

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

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

| | |
|----------------|--|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

Release Notification

Responsible Party

| | |
|--|--|
| Responsible Party: Enterprise Field Services, LLC | OGRID: 151618 |
| Contact Name: Thomas Long | Contact Telephone: 505-599-2286 |
| Contact email: tjlong@eprod.com | Incident # (assigned by OCD): NCS1935342095 |
| Contact mailing address: 614 Reilly Ave, Farmington, NM 87401 | |

Location of Release Source

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

| | |
|--|--|
| Site Name Lateral 2C-116 | Site Type Natural Gas Gathering Pipeline |
| Date Release Discovered: 11/12/2019 | Serial Number (if applicable): NM 0128714 |

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

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

Nature and Volume of Release

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

| | | |
|---|--|--|
| <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): 5-10 BBLs | Volume Recovered (bbls): None |
| <input checked="" type="checkbox"/> Natural Gas | Volume Released (Mcf): 1.0 MCF | Volume Recovered (Mcf): None |
| <input type="checkbox"/> Other (describe) | Volume/Weight Released (provide units): | Volume/Weight Recovered (provide units) |

Cause of Release On November 12, 2019, an Enterprise technician discovered a release on the Lateral 2C-116 pipeline. The pipeline was isolated, depressurized, locked out and tagged out. An area on the ground surface of approximately three feet in diameter was affected by released fluids. On November 18, 2019, Enterprise determined the release reportable per NMOCD regulation due to the volume of impacted subsurface soil. Remediation was completed on December 3, 2019. The final excavation dimensions measured approximately 30 feet long by 16 feet wide by approximately eight (8) feet deep. Approximately 172 cubic yards of hydrocarbon impacted soil was excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. A third party closure report is included with this "Final." C-141.

State of New Mexico
Oil Conservation Division

| | |
|----------------|--|
| Incident ID | |
| District RP | |
| Facility ID | |
| Application ID | |

Closure

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

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

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

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

Printed Name: Jon E. Fields

Title: Director, Environmental

Signature: 

Date: 8/12/2020

email: jefields@eprod.com


Telephone: (713) 381-6684

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: 03/25/2022

Printed Name: Nelson Velez

Title: Environmental Specialist – Adv



CLOSURE REPORT

Property:

**Lateral 2C-116 Pipeline Release
SW $\frac{1}{4}$, S12 T24N R7W
Rio Arriba County, New Mexico**

March 4, 2020 (Updated June 4, 2020)
Ensolum Project No. 05A1226082

Prepared for:

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

Prepared by:

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

Ranee Deechilly
Environmental Scientist

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

Kyle Summers, CPG
Sr. Project Manager

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CLOSURE REPORT

Lateral 2C-116 Pipeline Release
SW ¼, S12 T24N R7W
Rio Arriba County, New Mexico

Ensolum Project No. 05A1226082

1.0 INTRODUCTION

1.1 Site Description & Background

| | |
|--------------------|--|
| Operator: | Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise) |
| Site Name: | Lateral 2C-116 Pipeline Release (Site) |
| Location: | 36.323769° North, 107.532816° West Southwest (SW) ¼ of Section 12, Township 24 North, Range 7 West Rio Arriba County, New Mexico |
| Property: | United States Bureau of Land Management (BLM) |
| Regulatory: | New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD) |

On November 12, 2019, a release of natural gas and condensate was identified at the Lateral 2C-116 pipeline. The resulting release was characterized by discoloration at the ground surface. Enterprise subsequently isolated and locked the pipeline out of service. On November 15, 2019, Enterprise initiated activities to facilitate the repair of the pipeline and remediate potential petroleum hydrocarbon impact resulting from the release.

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

1.2 Project Objective

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

2.0 CLOSURE CRITERIA

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

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and includes an interactive map). No PODs were identified within a one-half mile radius of the Site on the OSE WRRS database. The records for three (3) PODs (SJ-00681-2, SJ-00681-16, SJ-00681-4) located in adjacent sections do not indicate depth to water. SJ-00681-2 appears to be located approximately 0.9 miles north of the Site and at a lower elevation (6,633 feet) than the Site (6,928 feet). SJ-00681-16 is located approximately 1.2 miles east of the Site and at a lower elevation (6,913 feet) than the Site, and SJ-00681-4 is located approximately 1.2 miles southeast of the Site and at a lower elevation (6,593 feet) than the Site.

- No cathodic-protection wells were identified within one-half mile of the Site.
- The Site is not located within 300 feet of a New Mexico EMNRD OCD-defined continuously flowing watercourse or significant watercourse.
- The Site is not located within 200 feet of a lakebed, sinkhole or playa lake.
- The Site is not located within 300 feet of a permanent residence, school, hospital, institution or church.
- No springs, or private domestic fresh water wells used by less than five (5) households for domestic or stock watering purposes were identified within 500 feet of the Site.
- No fresh water wells or springs were identified within 1,000 feet of the Site.
- The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3.
- The Site is not located within 300 feet of a wetland.
- Based on information identified on the New Mexico Mining and Minerals Division's GIS, Maps and Mine Data database, the Site is not located within an area overlying a subsurface mine.
- The Site is not located within an unstable area.
- The Site is not located within a 100-year floodplain.

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

| Closure Criteria for Soils Impacted by a Release | | |
|--|--------------------------------|--------------|
| Constituent | Method | Limit |
| Chloride | EPA 300.0 or SM4500 Cl B | 20,000 mg/kg |
| TPH (GRO+DRO+MRO) | EPA SW-846 Method 8015 | 2,500 mg/kg |
| TPH (GRO+DRO) | EPA SW-846 Method 8015 | 1,000 mg/kg |
| BTEX | EPA SW-846 Method 8021 or 8260 | 50 mg/kg |
| Benzene | EPA SW-846 Method 8021 or 8260 | 10 mg/kg |

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3.0 SOIL REMEDIATION ACTIVITIES

On November 15, 2019, Enterprise initiated activities to facilitate the repair of the pipeline and remediate petroleum hydrocarbon impact resulting from the release. During the remediation and corrective action activities, Sierra Oilfield Services, Inc. (Sierra) provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

The final excavation measured approximately 30 feet long and 16 feet wide at the maximum extents. The maximum depth of the excavation measured approximately eight (8) feet below grade surface (bgs).

The lithology encountered during the completion of remediation activities consisted primarily of semi-consolidated silty sand, shale, and weathered sandstone.

A total of approximately 172 cubic yards (yd³) of petroleum hydrocarbon affected soils were transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, New Mexico for disposal/remediation. The executed C-138 solid waste acceptance form is provided in **Appendix C**. The excavation was ultimately backfilled with imported fill and then contoured to surrounding grade.

Figure 3 (Appendix A) is a map that identifies approximate soil sample locations and depicts the approximate dimensions of the excavation with respect to the pipeline. 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 Dextsil PetroFLAG[®] hydrocarbon analyzer system and a photoionization detector (PID) fitted with a 10.6 eV lamp to guide excavation extents.

Ensolum's soil sampling program included the collection of 23 composite soil samples (S-1 through S-23), comprised of five (5) aliquots each, from the excavation for laboratory analysis. A clean shovel was utilized to obtain fresh aliquots from each area of the excavation. The New Mexico EMNRD OCD provided verbal approval to proceed with the sampling events, although a New Mexico EMNRD OCD representative was not on Site.

First Sampling Event

On November 15, 2019, the initial pipeline repair excavation was sampled to evaluate the magnitude of petroleum hydrocarbon impact. Composite soil sample S-1 (4.5') was collected from the floor of the excavation. Composite soil samples S-2 (0'-4.5'), S-3 (0'-4.5'), S-4 (0'-4.5'), and S-5 (0'-4.5') were collected from the sidewalls of the initial repair excavation. Analytical results from composite soil samples S-1 through S-5 from the initial repair excavation indicated exceedances of the applicable New Mexico EMNRD OCD closure criteria. In response to the data exceedances, the excavation was extended to remove petroleum hydrocarbon impacts. Soils associated with composite soil samples S-1 through S-5 were removed by excavation and transported to the landfarm for disposal/remediation.

Second Sampling Event

On November 25, 2019, a second sampling event was performed. Composite soil samples S-6 (7'), S-7 (7'), and S-8 (7') were collected from the floor of the enlarged excavation. Composite soil samples S-9 (0'-7'), S-10 (0'-7'), S-11 (0'-7'), S-12 (0'-7'), S-13 (0'-7'), and S-14 (0'-7') were collected from the sidewalls of the enlarged excavation. Composite soil samples S-15 (3'-7') and S-16 (3'-7') were collected from soils directly beneath the pipeline (bridge soils) that were left in place to support the pipeline. Subsequent analytical results from composite soil samples S-8, S-15, and S-16 indicated exceedances of the applicable New Mexico EMNRD OCD total petroleum hydrocarbons (TPH) closure criteria. In response to this information, Enterprise deepened the excavation in the vicinity of composite soil sample S-8 and removed

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the bridge soils associated with composite soil samples S-15 and S-16. These removed soils were transported to the landfarm for disposal/remediation.

Third Sampling Event

On December 3, 2019, subsequent to the additional excavation and removal of soils beneath the pipeline, a third sampling event was performed. Composite soil samples S-17 (8'), S-18 (7'), and S-21 (7') were collected from the floor of the excavation to replace composite soil samples S-8, S-15, and S-16 which had exhibited closure criteria exceedances and were removed by excavation. Composite soil sample S-19 (0'-7'), S-20 (1'-7'), S-22 (0'-7'), and S-23 (0'-7') were collected from newly exposed sidewalls of the excavation following the removal of the bridge soils.

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

5.0 SOIL LABORATORY ANALYTICAL METHODS

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

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

6.0 DATA EVALUATION

Ensolum compared the BTEX, TPH, and chloride laboratory analytical results or laboratory supplied practical quantitation limits (PQLs) / reporting limits (RLs) associated with the final composite soil samples (S-6, S-7, S-9, S-10, S-12, S-13, and S-17 through S-23) to the applicable New Mexico EMNRD OCD closure criteria. Soils associated with composite soil samples S-1 through S-5, S-8, S-11, and S-14 through S-16 were transported to Envirotech landfarm for disposal/remediation and are not included in the following discussion.

- The laboratory analytical results for composite soil samples S-6 and S-21 indicate benzene concentrations of 0.14 milligrams per kilogram (mg/kg) and 1.0 mg/kg, respectively, which do not exceed the applicable New Mexico EMNRD OCD closure criteria of 10 mg/kg. The laboratory analytical results for the remaining composite soil samples collected from soils remaining at the Site indicate benzene is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the applicable New Mexico EMNRD OCD closure criteria of 10 mg/kg.
- The laboratory analytical results for composite soil samples S-6 and S-21 indicate total BTEX concentrations of 6.9 mg/kg and 14.2 mg/kg, respectively, which do not exceed the applicable New Mexico EMNRD OCD closure criteria of 50 mg/kg. The laboratory analytical results for the remaining composite soil samples collected from soils remaining at the Site indicate total BTEX is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the applicable New Mexico EMNRD OCD closure criteria of 50 mg/kg.
- The laboratory analytical results for composite soil samples S-6, S-7, S-17 through S-21, and S-23 indicate combined TPH GRO/DRO concentrations ranging from 15 mg/kg (S-19) to 950 mg/kg (S-6), which do not exceed the applicable New Mexico EMNRD OCD closure criteria of 1,000 mg/kg.

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The laboratory analytical results for the remaining composite soil samples collected from soils remaining at the Site indicate combined TPH GRO/DRO is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the applicable New Mexico EMNRD OCD closure criteria of 1,000 mg/kg.

- The laboratory analytical results for composite soil samples S-6, S-7, S-17 through S-21, and S-23 indicate combined TPH GRO/DRO/MRO concentrations ranging from 15 mg/kg (S-19) to 1,220 mg/kg (S-6), which do not exceed the applicable New Mexico EMNRD OCD closure criteria of 2,500 mg/kg. The laboratory analytical results for the remaining composite soil samples collected from soils remaining at the Site indicate combined TPH GRO/DRO/MRO is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the applicable New Mexico EMNRD OCD closure criteria of 2,500 mg/kg.
- The laboratory analytical results for the composite soil samples collected from soils remaining at the Site indicate chloride concentrations ranging from below laboratory PQLs/RLs to 240 mg/kg (S-9), which are less than the applicable New Mexico EMNRD OCD closure criteria of 20,000 mg/kg for chlorides.

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

7.0 RECLAMATION AND REVEGETATION

The excavation was backfilled with imported fill and was then contoured to surrounding grade. Enterprise will re-seed the Site with a BLM Farmington Field Office approved seeding mixture at the beginning of the next favorable growing season.

8.0 FINDINGS AND RECOMMENDATION

- A total of 23 composite soil samples were collected from the excavation. Based on laboratory analytical results, soils remaining in place do not exhibit COC concentrations above the applicable New Mexico EMNRD OCD closure criteria.
- A total of approximately 172 yd³ of petroleum hydrocarbon-affected soils were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation. The excavation was backfilled with imported fill and was then contoured to surrounding grade.

