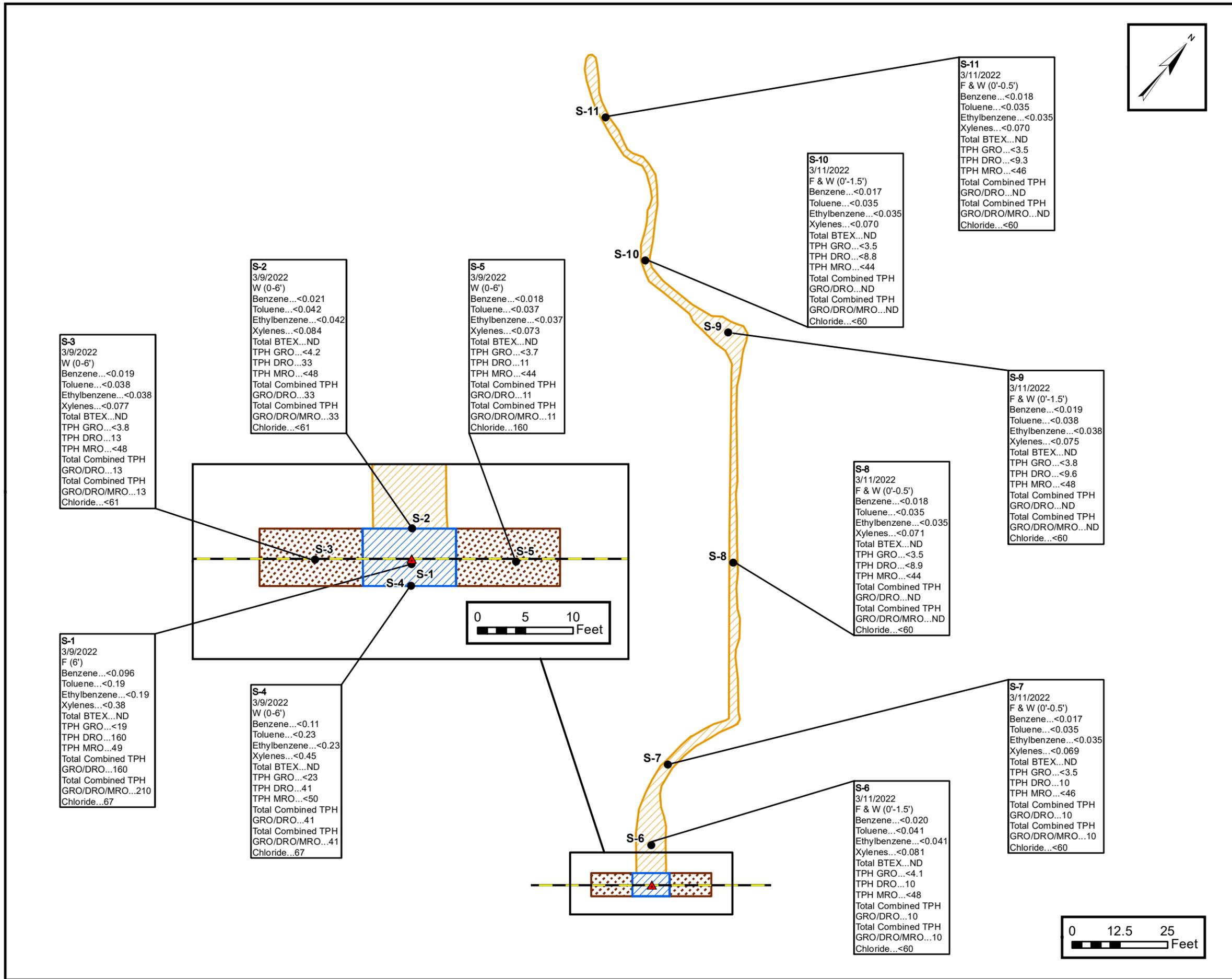




Environmental & Hydrogeologic Consultants

**SITE VICINITY MAP**  
ENTERPRISE FIELD SERVICES, LLC  
LATERAL 2C-6 (3/2/22)  
Unit Letter P, S31 T26N R7W, Rio Arriba County, New Mexico  
36.438720° N, 107.611543° W  
PROJECT NUMBER: 05A1226186

**FIGURE**  
**2**



**LEGEND:**

- ▲ Release Point
- Composite Soil Sample Location
- Extent of Excavation
- Sloped Sidewall
- Extent of Flowpath
- Approximate Lateral 2C-6 Pipeline Location

**NOTES:**  
F - Floor Sample  
W - Wall Sample  
All Concentrations Are in mg/Kg.  
All Depths Are Listed in Feet BGS.



**SITE MAP WITH SOIL ANALYTICAL RESULTS**

ENTERPRISE FIELD SERVICES, LLC  
LATERAL 2C-6 (3/2/22)

Unit Letter P, S31 T26N R7W, Rio Arriba County, New Mexico  
36.438720° N, 107.611543° W

