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):*** **NRM2020633456**
Contact mailing address: **614 Reilly Ave, Farmington, NM 87401**	

Location of Release Source

Latitude **36.218566** Longitude **-107.299636** *(NAD 83 in decimal degrees to 5 decimal places)*

Site Name **Lateral 2C-120**	Site Type **Natural Gas Gathering Pipeline**
Date Release Discovered: **07/10/2020**	Serial Number *(if applicable)*: **N/A**

Unit Letter	Section	Township	Range	County
N	**18**	**23N**	**4W**	**Rio Arriba**

Surface Owner: ☐ State ☐ Federal ☒ Tribal ☐ Private (*Name*: **Jicarilla Apache Tribe**)

Nature and Volume of Release

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

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

Cause of Release On July 10, 2020, Enterprise had a release of natural gas and condensate on the Lateral 2C-120 pipeline. An area of approximately 30 feet long by 16 feet wide was misted by the released fluids. No washes were affected. The pipeline was isolated, depressurized, locked out and tagged out. Enterprise initiated remediation and determined the release reportable per New Mexico Oil Conservation Division regulation on July 15, 2020, due to the volume of impacted subsurface soil. The final excavation dimensions measured approximately 29 feet long by 26 feet wide by 18 feet deep. Approximately 221 cubic yards of hydrocarbon impacted soil was excavated and transported to a New Mexico Oil Conservation Division (NMOCD) approved land farm. A third party closure report is included with this "Final." C-141.

Form C-141
Page 2

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: Jon E. Fields Date: 3/4/2021

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: Nelson Velez Date: 04/26/2022

Printed Name: Nelson Velez Title: Environmental Specialist – Adv

ENSOLUM

CLOSURE REPORT

Property:

Lateral 2C-120
SW ¼, S18 T23N R4W
Rio Arriba County, New Mexico

December 14, 2020
Ensolum Project No. 05A1226113

Prepared for:

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

Prepared by:

Ranee Deechilly
Environmental Scientist

Kyle Summers, CPG
Sr. Project Manager

Table of Contents

LIST OF APPENDICES

ENSOLUM

CLOSURE REPORT

Lateral 2C-120
SW ¼, S18 T23N R4W
Rio Arriba County, New Mexico

Ensolum Project No. 05A1226113

1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Lateral 2C-120 (Site)
Incident ID	NRM2020633456
Location:	36.218566° North, 107.299636° West Southwest (SW) ¼ of Section 18, Township 23 North, Range 4 West Rio Arriba County, New Mexico
Property:	Jicarilla Apache Nation
Regulatory:	Jicarilla Apache Nation Environmental Protection Office (JAN-EPO) and New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On July 10, 2020, Enterprise personnel discovered a release of condensate coming from a one-inch valve on the Lateral 2C-120 pipeline drip riser. Enterprise subsequently isolated, locked the pipeline out of service, and replaced the valve on the drip riser. On July 16, 2020, Enterprise initiated activities to remediate petroleum hydrocarbon impact.

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

1.2 Project Objective

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

2.0 CLOSURE CRITERIA

The Site is under the jurisdiction of the Jicarilla Apache Nation and is subject to regulatory oversight by the JAN-EPO. Ensolum, LLC (Ensolum) deferred to the New Mexico Administrative Code (NMAC) 19.15.29 *Releases,* as guidance, which establishes investigation and abatement action requirements for oil and gas release sites that are subject to reporting and/or corrective action. 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 figures and documentation associated with the following bullets are provided in **Appendix B**.

- The OSE tracks the usage and assignment of water rights and water well installations and records this information in the Water Rights Reporting System (WRRS) database. Water wells and other

points of diversion (PODs) are each assigned POD numbers in the database (which is searchable and includes an interactive map). No PODs were identified within a one mile radius of the Site in the OSE WRRS database. In addition, no PODs were identified in adjacent Public Land Survey System (PLSS) sections. The nearest POD (SJ-1189) is located approximately 4.4 miles west of the Site and located at a lower elevation (6,634 feet) than the Site (6,867 feet). The records for this POD indicate a total well depth of 675 feet below grade surface (bgs) but no water was identified. The records for a POD (SJ-00809), located approximately five (5) miles southeast of the Site and at lower elevation (6,848) than the Site indicate depth to water at 145 feet bgs (**Figure A**, **Appendix B**).