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

9.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

9.1 Standard of Care

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

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9.2 Additional Limitations

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

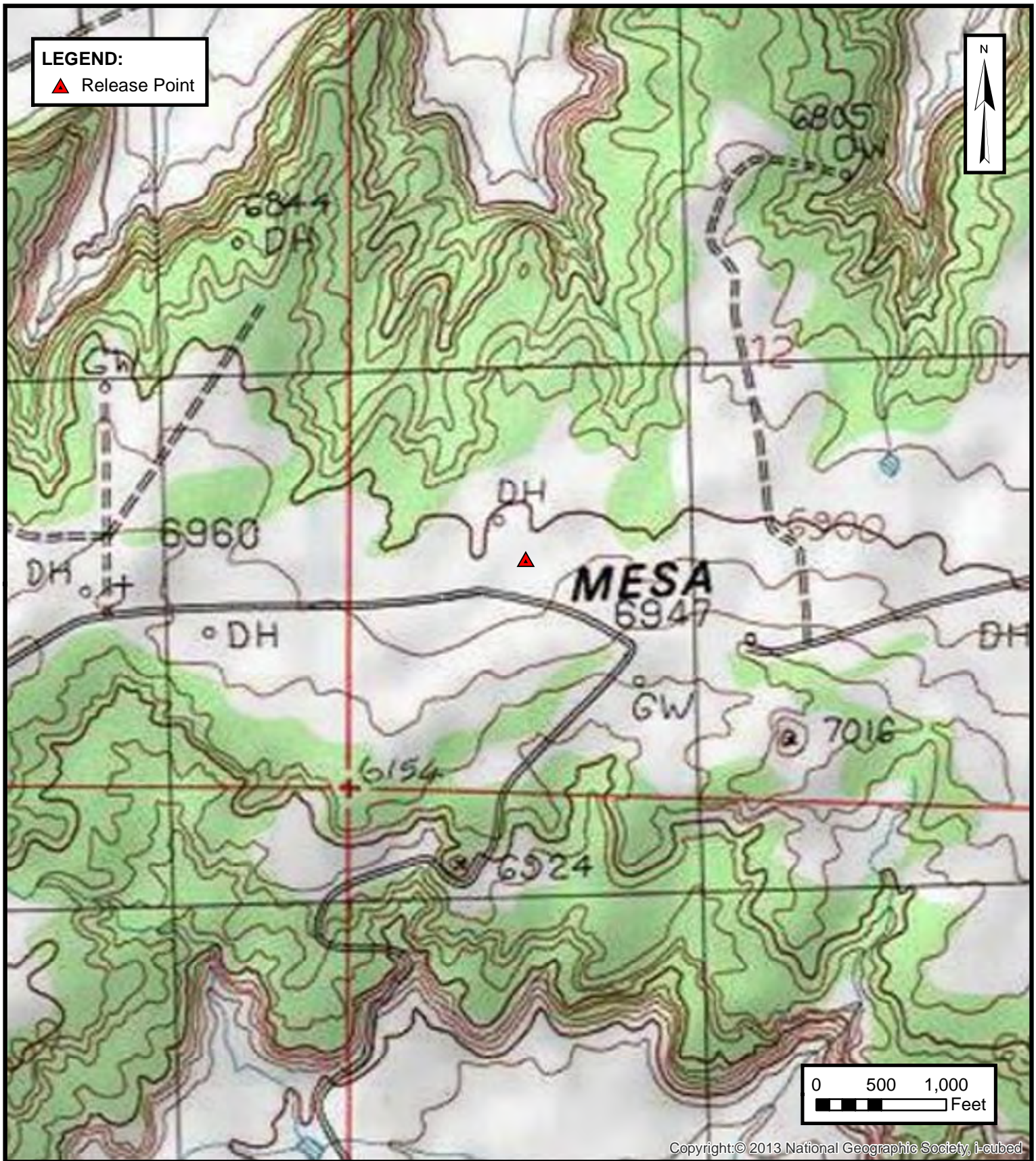
9.3 Reliance

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



APPENDIX A

Figures



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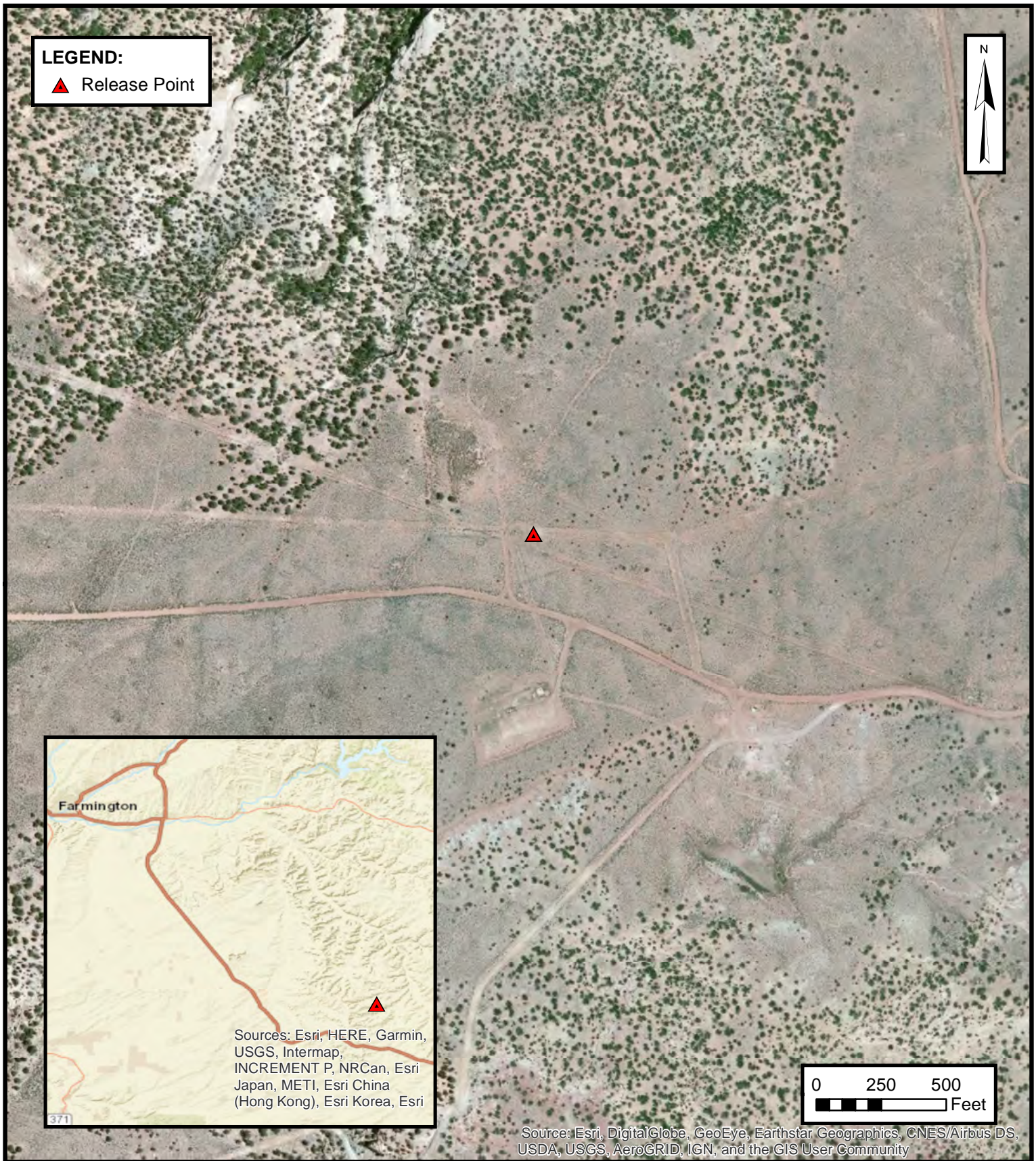
TOPOGRAPHIC MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 PIPELINE RELEASE
SW ¼, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226082

FIGURE

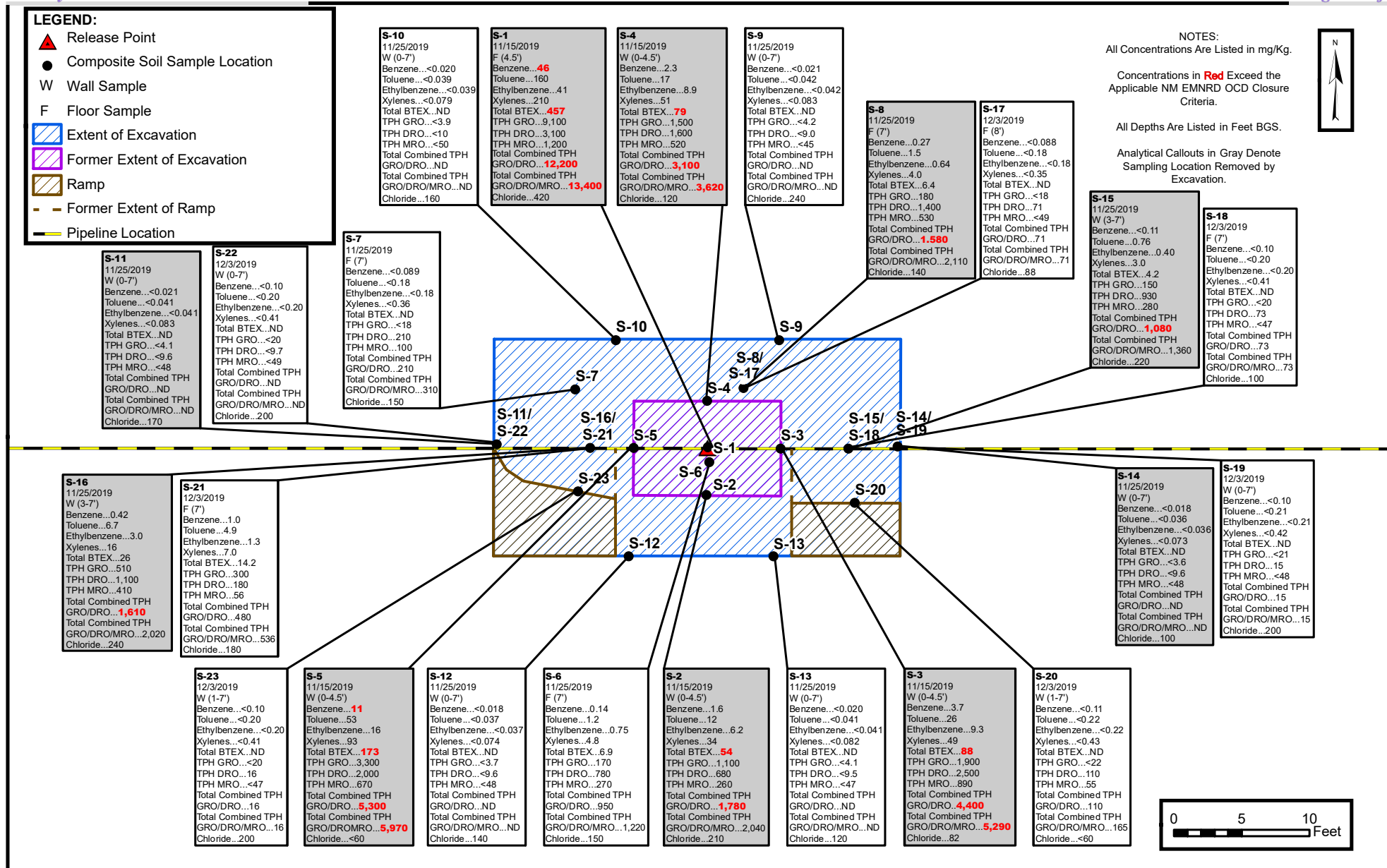
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**SITE VICINITY MAP**

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 PIPELINE RELEASE
SW ¼, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226082

FIGURE**2**



SITE MAP WITH SOIL ANALYTICAL RESULTS

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 PIPELINE RELEASE
SW ¼, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226082

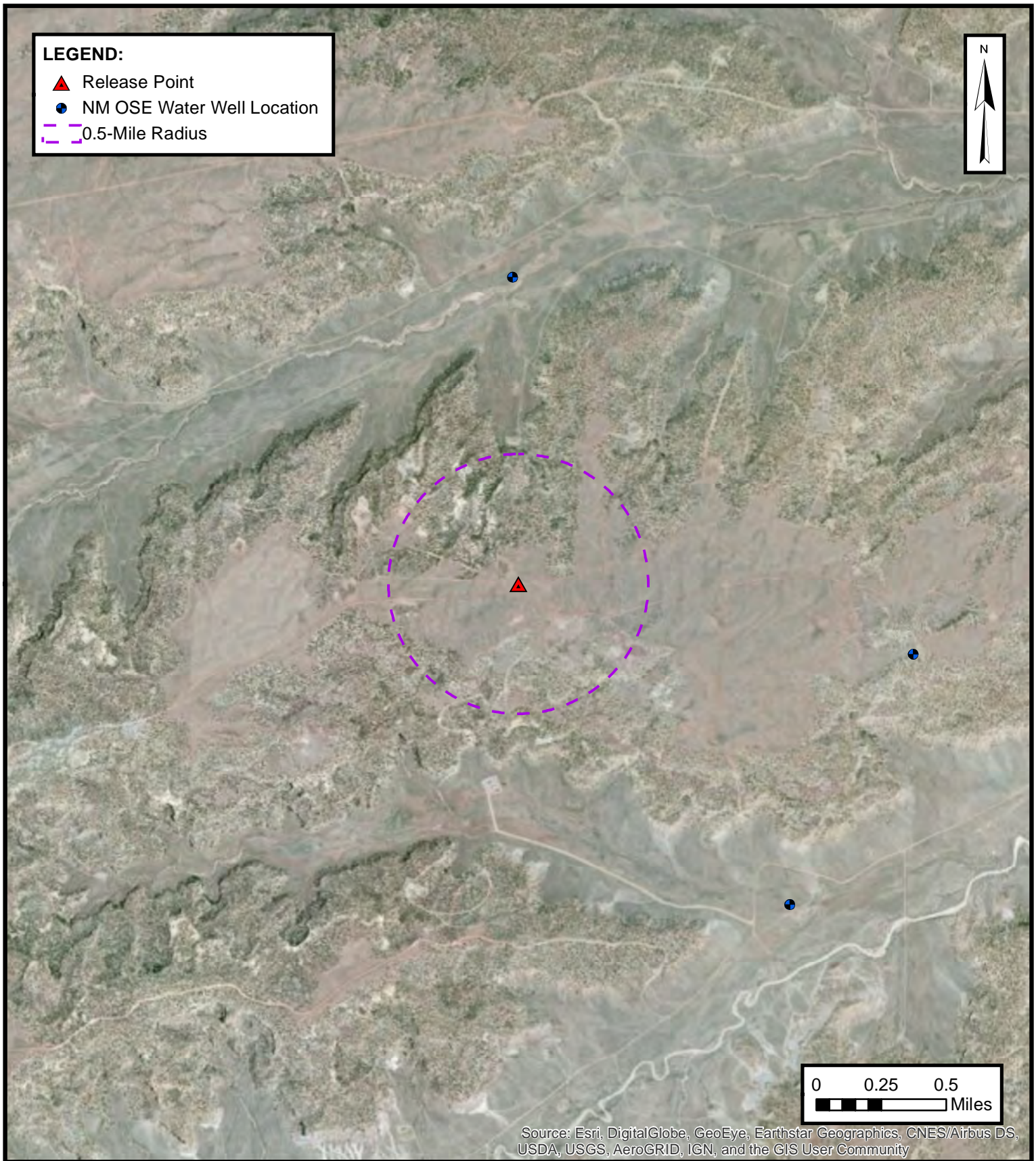
ENSOLUM
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FIGURE
3



APPENDIX B

Siting Figures and Documentation



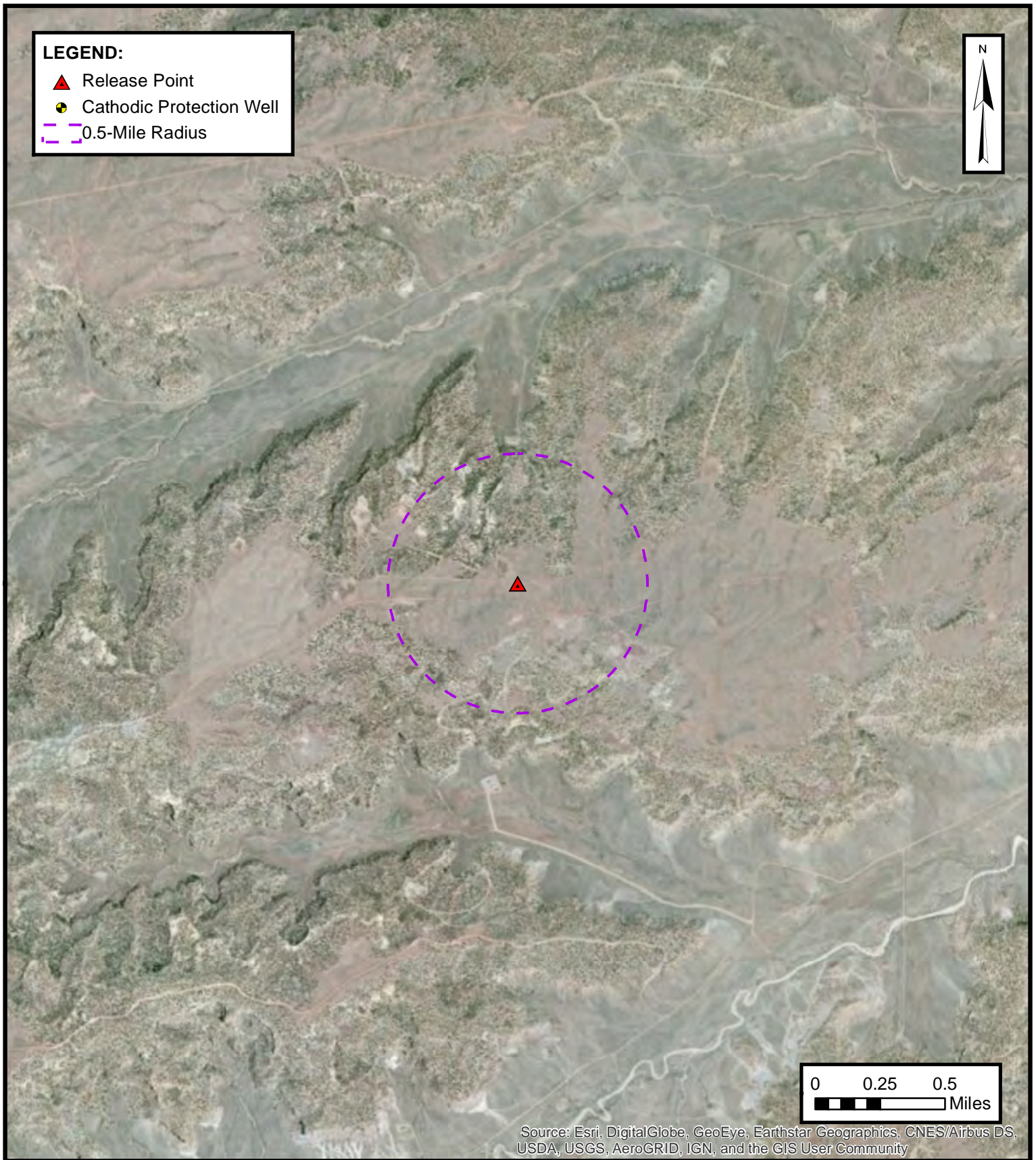
Environmental & Hydrogeologic Consultants

HALF MILE RADIUS WATER WELLS

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 PIPELINE RELEASE
SW ¼, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226082

FIGURE**A**

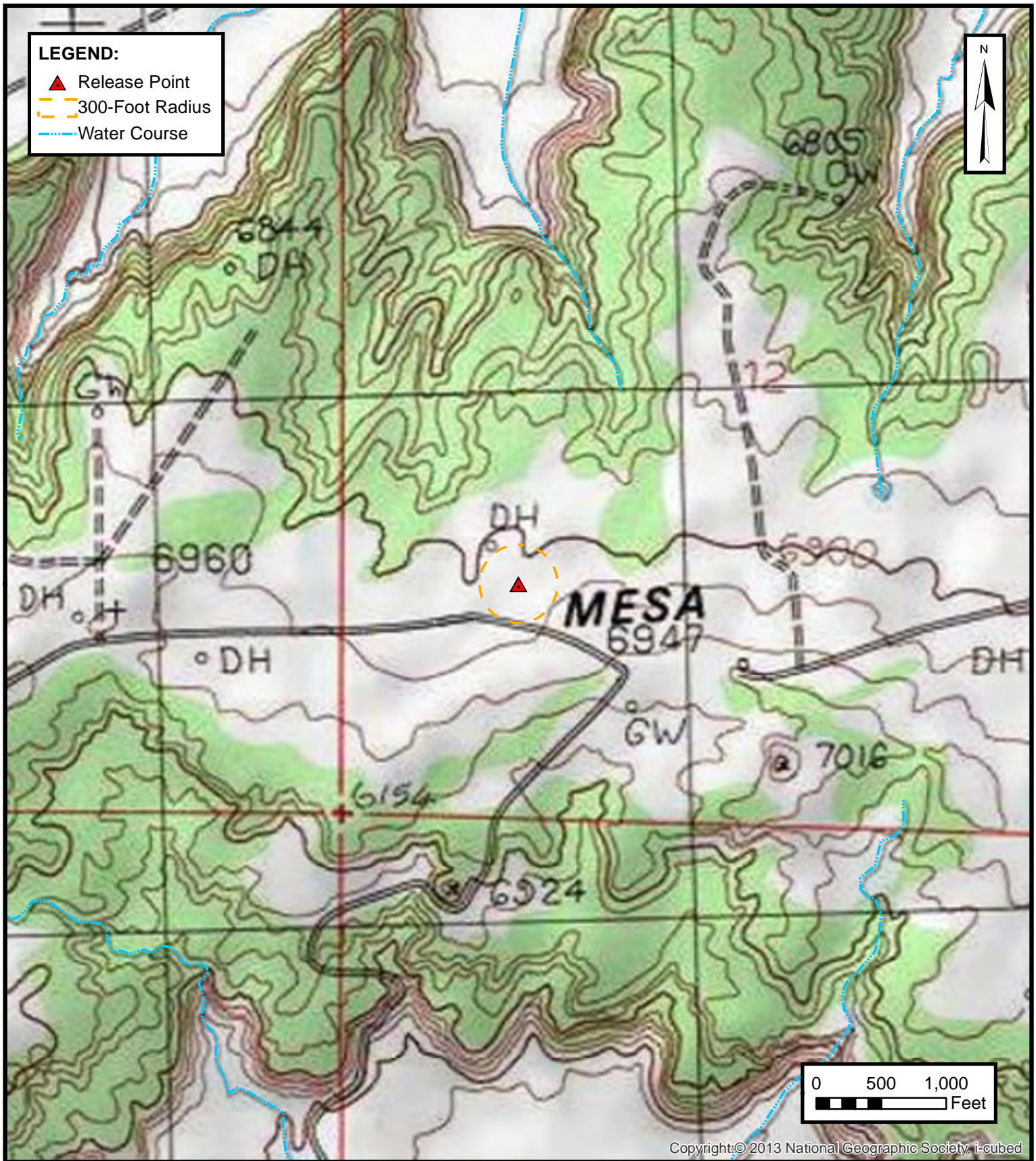
**CATHODIC PROTECTION WELL RECORDED DEPTH TO WATER**

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 PIPELINE RELEASE
SW ¼, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226082