**FIGURE 3**

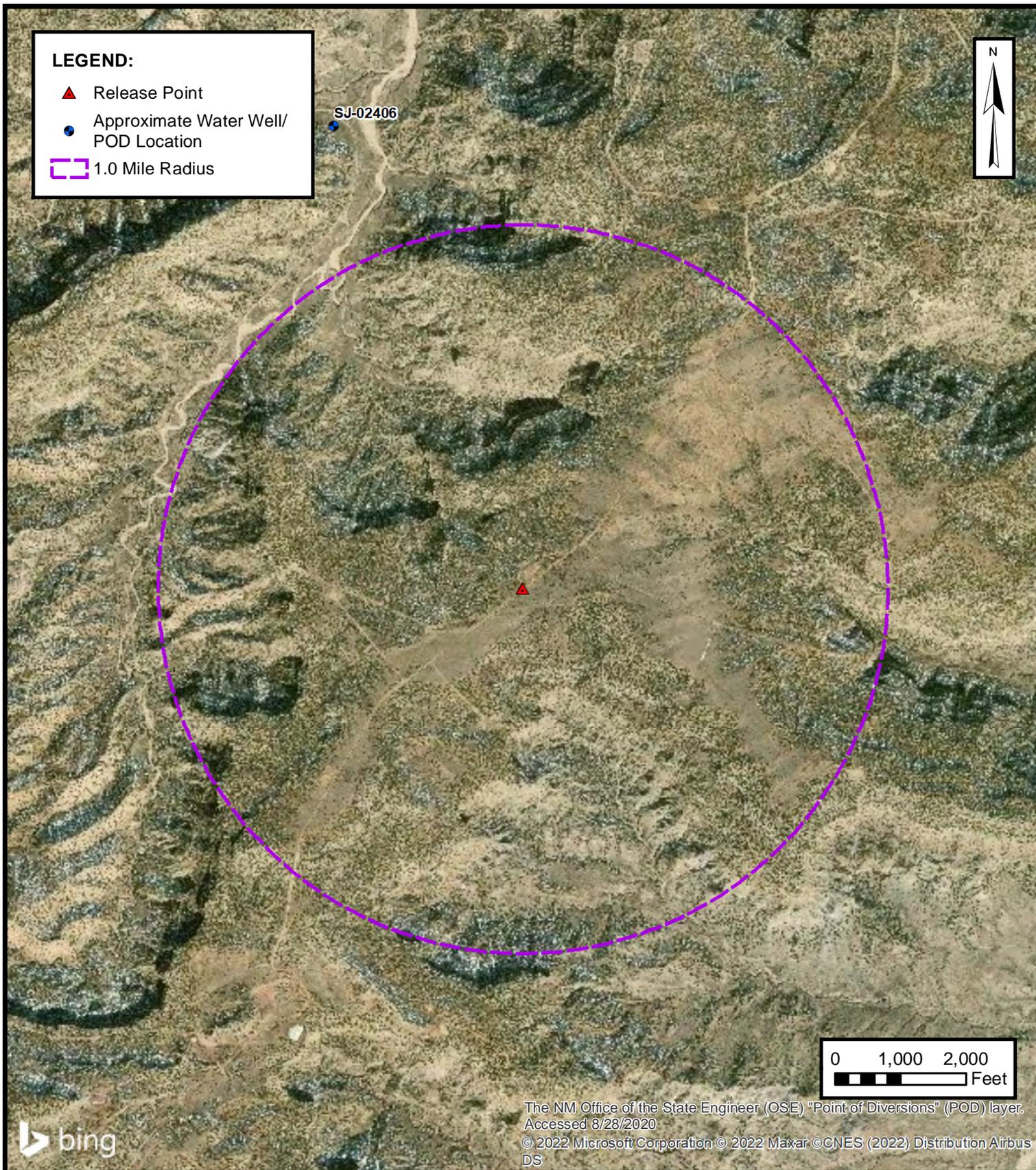
PROJECT NUMBER: 05A1226186



## APPENDIX B

### Siting Figures and Documentation

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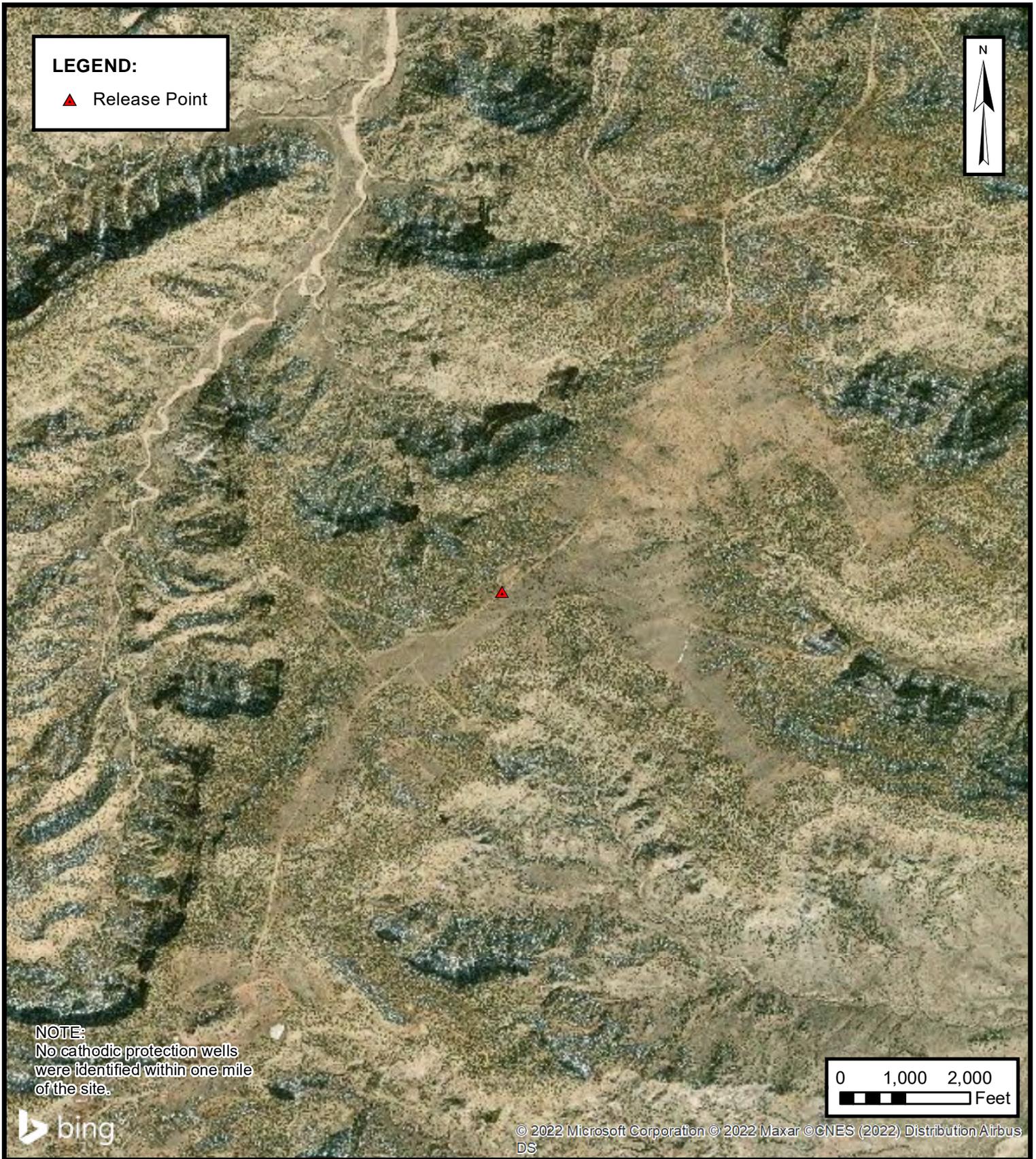
**ENSOLUM**  
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**1.0 MILE RADIUS WATER WELL/ POD LOCATION MAP**

ENTERPRISE FIELD SERVICES, LLC  
 LATERAL 2C-6 (3/2/22)  
 Unit Letter P, S31 T26N R7W, San Juan County, New Mexico  
 36.438720° N, 107.611543° W

PROJECT NUMBER: 05A1226186

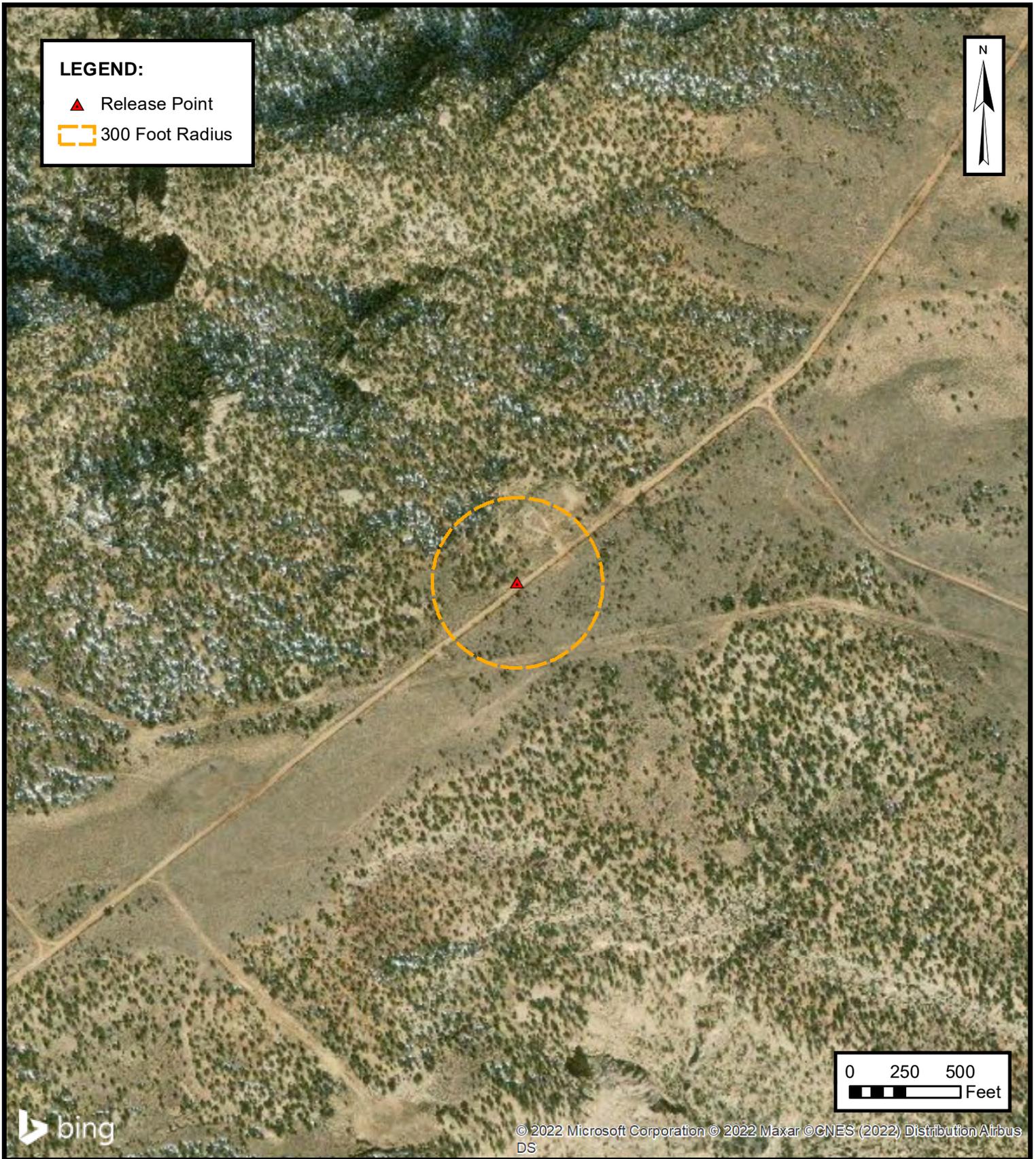
**FIGURE**  
**A**



**ENSOLUM**  
 Environmental & Hydrogeologic Consultants

**CATHODIC PROTECTION WELL RECORDED  
 DEPTH TO WATER**  
 ENTERPRISE FIELD SERVICES, LLC  
 LATERAL 2C-6 (3/2/22)  
 Unit Letter P, S31 T26N R7W, Rio Arriba County, New Mexico  
 36.438720° N, 107.611543° W  
 PROJECT NUMBER: 05A1226186