- No cathodic wells were identified within one mile of the Site in the New Mexico EMNRD imaging database. In addition, no cathodic wells were identified in adjacent PLSS sections.

- The Site is not located within 300 feet of a New Mexico EMNRD OCD-defined continuously flowing watercourse or significant watercourse. The excavation is located approximately 1,038 feet northeast of an unnamed ephemeral wash that may convey water during significant rain events (**Figure B**, **Appendix B**).

- The Site is not located within 200 feet of a lakebed, sinkhole, or playa lake.

- The Site is not located within 300 feet of a permanent residence, school, hospital, institution, or church (**Figure C**, **Appendix B**).

- 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 (**Figure D**, **Appendix B**).

- No fresh water wells or springs were identified within 1,000 feet of the Site (**Figure D**, **Appendix B**).

- The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to New Mexico Statutes Annotated (NMSA) 1978, Section 3-27-3.

- Based on information identified in the U.S. Fish & Wildlife Service National Wetlands Inventory Wetlands Mapper, the Site is not located within 300 feet of a wetland (**Figure E**, **Appendix B**).

- Based on information identified in the New Mexico Mining and Minerals Division's Geographic Information System (GIS) Maps and Mine Data database, the Site is not located within an area overlying a subsurface mine (**Figure F**, **Appendix B**).

- The Site is not located within an unstable area.

- Based on information provided by the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) geospatial database, the location of the Site is unlikely to be located within a 100-year floodplain (**Figure G**, **Appendix B**).

- No vegetation species associated with an "active floodplain" were identified in the area of the unnamed ephemeral wash. Vegetation identified in the area of the ephemeral wash is predominately shrub (large sage brush) with less than 40 percent grass (see photo images provided in **Appendix B**).

On July 20, 2020, following the first sampling event, Enterprise requested the application of Tier II standards for closure consideration at the Site due to the apparent depth to groundwater. Based on available

information, Enterprise estimates the depth to water at the Site to be greater than 50 feet bgs. Regulatory correspondence is provided in **Appendix C**.

Applicable closure criteria for soils remaining in place at the Site include:

Closure Criteria for Soils Impacted by a Release (Tier II)		
Constituent	Method	Limit
Chloride	EPA 300.0 or SM4500 Cl B	10,000 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

3.0 SOIL REMEDIATION ACTIVITIES

On July 16, 2020, Enterprise initiated activities to remediate petroleum hydrocarbon impact, resulting from the release. During the remediation and corrective action activities, OFT Construction, Inc (OFT) provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

The final excavation measured approximately 29 feet long and 26 feet wide at the maximum extents. The maximum depth of the excavation measured approximately 18 feet bgs.

The lithology encountered during the completion of remediation activities consisted primarily of unconsolidated silty sand underlain by mudstone and sandstone.

Approximately 221 cubic yards 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 D**. The excavation was backfilled with a combination of JAN-EPO approved native fill and segregated, laboratory-confirmed, stockpiled soil and then contoured to surrounding grade.

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

4.0 SOIL SAMPLING PROGRAM

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

Ensolum's soil sampling program included the collection of 20 composite soil samples (S-1 through S-20) from the excavation for laboratory analysis. In addition, one (1) composite soil sample (SP-1) was collected from the stockpiled soil that was segregated for potential reuse, to confirm the material was suitable to remain on Site. The composite samples were comprised of five (5) aliquots each, and each sample represents an estimated 200 square foot (ft^2) sample area per guidelines outlined in 19.15.29.12 Section D NMAC. A clean shovel was utilized to obtain fresh aliquots from each accessible area of the excavation.

An excavator, operated by OFT, was utilized to obtain fresh aliquots from areas of the excavation that exceeded 10 feet bgs. Regulatory correspondence is provided in **Appendix C**.

First Sampling Event
On July 16, 2020, the first sampling event was performed at the Site. The New Mexico EMNRD OCD and JAN-EPO were notified of the sampling event although no representatives were present during sampling activities.

Composite soil sample S-1 (10') was collected from the floor of excavation near the release point. Composite soil samples S-2 (0'-10'), S-3 (0'-10'), S-4 (0'-10'), and S-5 (0'-15') were collected from sidewalls of the excavation near the release point. Composite soil samples S-6 (0'-15.5'), S-7 (0'-15.5'), S-8 (0'-15.5'), and S-10 (0'-15.5') were sidewall samples collected from the western portion of the excavation. Composite soil sample S-9 (15.5') was collected from the floor of the western portion of the excavation. In addition, composite soil samples S-11 (0.25') and S-12 (0.25') were collected from the scraped overspray area.