FIGURE**B**

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**300-FOOT RADIUS
WATERCOURSE AND DRAINAGE IDENTIFICATION**

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 PIPELINE RELEASE
SW ¼, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226082

**FIGURE
C**

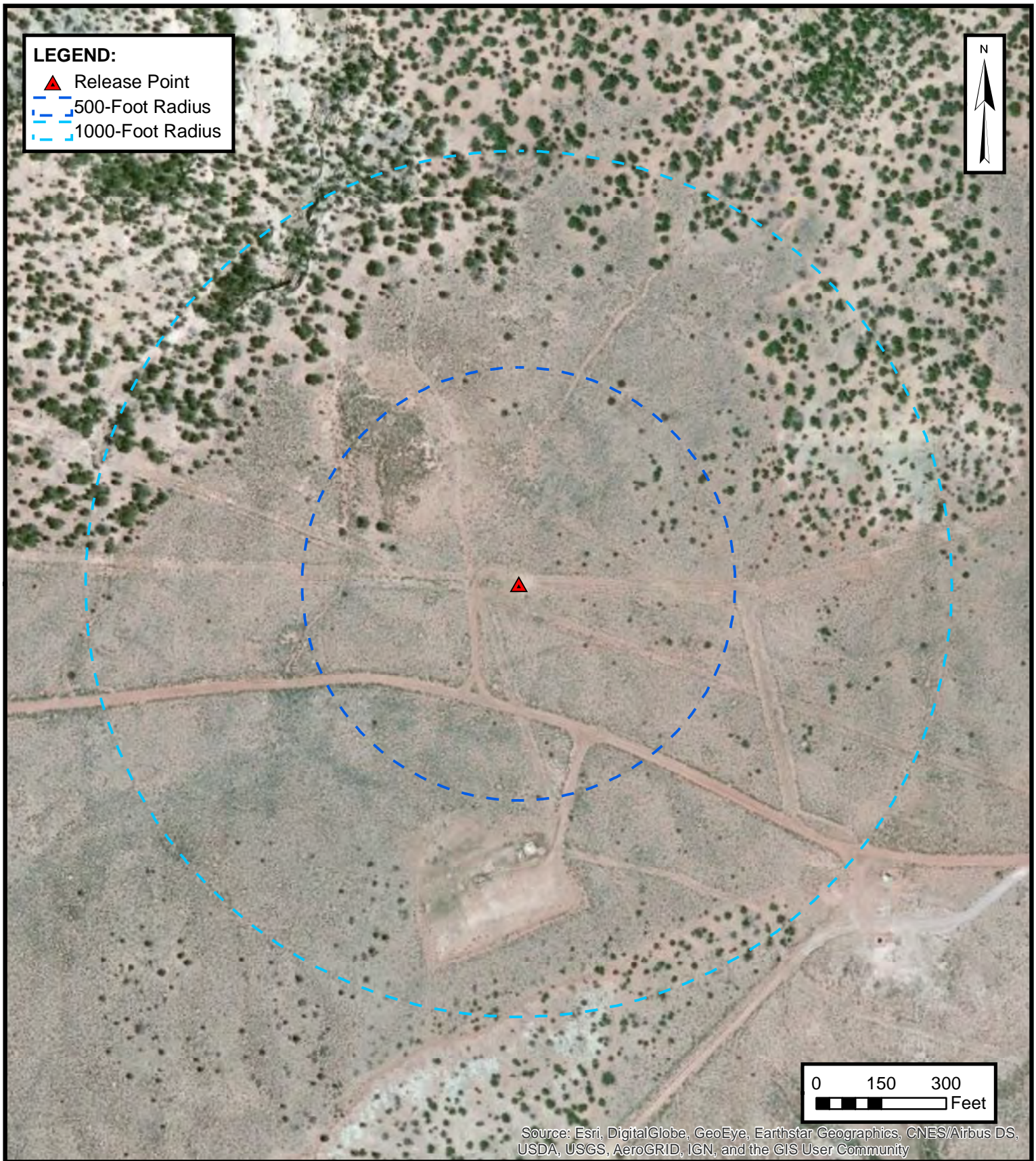


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**300-FOOT RADIUS
OCCUPIED STRUCTURE IDENTIFICATION**
ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 PIPELINE RELEASE
SW ¼, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226082

**FIGURE
D**



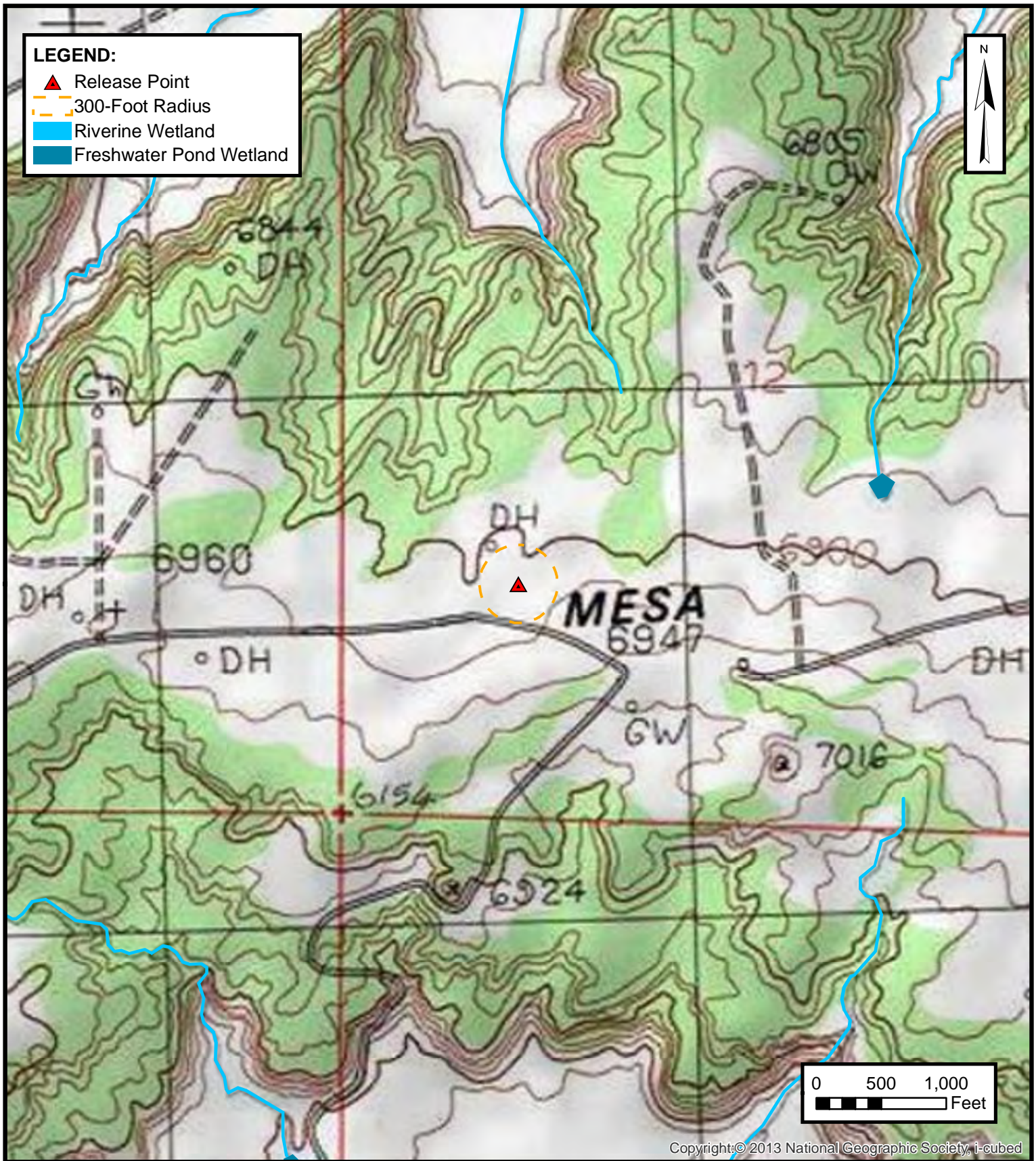
Environmental & Hydrogeologic Consultants

WATER WELL AND NATURAL SPRING LOCATION

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 PIPELINE RELEASE
SW ¼, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226082

FIGURE
E



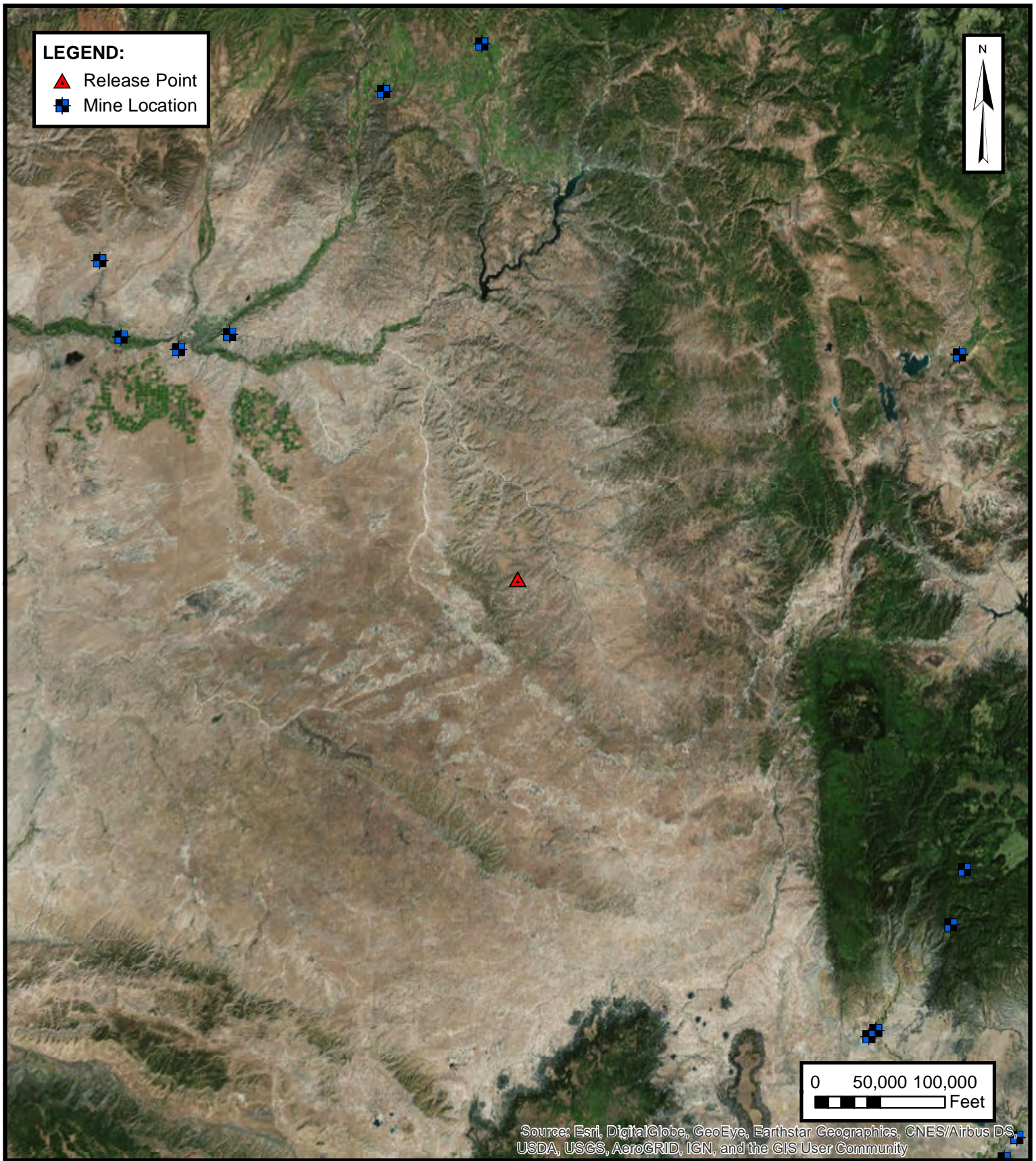
ENSOLUM
Environmental & Hydrogeologic Consultants

WETLANDS

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 PIPELINE RELEASE
SW ¼, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226082

FIGURE
F



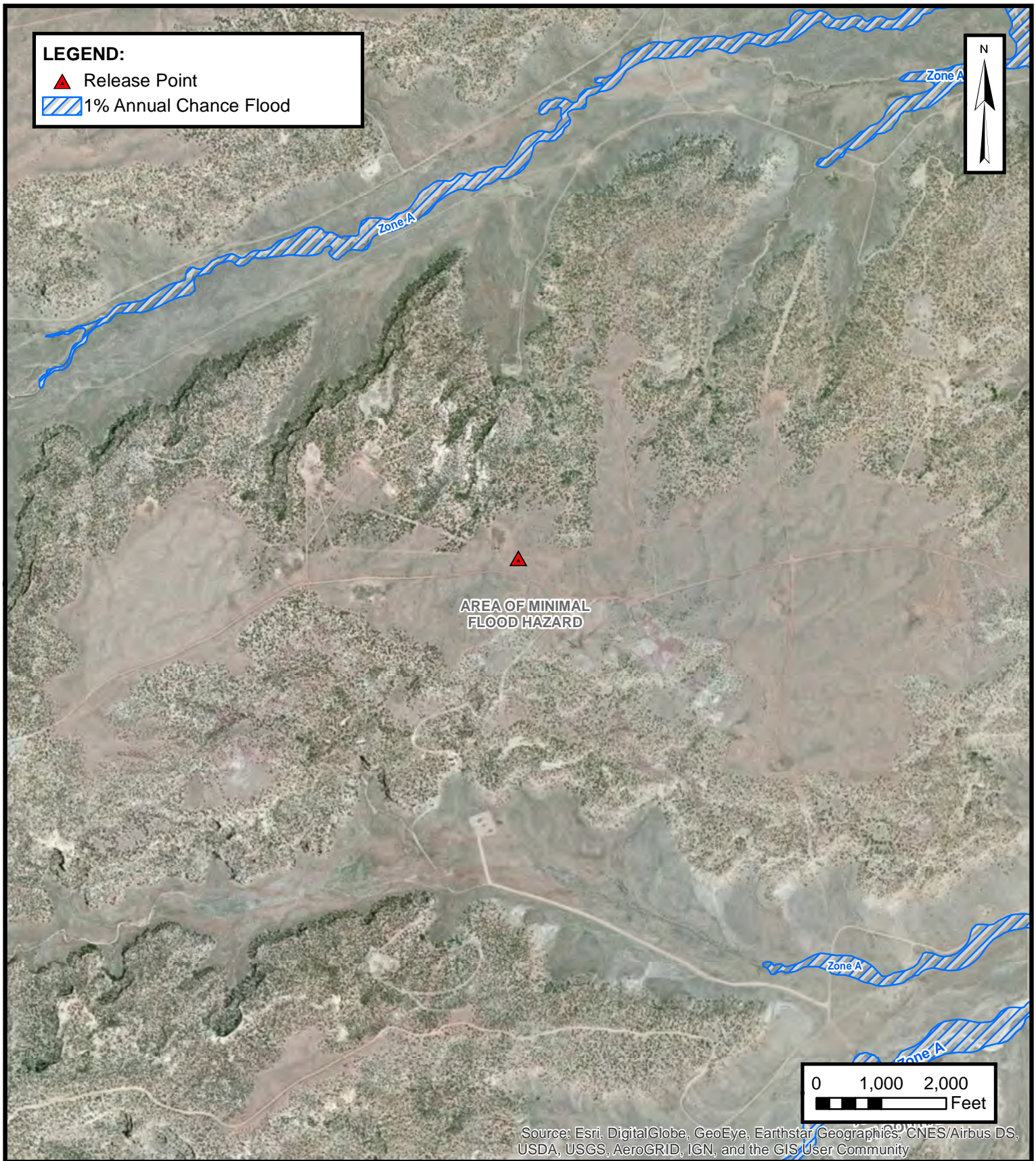
MINES, MILLS AND QUARRIES

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-116 PIPELINE RELEASE
SW ¼, S12 T24N R7W, Rio Arriba County, New Mexico
36.323769° N, 107.532816° W

PROJECT NUMBER: 05A1226082

FIGURE

G





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

No records found.

PLSS Search:

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

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.

5/28/20 7:12 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, 7, 18

Township: 24N

Range: 06W

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

5/28/20 7:13 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.

UTMNAD83 Radius Search (in meters):

Easting (X): 272634

Northing (Y): 4022846.585

Radius: 804.67

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.

11/14/19 9:32 AM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

No PODs found.