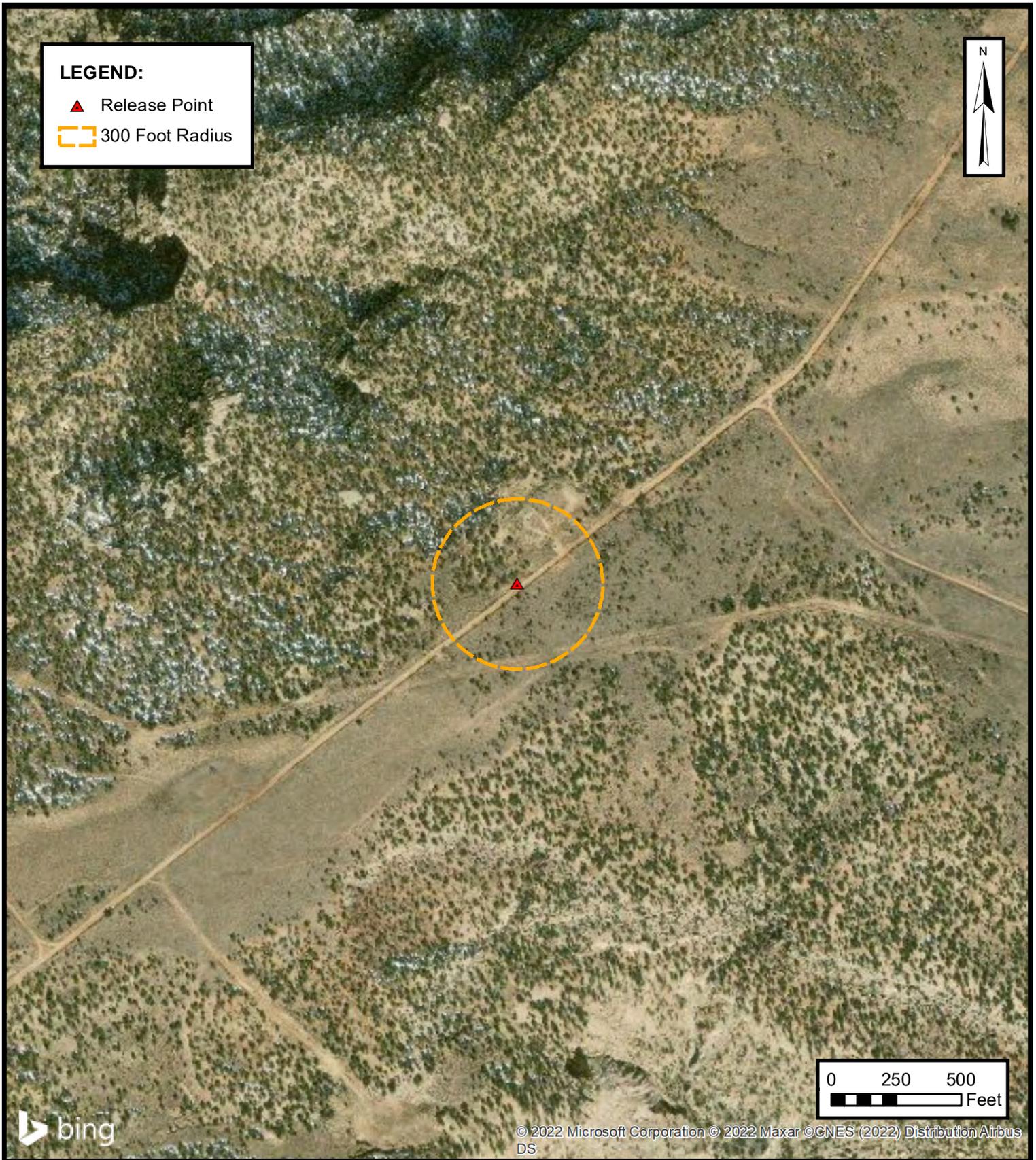
**FIGURE  
 B**



**ENSOLUM**  
Environmental & Hydrogeologic Consultants

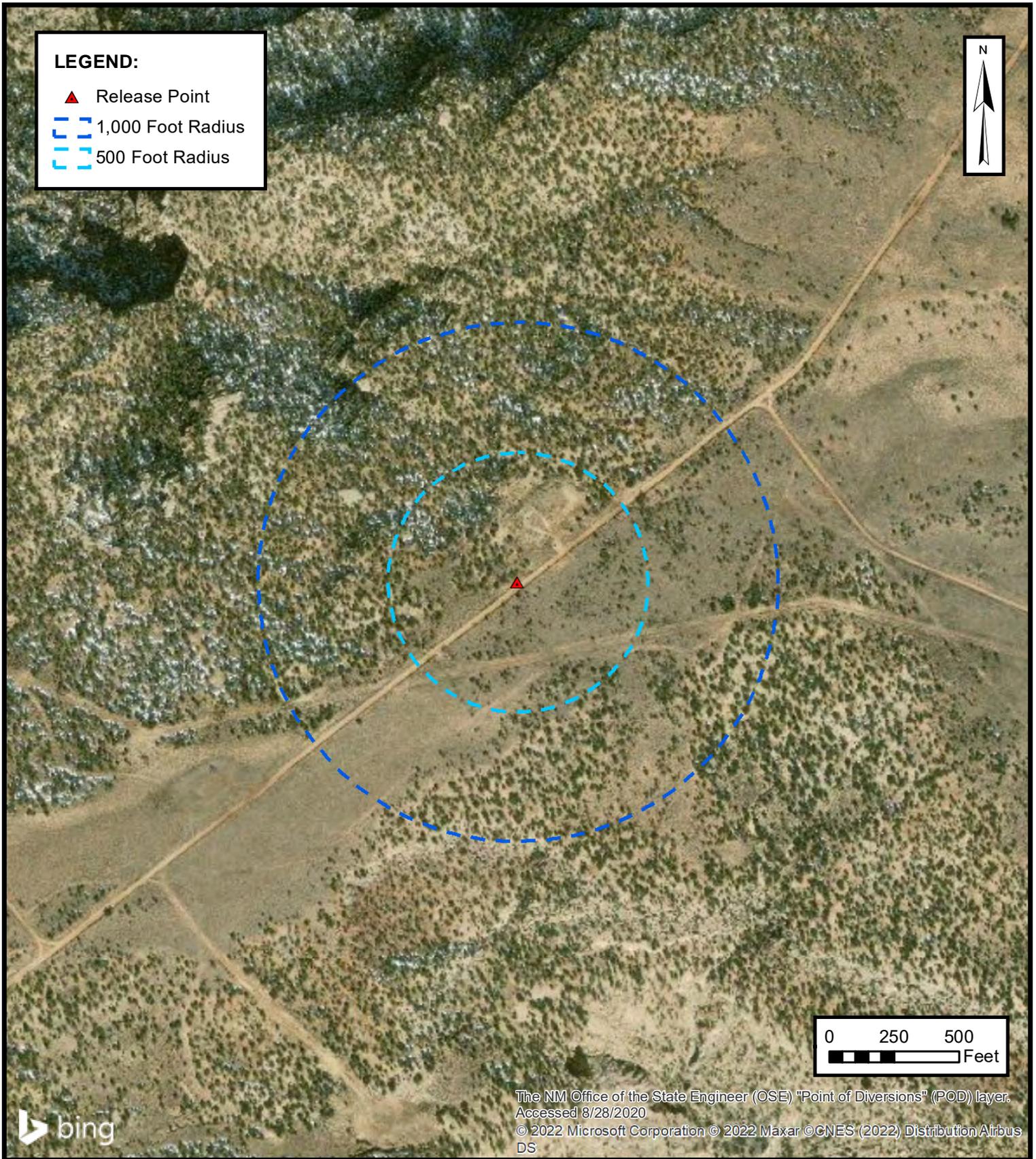
**300 FOOT RADIUS  
WATERCOURSE AND DRAINAGE IDENTIFICATION**  
 ENTERPRISE FIELD SERVICES, LLC  
 LATERAL 2C-6 (3/2/22)  
 Unit Letter P, S31 T26N R7W, Rio Arriba County, New Mexico  
 36.438720° N, 107.611543° W  
 PROJECT NUMBER: 05A1226186

**FIGURE  
C**



**300 FOOT RADIUS  
OCCUPIED STRUCTURE IDENTIFICATION**  
ENTERPRISE FIELD SERVICES, LLC  
LATERAL 2C-6 (3/2/22)  
Unit Letter P, S31 T26N R7W, Rio Arriba County, New Mexico  
36.438720° N, 107.611543° W  
PROJECT NUMBER: 05A1226186

**FIGURE  
D**



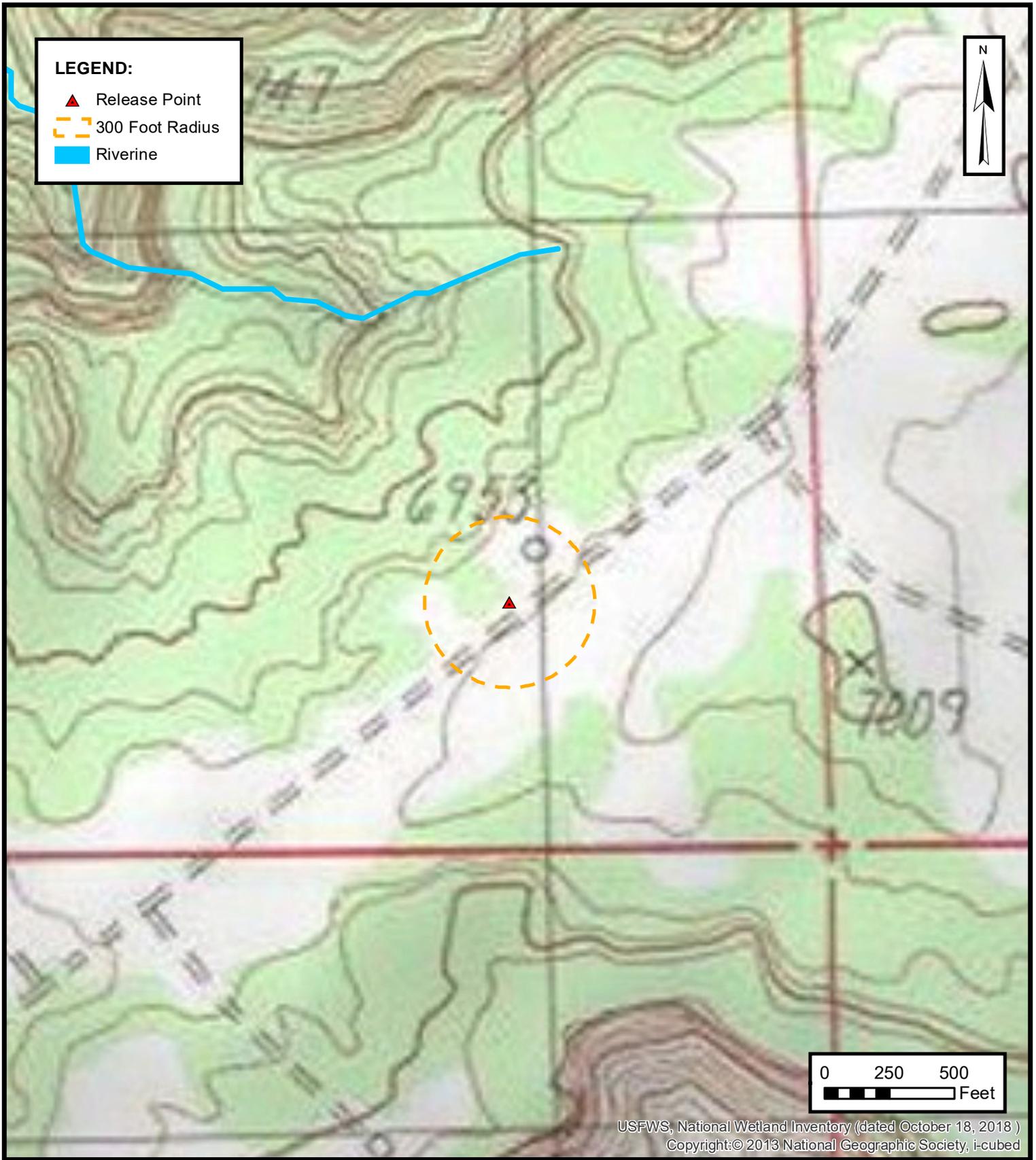
**ENSOLUM**  
 Environmental & Hydrogeologic Consultants