Subsequent analytical results for composite soil sample S-9 exhibited COC concentrations that exceeded the applicable New Mexico EMNRD OCD Tier II closure criteria. In response to the data exceedance, the excavation was deepened in the western portion of the excavation. The soil associated with composite sample S-9 was transported from the Site to the landfarm for disposal/remediation.

Second Sampling Event
On July 22, 2020, the second sampling event was performed at the site. The New Mexico EMNRD OCD and JAN-EPO were notified of the sampling event although no representatives were present during sampling activities.

Composite soil sample S-13 (17') was collected from the floor of the western portion of the excavation. Laboratory analytical results for this sample exhibited COC concentrations that exceeded the applicable New Mexico EMNRD OCD Tier II closure criteria. The excavation was deepened and extended to the southwest, and the soils associated with samples S-7 and S-13 were removed from the Site and transported to the landfarm for disposal/remediation.

Third Sampling Event
On July 24, 2020, the third sampling event was performed at the site. The New Mexico EMNRD OCD and JAN-EPO were notified of the sampling event although no representatives were present during sampling activities.

Composite soil sample S-14 (18') was collected from the floor of the western portion of the excavation. Composite soil samples S-15 (15.5'-18'), S-16 (15.5'-18'), S-17 (15.5'-18'), S-18 (0'-18'), S-19 (0'-18'), and S-20 (0'-18') were collected from the sidewalls of the western portion of the excavation.

The soil samples that were collected during these sampling events were placed in laboratory prepared glassware. The containers were labeled and sealed using the laboratory supplied labels and custody seals and were stored on ice in a cooler. The samples were relinquished to the courier for Hall Environmental Analysis Laboratory of Albuquerque, 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 #8021/8260; total petroleum hydrocarbon (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.

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

6.0 DATA EVALUATION

Ensolum compared the BTEX, TPH, and chloride laboratory analytical results or laboratory practical quantitation limits (PQLs) / reporting limits (RLs) associated with the composite soil samples (S-1 through S-6, S-8, S-10, S-11, S-12, S-14 through S-20, and SP-1) to the applicable New Mexico EMNRD OCD Tier II closure criteria. The soils associated with composite samples S-7, S-9, and S-13 were transported to Envirotech landfarm for disposal/remediation and are not included in the following discussion.

- The laboratory analytical results for the 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 New Mexico EMNRD OCD closure criteria of 10 milligrams per kilogram (mg/kg).

- The laboratory analytical results for the composite soil samples collected from soils remaining at the Site indicate total BTEX ranging from below the PQLs/RLs to 0.97 mg/kg (S-6), which are less than the New Mexico EMNRD OCD closure criteria of 50 mg/kg.

- The laboratory analytical results for the composite soil samples collected from soils remaining at the Site indicate combined TPH GRO/DRO concentrations ranging from below the laboratory PQLs/RLs to 601 mg/kg (S-6), which are less than the New Mexico EMNRD OCD closure criteria (Tier II) of 1,000 mg/kg.

- The laboratory analytical results for the composite soil samples collected from soils remaining at the Site indicate combined TPH GRO/DRO/MRO concentrations ranging from below the laboratory PQLs/RLs to 831 mg/kg (S-6), which are less than the New Mexico EMNRD OCD closure criteria (Tier II) of 2,500 mg/kg.

- The laboratory analytical results for composite soil samples collected from soils remaining at the Site indicate chloride concentrations ranging from below the laboratory PQLs/RLs to 170 mg/kg (S-3), which are less than the New Mexico EMNRD OCD closure criteria (Tier II) of 10,000 mg/kg for chlorides.

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

7.0 RECLAMATION AND REVEGETATION

The excavation was backfilled with JAN-EPO approved native imported fill and the segregated, laboratory-confirmed, stockpiled soil and was then contoured to surrounding grade. Enterprise will re-seed the Site with an approved seeding mixture.

8.0 FINDINGS AND RECOMMENDATION

- A total of 20 composite soil samples were collected from the excavation. Additionally, one (1) composite soil sample was collected from stockpiled soil. Based on laboratory analytical results, the soils remaining at the Site do not exhibit COC concentrations above the Tier II New Mexico EMNRD OCD closure criteria.