UTMNAD83 Radius Search (in meters):

Easting (X): 272634

Northing (Y): 4022846.585


Radius: 804.67



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

| (acre ft per annum) | | | | | | | | | | (R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE) C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters) | | | | | | | | | |
|----------------------------|--------------|-----|-----------|----------------|--------|----------------------------|-------------|------|-------|--|-----------------|-----|-----|-----|--------|--|--|--|--|
| WR File Nbr | Sub basin | Use | Diversion | Owner | County | POD Number | Well Tag | Code | Grant | Source | q q q 6416 4 | Sec | Tws | Rng | X | Y | | | |
| SJ 00681 2 | SJ | STK | 4.839 | HOMER C. BERRY | RA | SJ 00681 2 | | | | | 2 3 3 | 01 | 24N | 07W | 272654 | 4024369*  | | | |

Record Count: 1

PLSS Search:

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

Sorted by: File Number

*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

Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(R=POD has been replaced
and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)

C=the file is closed)

(quarters are smallest to largest) (NAD83 UTM in meters)

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

Record Count: 2**PLSS Search:****Section(s):** 6, 7, 18**Township:** 24N**Range:** 06W**Sorted by:** File Number***UTM location was derived from PLSS - see Help**

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.

5/29/20 9:58 AM

Page 1 of 1

ACTIVE & INACTIVE POINTS OF DIVERSION



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

97057-1050 Form C-138
Revised 08/01/11
*Surface Waste Management Facility Operator
and Generator shall maintain and make this
documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

| | |
|---|--|
| 1. Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401 | |
| 2. Originating Site: Lateral 2C-116 | AFE: N44342 PM: Maron O'Brien Pay Key: RB21200 |
| 2. Location of Material (Street Address, City, State or ULSTR): UL M Section 12 T24N R7W; 36.323769, -107.532816 | |
| 4. Source and Description of Waste: Source: Hydrocarbon contaminated soil/sludge associated with remediation activities from a natural gas pipeline release. Description: Hydrocarbon contaminated soil/sludge associated with remediation activities from a natural gas pipeline release. Estimated Volume <u>50</u> (yd ³) bbls Known Volume (to be entered by the operator at the end of the haul) <u>172</u> (yd ³) bbls | |

Nov. 2019

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

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

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

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

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

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long *Thomas Long*, representative for Enterprise Products Operating authorize to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

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

5. Transporter: TBD *Sierra Oilfield*
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: *11/15/19*

SIGNATURE: *Greg Crabtree*
Surface Waste Management Facility Authorized Agent

TELEPHONE NO.: 505-632-0615



APPENDIX D

Photographic Documentation

SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Closure Report
Lateral 2C-116 Pipeline Release
Ensolum Project No. 05A1226082

**Photograph 1**

Photograph Description: View of the release.

**Photograph 2**

Photograph Description: View of the initial pipeline repair excavation.

**Photograph 3**

Photograph Description: View of the excavation during the second sampling event.



SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Closure Report
Lateral 2C-116 Pipeline Release
Ensolum Project No. 05A1226082



Photograph 4

Photograph Description: View of in-process excavation activities.



Photograph 5

Photograph Description: View of the final excavation.





APPENDIX E

Table 1 – Soil Analytical Summary



TABLE 1
Lateral 2C-116 Pipeline Release
SOIL ANALYTICAL SUMMARY

| Sample I.D. | Date | Sample Type C- Composite G - Grab | Sample Depth (Feet) | Benzene (mg/kg) | Toluene (mg/kg) | Ethylbenzene (mg/kg) | Xylenes (mg/kg) | Total BTEX (mg/kg) | TPH GRO (mg/kg) | TPH DRO (mg/kg) | TPH MRO (mg/kg) | Total Combined TPH (GRO/DRO) (mg/kg) | Total Combined TPH (GRO/DRO/MRO) (mg/kg) | Chloride (mg/kg) |
|---|----------|---|------------------------|--------------------|--------------------|-------------------------|--------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|---|---------------------|
| New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria | | | | 10 | NE | NE | NE | 50 | | | | 1,000 | 2,500 | 20,000 |
| Composite Soil Samples Removed by Excavation | | | | | | | | | | | | | | |
| S-1 | 11.15.19 | C | 4.5 | 46 | 160 | 41 | 210 | 457 | 9,100 | 3,100 | 1,200 | 12,200 | 13,400 | 420 |
| S-2 | 11.15.19 | C | 0 to 4.5 | 1.6 | 12 | 6.2 | 34 | 54 | 1,100 | 680 | 260 | 1,780 | 2,040 | 210 |
| S-3 | 11.15.19 | C | 0 to 4.5 | 3.7 | 26 | 9.3 | 49 | 88 | 1,900 | 2,500 | 890 | 4,400 | 5,290 | 82 |
| S-4 | 11.15.19 | C | 0 to 4.5 | 2.3 | 17 | 8.9 | 51 | 79 | 1,500 | 1,600 | 520 | 3,100 | 3,620 | 120 |
| S-5 | 11.15.19 | C | 0 to 4.5 | 11 | 53 | 16 | 93 | 173 | 3,300 | 2,000 | 670 | 5,300 | 5,970 | <60 |
| S-8 | 11.25.19 | C | 7 | 0.27 | 1.5 | 0.64 | 4.0 | 6.4 | 180 | 1,400 | 530 | 1,580 | 2,110 | 140 |
| S-11 | 11.25.19 | C | 0 to 7 | <0.021 | <0.041 | <0.041 | <0.083 | ND | <4.1 | <9.6 | <48 | ND | ND | 170 |
| S-14 | 11.25.19 | C | 0 to 7 | <0.018 | <0.036 | <0.036 | <0.073 | ND | <3.6 | <9.6 | <48 | ND | ND | 100 |
| S-15 | 11.25.19 | C | 3 to 7 | <0.11 | 0.76 | 0.40 | 3.0 | 4.2 | 150 | 930 | 280 | 1,080 | 1,360 | 220 |
| S-16 | 11.25.19 | C | 3 to 7 | 0.42 | 6.7 | 3.0 | 16 | 26 | 510 | 1,100 | 410 | 1,610 | 2,020 | 240 |
| Excavation Composite Soil Samples | | | | | | | | | | | | | | |
| S-6 | 11.25.19 | C | 7 | 0.14 | 1.2 | 0.75 | 4.8 | 6.9 | 170 | 780 | 270 | 950 | 1,220 | 150 |
| S-7 | 11.25.19 | C | 7 | <0.089 | <0.18 | <0.18 | <0.36 | ND | <18 | 210 | 100 | 210 | 310 | 150 |
| S-9 | 11.25.19 | C | 0 to 7 | <0.021 | <0.042 | <0.042 | <0.083 | ND | <4.2 | <9.0 | <45 | ND | ND | 240 |
| S-10 | 11.25.19 | C | 0 to 7 | <0.020 | <0.039 | <0.039 | <0.079 | ND | <3.9 | <10 | <50 | ND | ND | 160 |
| S-12 | 11.25.19 | C | 0 to 7 | <0.018 | <0.037 | <0.037 | <0.074 | ND | <3.7 | <9.6 | <48 | ND | ND | 140 |
| S-13 | 11.25.19 | C | 0 to 7 | <0.020 | <0.041 | <0.041 | <0.082 | ND | <4.1 | <9.5 | <47 | ND | ND | 120 |
| S-17 | 12.03.19 | C | 8 | <0.088 | <0.18 | <0.18 | <0.35 | ND | <18 | 71 | <49 | 71 | 71 | 88 |
| S-18 | 12.03.19 | C | 7 | <0.10 | <0.20 | <0.20 | <0.41 | ND | <20 | 73 | <47 | 73 | 73 | 100 |
| S-19 | 12.03.19 | C | 0 to 7 | <0.10 | <0.21 | <0.21 | <0.42 | ND | <21 | 15 | <48 | 15 | 15 | 200 |
| S-20 | 12.03.19 | C | 1 to 7 | <0.11 | <0.22 | <0.22 | <0.43 | ND | <22 | 110 | 55 | 110 | 165 | <60 |
| S-21 | 12.03.19 | C | 7 | 1.0 | 4.9 | 1.3 | 7.0 | 14.2 | 300 | 180 | 56 | 480 | 536 | 180 |
| S-22 | 12.03.19 | C | 0 to 7 | <0.10 | <0.20 | <0.20 | <0.41 | ND | <20 | <9.7 | <49 | ND | ND | 200 |
| S-23 | 12.03.19 | C | 1 to 7 | <0.10 | <0.20 | <0.20 | <0.41 | ND | <20 | 16 | <47 | 16 | 16 | 200 |

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

ND = Not Detected above the Practical Quantitation Limits or Reporting Limits

NA = Not Analyzed

NE = Not established

mg/kg = milligram per kilogram

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

TPH = Total Petroleum Hydrocarbon

GRO = Gasoline Range Organics

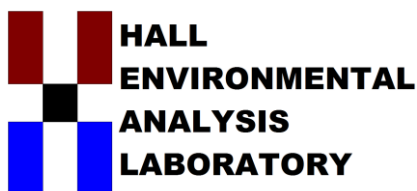
DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics



APPENDIX F

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: www.hallenvironmental.com

November 19, 2019

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Lateral 2C 116

OrderNo.: 1911767

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 sample(s) on 11/16/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com 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".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1911767

Date Reported: 11/19/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-1

Project: Lateral 2C 116

Collection Date: 11/15/2019 4:30:00 PM

Lab ID: 1911767-001

Matrix: SOIL

Received Date: 11/16/2019 10:22:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|-----|------------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | 420 | 60 | | mg/Kg | 20 | 11/18/2019 10:17:46 AM | 48832 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 3100 | 95 | | mg/Kg | 10 | 11/18/2019 9:08:04 AM | 48829 |
| Motor Oil Range Organics (MRO) | 1200 | 480 | | mg/Kg | 10 | 11/18/2019 9:08:04 AM | 48829 |
| Surr: DNOP | 0 | 70-130 | S | %Rec | 10 | 11/18/2019 9:08:04 AM | 48829 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | 9100 | 440 | | mg/Kg | 100 | 11/18/2019 11:43:28 AM | G64584 |
| Surr: BFB | 315 | 77.4-118 | S | %Rec | 100 | 11/18/2019 11:43:28 AM | G64584 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | 46 | 0.44 | | mg/Kg | 20 | 11/18/2019 9:26:51 AM | B64584 |
| Toluene | 160 | 4.4 | | mg/Kg | 100 | 11/18/2019 11:43:28 AM | B64584 |
| Ethylbenzene | 41 | 0.88 | | mg/Kg | 20 | 11/18/2019 9:26:51 AM | B64584 |
| Xylenes, Total | 210 | 1.8 | | mg/Kg | 20 | 11/18/2019 9:26:51 AM | B64584 |
| Surr: 4-Bromofluorobenzene | 155 | 80-120 | S | %Rec | 20 | 11/18/2019 9:26:51 AM | B64584 |

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

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

Page 1 of 9

Analytical Report

Lab Order 1911767

Date Reported: 11/19/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-2

Project: Lateral 2C 116

Collection Date: 11/15/2019 4:35:00 PM

Lab ID: 1911767-002

Matrix: SOIL

Received Date: 11/16/2019 10:22:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | 210 | 60 | | mg/Kg | 20 | 11/18/2019 10:30:11 AM | 48832 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 680 | 50 | | mg/Kg | 5 | 11/18/2019 10:16:56 AM | 48829 |
| Motor Oil Range Organics (MRO) | 260 | 250 | | mg/Kg | 5 | 11/18/2019 10:16:56 AM | 48829 |
| Surr: DNOP | 160 | 70-130 | S | %Rec | 5 | 11/18/2019 10:16:56 AM | 48829 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | 1100 | 22 | | mg/Kg | 5 | 11/18/2019 9:49:48 AM | G64584 |
| Surr: BFB | 1210 | 77.4-118 | S | %Rec | 5 | 11/18/2019 9:49:48 AM | G64584 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | 1.6 | 0.11 | | mg/Kg | 5 | 11/18/2019 9:49:48 AM | B64584 |
| Toluene | 12 | 0.22 | | mg/Kg | 5 | 11/18/2019 9:49:48 AM | B64584 |
| Ethylbenzene | 6.2 | 0.22 | | mg/Kg | 5 | 11/18/2019 9:49:48 AM | B64584 |
| Xylenes, Total | 34 | 0.44 | | mg/Kg | 5 | 11/18/2019 9:49:48 AM | B64584 |
| Surr: 4-Bromofluorobenzene | 139 | 80-120 | S | %Rec | 5 | 11/18/2019 9:49:48 AM | B64584 |

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

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

Page 2 of 9

Analytical Report

Lab Order 1911767

Date Reported: 11/19/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-3

Project: Lateral 2C 116

Collection Date: 11/15/2019 4:40:00 PM

Lab ID: 1911767-003

Matrix: SOIL

Received Date: 11/16/2019 10:22:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | 82 | 60 | | mg/Kg | 20 | 11/18/2019 10:42:35 AM | 48832 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 2500 | 92 | | mg/Kg | 10 | 11/18/2019 9:44:14 AM | 48829 |
| Motor Oil Range Organics (MRO) | 890 | 460 | | mg/Kg | 10 | 11/18/2019 9:44:14 AM | 48829 |
| Surr: DNOP | 0 | 70-130 | S | %Rec | 10 | 11/18/2019 9:44:14 AM | 48829 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | 1900 | 72 | | mg/Kg | 20 | 11/18/2019 10:12:39 AM | G64584 |
| Surr: BFB | 596 | 77.4-118 | S | %Rec | 20 | 11/18/2019 10:12:39 AM | G64584 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | 3.7 | 0.36 | | mg/Kg | 20 | 11/18/2019 10:12:39 AM | B64584 |
| Toluene | 26 | 0.72 | | mg/Kg | 20 | 11/18/2019 10:12:39 AM | B64584 |
| Ethylbenzene | 9.3 | 0.72 | | mg/Kg | 20 | 11/18/2019 10:12:39 AM | B64584 |
| Xylenes, Total | 49 | 1.4 | | mg/Kg | 20 | 11/18/2019 10:12:39 AM | B64584 |
| Surr: 4-Bromofluorobenzene | 120 | 80-120 | | %Rec | 20 | 11/18/2019 10:12:39 AM | B64584 |

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

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

Page 3 of 9

Analytical Report

Lab Order 1911767

Date Reported: 11/19/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-4

Project: Lateral 2C 116

Collection Date: 11/15/2019 4:45:00 PM

Lab ID: 1911767-004

Matrix: SOIL

Received Date: 11/16/2019 10:22:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | 120 | 59 | | mg/Kg | 20 | 11/18/2019 10:55:00 AM | 48832 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 1600 | 95 | | mg/Kg | 10 | 11/18/2019 9:58:17 AM | 48829 |
| Motor Oil Range Organics (MRO) | 520 | 470 | | mg/Kg | 10 | 11/18/2019 9:58:17 AM | 48829 |
| Surr: DNOP | 0 | 70-130 | S | %Rec | 10 | 11/18/2019 9:58:17 AM | 48829 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | 1500 | 22 | | mg/Kg | 5 | 11/18/2019 10:35:21 AM | G64584 |
| Surr: BFB | 1850 | 77.4-118 | S | %Rec | 5 | 11/18/2019 10:35:21 AM | G64584 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | 2.3 | 0.11 | | mg/Kg | 5 | 11/18/2019 10:35:21 AM | B64584 |
| Toluene | 17 | 0.22 | | mg/Kg | 5 | 11/18/2019 10:35:21 AM | B64584 |
| Ethylbenzene | 8.9 | 0.22 | | mg/Kg | 5 | 11/18/2019 10:35:21 AM | B64584 |
| Xylenes, Total | 51 | 0.44 | | mg/Kg | 5 | 11/18/2019 10:35:21 AM | B64584 |
| Surr: 4-Bromofluorobenzene | 186 | 80-120 | S | %Rec | 5 | 11/18/2019 10:35:21 AM | B64584 |

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

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

Page 4 of 9

Analytical Report

Lab Order 1911767

Date Reported: 11/19/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-5

Project: Lateral 2C 116

Collection Date: 11/15/2019 4:50:00 PM

Lab ID: 1911767-005

Matrix: SOIL

Received Date: 11/16/2019 10:22:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|-----|------------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | ND | 60 | | mg/Kg | 20 | 11/18/2019 11:07:24 AM | 48832 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 2000 | 92 | | mg/Kg | 10 | 11/18/2019 9:46:57 AM | 48829 |
| Motor Oil Range Organics (MRO) | 670 | 460 | | mg/Kg | 10 | 11/18/2019 9:46:57 AM | 48829 |
| Surr: DNOP | 0 | 70-130 | S | %Rec | 10 | 11/18/2019 9:46:57 AM | 48829 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | 3300 | 370 | | mg/Kg | 100 | 11/18/2019 12:29:01 PM | G64584 |
| Surr: BFB | 244 | 77.4-118 | S | %Rec | 100 | 11/18/2019 12:29:01 PM | G64584 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | 11 | 0.092 | | mg/Kg | 5 | 11/18/2019 10:58:01 AM | B64584 |
| Toluene | 53 | 3.7 | | mg/Kg | 100 | 11/18/2019 12:29:01 PM | B64584 |
| Ethylbenzene | 16 | 3.7 | | mg/Kg | 100 | 11/18/2019 12:29:01 PM | B64584 |
| Xylenes, Total | 93 | 7.3 | | mg/Kg | 100 | 11/18/2019 12:29:01 PM | B64584 |
| Surr: 4-Bromofluorobenzene | 109 | 80-120 | | %Rec | 100 | 11/18/2019 12:29:01 PM | B64584 |