**WATER WELL AND NATURAL SPRING LOCATION**

ENTERPRISE FIELD SERVICES, LLC  
 LATERAL 2C-6 (3/2/22)  
 Unit Letter P, S31 T26N R7W, Rio Arriba County, New Mexico  
 36.438720° N, 107.611543° W

PROJECT NUMBER: 05A1226186

**FIGURE**  
**E**



**ENSOLUM**  
 Environmental & Hydrogeologic Consultants

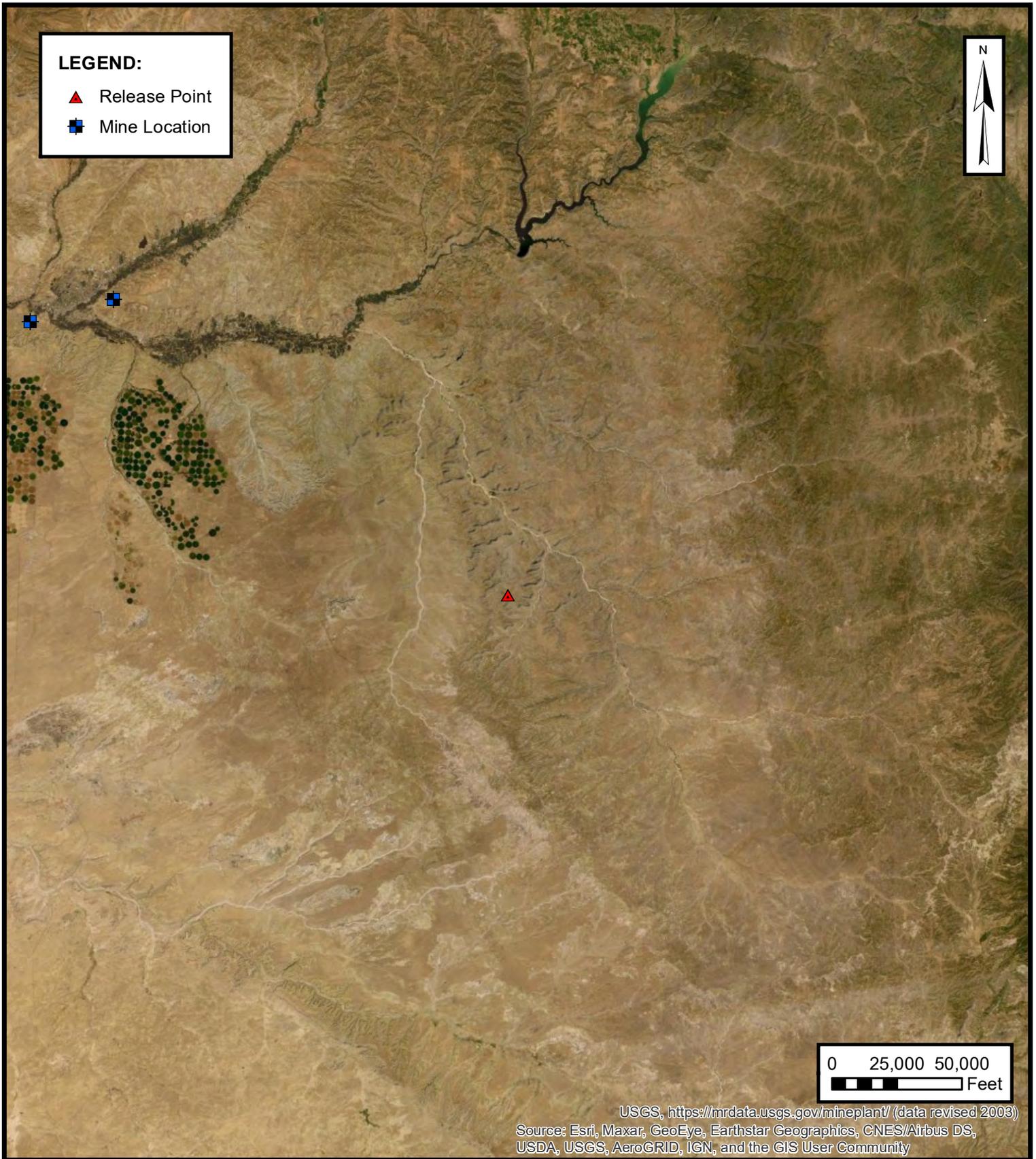
**WETLANDS**

ENTERPRISE FIELD SERVICES, LLC  
 LATERAL 2C-6 (3/2/22)  
 Unit Letter P, S31 T26N R7W, Rio Arriba County, New Mexico  
 36.438720° N, 107.611543° W

PROJECT NUMBER: 05A1226186

**FIGURE**

**F**



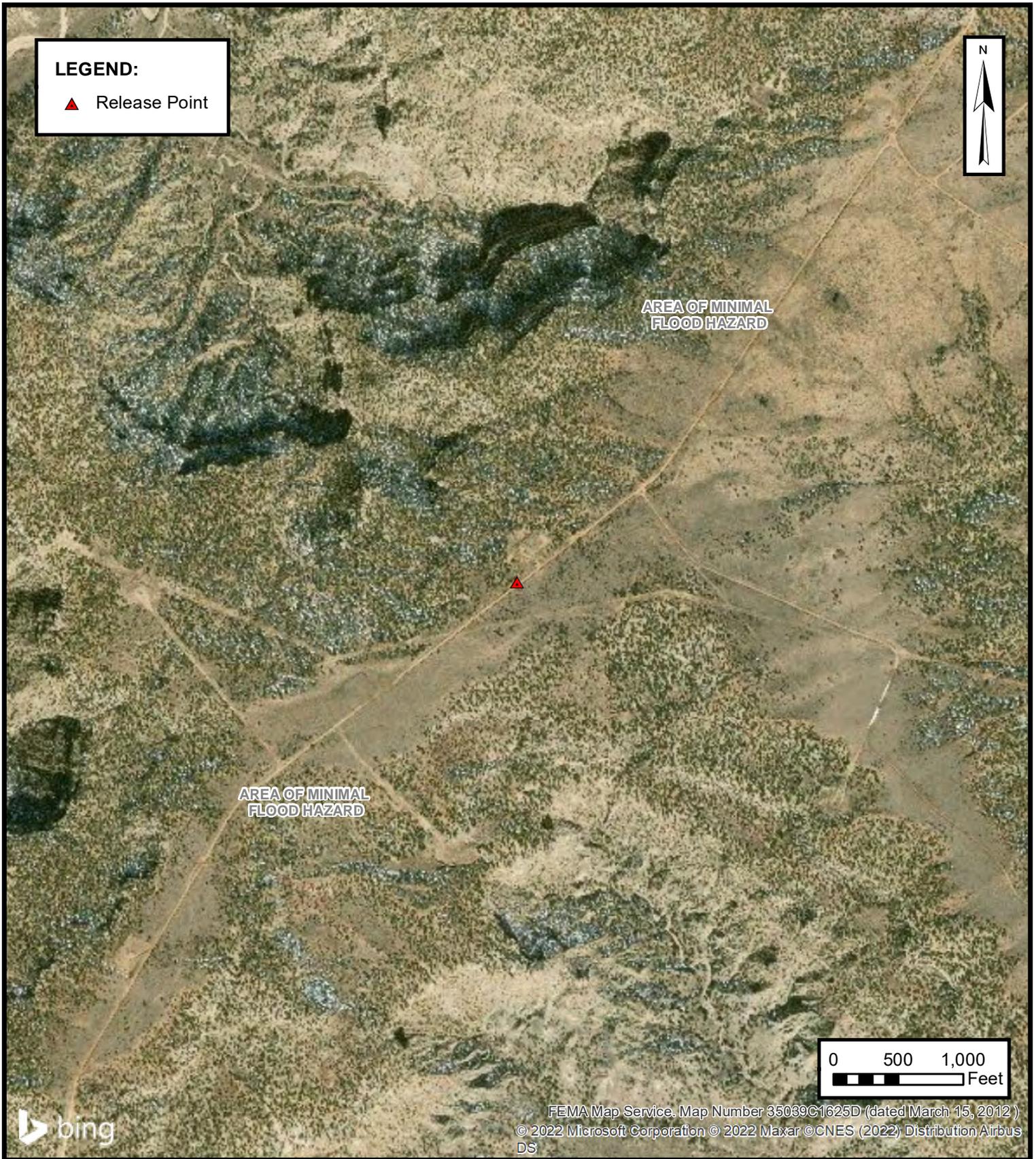
**MINES, MILLS AND QUARRIES**

ENTERPRISE FIELD SERVICES, LLC  
 LATERAL 2C-6 (3/2/22)  
 Unit Letter P, S31 T26N R7W, Rio Arriba County, New Mexico  
 36.438720° N, 107.611543° W

PROJECT NUMBER: 05A1226186

**FIGURE**

**G**



**ENSOLUM**  
 Environmental & Hydrogeologic Consultants

**100-YEAR FLOOD PLAIN MAP**

ENTERPRISE FIELD SERVICES, LLC  
 LATERAL 2C-6 (3/2/22)  
 Unit Letter P, S31 T26N R7W, Rio Arriba County, New Mexico 36.438720° N, 107.611543° W

PROJECT NUMBER: 05A1226186

**FIGURE**

**H**



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,  
 O=orphaned,  
 C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE)  
 (quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<a href="#">SJ 02406</a>	SJ	RA		1	2	3	30	26N	07W	265144	4037834*	280	180	100

Average Depth to Water: **180 feet**  
 Minimum Depth: **180 feet**  
 Maximum Depth: **180 feet**

**Record Count:** 1

**PLSS Search:**

**Section(s):** 31, 30, 29, 32    **Township:** 26N    **Range:** 07W

\*UTM location was derived from PLSS - see Help

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



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

---

No records found.

**PLSS Search:**

**Section(s):** 36, 25

**Township:** 26N

**Range:** 08W

---

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

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3/11/22 7:29 AM

Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER



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

---

No records found.

**PLSS Search:**

**Section(s):** 6, 5

**Township:** 25N

**Range:** 07W

---

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

---



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

---

No records found.

**PLSS Search:**

**Section(s):** 1

**Township:** 25N

**Range:** 08W

---

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

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3/11/22 7:28 AM

Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER



## 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

<b>1. Generator Name and Address:</b> Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401	<b>Invoicing Information</b> PayKey: RB21200 PM: ME Eddleman AFE: Pending
<b>2. Originating Site:</b> Lateral 2C-6	
<b>3. Location of Material (Street Address, City, State or ULSTR):</b> UL O Section 31 T26N R7W; 36.438720, -107.611543	
<b>4. Source and Description of Waste:</b> Source: Sediment/Soil/sludge from remediation activities associated with a natural gas pipeline release. Description: Soil/Sediment/sludge associated with remediation activities. Estimated Volume <u>30</u> yd <sup>3</sup> / bbls Known Volume (to be entered by the operator at the end of the haul) <u>168</u> <u>yd<sup>3</sup></u> bbls <p style="text-align: right;"><i>March 2022</i></p>	
<b>5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS</b> I, Thomas Long <i>Thomas Long</i> , representative or authorized agent for Enterprise Products Operating do hereby <b>Generator Signature</b> 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) <input checked="" type="checkbox"/> RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non- exempt waste. <u>Operator Use Only: Waste Acceptance Frequency</u> <input type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input checked="" type="checkbox"/> Per Load <input type="checkbox"/> 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) <input type="checkbox"/> MSDS Information <input type="checkbox"/> RCRA Hazardous Waste Analysis <input type="checkbox"/> Process Knowledge <input type="checkbox"/> Other (Provide description in Box 4)	
<b>GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS</b> I, Thomas Long <i>Thomas Long</i> representative for Enterprise Products Operating authorizes <u>Envirotech, Inc.</u> to complete <b>Generator!</b> the required testing and Waste Testing Certification. I, <u>Greg Crabtree</u> , representative for <u>Envirotech, Inc.</u> 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: West States Energy Contractors**  
**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: 3/8/22  
 SIGNATURE: *Greg Crabtree* TELEPHONE NO.: 505-947-9510  
 Surface Waste Management Facility Authorized Agent



## APPENDIX D

### Photographic Documentation

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### SITE PHOTOGRAPHS

Closure Report  
Enterprise Field Services, LLC  
Lateral 2C-6 (3/2/22)  
Ensolum Project No. 05A1226186



<p><b>Photograph 1</b></p> <p>Photograph Description: View of the in-process excavation activities.</p>	 A photograph showing an active excavation site. A large, dark pipe is being laid into a deep, reddish-brown soil trench. A yellow excavator is visible at the top left of the frame.
<p><b>Photograph 2</b></p> <p>Photograph Description: View of the final excavation.</p>	 A vertical photograph showing a completed excavation. A dark pipe is visible, partially buried in the soil. A yellow excavator is positioned at the top right of the excavation.
<p><b>Photograph 3</b></p> <p>Photograph Description: View of the final flow path excavation.</p>	 A wide-angle photograph of a completed excavation site. The ground is reddish-brown soil with some rocks. Two vertical metal rods are visible in the foreground, possibly for monitoring or marking.

SITE PHOTOGRAPHS

Closure Report  
Enterprise Field Services, LLC  
Lateral 2C-6 (3/2/22)  
Ensolum Project No. 05A1226186



<p><b>Photograph 4</b></p> <p>Photograph Description: View of the final flow path excavation.</p>	 A photograph showing a wide, shallow excavation of reddish-brown soil. The ground is uneven with some rocks and sparse vegetation. In the background, there are several trees and a clear sky.
<p><b>Photograph 5</b></p> <p>Photograph Description: View of the final flow path excavation.</p>	 A photograph showing a view of the final flow path excavation. The ground is reddish-brown soil with some sparse vegetation and a small puddle of water on the right side. The background shows a clear sky and some trees.
<p><b>Photograph 6</b></p> <p>Photograph Description: View of the final flow path excavation.</p>	 A photograph showing a view of the final flow path excavation. The ground is reddish-brown soil with some sparse vegetation. In the background, there are several trees and a clear sky.

### SITE PHOTOGRAPHS

Closure Report  
Enterprise Field Services, LLC  
Lateral 2C-6 (3/2/22)  
Ensolum Project No. 05A1226186



<p><b>Photograph 7</b></p> <p>Photograph Description: View of the final flow path excavation.</p>	 A photograph showing a dirt and rock excavation path in a dry, brushy landscape. The path is reddish-brown and appears to be a channel for water flow. There are some trees and shrubs on either side.
<p><b>Photograph 8</b></p> <p>Photograph Description: View of the final flow path excavation.</p>	 A photograph showing a dirt and rock excavation path in a dry, brushy landscape. The path is reddish-brown and appears to be a channel for water flow. There are some trees and shrubs on either side.
<p><b>Photograph 9</b></p> <p>Photograph Description: View of the final flow path excavation.</p>	 A photograph showing a dirt and rock excavation path in a dry, brushy landscape. The path is reddish-brown and appears to be a channel for water flow. There are some trees and shrubs on either side.

### SITE PHOTOGRAPHS

Closure Report  
Enterprise Field Services, LLC  
Lateral 2C-6 (3/2/22)  
Ensolum Project No. 05A1226186



<p><b>Photograph 10</b></p> <p>Photograph Description: View of the final flow path excavation.</p>	 A photograph showing a wide, shallow excavation of reddish-brown soil. The ground is uneven with some small rocks and sparse, dry vegetation. The background shows a line of trees under a clear sky.
<p><b>Photograph 11</b></p> <p>Photograph Description: View of the final flow path excavation.</p>	 A photograph showing a similar view to Photograph 10, but from a slightly different angle. It shows a deep, narrow channel of reddish-brown soil with some exposed roots and rocks. The surrounding area is dry and rocky.
<p><b>Photograph 12</b></p> <p>Photograph Description: View of the site after initial restoration.</p>	 A photograph showing a wide, flat area of reddish-brown soil. There are several small, dry trees and bushes scattered across the landscape. In the distance, a dirt road or path is visible, and the sky is blue with some clouds.



## APPENDIX E

### Regulatory Correspondence

---

**From:** [Long, Thomas](#)  
**To:** ["Velez, Nelson, EMNRD"; rjoyner@blm.gov](#)  
**Cc:** [Stone, Brian](#)  
**Subject:** FW: Lateral 2C-6 - UL O Section 31 T26N R7W; 36.438720, -107.611543; Incident #nAPP2206337228  
**Date:** Thursday, March 10, 2022 7:34:00 AM

---

Nelson/Ryan,

This email is a notification that Enterprise will be collecting soil samples for laboratory analysis tomorrow March 11, 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](mailto:tjlong@eprod.com)



---

**From:** Long, Thomas  
**Sent:** Tuesday, March 8, 2022 1:53 PM  
**To:** 'Velez, Nelson, EMNRD' <Nelson.Velez@state.nm.us>; rjoyner@blm.gov  
**Cc:** Stone, Brian <bmstone@eprod.com>  
**Subject:** Lateral 2C-6 - UL O Section 31 T26N R7W; 36.438720, -107.611543; Incident #nAPP2206337228

Nelson/Ryan,

This email is a notification that Enterprise will be collecting soil samples for laboratory analysis tomorrow March 9, 2022 at 2:00 p.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](mailto:tjlong@eprod.com)