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

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

Page 5 of 9

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

WO#: 1911767

19-Nov-19

Client: ENSOLUM
Project: Lateral 2C 116

| Sample ID: MB-48832 | SampType: mblk | TestCode: EPA Method 300.0: Anions | | | | | | | | |
|------------------------------|----------------------------------|---|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: PBS | Batch ID: 48832 | RunNo: 64581 | | | | | | | | |
| Prep Date: 11/18/2019 | Analysis Date: 11/18/2019 | SeqNo: 2212442 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | ND | 1.5 | | | | | | | | |

| Sample ID: LCS-48832 | SampType: lcs | TestCode: EPA Method 300.0: Anions | | | | | | | | |
|------------------------------|----------------------------------|---|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: LCSS | Batch ID: 48832 | RunNo: 64581 | | | | | | | | |
| Prep Date: 11/18/2019 | Analysis Date: 11/18/2019 | SeqNo: 2212443 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | 14 | 1.5 | 15.00 | 0 | 93.0 | 90 | 110 | | | |

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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

WO#: 1911767

19-Nov-19

Client: ENSOLUM
Project: Lateral 2C 116

| Sample ID: LCS-48829 | SampType: LCS | | TestCode: EPA Method 8015M/D: Diesel Range Organics | | | | | | | |
|------------------------------|----------------------------------|-----|--|-------------|---------------------|----------|-----------|------|----------|------|
| Client ID: LCSS | Batch ID: 48829 | | RunNo: 64571 | | | | | | | |
| Prep Date: 11/18/2019 | Analysis Date: 11/18/2019 | | SeqNo: 2211224 | | Units: mg/Kg | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 48 | 10 | 50.00 | 0 | 96.6 | 63.9 | 124 | | | |
| Surr: DNOP | 4.2 | | 5.000 | | 83.4 | 70 | 130 | | | |

| Sample ID: MB-48829 | SampType: MBLK | | TestCode: EPA Method 8015M/D: Diesel Range Organics | | | | | | | |
|--------------------------------|----------------------------------|-----|--|-------------|---------------------|----------|-----------|------|----------|------|
| Client ID: PBS | Batch ID: 48829 | | RunNo: 64571 | | | | | | | |
| Prep Date: 11/18/2019 | Analysis Date: 11/18/2019 | | SeqNo: 2211225 | | Units: mg/Kg | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | ND | 10 | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 50 | | | | | | | | |
| Surr: DNOP | 9.1 | | 10.00 | | 90.6 | 70 | 130 | | | |

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 7 of 9

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

WO#: 1911767

19-Nov-19

Client: ENSOLUM
Project: Lateral 2C 116

| Sample ID: RB | SampType: MBLK | TestCode: EPA Method 8015D: Gasoline Range | | | | | | | | |
|-------------------------------|----------------------------------|---|-----------|-------------|------|----------|-----------|------|----------|------|
| Client ID: PBS | Batch ID: G64584 | RunNo: 64584 | | | | | | | | |
| Prep Date: | Analysis Date: 11/18/2019 | SeqNo: 2211908 Units: mg/Kg | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND | 5.0 | | | | | | | | |
| Surr: BFB | 1000 | | 1000 | | 101 | 77.4 | 118 | | | |

| Sample ID: 2.5UG GRO LCS | SampType: LCS | TestCode: EPA Method 8015D: Gasoline Range | | | | | | | | |
|---------------------------------|----------------------------------|---|-----------|-------------|------|----------|-----------|------|----------|------|
| Client ID: LCSS | Batch ID: G64584 | RunNo: 64584 | | | | | | | | |
| Prep Date: | Analysis Date: 11/18/2019 | SeqNo: 2211909 Units: mg/Kg | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 27 | 5.0 | 25.00 | 0 | 106 | 80 | 120 | | | |
| Surr: BFB | 1100 | | 1000 | | 111 | 77.4 | 118 | | | |

| Sample ID: 1911767-001AMS | SampType: MS | TestCode: EPA Method 8015D: Gasoline Range | | | | | | | | |
|----------------------------------|----------------------------------|---|-----------|-------------|------|----------|-----------|------|----------|------|
| Client ID: S-1 | Batch ID: G64584 | RunNo: 64584 | | | | | | | | |
| Prep Date: | Analysis Date: 11/18/2019 | SeqNo: 2211910 Units: mg/Kg | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 9800 | 440 | 2189 | 9062 | 33.3 | 69.1 | 142 | | | S |
| Surr: BFB | 250000 | | 87570 | | 289 | 77.4 | 118 | | | S |

| Sample ID: 1911767-001AMSD | SampType: MSD | TestCode: EPA Method 8015D: Gasoline Range | | | | | | | | |
|-----------------------------------|----------------------------------|---|-----------|-------------|------|----------|-----------|------|----------|------|
| Client ID: S-1 | Batch ID: G64584 | RunNo: 64584 | | | | | | | | |
| Prep Date: | Analysis Date: 11/18/2019 | SeqNo: 2211911 Units: mg/Kg | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 9300 | 440 | 2189 | 9062 | 11.0 | 69.1 | 142 | 5.13 | 20 | S |
| Surr: BFB | 250000 | | 87570 | | 281 | 77.4 | 118 | 0 | 0 | S |

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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

WO#: 1911767

19-Nov-19

Client: ENSOLUM
Project: Lateral 2C 116

| Sample ID: RB | SampType: MBLK | TestCode: EPA Method 8021B: Volatiles | | | | | | | | |
|----------------------------|----------------------------------|--|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: PBS | Batch ID: B64584 | RunNo: 64584 | | | | | | | | |
| Prep Date: | Analysis Date: 11/18/2019 | SeqNo: 2211932 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 0.025 | | | | | | | | |
| Toluene | ND | 0.050 | | | | | | | | |
| Ethylbenzene | ND | 0.050 | | | | | | | | |
| Xylenes, Total | ND | 0.10 | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 0.96 | | 1.000 | | 96.4 | 80 | 120 | | | |

| Sample ID: 100NG BTEX LCS | SampType: LCS | TestCode: EPA Method 8021B: Volatiles | | | | | | | | |
|----------------------------------|----------------------------------|--|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: LCSS | Batch ID: B64584 | RunNo: 64584 | | | | | | | | |
| Prep Date: | Analysis Date: 11/18/2019 | SeqNo: 2211933 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 1.1 | 0.025 | 1.000 | 0 | 108 | 80 | 120 | | | |
| Toluene | 1.0 | 0.050 | 1.000 | 0 | 102 | 80 | 120 | | | |
| Ethylbenzene | 1.0 | 0.050 | 1.000 | 0 | 99.6 | 80 | 120 | | | |
| Xylenes, Total | 3.0 | 0.10 | 3.000 | 0 | 101 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 0.98 | | 1.000 | | 98.3 | 80 | 120 | | | |

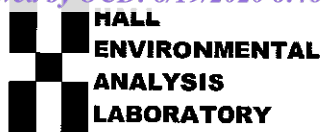
| Sample ID: 1911767-005AMS | SampType: MS | TestCode: EPA Method 8021B: Volatiles | | | | | | | | |
|----------------------------------|----------------------------------|--|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: S-5 | Batch ID: B64584 | RunNo: 64584 | | | | | | | | |
| Prep Date: | Analysis Date: 11/18/2019 | SeqNo: 2211934 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 78 | 1.8 | 73.48 | 9.666 | 93.4 | 76 | 123 | | | |
| Toluene | 110 | 3.7 | 73.48 | 53.31 | 75.7 | 80.3 | 127 | | | S |
| Ethylbenzene | 79 | 3.7 | 73.48 | 16.05 | 85.7 | 80.2 | 131 | | | |
| Xylenes, Total | 270 | 7.3 | 220.4 | 93.12 | 79.7 | 78 | 133 | | | |
| Surr: 4-Bromofluorobenzene | 76 | | 73.48 | | 103 | 80 | 120 | | | |

| Sample ID: 1911767-005AMSD | SampType: MSD | TestCode: EPA Method 8021B: Volatiles | | | | | | | | |
|-----------------------------------|----------------------------------|--|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: S-5 | Batch ID: B64584 | RunNo: 64584 | | | | | | | | |
| Prep Date: | Analysis Date: 11/18/2019 | SeqNo: 2211935 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 73 | 1.8 | 73.48 | 9.666 | 85.6 | 76 | 123 | 7.61 | 20 | |
| Toluene | 100 | 3.7 | 73.48 | 53.31 | 65.8 | 80.3 | 127 | 6.91 | 20 | S |
| Ethylbenzene | 74 | 3.7 | 73.48 | 16.05 | 79.0 | 80.2 | 131 | 6.43 | 20 | S |
| Xylenes, Total | 250 | 7.3 | 220.4 | 93.12 | 72.5 | 78 | 133 | 6.10 | 20 | S |
| Surr: 4-Bromofluorobenzene | 76 | | 73.48 | | 104 | 80 | 120 | 0 | 0 | |

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



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

Sample Log-In Check List

Client Name: ENSOLUM AZTEC

Work Order Number: 1911767

RcptNo: 1

Received By: Anne Thorne

11/16/2019 10:22:00 AM

Completed By: Anne Thorne

11/18/2019 7:06:19 AM

Reviewed By:

11/18/19

Chain of Custody

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

Log In

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

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: AT 11/18/19

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:

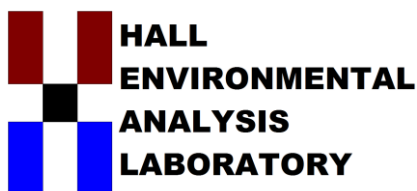
Client Instructions:

16. Additional remarks:

CUSTODY SEALS INTACT ON SOIL JARS/at 11/18/19

17. Cooler Information

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1 | 1.4 | Good | Yes | | | |



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

December 02, 2019

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX:

RE: Lateral 2C 116

OrderNo.: 1911B71

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 11 sample(s) on 11/26/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com 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 horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1911B71

Date Reported: 12/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-6

Project: Lateral 2C 116

Collection Date: 11/25/2019 12:20:00 PM

Lab ID: 1911B71-001

Matrix: SOIL

Received Date: 11/26/2019 7:50:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS |
| Chloride | 150 | 60 | | mg/Kg | 20 | 11/26/2019 11:49:11 AM | 49033 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 780 | 19 | | mg/Kg | 2 | 11/26/2019 12:54:19 PM | 49028 |
| Motor Oil Range Organics (MRO) | 270 | 96 | | mg/Kg | 2 | 11/26/2019 12:54:19 PM | 49028 |
| Surr: DNOP | 131 | 70-130 | S | %Rec | 2 | 11/26/2019 12:54:19 PM | 49028 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | 170 | 21 | | mg/Kg | 5 | 11/26/2019 9:44:40 AM | G64783 |
| Surr: BFB | 360 | 77.4-118 | S | %Rec | 5 | 11/26/2019 9:44:40 AM | G64783 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | 0.14 | 0.10 | | mg/Kg | 5 | 11/26/2019 9:44:40 AM | B64783 |
| Toluene | 1.2 | 0.21 | | mg/Kg | 5 | 11/26/2019 9:44:40 AM | B64783 |
| Ethylbenzene | 0.75 | 0.21 | | mg/Kg | 5 | 11/26/2019 9:44:40 AM | B64783 |
| Xylenes, Total | 4.8 | 0.41 | | mg/Kg | 5 | 11/26/2019 9:44:40 AM | B64783 |
| Surr: 4-Bromofluorobenzene | 107 | 80-120 | | %Rec | 5 | 11/26/2019 9:44:40 AM | B64783 |

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

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

Page 1 of 17

Analytical Report

Lab Order 1911B71

Date Reported: 12/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-7

Project: Lateral 2C 116

Collection Date: 11/25/2019 12:25:00 PM

Lab ID: 1911B71-002

Matrix: SOIL

Received Date: 11/26/2019 7:50:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|--------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS |
| Chloride | 150 | 59 | | mg/Kg | 20 | 11/26/2019 12:01:31 PM | 49033 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 210 | 9.2 | | mg/Kg | 1 | 11/26/2019 1:03:27 PM | 49028 |
| Motor Oil Range Organics (MRO) | 100 | 46 | | mg/Kg | 1 | 11/26/2019 1:03:27 PM | 49028 |
| Surr: DNOP | 118 | 70-130 | | %Rec | 1 | 11/26/2019 1:03:27 PM | 49028 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 18 | | mg/Kg | 5 | 11/26/2019 10:07:37 AM | G64783 |
| Surr: BFB | 112 | 77.4-118 | | %Rec | 5 | 11/26/2019 10:07:37 AM | G64783 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.089 | | mg/Kg | 5 | 11/26/2019 10:07:37 AM | B64783 |
| Toluene | ND | 0.18 | | mg/Kg | 5 | 11/26/2019 10:07:37 AM | B64783 |
| Ethylbenzene | ND | 0.18 | | mg/Kg | 5 | 11/26/2019 10:07:37 AM | B64783 |
| Xylenes, Total | ND | 0.36 | | mg/Kg | 5 | 11/26/2019 10:07:37 AM | B64783 |
| Surr: 4-Bromofluorobenzene | 95.7 | 80-120 | | %Rec | 5 | 11/26/2019 10:07:37 AM | B64783 |

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

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

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Analytical Report

Lab Order 1911B71

Date Reported: 12/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-8

Project: Lateral 2C 116

Collection Date: 11/25/2019 12:30:00 PM

Lab ID: 1911B71-003

Matrix: SOIL

Received Date: 11/26/2019 7:50:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS |
| Chloride | 140 | 60 | | mg/Kg | 20 | 11/26/2019 12:13:53 PM | 49033 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 1400 | 96 | | mg/Kg | 10 | 11/26/2019 11:14:45 AM | 49028 |
| Motor Oil Range Organics (MRO) | 530 | 480 | | mg/Kg | 10 | 11/26/2019 11:14:45 AM | 49028 |
| Surr: DNOP | 0 | 70-130 | S | %Rec | 10 | 11/26/2019 11:14:45 AM | 49028 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | 180 | 24 | | mg/Kg | 5 | 11/26/2019 10:30:34 AM | G64783 |
| Surr: BFB | 309 | 77.4-118 | S | %Rec | 5 | 11/26/2019 10:30:34 AM | G64783 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | 0.27 | 0.12 | | mg/Kg | 5 | 11/26/2019 10:30:34 AM | B64783 |
| Toluene | 1.5 | 0.24 | | mg/Kg | 5 | 11/26/2019 10:30:34 AM | B64783 |
| Ethylbenzene | 0.64 | 0.24 | | mg/Kg | 5 | 11/26/2019 10:30:34 AM | B64783 |
| Xylenes, Total | 4.0 | 0.47 | | mg/Kg | 5 | 11/26/2019 10:30:34 AM | B64783 |
| Surr: 4-Bromofluorobenzene | 105 | 80-120 | | %Rec | 5 | 11/26/2019 10:30:34 AM | B64783 |

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

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

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Analytical Report

Lab Order 1911B71

Date Reported: 12/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-9

Project: Lateral 2C 116

Collection Date: 11/25/2019 12:35:00 PM

Lab ID: 1911B71-004

Matrix: SOIL

Received Date: 11/26/2019 7:50:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|--------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS |
| Chloride | 240 | 60 | | mg/Kg | 20 | 11/26/2019 12:26:14 PM | 49033 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | ND | 9.0 | | mg/Kg | 1 | 11/26/2019 11:23:59 AM | 49028 |
| Motor Oil Range Organics (MRO) | ND | 45 | | mg/Kg | 1 | 11/26/2019 11:23:59 AM | 49028 |
| Surr: DNOP | 83.3 | 70-130 | | %Rec | 1 | 11/26/2019 11:23:59 AM | 49028 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 4.2 | | mg/Kg | 1 | 11/26/2019 10:53:29 AM | G64783 |
| Surr: BFB | 106 | 77.4-118 | | %Rec | 1 | 11/26/2019 10:53:29 AM | G64783 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.021 | | mg/Kg | 1 | 11/26/2019 10:53:29 AM | B64783 |
| Toluene | ND | 0.042 | | mg/Kg | 1 | 11/26/2019 10:53:29 AM | B64783 |
| Ethylbenzene | ND | 0.042 | | mg/Kg | 1 | 11/26/2019 10:53:29 AM | B64783 |
| Xylenes, Total | ND | 0.083 | | mg/Kg | 1 | 11/26/2019 10:53:29 AM | B64783 |
| Surr: 4-Bromofluorobenzene | 91.9 | 80-120 | | %Rec | 1 | 11/26/2019 10:53:29 AM | B64783 |

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

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

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Analytical Report

Lab Order 1911B71

Date Reported: 12/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-10

Project: Lateral 2C 116

Collection Date: 11/25/2019 12:40:00 PM

Lab ID: 1911B71-005

Matrix: SOIL

Received Date: 11/26/2019 7:50:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|--------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS |
| Chloride | 160 | 60 | | mg/Kg | 20 | 11/26/2019 12:38:34 PM | 49033 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | ND | 10 | | mg/Kg | 1 | 11/26/2019 11:33:13 AM | 49028 |
| Motor Oil Range Organics (MRO) | ND | 50 | | mg/Kg | 1 | 11/26/2019 11:33:13 AM | 49028 |
| Surr: DNOP | 80.3 | 70-130 | | %Rec | 1 | 11/26/2019 11:33:13 AM | 49028 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 3.9 | | mg/Kg | 1 | 11/26/2019 11:16:24 AM | G64783 |
| Surr: BFB | 104 | 77.4-118 | | %Rec | 1 | 11/26/2019 11:16:24 AM | G64783 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.020 | | mg/Kg | 1 | 11/26/2019 11:16:24 AM | B64783 |
| Toluene | ND | 0.039 | | mg/Kg | 1 | 11/26/2019 11:16:24 AM | B64783 |
| Ethylbenzene | ND | 0.039 | | mg/Kg | 1 | 11/26/2019 11:16:24 AM | B64783 |
| Xylenes, Total | ND | 0.079 | | mg/Kg | 1 | 11/26/2019 11:16:24 AM | B64783 |
| Surr: 4-Bromofluorobenzene | 89.3 | 80-120 | | %Rec | 1 | 11/26/2019 11:16:24 AM | B64783 |