## APPENDIX F

### Table 1 – Soil Analytical Summary

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---



**TABLE 1**  
Lateral 2C-6 (3/2/22)  
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type	Sample Depth	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX <sup>1</sup>	TPH GRO	TPH DRO	TPH MRO	Total Combined TPH (GRO/DRO) <sup>1</sup>	Total Combined TPH (GRO/DRO/MRO) <sup>1</sup>	Chloride
		C- Composite G - Grab	(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria (Tier I and Tier II)				10	NE	NE	NE	50				1,000	Tier I (< 4') - 100 Tier II - 2,500	Tier I (< 4') - 600 Tier II - 10,000
<b>Excavation Composite Soil Samples</b>														
S-1	3.9.22	C	6	<0.096	<0.19	<0.19	<0.38	ND	<19	160	49	160	210	67
S-2	3.9.22	C	0 to 6	<0.021	<0.042	<0.042	<0.084	ND	<4.2	33	<48	33	33	<61
S-3	3.9.22	C	0 to 6	<0.019	<0.038	<0.038	<0.077	ND	<3.8	13	<48	13	13	<61
S-4	3.9.22	C	0 to 6	<0.11	<0.23	<0.23	<0.45	ND	<23	41	<50	41	41	67
S-5	3.9.22	C	0 to 6	<0.018	<0.037	<0.037	<0.073	ND	<3.7	11	<44	11	11	160
<b>Flow Path Composite Soil Samples</b>														
S-6	3.11.22	C	0 to 1.5	<0.020	<0.041	<0.041	<0.081	ND	<4.1	10	<48	10	10	<60
S-7	3.11.22	C	0 to 0.5	<0.017	<0.035	<0.035	<0.069	ND	<3.5	10	<46	10	10	<60
S-8	3.11.22	C	0 to 0.5	<0.018	<0.035	<0.035	<0.071	ND	<3.5	<8.9	<44	ND	ND	<60
S-9	3.11.22	C	0 to 1.5	<0.019	<0.038	<0.038	<0.075	ND	<3.8	<9.6	<48	ND	ND	<60
S-10	3.11.22	C	0 to 1.5	<0.017	<0.035	<0.035	<0.070	ND	<3.5	<8.8	<44	ND	ND	<60
S-11	3.11.22	C	0 to 0.5	<0.018	<0.035	<0.035	<0.070	ND	<3.5	<9.3	<46	ND	ND	<60

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

<sup>1</sup> = 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



## APPENDIX G

### Laboratory Data Sheets & Chain of Custody Documentation

---



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

March 11, 2022

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Lateral 2C 6 3 2 2022

OrderNo.: 2203566

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 sample(s) on 3/10/2022 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](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

**Analytical Report**

Lab Order **2203566**

Date Reported: **3/11/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** ENSOLUM

**Client Sample ID:** S-1

**Project:** Lateral 2C 6 3 2 2022

**Collection Date:** 3/9/2022 8:00:00 AM

**Lab ID:** 2203566-001

**Matrix:** SOIL

**Received Date:** 3/10/2022 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	67	60		mg/Kg	20	3/10/2022 10:27:14 AM	66085
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	160	9.3		mg/Kg	1	3/10/2022 9:54:51 AM	66082
Motor Oil Range Organics (MRO)	49	47		mg/Kg	1	3/10/2022 9:54:51 AM	66082
Surr: DNOP	98.4	51.1-141		%Rec	1	3/10/2022 9:54:51 AM	66082
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	3/10/2022 10:45:00 AM	66052
Surr: BFB	120	70-130		%Rec	5	3/10/2022 10:45:00 AM	66052
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.096		mg/Kg	5	3/10/2022 10:45:00 AM	66052
Toluene	ND	0.19		mg/Kg	5	3/10/2022 10:45:00 AM	66052
Ethylbenzene	ND	0.19		mg/Kg	5	3/10/2022 10:45:00 AM	66052
Xylenes, Total	ND	0.38		mg/Kg	5	3/10/2022 10:45:00 AM	66052
Surr: 4-Bromofluorobenzene	89.3	70-130		%Rec	5	3/10/2022 10:45:00 AM	66052

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

**Analytical Report**

Lab Order **2203566**

Date Reported: **3/11/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** ENSOLUM

**Client Sample ID:** S-2

**Project:** Lateral 2C 6 3 2 2022

**Collection Date:** 3/9/2022 2:05:00 PM

**Lab ID:** 2203566-002

**Matrix:** SOIL

**Received Date:** 3/10/2022 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	ND	61		mg/Kg	20	3/10/2022 10:39:39 AM	66085
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	33	9.6		mg/Kg	1	3/10/2022 10:05:27 AM	66082
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/10/2022 10:05:27 AM	66082
Surr: DNOP	104	51.1-141		%Rec	1	3/10/2022 10:05:27 AM	66082
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	3/10/2022 11:05:00 AM	66052
Surr: BFB	107	70-130		%Rec	1	3/10/2022 11:05:00 AM	66052
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.021		mg/Kg	1	3/10/2022 11:05:00 AM	66052
Toluene	ND	0.042		mg/Kg	1	3/10/2022 11:05:00 AM	66052
Ethylbenzene	ND	0.042		mg/Kg	1	3/10/2022 11:05:00 AM	66052
Xylenes, Total	ND	0.084		mg/Kg	1	3/10/2022 11:05:00 AM	66052
Surr: 4-Bromofluorobenzene	89.5	70-130		%Rec	1	3/10/2022 11:05:00 AM	66052

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

**Analytical Report**

Lab Order **2203566**

Date Reported: **3/11/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** ENSOLUM

**Client Sample ID:** S-3

**Project:** Lateral 2C 6 3 2 2022

**Collection Date:** 3/9/2022 2:10:00 PM

**Lab ID:** 2203566-003

**Matrix:** SOIL

**Received Date:** 3/10/2022 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	ND	61		mg/Kg	20	3/10/2022 10:52:03 AM	66085
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	13	9.6		mg/Kg	1	3/10/2022 10:16:08 AM	66082
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/10/2022 10:16:08 AM	66082
Surr: DNOP	106	51.1-141		%Rec	1	3/10/2022 10:16:08 AM	66082
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	3/10/2022 11:25:00 AM	66052
Surr: BFB	106	70-130		%Rec	1	3/10/2022 11:25:00 AM	66052
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.019		mg/Kg	1	3/10/2022 11:25:00 AM	66052
Toluene	ND	0.038		mg/Kg	1	3/10/2022 11:25:00 AM	66052
Ethylbenzene	ND	0.038		mg/Kg	1	3/10/2022 11:25:00 AM	66052
Xylenes, Total	ND	0.077		mg/Kg	1	3/10/2022 11:25:00 AM	66052
Surr: 4-Bromofluorobenzene	87.3	70-130		%Rec	1	3/10/2022 11:25:00 AM	66052

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

## Analytical Report

Lab Order 2203566

Date Reported: 3/11/2022

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-4

Project: Lateral 2C 6 3 2 2022

Collection Date: 3/9/2022 2:15:00 PM

Lab ID: 2203566-004

Matrix: SOIL

Received Date: 3/10/2022 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JMT
Chloride	67	60		mg/Kg	20	3/10/2022 11:04:28 AM	66085
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: JME
Diesel Range Organics (DRO)	41	9.9		mg/Kg	1	3/10/2022 10:26:45 AM	66082
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	3/10/2022 10:26:45 AM	66082
Surr: DNOP	97.3	51.1-141		%Rec	1	3/10/2022 10:26:45 AM	66082
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: RAA
Gasoline Range Organics (GRO)	ND	23		mg/Kg	5	3/10/2022 11:45:00 AM	66052
Surr: BFB	106	70-130		%Rec	5	3/10/2022 11:45:00 AM	66052
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: RAA
Benzene	ND	0.11		mg/Kg	5	3/10/2022 11:45:00 AM	66052
Toluene	ND	0.23		mg/Kg	5	3/10/2022 11:45:00 AM	66052
Ethylbenzene	ND	0.23		mg/Kg	5	3/10/2022 11:45:00 AM	66052
Xylenes, Total	ND	0.45		mg/Kg	5	3/10/2022 11:45:00 AM	66052
Surr: 4-Bromofluorobenzene	90.1	70-130		%Rec	5	3/10/2022 11:45:00 AM	66052

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

Page 4 of 9

**Analytical Report**

Lab Order **2203566**

Date Reported: **3/11/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** ENSOLUM

**Client Sample ID:** S-5

**Project:** Lateral 2C 6 3 2 2022

**Collection Date:** 3/9/2022 2:20:00 PM

**Lab ID:** 2203566-005

**Matrix:** SOIL

**Received Date:** 3/10/2022 8:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Chloride	160	60		mg/Kg	20	3/10/2022 11:16:52 AM	66085
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	11	8.8		mg/Kg	1	3/10/2022 10:37:23 AM	66082
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	3/10/2022 10:37:23 AM	66082
Surr: DNOP	106	51.1-141		%Rec	1	3/10/2022 10:37:23 AM	66082
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	3/10/2022 12:04:00 PM	66052
Surr: BFB	103	70-130		%Rec	1	3/10/2022 12:04:00 PM	66052
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.018		mg/Kg	1	3/10/2022 12:04:00 PM	66052
Toluene	ND	0.037		mg/Kg	1	3/10/2022 12:04:00 PM	66052
Ethylbenzene	ND	0.037		mg/Kg	1	3/10/2022 12:04:00 PM	66052
Xylenes, Total	ND	0.073		mg/Kg	1	3/10/2022 12:04:00 PM	66052
Surr: 4-Bromofluorobenzene	86.1	70-130		%Rec	1	3/10/2022 12:04:00 PM	66052

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E 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 Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix interference	

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2203566

11-Mar-22

**Client:** ENSOLUM  
**Project:** Lateral 2C 6 3 2 2022

Sample ID: <b>MB-66085</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>66085</b>	RunNo: <b>86387</b>								
Prep Date: <b>3/10/2022</b>	Analysis Date: <b>3/10/2022</b>	SeqNo: <b>3047781</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-66085</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>66085</b>	RunNo: <b>86387</b>								
Prep Date: <b>3/10/2022</b>	Analysis Date: <b>3/10/2022</b>	SeqNo: <b>3047782</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.5	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix 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#: 2203566

11-Mar-22

**Client:** ENSOLUM  
**Project:** Lateral 2C 6 3 2 2022

Sample ID: <b>MB-66082</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>66082</b>	RunNo: <b>86377</b>								
Prep Date: <b>3/10/2022</b>	Analysis Date: <b>3/10/2022</b>	SeqNo: <b>3046593</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.5		10.00		85.0	51.1	141			

Sample ID: <b>LCS-66082</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>66082</b>	RunNo: <b>86377</b>								
Prep Date: <b>3/10/2022</b>	Analysis Date: <b>3/10/2022</b>	SeqNo: <b>3046678</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.7	68.9	135			
Surr: DNOP	4.0		5.000		80.7	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 Quantitative 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#: 2203566

11-Mar-22

**Client:** ENSOLUM  
**Project:** Lateral 2C 6 3 2 2022

Sample ID: <b>ics-66052</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>66052</b>	RunNo: <b>86391</b>								
Prep Date: <b>3/9/2022</b>	Analysis Date: <b>3/10/2022</b>	SeqNo: <b>3047923</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	117	78.6	131			
Surr: BFB	2400		1000		235	70	130			S

Sample ID: <b>mb-66052</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>66052</b>	RunNo: <b>86391</b>								
Prep Date: <b>3/9/2022</b>	Analysis Date: <b>3/10/2022</b>	SeqNo: <b>3047924</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		106	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix 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#: 2203566

11-Mar-22

**Client:** ENSOLUM  
**Project:** Lateral 2C 6 3 2 2022

Sample ID: <b>ics-66052</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>66052</b>	RunNo: <b>86391</b>								
Prep Date: <b>3/9/2022</b>	Analysis Date: <b>3/10/2022</b>	SeqNo: <b>3047997</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.82	0.10	1.000	0	81.5	80	120			
Benzene	0.86	0.025	1.000	0	86.2	80	120			
Toluene	0.88	0.050	1.000	0	88.0	80	120			
Ethylbenzene	0.89	0.050	1.000	0	89.1	80	120			
Xylenes, Total	2.7	0.10	3.000	0	88.9	80	120			
Surr: 4-Bromofluorobenzene	0.89		1.000		89.1	70	130			

Sample ID: <b>mb-66052</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>66052</b>	RunNo: <b>86391</b>								
Prep Date: <b>3/9/2022</b>	Analysis Date: <b>3/10/2022</b>	SeqNo: <b>3047998</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		90.0	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix 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
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: 2203566 RcptNo: 1

Received By: Tracy Casarrubias 3/10/2022 8:00:00 AM

Completed By: Tracy Casarrubias 3/10/2022 8:22:23 AM

Reviewed By: [Signature] 3/10/22

Chain of Custody

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

Log In

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

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

Checked by: [Signature] 3/10/22

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Table with 6 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 0.1, Good, Yes, [ ], [ ], [ ]





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

March 16, 2022

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX:

RE: Lateral 2C 6 030222

OrderNo.: 2203702

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/12/2022 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](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

**Analytical Report**

Lab Order **2203702**

Date Reported: **3/16/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** ENSOLUM

**Client Sample ID:** S-6

**Project:** Lateral 2C 6 030222

**Collection Date:** 3/11/2022 10:00:00 AM

**Lab ID:** 2203702-001

**Matrix:** MEOH (SOIL)

**Received Date:** 3/12/2022 8:34:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	3/14/2022 11:12:12 AM	66147
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	10	9.5		mg/Kg	1	3/14/2022 10:08:38 AM	66143
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/14/2022 10:08:38 AM	66143
Surr: DNOP	75.5	51.1-141		%Rec	1	3/14/2022 10:08:38 AM	66143
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	3/12/2022 1:32:00 PM	R86449
Surr: BFB	105	70-130		%Rec	1	3/12/2022 1:32:00 PM	R86449
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.020		mg/Kg	1	3/12/2022 1:32:00 PM	BS86449
Toluene	ND	0.041		mg/Kg	1	3/12/2022 1:32:00 PM	BS86449
Ethylbenzene	ND	0.041		mg/Kg	1	3/12/2022 1:32:00 PM	BS86449
Xylenes, Total	ND	0.081		mg/Kg	1	3/12/2022 1:32:00 PM	BS86449
Surr: 4-Bromofluorobenzene	90.2	70-130		%Rec	1	3/12/2022 1:32:00 PM	BS86449

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

**Analytical Report**

Lab Order **2203702**

Date Reported: **3/16/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** ENSOLUM

**Client Sample ID:** S-7

**Project:** Lateral 2C 6 030222

**Collection Date:** 3/11/2022 10:10:00 AM

**Lab ID:** 2203702-002

**Matrix:** MEOH (SOIL) **Received Date:** 3/12/2022 8:34:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	3/14/2022 11:24:36 AM	66147
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	10	9.1		mg/Kg	1	3/14/2022 10:22:29 AM	66143
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/14/2022 10:22:29 AM	66143
Surr: DNOP	75.8	51.1-141		%Rec	1	3/14/2022 10:22:29 AM	66143
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	3/12/2022 1:52:00 PM	R86449
Surr: BFB	104	70-130		%Rec	1	3/12/2022 1:52:00 PM	R86449
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.017		mg/Kg	1	3/12/2022 1:52:00 PM	BS86449
Toluene	ND	0.035		mg/Kg	1	3/12/2022 1:52:00 PM	BS86449
Ethylbenzene	ND	0.035		mg/Kg	1	3/12/2022 1:52:00 PM	BS86449
Xylenes, Total	ND	0.069		mg/Kg	1	3/12/2022 1:52:00 PM	BS86449
Surr: 4-Bromofluorobenzene	90.1	70-130		%Rec	1	3/12/2022 1:52:00 PM	BS86449

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

**Analytical Report**

Lab Order **2203702**

Date Reported: **3/16/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** ENSOLUM

**Client Sample ID:** S-8

**Project:** Lateral 2C 6 030222

**Collection Date:** 3/11/2022 10:20:00 AM

**Lab ID:** 2203702-003

**Matrix:** MEOH (SOIL)

**Received Date:** 3/12/2022 8:34:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	3/14/2022 11:37:01 AM	66147
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	3/14/2022 10:36:36 AM	66143
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	3/14/2022 10:36:36 AM	66143
Surr: DNOP	75.3	51.1-141		%Rec	1	3/14/2022 10:36:36 AM	66143
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	3/12/2022 2:12:00 PM	R86449
Surr: BFB	106	70-130		%Rec	1	3/12/2022 2:12:00 PM	R86449
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.018		mg/Kg	1	3/12/2022 2:12:00 PM	BS86449
Toluene	ND	0.035		mg/Kg	1	3/12/2022 2:12:00 PM	BS86449
Ethylbenzene	ND	0.035		mg/Kg	1	3/12/2022 2:12:00 PM	BS86449
Xylenes, Total	ND	0.071		mg/Kg	1	3/12/2022 2:12:00 PM	BS86449
Surr: 4-Bromofluorobenzene	91.0	70-130		%Rec	1	3/12/2022 2:12:00 PM	BS86449

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

**Analytical Report**

Lab Order **2203702**

Date Reported: **3/16/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** ENSOLUM

**Client Sample ID:** S-9

**Project:** Lateral 2C 6 030222

**Collection Date:** 3/11/2022 10:30:00 AM

**Lab ID:** 2203702-004

**Matrix:** MEOH (SOIL)

**Received Date:** 3/12/2022 8:34:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	3/14/2022 11:49:25 AM	66147
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	3/14/2022 10:50:35 AM	66143
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	3/14/2022 10:50:35 AM	66143
Surr: DNOP	75.0	51.1-141		%Rec	1	3/14/2022 10:50:35 AM	66143
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	3/12/2022 2:32:00 PM	R86449
Surr: BFB	108	70-130		%Rec	1	3/12/2022 2:32:00 PM	R86449
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.019		mg/Kg	1	3/12/2022 2:32:00 PM	BS86449
Toluene	ND	0.038		mg/Kg	1	3/12/2022 2:32:00 PM	BS86449
Ethylbenzene	ND	0.038		mg/Kg	1	3/12/2022 2:32:00 PM	BS86449
Xylenes, Total	ND	0.075		mg/Kg	1	3/12/2022 2:32:00 PM	BS86449
Surr: 4-Bromofluorobenzene	90.0	70-130		%Rec	1	3/12/2022 2:32:00 PM	BS86449

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

**Analytical Report**

Lab Order **2203702**

Date Reported: **3/16/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** ENSOLUM

**Client Sample ID:** S-10

**Project:** Lateral 2C 6 030222

**Collection Date:** 3/11/2022 10:40:00 AM

**Lab ID:** 2203702-005

**Matrix:** MEOH (SOIL) **Received Date:** 3/12/2022 8:34:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	3/14/2022 12:01:49 PM	66147
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	3/14/2022 11:04:44 AM	66143
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	3/14/2022 11:04:44 AM	66143
Surr: DNOP	75.0	51.1-141		%Rec	1	3/14/2022 11:04:44 AM	66143
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	3/12/2022 2:51:00 PM	R86449
Surr: BFB	102	70-130		%Rec	1	3/12/2022 2:51:00 PM	R86449
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.017		mg/Kg	1	3/12/2022 2:51:00 PM	BS86449
Toluene	ND	0.035		mg/Kg	1	3/12/2022 2:51:00 PM	BS86449
Ethylbenzene	ND	0.035		mg/Kg	1	3/12/2022 2:51:00 PM	BS86449
Xylenes, Total	ND	0.070		mg/Kg	1	3/12/2022 2:51:00 PM	BS86449
Surr: 4-Bromofluorobenzene	86.8	70-130		%Rec	1	3/12/2022 2:51:00 PM	BS86449

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

**Analytical Report**

Lab Order **2203702**

Date Reported: **3/16/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** ENSOLUM