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

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

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Analytical Report

Lab Order 1911B71

Date Reported: 12/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-11

Project: Lateral 2C 116

Collection Date: 11/25/2019 12:45:00 PM

Lab ID: 1911B71-006

Matrix: SOIL

Received Date: 11/26/2019 7:50:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|--------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS |
| Chloride | 170 | 60 | | mg/Kg | 20 | 11/26/2019 12:50:56 PM | 49033 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | ND | 9.6 | | mg/Kg | 1 | 11/26/2019 11:42:29 AM | 49028 |
| Motor Oil Range Organics (MRO) | ND | 48 | | mg/Kg | 1 | 11/26/2019 11:42:29 AM | 49028 |
| Surr: DNOP | 98.1 | 70-130 | | %Rec | 1 | 11/26/2019 11:42:29 AM | 49028 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 4.1 | | mg/Kg | 1 | 11/26/2019 11:39:19 AM | G64783 |
| Surr: BFB | 105 | 77.4-118 | | %Rec | 1 | 11/26/2019 11:39:19 AM | G64783 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.021 | | mg/Kg | 1 | 11/26/2019 11:39:19 AM | B64783 |
| Toluene | ND | 0.041 | | mg/Kg | 1 | 11/26/2019 11:39:19 AM | B64783 |
| Ethylbenzene | ND | 0.041 | | mg/Kg | 1 | 11/26/2019 11:39:19 AM | B64783 |
| Xylenes, Total | ND | 0.083 | | mg/Kg | 1 | 11/26/2019 11:39:19 AM | B64783 |
| Surr: 4-Bromofluorobenzene | 90.5 | 80-120 | | %Rec | 1 | 11/26/2019 11:39:19 AM | B64783 |

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

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

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Analytical Report

Lab Order 1911B71

Date Reported: 12/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-12

Project: Lateral 2C 116

Collection Date: 11/25/2019 12:50:00 PM

Lab ID: 1911B71-007

Matrix: SOIL

Received Date: 11/26/2019 7:50:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS |
| Chloride | 140 | 60 | | mg/Kg | 20 | 11/26/2019 1:03:17 PM | 49033 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | ND | 9.6 | | mg/Kg | 1 | 11/26/2019 11:51:41 AM | 49028 |
| Motor Oil Range Organics (MRO) | ND | 48 | | mg/Kg | 1 | 11/26/2019 11:51:41 AM | 49028 |
| Surr: DNOP | 99.5 | 70-130 | | %Rec | 1 | 11/26/2019 11:51:41 AM | 49028 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 3.7 | | mg/Kg | 1 | 11/26/2019 12:02:17 PM | G64783 |
| Surr: BFB | 103 | 77.4-118 | | %Rec | 1 | 11/26/2019 12:02:17 PM | G64783 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.018 | | mg/Kg | 1 | 11/26/2019 12:02:17 PM | B64783 |
| Toluene | ND | 0.037 | | mg/Kg | 1 | 11/26/2019 12:02:17 PM | B64783 |
| Ethylbenzene | ND | 0.037 | | mg/Kg | 1 | 11/26/2019 12:02:17 PM | B64783 |
| Xylenes, Total | ND | 0.074 | | mg/Kg | 1 | 11/26/2019 12:02:17 PM | B64783 |
| Surr: 4-Bromofluorobenzene | 88.1 | 80-120 | | %Rec | 1 | 11/26/2019 12:02:17 PM | B64783 |

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

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

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Analytical Report

Lab Order 1911B71

Date Reported: 12/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-13

Project: Lateral 2C 116

Collection Date: 11/25/2019 12:55:00 PM

Lab ID: 1911B71-008

Matrix: SOIL

Received Date: 11/26/2019 7:50:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|--------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS |
| Chloride | 120 | 60 | | mg/Kg | 20 | 11/26/2019 1:15:38 PM | 49033 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | ND | 9.5 | | mg/Kg | 1 | 11/26/2019 12:00:54 PM | 49028 |
| Motor Oil Range Organics (MRO) | ND | 47 | | mg/Kg | 1 | 11/26/2019 12:00:54 PM | 49028 |
| Surr: DNOP | 109 | 70-130 | | %Rec | 1 | 11/26/2019 12:00:54 PM | 49028 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 4.1 | | mg/Kg | 1 | 11/26/2019 12:25:00 PM | G64783 |
| Surr: BFB | 105 | 77.4-118 | | %Rec | 1 | 11/26/2019 12:25:00 PM | G64783 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.020 | | mg/Kg | 1 | 11/26/2019 12:25:00 PM | B64783 |
| Toluene | ND | 0.041 | | mg/Kg | 1 | 11/26/2019 12:25:00 PM | B64783 |
| Ethylbenzene | ND | 0.041 | | mg/Kg | 1 | 11/26/2019 12:25:00 PM | B64783 |
| Xylenes, Total | ND | 0.082 | | mg/Kg | 1 | 11/26/2019 12:25:00 PM | B64783 |
| Surr: 4-Bromofluorobenzene | 89.2 | 80-120 | | %Rec | 1 | 11/26/2019 12:25:00 PM | B64783 |

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

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

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Analytical Report

Lab Order 1911B71

Date Reported: 12/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-14

Project: Lateral 2C 116

Collection Date: 11/25/2019 1:00:00 PM

Lab ID: 1911B71-009

Matrix: SOIL

Received Date: 11/26/2019 7:50:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|--------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS |
| Chloride | 100 | 60 | | mg/Kg | 20 | 11/26/2019 1:52:40 PM | 49033 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | ND | 9.6 | | mg/Kg | 1 | 11/26/2019 12:10:05 PM | 49028 |
| Motor Oil Range Organics (MRO) | ND | 48 | | mg/Kg | 1 | 11/26/2019 12:10:05 PM | 49028 |
| Surr: DNOP | 80.3 | 70-130 | | %Rec | 1 | 11/26/2019 12:10:05 PM | 49028 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 3.6 | | mg/Kg | 1 | 11/26/2019 12:47:55 PM | G64783 |
| Surr: BFB | 105 | 77.4-118 | | %Rec | 1 | 11/26/2019 12:47:55 PM | G64783 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.018 | | mg/Kg | 1 | 11/26/2019 12:47:55 PM | B64783 |
| Toluene | ND | 0.036 | | mg/Kg | 1 | 11/26/2019 12:47:55 PM | B64783 |
| Ethylbenzene | ND | 0.036 | | mg/Kg | 1 | 11/26/2019 12:47:55 PM | B64783 |
| Xylenes, Total | ND | 0.073 | | mg/Kg | 1 | 11/26/2019 12:47:55 PM | B64783 |
| Surr: 4-Bromofluorobenzene | 88.8 | 80-120 | | %Rec | 1 | 11/26/2019 12:47:55 PM | B64783 |

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

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

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Analytical Report

Lab Order 1911B71

Date Reported: 12/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-15

Project: Lateral 2C 116

Collection Date: 11/25/2019 1:05:00 PM

Lab ID: 1911B71-010

Matrix: SOIL

Received Date: 11/26/2019 7:50:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS |
| Chloride | 220 | 60 | | mg/Kg | 20 | 11/26/2019 2:05:01 PM | 49033 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 930 | 46 | | mg/Kg | 5 | 11/26/2019 12:36:09 PM | 49028 |
| Motor Oil Range Organics (MRO) | 280 | 230 | | mg/Kg | 5 | 11/26/2019 12:36:09 PM | 49028 |
| Surr: DNOP | 92.2 | 70-130 | | %Rec | 5 | 11/26/2019 12:36:09 PM | 49028 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | 150 | 21 | | mg/Kg | 5 | 11/26/2019 1:10:49 PM | G64783 |
| Surr: BFB | 378 | 77.4-118 | S | %Rec | 5 | 11/26/2019 1:10:49 PM | G64783 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.11 | | mg/Kg | 5 | 11/26/2019 1:10:49 PM | B64783 |
| Toluene | 0.76 | 0.21 | | mg/Kg | 5 | 11/26/2019 1:10:49 PM | B64783 |
| Ethylbenzene | 0.40 | 0.21 | | mg/Kg | 5 | 11/26/2019 1:10:49 PM | B64783 |
| Xylenes, Total | 3.0 | 0.43 | | mg/Kg | 5 | 11/26/2019 1:10:49 PM | B64783 |
| Surr: 4-Bromofluorobenzene | 100 | 80-120 | | %Rec | 5 | 11/26/2019 1:10:49 PM | B64783 |

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

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

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Analytical Report

Lab Order 1911B71

Date Reported: 12/2/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-16

Project: Lateral 2C 116

Collection Date: 11/25/2019 1:10:00 PM

Lab ID: 1911B71-011

Matrix: SOIL

Received Date: 11/26/2019 7:50:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|------------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: CJS |
| Chloride | 240 | 60 | | mg/Kg | 20 | 11/26/2019 2:17:22 PM | 49033 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 1100 | 46 | | mg/Kg | 5 | 11/26/2019 12:45:12 PM | 49028 |
| Motor Oil Range Organics (MRO) | 410 | 230 | | mg/Kg | 5 | 11/26/2019 12:45:12 PM | 49028 |
| Surr: DNOP | 194 | 70-130 | S | %Rec | 5 | 11/26/2019 12:45:12 PM | 49028 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | 510 | 21 | | mg/Kg | 5 | 11/26/2019 9:23:48 AM | 49012 |
| Surr: BFB | 502 | 77.4-118 | S | %Rec | 5 | 11/26/2019 9:23:48 AM | 49012 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | 0.42 | 0.10 | | mg/Kg | 5 | 11/26/2019 9:23:48 AM | 49012 |
| Toluene | 6.7 | 0.21 | | mg/Kg | 5 | 11/26/2019 9:23:48 AM | 49012 |
| Ethylbenzene | 3.0 | 0.21 | | mg/Kg | 5 | 11/26/2019 9:23:48 AM | 49012 |
| Xylenes, Total | 16 | 0.42 | | mg/Kg | 5 | 11/26/2019 9:23:48 AM | 49012 |
| Surr: 4-Bromofluorobenzene | 126 | 80-120 | S | %Rec | 5 | 11/26/2019 9:23:48 AM | 49012 |

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

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

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

WO#: 1911B71

02-Dec-19

Client: ENSOLUM
Project: Lateral 2C 116

| Sample ID: MB-49033 | SampType: mblk | TestCode: EPA Method 300.0: Anions | | | | | | | | |
|------------------------------|----------------------------------|---|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: PBS | Batch ID: 49033 | RunNo: 64785 | | | | | | | | |
| Prep Date: 11/26/2019 | Analysis Date: 11/26/2019 | SeqNo: 2221522 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | ND | 1.5 | | | | | | | | |

| Sample ID: LCS-49033 | SampType: lcs | TestCode: EPA Method 300.0: Anions | | | | | | | | |
|------------------------------|----------------------------------|---|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: LCSS | Batch ID: 49033 | RunNo: 64785 | | | | | | | | |
| Prep Date: 11/26/2019 | Analysis Date: 11/26/2019 | SeqNo: 2221523 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | 14 | 1.5 | 15.00 | 0 | 93.7 | 90 | 110 | | | |

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 12 of 17

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

WO#: 1911B71

02-Dec-19

Client: ENSOLUM
Project: Lateral 2C 116

| Sample ID: LCS-49028 | SampType: LCS | | TestCode: EPA Method 8015M/D: Diesel Range Organics | | | | | | | |
|------------------------------|----------------------------------|-----|--|-------------|---------------------|----------|-----------|------|----------|------|
| Client ID: LCSS | Batch ID: 49028 | | RunNo: 64772 | | | | | | | |
| Prep Date: 11/26/2019 | Analysis Date: 11/26/2019 | | SeqNo: 2220198 | | Units: mg/Kg | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 53 | 10 | 50.00 | 0 | 106 | 63.9 | 124 | | | |
| Surr: DNOP | 4.8 | | 5.000 | | 95.6 | 70 | 130 | | | |

| Sample ID: MB-49028 | SampType: MBLK | | TestCode: EPA Method 8015M/D: Diesel Range Organics | | | | | | | |
|--------------------------------|----------------------------------|-----|--|-------------|---------------------|----------|-----------|------|----------|------|
| Client ID: PBS | Batch ID: 49028 | | RunNo: 64772 | | | | | | | |
| Prep Date: 11/26/2019 | Analysis Date: 11/26/2019 | | SeqNo: 2220199 | | Units: mg/Kg | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | ND | 10 | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 50 | | | | | | | | |
| Surr: DNOP | 8.3 | | 10.00 | | 82.9 | 70 | 130 | | | |

| Sample ID: 1911B71-001AMS | SampType: MS | | TestCode: EPA Method 8015M/D: Diesel Range Organics | | | | | | | |
|----------------------------------|----------------------------------|-----|--|-------------|---------------------|----------|-----------|------|----------|------|
| Client ID: S-6 | Batch ID: 49028 | | RunNo: 64772 | | | | | | | |
| Prep Date: 11/26/2019 | Analysis Date: 11/26/2019 | | SeqNo: 2220302 | | Units: mg/Kg | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 810 | 18 | 46.21 | 748.3 | 137 | 57 | 142 | | | |
| Surr: DNOP | 8.3 | | 4.621 | | 179 | 70 | 130 | | | S |

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 13 of 17

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

WO#: 1911B71

02-Dec-19

Client: ENSOLUM
Project: Lateral 2C 116

| Sample ID: RB | SampType: MBLK | TestCode: EPA Method 8015D: Gasoline Range | | | | | | | | |
|-------------------------------|----------------------------------|---|-----------|-------------|------|----------|-----------|------|----------|------|
| Client ID: PBS | Batch ID: G64783 | RunNo: 64783 | | | | | | | | |
| Prep Date: | Analysis Date: 11/26/2019 | SeqNo: 2220677 Units: mg/Kg | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND | 5.0 | | | | | | | | |
| Surr: BFB | 1100 | | 1000 | | 105 | 77.4 | 118 | | | |

| Sample ID: 2.5UG GRO LCSB | SampType: LCS | TestCode: EPA Method 8015D: Gasoline Range | | | | | | | | |
|----------------------------------|----------------------------------|---|-----------|-------------|------|----------|-----------|------|----------|------|
| Client ID: LCSS | Batch ID: G64783 | RunNo: 64783 | | | | | | | | |
| Prep Date: | Analysis Date: 11/26/2019 | SeqNo: 2220678 Units: mg/Kg | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 27 | 5.0 | 25.00 | 0 | 108 | 80 | 120 | | | |
| Surr: BFB | 1300 | | 1000 | | 128 | 77.4 | 118 | | | S |

| Sample ID: 1911B71-001AMS | SampType: MS | TestCode: EPA Method 8015D: Gasoline Range | | | | | | | | |
|----------------------------------|----------------------------------|---|-----------|-------------|------|----------|-----------|------|----------|------|
| Client ID: S-6 | Batch ID: G64783 | RunNo: 64783 | | | | | | | | |
| Prep Date: | Analysis Date: 11/27/2019 | SeqNo: 2220679 Units: mg/Kg | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 260 | 21 | 102.6 | 166.6 | 93.4 | 69.1 | 142 | | | |
| Surr: BFB | 14000 | | 4105 | | 347 | 77.4 | 118 | | | S |

| Sample ID: 1911B71-001AMSD | SampType: MSD | TestCode: EPA Method 8015D: Gasoline Range | | | | | | | | |
|-----------------------------------|----------------------------------|---|-----------|-------------|------|----------|-----------|------|----------|------|
| Client ID: S-6 | Batch ID: G64783 | RunNo: 64783 | | | | | | | | |
| Prep Date: | Analysis Date: 11/27/2019 | SeqNo: 2220680 Units: mg/Kg | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 260 | 21 | 102.6 | 166.6 | 88.0 | 69.1 | 142 | 2.12 | 20 | |
| Surr: BFB | 14000 | | 4105 | | 333 | 77.4 | 118 | 0 | 0 | S |

| Sample ID: MB-49012 | SampType: MBLK | TestCode: EPA Method 8015D: Gasoline Range | | | | | | | | |
|-------------------------------|----------------------------------|---|-----------|-------------|------|----------|-----------|------|----------|------|
| Client ID: PBS | Batch ID: 49012 | RunNo: 64782 | | | | | | | | |
| Prep Date: 11/25/2019 | Analysis Date: 11/26/2019 | SeqNo: 2220741 Units: mg/Kg | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND | 5.0 | | | | | | | | |
| Surr: BFB | 1100 | | 1000 | | 107 | 77.4 | 118 | | | |

| Sample ID: LCS-49012 | SampType: LCS | TestCode: EPA Method 8015D: Gasoline Range | | | | | | | | |
|------------------------------|----------------------------------|---|-----------|-------------|------|----------|-----------|------|----------|------|
| Client ID: LCSS | Batch ID: 49012 | RunNo: 64782 | | | | | | | | |
| Prep Date: 11/25/2019 | Analysis Date: 11/26/2019 | SeqNo: 2220742 Units: mg/Kg | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1911B71
02-Dec-19

Client: ENSOLUM
Project: Lateral 2C 116

| | | | | | | | | | | |
|-------------------------------|---------------------------|--|--------------|-------------|------|----------|-----------|------|----------|------|
| Sample ID: LCS-49012 | SampType: LCS | TestCode: EPA Method 8015D: Gasoline Range | | | | | | | | |
| Client ID: LCSS | Batch ID: 49012 | RunNo: 64782 | | | | | | | | |
| Prep Date: 11/25/2019 | Analysis Date: 11/26/2019 | SeqNo: 2220742 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 27 | 5.0 | 25.00 | 0 | 106 | 80 | 120 | | | |
| Surr: BFB | 1300 | | 1000 | | 126 | 77.4 | 118 | | | S |