**Client Sample ID:** S-11

**Project:** Lateral 2C 6 030222

**Collection Date:** 3/11/2022 10:50:00 AM

**Lab ID:** 2203702-006

**Matrix:** MEOH (SOIL)

**Received Date:** 3/12/2022 8:34:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	ND	60		mg/Kg	20	3/14/2022 12:14:13 PM	66147
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	3/14/2022 11:18:47 AM	66143
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	3/14/2022 11:18:47 AM	66143
Surr: DNOP	76.9	51.1-141		%Rec	1	3/14/2022 11:18:47 AM	66143
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	3/12/2022 3:11:00 PM	R86449
Surr: BFB	99.1	70-130		%Rec	1	3/12/2022 3:11:00 PM	R86449
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>RAA</b>
Benzene	ND	0.018		mg/Kg	1	3/12/2022 3:11:00 PM	BS86449
Toluene	ND	0.035		mg/Kg	1	3/12/2022 3:11:00 PM	BS86449
Ethylbenzene	ND	0.035		mg/Kg	1	3/12/2022 3:11:00 PM	BS86449
Xylenes, Total	ND	0.070		mg/Kg	1	3/12/2022 3:11:00 PM	BS86449
Surr: 4-Bromofluorobenzene	86.3	70-130		%Rec	1	3/12/2022 3:11:00 PM	BS86449

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix interference		

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2203702

16-Mar-22

**Client:** ENSOLUM  
**Project:** Lateral 2C 6 030222

Sample ID: <b>MB-66147</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>66147</b>	RunNo: <b>86455</b>								
Prep Date: <b>3/14/2022</b>	Analysis Date: <b>3/14/2022</b>	SeqNo: <b>3050753</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-66147</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>66147</b>	RunNo: <b>86455</b>								
Prep Date: <b>3/14/2022</b>	Analysis Date: <b>3/14/2022</b>	SeqNo: <b>3050754</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.9	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix 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#: 2203702

16-Mar-22

**Client:** ENSOLUM  
**Project:** Lateral 2C 6 030222

Sample ID: <b>MB-66143</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>66143</b>	RunNo: <b>86435</b>								
Prep Date: <b>3/14/2022</b>	Analysis Date: <b>3/14/2022</b>	SeqNo: <b>3049509</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.0		10.00		70.2	51.1	141			

Sample ID: <b>LCS-66143</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>66143</b>	RunNo: <b>86435</b>								
Prep Date: <b>3/14/2022</b>	Analysis Date: <b>3/14/2022</b>	SeqNo: <b>3049605</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.4	68.9	135			
Surr: DNOP	3.4		5.000		68.2	51.1	141			

Sample ID: <b>2203702-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>S-6</b>	Batch ID: <b>66143</b>	RunNo: <b>86435</b>								
Prep Date: <b>3/14/2022</b>	Analysis Date: <b>3/14/2022</b>	SeqNo: <b>3050010</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.7	48.73	9.988	80.3	36.1	154			
Surr: DNOP	3.9		4.873		80.5	51.1	141			

Sample ID: <b>2203702-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>S-6</b>	Batch ID: <b>66143</b>	RunNo: <b>86435</b>								
Prep Date: <b>3/14/2022</b>	Analysis Date: <b>3/14/2022</b>	SeqNo: <b>3050011</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.6	48.12	9.988	75.3	36.1	154	6.09	33.9	
Surr: DNOP	3.7		4.812		76.2	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 Quantitative 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#: 2203702

16-Mar-22

**Client:** ENSOLUM  
**Project:** Lateral 2C 6 030222

Sample ID: <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>R86449</b>	RunNo: <b>86449</b>								
Prep Date:	Analysis Date: <b>3/12/2022</b>	SeqNo: <b>3050032</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	78.6	131			
Surr: BFB	1200		1000		125	70	130			

Sample ID: <b>mb</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>R86449</b>	RunNo: <b>86449</b>								
Prep Date:	Analysis Date: <b>3/12/2022</b>	SeqNo: <b>3050033</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		108	70	130			

Sample ID: <b>2203702-001ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>S-6</b>	Batch ID: <b>R86449</b>	RunNo: <b>86449</b>								
Prep Date:	Analysis Date: <b>3/12/2022</b>	SeqNo: <b>3050045</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.1	20.26	0	107	70	130			
Surr: BFB	940		810.4		116	70	130			

Sample ID: <b>2203702-001amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>S-6</b>	Batch ID: <b>R86449</b>	RunNo: <b>86449</b>								
Prep Date:	Analysis Date: <b>3/12/2022</b>	SeqNo: <b>3050046</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.1	20.26	0	100	70	130	6.54	20	
Surr: BFB	920		810.4		114	70	130	0	0	

Sample ID: <b>lcs-66096</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>66096</b>	RunNo: <b>86449</b>								
Prep Date: <b>3/10/2022</b>	Analysis Date: <b>3/12/2022</b>	SeqNo: <b>3050047</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	2400		1000		238	70	130			S

Sample ID: <b>mb-66096</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>66096</b>	RunNo: <b>86449</b>								
Prep Date: <b>3/10/2022</b>	Analysis Date: <b>3/12/2022</b>	SeqNo: <b>3050048</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		101	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix 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#: 2203702

16-Mar-22

**Client:** ENSOLUM  
**Project:** Lateral 2C 6 030222

Sample ID: <b>100ng btex lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>BS86449</b>	RunNo: <b>86449</b>								
Prep Date:	Analysis Date: <b>3/12/2022</b>	SeqNo: <b>3050088</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	96.4	80	120			
Toluene	0.98	0.050	1.000	0	98.4	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	0.97		1.000		97.2	70	130			

Sample ID: <b>mb</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>BS86449</b>	RunNo: <b>86449</b>								
Prep Date:	Analysis Date: <b>3/12/2022</b>	SeqNo: <b>3050089</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		89.6	70	130			

Sample ID: <b>2203702-002ams</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>S-7</b>	Batch ID: <b>BS86449</b>	RunNo: <b>86449</b>								
Prep Date:	Analysis Date: <b>3/12/2022</b>	SeqNo: <b>3050101</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.66	0.017	0.6925	0	95.8	68.8	120			
Toluene	0.68	0.035	0.6925	0	97.8	73.6	124			
Ethylbenzene	0.68	0.035	0.6925	0	97.8	72.7	129			
Xylenes, Total	2.0	0.069	2.078	0	97.1	75.7	126			
Surr: 4-Bromofluorobenzene	0.59		0.6925		85.9	70	130			

Sample ID: <b>2203702-002amsd</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>S-7</b>	Batch ID: <b>BS86449</b>	RunNo: <b>86449</b>								
Prep Date:	Analysis Date: <b>3/12/2022</b>	SeqNo: <b>3050102</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.63	0.017	0.6925	0	91.4	68.8	120	4.65	20	
Toluene	0.65	0.035	0.6925	0	93.1	73.6	124	4.83	20	
Ethylbenzene	0.65	0.035	0.6925	0	93.5	72.7	129	4.49	20	
Xylenes, Total	2.0	0.069	2.078	0	94.0	75.7	126	3.34	20	
Surr: 4-Bromofluorobenzene	0.59		0.6925		85.0	70	130	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix 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#: 2203702

16-Mar-22

**Client:** ENSOLUM  
**Project:** Lateral 2C 6 030222

Sample ID: <b>ics-66096</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>66096</b>	RunNo: <b>86449</b>								
Prep Date: <b>3/10/2022</b>	Analysis Date: <b>3/12/2022</b>	SeqNo: <b>3050103</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.90		1.000		90.4	70	130			

Sample ID: <b>mb-66096</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>PBS</b>	Batch ID: <b>66096</b>	RunNo: <b>86449</b>								
Prep Date: <b>3/10/2022</b>	Analysis Date: <b>3/12/2022</b>	SeqNo: <b>3050104</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.87		1.000		87.2	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix 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



# Sample Log-In Check List

Client Name: ENSOLUM

Work Order Number: 2203702

RcptNo: 1

Received By: Cheyenne Cason 3/12/2022 8:34:00 AM

*Handwritten signature*

Completed By: Cheyenne Cason 3/12/2022 8:43:00 AM

*Handwritten signature*

Reviewed By: *Handwritten signature* 3/12/22

### 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? Yes  No   
(Note discrepancies on chain of custody)
- 12. Are matrices correctly identified on Chain of Custody? Yes  No
- 13. Is it clear what analyses were requested? Yes  No
- 14. Were all holding times able to be met? Yes  No   
(If no, notify customer for authorization.)

# of preserved bottles checked for pH: \_\_\_\_\_  
(≤2 or >12 unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: *CNC 3/12/22*

### 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	0.1	Good	Yes			

# Chain-of-Custody Record

Client: En Solum, LLC

Mailing Address: 606 S. Rio Grande, Suite 4  
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-6 (3-2-22)

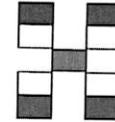
Project #: \_\_\_\_\_

Project Manager: K. Summers

Sampler: L. Daniell  
On Ice:  Yes  No

# of Coolers: 1  
Cooler Temp (including CF): 0.3-0.2=0.1 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
3/11/22	10:00	S	S-6	14oz jar	Cool	001
3/11/22	10:10	S	S-7	↓	↓	002
3/11/22	10:20	S	S-8	↓	↓	003
3/11/22	10:30	S	S-9	↓	↓	004
3/11/22	10:40	S	S-10	↓	↓	005
3/11/22	10:50	S	S-11	↓	↓	006



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

### Analysis Request

BTEX / MFBE / TMBs (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cd, F, Bi, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			
X	X					X			

Date: 3/11/22 Time: 1427 Relinquished by: [Signature]

Date: 3/11/22 Time: 1749 Relinquished by: Christen Warr

Received by: Christen Warr Date: 3/11/22 Time: 1427

Received by: One Carr Date: 3/12/22 Time: 0834

Remarks: PM Tom Long  
Pay key: RB21200  
NonAFE# N58745

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 110928

**CONDITIONS**

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 110928
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
nvelez	None	6/24/2022