Qualifiers:

- *

Value exceeds Maximum Contaminant Level.
- D

Sample Diluted Due to Matrix
- H

Holding times for preparation or analysis exceeded
- ND

Not Detected at the Reporting Limit
- PQL

Practical Quantitative Limit
- S

% Recovery outside of range due to dilution or matrix
- B

Analyte detected in the associated Method Blank
- E

Value above quantitation range
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

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

WO#: 1911B71

02-Dec-19

Client: ENSOLUM
Project: Lateral 2C 116

| Sample ID: RB | SampType: MBLK | TestCode: EPA Method 8021B: Volatiles | | | | | | | | |
|----------------------------|----------------------------------|--|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: PBS | Batch ID: B64783 | RunNo: 64783 | | | | | | | | |
| Prep Date: | Analysis Date: 11/26/2019 | SeqNo: 2220709 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 0.025 | | | | | | | | |
| Toluene | ND | 0.050 | | | | | | | | |
| Ethylbenzene | ND | 0.050 | | | | | | | | |
| Xylenes, Total | ND | 0.10 | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 0.92 | | 1.000 | | 92.5 | 80 | 120 | | | |

| Sample ID: 100NG BTEX LCS | SampType: LCS | TestCode: EPA Method 8021B: Volatiles | | | | | | | | |
|----------------------------------|----------------------------------|--|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: LCSS | Batch ID: B64783 | RunNo: 64783 | | | | | | | | |
| Prep Date: | Analysis Date: 11/26/2019 | SeqNo: 2220710 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 0.91 | 0.025 | 1.000 | 0 | 91.0 | 80 | 120 | | | |
| Toluene | 0.86 | 0.050 | 1.000 | 0 | 85.8 | 80 | 120 | | | |
| Ethylbenzene | 0.86 | 0.050 | 1.000 | 0 | 85.7 | 80 | 120 | | | |
| Xylenes, Total | 2.6 | 0.10 | 3.000 | 0 | 86.2 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 1.0 | | 1.000 | | 101 | 80 | 120 | | | |

| Sample ID: 1911B71-002AMS | SampType: MS | TestCode: EPA Method 8021B: Volatiles | | | | | | | | |
|----------------------------------|----------------------------------|--|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: S-7 | Batch ID: B64783 | RunNo: 64783 | | | | | | | | |
| Prep Date: | Analysis Date: 11/27/2019 | SeqNo: 2220711 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 3.4 | 0.089 | 3.569 | 0.03701 | 93.4 | 76 | 123 | | | |
| Toluene | 3.2 | 0.18 | 3.569 | 0.03087 | 89.0 | 80.3 | 127 | | | |
| Ethylbenzene | 3.1 | 0.18 | 3.569 | 0.04029 | 85.9 | 80.2 | 131 | | | |
| Xylenes, Total | 9.2 | 0.36 | 10.71 | 0.1119 | 84.6 | 78 | 133 | | | |
| Surr: 4-Bromofluorobenzene | 3.4 | | 3.569 | | 95.1 | 80 | 120 | | | |

| Sample ID: 1911B71-002AMSD | SampType: MSD | TestCode: EPA Method 8021B: Volatiles | | | | | | | | |
|-----------------------------------|----------------------------------|--|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: S-7 | Batch ID: B64783 | RunNo: 64783 | | | | | | | | |
| Prep Date: | Analysis Date: 11/27/2019 | SeqNo: 2220712 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 3.3 | 0.089 | 3.569 | 0.03701 | 91.3 | 76 | 123 | 2.20 | 20 | |
| Toluene | 3.1 | 0.18 | 3.569 | 0.03087 | 85.8 | 80.3 | 127 | 3.59 | 20 | |
| Ethylbenzene | 3.1 | 0.18 | 3.569 | 0.04029 | 84.9 | 80.2 | 131 | 1.17 | 20 | |
| Xylenes, Total | 9.0 | 0.36 | 10.71 | 0.1119 | 82.9 | 78 | 133 | 1.95 | 20 | |
| Surr: 4-Bromofluorobenzene | 3.3 | | 3.569 | | 91.5 | 80 | 120 | 0 | 0 | |

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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

WO#: 1911B71

02-Dec-19

Client: ENSOLUM
Project: Lateral 2C 116

| Sample ID: MB-49012 | SampType: MBLK | TestCode: EPA Method 8021B: Volatiles | | | | | | | | |
|------------------------------|----------------------------------|--|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: PBS | Batch ID: 49012 | RunNo: 64782 | | | | | | | | |
| Prep Date: 11/25/2019 | Analysis Date: 11/26/2019 | SeqNo: 2220768 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 0.025 | | | | | | | | |
| Toluene | ND | 0.050 | | | | | | | | |
| Ethylbenzene | ND | 0.050 | | | | | | | | |
| Xylenes, Total | ND | 0.10 | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 1.0 | | 1.000 | | 100 | 80 | 120 | | | |

| Sample ID: LCS-49012 | SampType: LCS | TestCode: EPA Method 8021B: Volatiles | | | | | | | | |
|------------------------------|----------------------------------|--|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: LCSS | Batch ID: 49012 | RunNo: 64782 | | | | | | | | |
| Prep Date: 11/25/2019 | Analysis Date: 11/26/2019 | SeqNo: 2220769 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 0.95 | 0.025 | 1.000 | 0 | 94.9 | 80 | 120 | | | |
| Toluene | 0.96 | 0.050 | 1.000 | 0 | 96.2 | 80 | 120 | | | |
| Ethylbenzene | 0.97 | 0.050 | 1.000 | 0 | 96.6 | 80 | 120 | | | |
| Xylenes, Total | 2.9 | 0.10 | 3.000 | 0 | 96.5 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 1.1 | | 1.000 | | 108 | 80 | 120 | | | |

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



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

Sample Log-In Check List

Client Name: ENSOLUM AZTEC

Work Order Number: 1911B71

RcptNo: 1

Received By: Anne Thorne

11/26/2019 7:50:00 AM

Completed By: Anne Thorne

11/26/2019 8:02:14 AM

Reviewed By: ENM

11/26/19

Chain of Custody

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

Log In

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

of preserved
bottles checked
for pH:

(≤ 2 or > 12 unless noted)

Adjusted? _____

Checked by: 11/26/19

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:

CUSTODY SEALS INTACT ON SOIL JARS/at 11/26/19

17. Cooler Information

| Cooler No | Temp $^{\circ}\text{C}$ | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|-------------------------|-----------|-------------|---------|-----------|-----------|
| 1 | 1.0 | Good | Yes | | | |

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 6000 S. Rio Grande Suite A
Albuquerque, NM 87110

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 10/5/10

Project Name:
Lateral 2C-116

Project #: See notes

Project Manager: VS Summers

Sampler: R Deechilly

On Ice: ☒ Yes ☐ No

of Coolers: 1

Cooler Temp (including CF): 10-0.00C = 1.0

| Date | Time | Matrix | Sample Name | Container Type and # | Preservative Type | HEAL No. |
|----------|------|--------|-------------|----------------------|-------------------|----------|
| 11/25/19 | 1220 | S | S-6 | 1 x 4oz Jar | COOL | 201 |
| 11/25/19 | 1225 | S | S-7 | 1 x 4oz Jar | COOL | 202 |
| 11/25/19 | 1230 | S | S-8 | 1 x 4oz Jar | COOL | 203 |
| 11/25/19 | 1235 | S | S-9 | 1 x 4oz Jar | COOL | 204 |
| 11/25/19 | 1240 | S | S-10 | 1 x 4oz Jar | COOL | 205 |
| 11/25/19 | 1245 | S | S-11 | 1 x 4oz Jar | COOL | 206 |
| 11/25/19 | 1250 | S | S-12 | 1 x 4oz Jar | COOL | 207 |
| 11/25/19 | 1255 | S | S-13 | 1 x 4oz Jar | COOL | 208 |
| 11/25/19 | 1300 | S | S-14 | 1 x 4oz Jar | COOL | 209 |
| 11/25/19 | 1305 | S | S-15 | 1 x 4oz Jar | COOL | 210 |
| 11/25/19 | 1310 | S | S-16 | 1 x 4oz Jar | COOL | 211 |

Relinquished by: Deechilly Date: 11/25/19 Time: 1558

Relinquished by: Justin Weaver Date: 11/25/19 Time: 1806

Received by: Chris Woot Date: 11/25/19 Time: 1558

Received by: Chris Woot Date: 11/26/19 Time: 0750



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

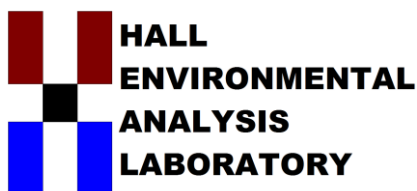
4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

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

Remarks: PM-TOM Long (EPR001)
Pay Key - RB 21200
NON AFE - N44342



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

December 05, 2019

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX

RE: Lateral 2C 116

OrderNo.: 1912108

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 7 sample(s) on 12/4/2019 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1912108

Date Reported: 12/5/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-17

Project: Lateral 2C 116

Collection Date: 12/3/2019 2:00:00 PM

Lab ID: 1912108-001

Matrix: MEOH (SOIL)

Received Date: 12/4/2019 8:15:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|-----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | 88 | 60 | | mg/Kg | 20 | 12/4/2019 10:14:22 AM | 49141 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 71 | 9.8 | | mg/Kg | 1 | 12/4/2019 11:38:24 AM | 49137 |
| Motor Oil Range Organics (MRO) | ND | 49 | | mg/Kg | 1 | 12/4/2019 11:38:24 AM | 49137 |
| Surr: DNOP | 95.8 | 70-130 | | %Rec | 1 | 12/4/2019 11:38:24 AM | 49137 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 18 | | mg/Kg | 5 | 12/4/2019 9:28:03 AM | G64924 |
| Surr: BFB | 94.3 | 77.4-118 | | %Rec | 5 | 12/4/2019 9:28:03 AM | G64924 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.088 | | mg/Kg | 5 | 12/4/2019 9:28:03 AM | B64924 |
| Toluene | ND | 0.18 | | mg/Kg | 5 | 12/4/2019 9:28:03 AM | B64924 |
| Ethylbenzene | ND | 0.18 | | mg/Kg | 5 | 12/4/2019 9:28:03 AM | B64924 |
| Xylenes, Total | ND | 0.35 | | mg/Kg | 5 | 12/4/2019 9:28:03 AM | B64924 |
| Surr: 4-Bromofluorobenzene | 105 | 80-120 | | %Rec | 5 | 12/4/2019 9:28:03 AM | B64924 |

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

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

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Analytical Report

Lab Order 1912108

Date Reported: 12/5/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-18

Project: Lateral 2C 116

Collection Date: 12/3/2019 2:05:00 PM

Lab ID: 1912108-002

Matrix: MEOH (SOIL)

Received Date: 12/4/2019 8:15:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|-----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | 100 | 59 | | mg/Kg | 20 | 12/4/2019 10:26:44 AM | 49141 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 73 | 9.5 | | mg/Kg | 1 | 12/4/2019 1:07:49 PM | 49137 |
| Motor Oil Range Organics (MRO) | ND | 47 | | mg/Kg | 1 | 12/4/2019 1:07:49 PM | 49137 |
| Surr: DNOP | 120 | 70-130 | | %Rec | 1 | 12/4/2019 1:07:49 PM | 49137 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 20 | | mg/Kg | 5 | 12/4/2019 9:50:59 AM | G64924 |
| Surr: BFB | 89.3 | 77.4-118 | | %Rec | 5 | 12/4/2019 9:50:59 AM | G64924 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.10 | | mg/Kg | 5 | 12/4/2019 9:50:59 AM | B64924 |
| Toluene | ND | 0.20 | | mg/Kg | 5 | 12/4/2019 9:50:59 AM | B64924 |
| Ethylbenzene | ND | 0.20 | | mg/Kg | 5 | 12/4/2019 9:50:59 AM | B64924 |
| Xylenes, Total | ND | 0.41 | | mg/Kg | 5 | 12/4/2019 9:50:59 AM | B64924 |
| Surr: 4-Bromofluorobenzene | 103 | 80-120 | | %Rec | 5 | 12/4/2019 9:50:59 AM | B64924 |

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

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

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Analytical Report

Lab Order 1912108

Date Reported: 12/5/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-19

Project: Lateral 2C 116

Collection Date: 12/3/2019 2:10:00 PM

Lab ID: 1912108-003

Matrix: MEOH (SOIL)

Received Date: 12/4/2019 8:15:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|-----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | 200 | 60 | | mg/Kg | 20 | 12/4/2019 10:39:06 AM | 49141 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 15 | 9.7 | | mg/Kg | 1 | 12/4/2019 1:16:46 PM | 49137 |
| Motor Oil Range Organics (MRO) | ND | 48 | | mg/Kg | 1 | 12/4/2019 1:16:46 PM | 49137 |
| Surr: DNOP | 95.6 | 70-130 | | %Rec | 1 | 12/4/2019 1:16:46 PM | 49137 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 21 | | mg/Kg | 5 | 12/4/2019 10:13:51 AM | G64924 |
| Surr: BFB | 82.9 | 77.4-118 | | %Rec | 5 | 12/4/2019 10:13:51 AM | G64924 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.10 | | mg/Kg | 5 | 12/4/2019 10:13:51 AM | B64924 |
| Toluene | ND | 0.21 | | mg/Kg | 5 | 12/4/2019 10:13:51 AM | B64924 |
| Ethylbenzene | ND | 0.21 | | mg/Kg | 5 | 12/4/2019 10:13:51 AM | B64924 |
| Xylenes, Total | ND | 0.42 | | mg/Kg | 5 | 12/4/2019 10:13:51 AM | B64924 |
| Surr: 4-Bromofluorobenzene | 101 | 80-120 | | %Rec | 5 | 12/4/2019 10:13:51 AM | B64924 |

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

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

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Analytical Report

Lab Order 1912108

Date Reported: 12/5/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-20

Project: Lateral 2C 116

Collection Date: 12/3/2019 2:15:00 PM

Lab ID: 1912108-004

Matrix: MEOH (SOIL)

Received Date: 12/4/2019 8:15:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|-----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | ND | 60 | | mg/Kg | 20 | 12/4/2019 10:51:27 AM | 49141 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 110 | 9.6 | | mg/Kg | 1 | 12/4/2019 1:48:36 PM | 49137 |
| Motor Oil Range Organics (MRO) | 55 | 48 | | mg/Kg | 1 | 12/4/2019 1:48:36 PM | 49137 |
| Surr: DNOP | 98.7 | 70-130 | | %Rec | 1 | 12/4/2019 1:48:36 PM | 49137 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 22 | | mg/Kg | 5 | 12/4/2019 10:36:47 AM | G64924 |
| Surr: BFB | 93.8 | 77.4-118 | | %Rec | 5 | 12/4/2019 10:36:47 AM | G64924 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.11 | | mg/Kg | 5 | 12/4/2019 10:36:47 AM | B64924 |
| Toluene | ND | 0.22 | | mg/Kg | 5 | 12/4/2019 10:36:47 AM | B64924 |
| Ethylbenzene | ND | 0.22 | | mg/Kg | 5 | 12/4/2019 10:36:47 AM | B64924 |
| Xylenes, Total | ND | 0.43 | | mg/Kg | 5 | 12/4/2019 10:36:47 AM | B64924 |
| Surr: 4-Bromofluorobenzene | 103 | 80-120 | | %Rec | 5 | 12/4/2019 10:36:47 AM | B64924 |

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

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

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Analytical Report

Lab Order 1912108

Date Reported: 12/5/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-21

Project: Lateral 2C 116

Collection Date: 12/3/2019 4:00:00 PM

Lab ID: 1912108-005

Matrix: MEOH (SOIL)

Received Date: 12/4/2019 8:15:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|-----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | 180 | 60 | | mg/Kg | 20 | 12/4/2019 11:03:47 AM | 49141 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 180 | 9.4 | | mg/Kg | 1 | 12/4/2019 1:57:32 PM | 49137 |
| Motor Oil Range Organics (MRO) | 56 | 47 | | mg/Kg | 1 | 12/4/2019 1:57:32 PM | 49137 |
| Surr: DNOP | 110 | 70-130 | | %Rec | 1 | 12/4/2019 1:57:32 PM | 49137 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | 300 | 21 | | mg/Kg | 5 | 12/4/2019 10:59:47 AM | G64924 |
| Surr: BFB | 303 | 77.4-118 | S | %Rec | 5 | 12/4/2019 10:59:47 AM | G64924 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | 1.0 | 0.10 | | mg/Kg | 5 | 12/4/2019 10:59:47 AM | B64924 |
| Toluene | 4.9 | 0.21 | | mg/Kg | 5 | 12/4/2019 10:59:47 AM | B64924 |
| Ethylbenzene | 1.3 | 0.21 | | mg/Kg | 5 | 12/4/2019 10:59:47 AM | B64924 |
| Xylenes, Total | 7.0 | 0.42 | | mg/Kg | 5 | 12/4/2019 10:59:47 AM | B64924 |
| Surr: 4-Bromofluorobenzene | 113 | 80-120 | | %Rec | 5 | 12/4/2019 10:59:47 AM | B64924 |

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

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

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Analytical Report

Lab Order 1912108

Date Reported: 12/5/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-22

Project: Lateral 2C 116

Collection Date: 12/3/2019 4:05:00 PM

Lab ID: 1912108-006

Matrix: MEOH (SOIL)

Received Date: 12/4/2019 8:15:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|-----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | 200 | 60 | | mg/Kg | 20 | 12/4/2019 11:16:09 AM | 49141 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | ND | 9.7 | | mg/Kg | 1 | 12/4/2019 2:06:36 PM | 49137 |
| Motor Oil Range Organics (MRO) | ND | 49 | | mg/Kg | 1 | 12/4/2019 2:06:36 PM | 49137 |
| Surr: DNOP | 90.5 | 70-130 | | %Rec | 1 | 12/4/2019 2:06:36 PM | 49137 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 20 | | mg/Kg | 5 | 12/4/2019 11:45:47 AM | G64924 |
| Surr: BFB | 83.8 | 77.4-118 | | %Rec | 5 | 12/4/2019 11:45:47 AM | G64924 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.10 | | mg/Kg | 5 | 12/4/2019 11:45:47 AM | B64924 |
| Toluene | ND | 0.20 | | mg/Kg | 5 | 12/4/2019 11:45:47 AM | B64924 |
| Ethylbenzene | ND | 0.20 | | mg/Kg | 5 | 12/4/2019 11:45:47 AM | B64924 |
| Xylenes, Total | ND | 0.41 | | mg/Kg | 5 | 12/4/2019 11:45:47 AM | B64924 |
| Surr: 4-Bromofluorobenzene | 103 | 80-120 | | %Rec | 5 | 12/4/2019 11:45:47 AM | B64924 |

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

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

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Analytical Report

Lab Order 1912108

Date Reported: 12/5/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-23

Project: Lateral 2C 116

Collection Date: 12/3/2019 4:10:00 PM

Lab ID: 1912108-007

Matrix: MEOH (SOIL)

Received Date: 12/4/2019 8:15:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed | Batch |
|--|--------|----------|------|-------|----|-----------------------|---------------------|
| EPA METHOD 300.0: ANIONS | | | | | | | Analyst: MRA |
| Chloride | 200 | 60 | | mg/Kg | 20 | 12/4/2019 11:28:30 AM | 49141 |
| EPA METHOD 8015M/D: DIESEL RANGE ORGANICS | | | | | | | Analyst: BRM |
| Diesel Range Organics (DRO) | 16 | 9.4 | | mg/Kg | 1 | 12/4/2019 2:15:40 PM | 49137 |
| Motor Oil Range Organics (MRO) | ND | 47 | | mg/Kg | 1 | 12/4/2019 2:15:40 PM | 49137 |
| Surr: DNOP | 88.6 | 70-130 | | %Rec | 1 | 12/4/2019 2:15:40 PM | 49137 |
| EPA METHOD 8015D: GASOLINE RANGE | | | | | | | Analyst: NSB |
| Gasoline Range Organics (GRO) | ND | 20 | | mg/Kg | 5 | 12/4/2019 12:08:54 PM | G64924 |
| Surr: BFB | 85.3 | 77.4-118 | | %Rec | 5 | 12/4/2019 12:08:54 PM | G64924 |
| EPA METHOD 8021B: VOLATILES | | | | | | | Analyst: NSB |
| Benzene | ND | 0.10 | | mg/Kg | 5 | 12/4/2019 12:08:54 PM | B64924 |
| Toluene | ND | 0.20 | | mg/Kg | 5 | 12/4/2019 12:08:54 PM | B64924 |
| Ethylbenzene | ND | 0.20 | | mg/Kg | 5 | 12/4/2019 12:08:54 PM | B64924 |
| Xylenes, Total | ND | 0.41 | | mg/Kg | 5 | 12/4/2019 12:08:54 PM | B64924 |
| Surr: 4-Bromofluorobenzene | 104 | 80-120 | | %Rec | 5 | 12/4/2019 12:08:54 PM | B64924 |

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

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

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

WO#: 1912108

05-Dec-19

Client: ENSOLUM
Project: Lateral 2C 116

| Sample ID: MB-49141 | SampType: mblk | TestCode: EPA Method 300.0: Anions | | | | | | | | |
|-----------------------------|---------------------------------|---|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: PBS | Batch ID: 49141 | RunNo: 64920 | | | | | | | | |
| Prep Date: 12/4/2019 | Analysis Date: 12/4/2019 | SeqNo: 2227342 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | ND | 1.5 | | | | | | | | |

| Sample ID: LCS-49141 | SampType: lcs | TestCode: EPA Method 300.0: Anions | | | | | | | | |
|-----------------------------|---------------------------------|---|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: LCSS | Batch ID: 49141 | RunNo: 64920 | | | | | | | | |
| Prep Date: 12/4/2019 | Analysis Date: 12/4/2019 | SeqNo: 2227343 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | 14 | 1.5 | 15.00 | 0 | 95.6 | 90 | 110 | | | |

| Sample ID: MB-49141 | SampType: mblk | TestCode: EPA Method 300.0: Anions | | | | | | | | |
|-----------------------------|---------------------------------|---|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: PBS | Batch ID: 49141 | RunNo: 64921 | | | | | | | | |
| Prep Date: 12/4/2019 | Analysis Date: 12/4/2019 | SeqNo: 2227377 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | ND | 1.5 | | | | | | | | |

| Sample ID: LCS-49141 | SampType: lcs | TestCode: EPA Method 300.0: Anions | | | | | | | | |
|-----------------------------|---------------------------------|---|---------------------|-------------|------|----------|-----------|------|----------|------|
| Client ID: LCSS | Batch ID: 49141 | RunNo: 64921 | | | | | | | | |
| Prep Date: 12/4/2019 | Analysis Date: 12/4/2019 | SeqNo: 2227379 | Units: mg/Kg | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Chloride | 14 | 1.5 | 15.00 | 0 | 95.9 | 90 | 110 | | | |

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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

WO#: 1912108

05-Dec-19

Client: ENSOLUM
Project: Lateral 2C 116

| Sample ID: LCS-49137 | SampType: LCS | | TestCode: EPA Method 8015M/D: Diesel Range Organics | | | | | | | |
|-----------------------------|---------------------------------|-----|--|-------------|---------------------|----------|-----------|------|----------|------|
| Client ID: LCSS | Batch ID: 49137 | | RunNo: 64915 | | | | | | | |
| Prep Date: 12/4/2019 | Analysis Date: 12/4/2019 | | SeqNo: 2226144 | | Units: mg/Kg | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 46 | 10 | 50.00 | 0 | 92.3 | 63.9 | 124 | | | |
| Surr: DNOP | 4.0 | | 5.000 | | 79.3 | 70 | 130 | | | |

| Sample ID: MB-49137 | SampType: MBLK | | TestCode: EPA Method 8015M/D: Diesel Range Organics | | | | | | | |
|--------------------------------|---------------------------------|-----|--|-------------|---------------------|----------|-----------|------|----------|------|
| Client ID: PBS | Batch ID: 49137 | | RunNo: 64915 | | | | | | | |
| Prep Date: 12/4/2019 | Analysis Date: 12/4/2019 | | SeqNo: 2226145 | | Units: mg/Kg | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | ND | 10 | | | | | | | | |
| Motor Oil Range Organics (MRO) | ND | 50 | | | | | | | | |
| Surr: DNOP | 8.2 | | 10.00 | | 81.6 | 70 | 130 | | | |

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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

WO#: 1912108

05-Dec-19

Client: ENSOLUM
Project: Lateral 2C 116

| Sample ID: rb | SampType: MBLK | | | | TestCode: EPA Method 8015D: Gasoline Range | | | | | |
|-------------------------------|---------------------------------|-----|-----------|-------------|---|----------|---------------------|------|----------|------|
| Client ID: PBS | Batch ID: G64924 | | | | RunNo: 64924 | | | | | |
| Prep Date: | Analysis Date: 12/4/2019 | | | | SeqNo: 2227062 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND | 5.0 | | | | | | | | |
| Surr: BFB | 840 | | 1000 | | 83.6 | 77.4 | 118 | | | |

| Sample ID: 2.5ug gro lcs | SampType: LCS | | | | TestCode: EPA Method 8015D: Gasoline Range | | | | | |
|---------------------------------|---------------------------------|-----|-----------|-------------|---|----------|---------------------|------|----------|------|
| Client ID: LCSS | Batch ID: G64924 | | | | RunNo: 64924 | | | | | |
| Prep Date: | Analysis Date: 12/4/2019 | | | | SeqNo: 2227063 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 25 | 5.0 | 25.00 | 0 | 101 | 80 | 120 | | | |
| Surr: BFB | 1000 | | 1000 | | 101 | 77.4 | 118 | | | |

| Sample ID: 1912108-001ams | SampType: MS | | | | TestCode: EPA Method 8015D: Gasoline Range | | | | | |
|----------------------------------|---------------------------------|-----|-----------|-------------|---|----------|---------------------|------|----------|------|
| Client ID: S-17 | Batch ID: G64924 | | | | RunNo: 64924 | | | | | |
| Prep Date: | Analysis Date: 12/4/2019 | | | | SeqNo: 2227064 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 87 | 18 | 88.09 | 0 | 98.6 | 69.1 | 142 | | | |
| Surr: BFB | 3600 | | 3524 | | 102 | 77.4 | 118 | | | |

| Sample ID: 1912108-001amsd | SampType: MSD | | | | TestCode: EPA Method 8015D: Gasoline Range | | | | | |
|-----------------------------------|---------------------------------|-----|-----------|-------------|---|----------|---------------------|------|----------|------|
| Client ID: S-17 | Batch ID: G64924 | | | | RunNo: 64924 | | | | | |
| Prep Date: | Analysis Date: 12/4/2019 | | | | SeqNo: 2227065 | | Units: mg/Kg | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 82 | 18 | 88.09 | 0 | 93.4 | 69.1 | 142 | 5.46 | 20 | |
| Surr: BFB | 3400 | | 3524 | | 96.6 | 77.4 | 118 | 0 | 0 | |

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

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

WO#: 1912108

05-Dec-19

Client: ENSOLUM
Project: Lateral 2C 116

| Sample ID: rb | SampType: MBLK | TestCode: EPA Method 8021B: Volatiles | | | | | | | | |
|----------------------------|---------------------------------|--|-----------|-------------|------|----------|-----------|------|----------|------|
| Client ID: PBS | Batch ID: B64924 | RunNo: 64924 | | | | | | | | |
| Prep Date: | Analysis Date: 12/4/2019 | SeqNo: 2227068 Units: mg/Kg | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | ND | 0.025 | | | | | | | | |
| Toluene | ND | 0.050 | | | | | | | | |
| Ethylbenzene | ND | 0.050 | | | | | | | | |
| Xylenes, Total | ND | 0.10 | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 1.0 | | 1.000 | | 101 | 80 | 120 | | | |

| Sample ID: 100NG BTEX LCS | SampType: LCS | TestCode: EPA Method 8021B: Volatiles | | | | | | | | |
|----------------------------------|---------------------------------|--|-----------|-------------|------|----------|-----------|------|----------|------|
| Client ID: LCSS | Batch ID: B64924 | RunNo: 64924 | | | | | | | | |
| Prep Date: | Analysis Date: 12/4/2019 | SeqNo: 2227069 Units: mg/Kg | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 0.96 | 0.025 | 1.000 | 0 | 96.5 | 80 | 120 | | | |
| Toluene | 0.96 | 0.050 | 1.000 | 0 | 96.0 | 80 | 120 | | | |
| Ethylbenzene | 0.96 | 0.050 | 1.000 | 0 | 95.5 | 80 | 120 | | | |
| Xylenes, Total | 2.9 | 0.10 | 3.000 | 0 | 97.3 | 80 | 120 | | | |
| Surr: 4-Bromofluorobenzene | 1.0 | | 1.000 | | 105 | 80 | 120 | | | |

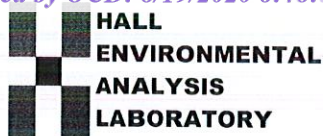
| Sample ID: 1912108-002ams | SampType: MS | TestCode: EPA Method 8021B: Volatiles | | | | | | | | |
|----------------------------------|---------------------------------|--|-----------|-------------|------|----------|-----------|------|----------|------|
| Client ID: S-18 | Batch ID: B64924 | RunNo: 64924 | | | | | | | | |
| Prep Date: | Analysis Date: 12/4/2019 | SeqNo: 2227070 Units: mg/Kg | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 4.0 | 0.10 | 4.095 | 0.03006 | 97.4 | 76 | 123 | | | |
| Toluene | 4.0 | 0.20 | 4.095 | 0.04808 | 97.4 | 80.3 | 127 | | | |
| Ethylbenzene | 4.0 | 0.20 | 4.095 | 0.04386 | 97.6 | 80.2 | 131 | | | |
| Xylenes, Total | 12 | 0.41 | 12.28 | 0.1475 | 98.2 | 78 | 133 | | | |
| Surr: 4-Bromofluorobenzene | 4.4 | | 4.095 | | 107 | 80 | 120 | | | |

| Sample ID: 1912108-002amsd | SampType: MSD | TestCode: EPA Method 8021B: Volatiles | | | | | | | | |
|-----------------------------------|---------------------------------|--|-----------|-------------|------|----------|-----------|------|----------|------|
| Client ID: S-18 | Batch ID: B64924 | RunNo: 64924 | | | | | | | | |
| Prep Date: | Analysis Date: 12/4/2019 | SeqNo: 2227071 Units: mg/Kg | | | | | | | | |
| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene | 3.9 | 0.10 | 4.095 | 0.03006 | 94.3 | 76 | 123 | 3.19 | 20 | |
| Toluene | 3.9 | 0.20 | 4.095 | 0.04808 | 94.0 | 80.3 | 127 | 3.48 | 20 | |
| Ethylbenzene | 3.9 | 0.20 | 4.095 | 0.04386 | 94.6 | 80.2 | 131 | 3.12 | 20 | |
| Xylenes, Total | 12 | 0.41 | 12.28 | 0.1475 | 95.2 | 78 | 133 | 3.16 | 20 | |
| Surr: 4-Bromofluorobenzene | 4.3 | | 4.095 | | 104 | 80 | 120 | 0 | 0 | |

Qualifiers:

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

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



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

Sample Log-In Check List

Client Name: ENSOLUM AZTEC

Work Order Number: 1912108

RcptNo: 1

Received By: Juan Rojas 12/4/2019 8:15:00 AM

Completed By: Erin Melendrez 12/4/2019 8:34:01 AM

Reviewed By: DM 12/4/19

Chain of Custody

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

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: ENM 12/4/19

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 $^{\circ}\text{C}$ | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|-------------------------|-----------|-------------|---------|-----------|-----------|
| 1 | 4.1 | Good | Yes | | | |
| 2 | 1.4 | Good | Yes | | | |



APPENDIX G

Regulatory Correspondence

From: [Long, Thomas](#)
To: [EMNRD Smith Cory](#); kwchristesen@blm.gov
Cc: [Stone, Brian](#)
Subject: Fwd: Lateral 2C-116 - UL M Section 12 T24N R7W; 36.323769, -107.532816
Date: Friday, November 22, 2019 1:18:35 PM

Cory/Kenneth,

This email is to notify you that Enterprise will be collecting soil samples for laboratory analysis at the Lateral 2C-116 excavation on Monday, November 25, 2019 at 10:30 am. If you have any questions, please call or email.

Tom Long

Begin forwarded message:

From: "Long, Thomas" <tjlong@eprod.com>
Date: November 21, 2019 at 8:36:00 AM MST
To: "Smith, Cory, EMNRD (Cory.Smith@state.nm.us)"
<Cory.Smith@state.nm.us>, "kwchristesen@blm.gov" <kwchristesen@blm.gov>
Cc: "Stone, Brian" <bmstone@eprod.com>
Subject: FW: Lateral 2C-116 - UL M Section 12 T24N R7W; 36.323769,
-107.532816

Cory/Kenneth,

This email is to notify you that Enterprise will be postponing sampling due to weather until further notice. If you have any questions, please call or email.

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



From: Long, Thomas

Sent: Tuesday, November 19, 2019 9:23 AM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>;
'kwchristesen@blm.gov' <kwchristesen@blm.gov>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: Lateral 2C-116 - UL M Section 12 T24N R7W; 36.323769, -107.532816

Cory/Kenneth,

This email is to notify you that Enterprise will be collecting soil samples for laboratory analysis on Thursday, November 21, 2019 at 2:00 pm. If you have any questions, please call or email.

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



From: Long, Thomas
Sent: Monday, November 18, 2019 3:22 PM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>;
'kwchristesen@blm.gov' <kwchristesen@blm.gov>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: Lateral 2C-116 - UL M Section 12 T24N R7W; 36.323769, -107.532816

Cory/Kenneth,

Enterprise has determined this release reportable due the volume of impacted subsurface soil. I will keep you informed as to when we will be collecting soil samples for laboratory analysis. If you have any questions, please call or email.

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



From: Long, Thomas
Sent: Tuesday, November 12, 2019 1:02 PM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>;
'kwchristesen@blm.gov' <kwchristesen@blm.gov>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: Lateral 2C-116 - UL M Section 12 T24N R7W; 36.323769, -107.532816

Cory/Kenneth,

This email is a courtesy notification that Enterprise had a release of natural gas and condensate on the Lateral 2C-116 pipeline today. Enterprise has not yet determined this release reportable per NMOCD regulation. No washes were affected. An area of approximately three feet in diameter and a flow path of approximately six feet was affected by the released fluids. The pipeline was isolated, depressurized, locked out and tagged out. The release site is located at UL M Section 12 T24N R7W; 36.323769, -107.532816. I will keep you informed as to the reporting status. If you have any questions, please call or email.

Sincerely,

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



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 9772

CONDITIONS

| | |
|---|---|
| Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210 | OGRID: 241602 |
| | Action Number: 9772 |
| | Action Type: [C-141] Release Corrective Action (C-141) |

CONDITIONS

| | | |
|------------|-----------|----------------|
| Created By | Condition | Condition Date |
| nvelez | None | 3/25/2022 |