- A total of approximately 221 cubic yards of petroleum hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation. The excavation was backfilled and was then contoured to surrounding grade.

Based on field observations and laboratory analytical results and the approval by JAN-EPO, no additional investigation or corrective action appears warranted at this time.

9.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

9.1 Standard of Care

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

9.2 Limitations

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

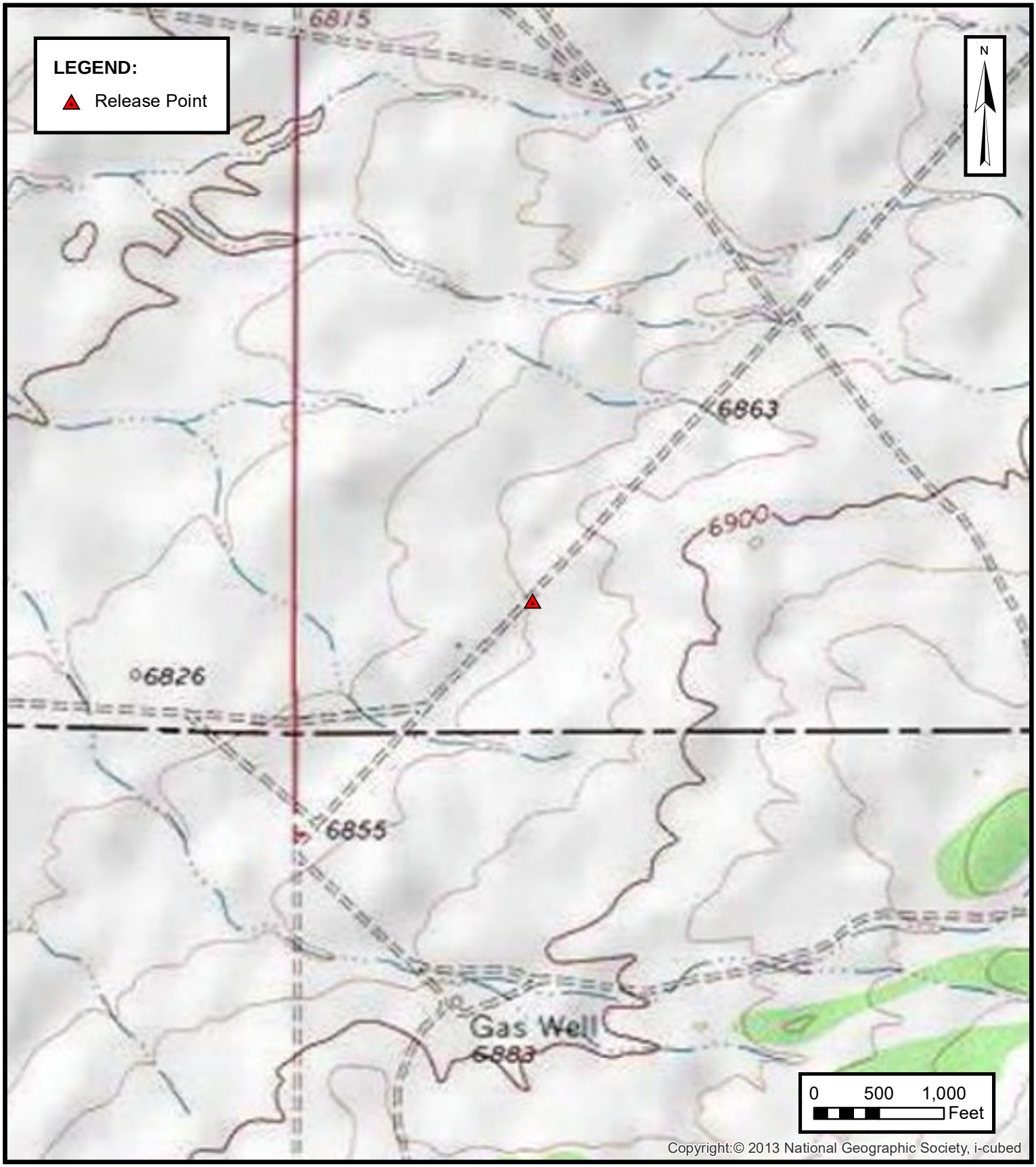
9.3 Reliance

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

ENSOLUM

APPENDIX A

Figures



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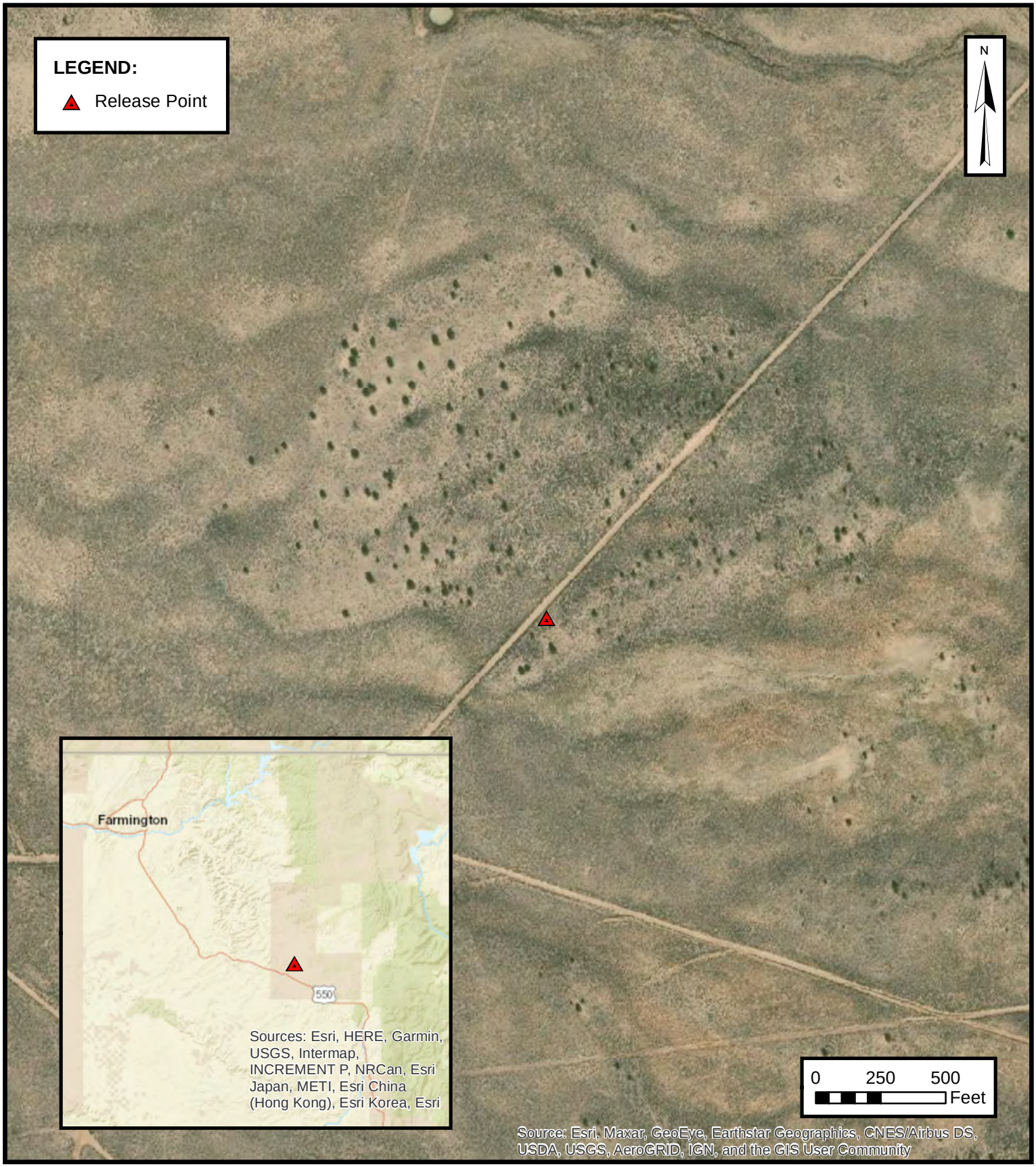
Environmental & Hydrogeologic Consultants

TOPOGRAPHIC MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-120
SW ¼, S18 T23N R4W, Rio Arriba County, New Mexico
36.218566° N, 107.299636° W

PROJECT NUMBER: 05A1226113

FIGURE
1



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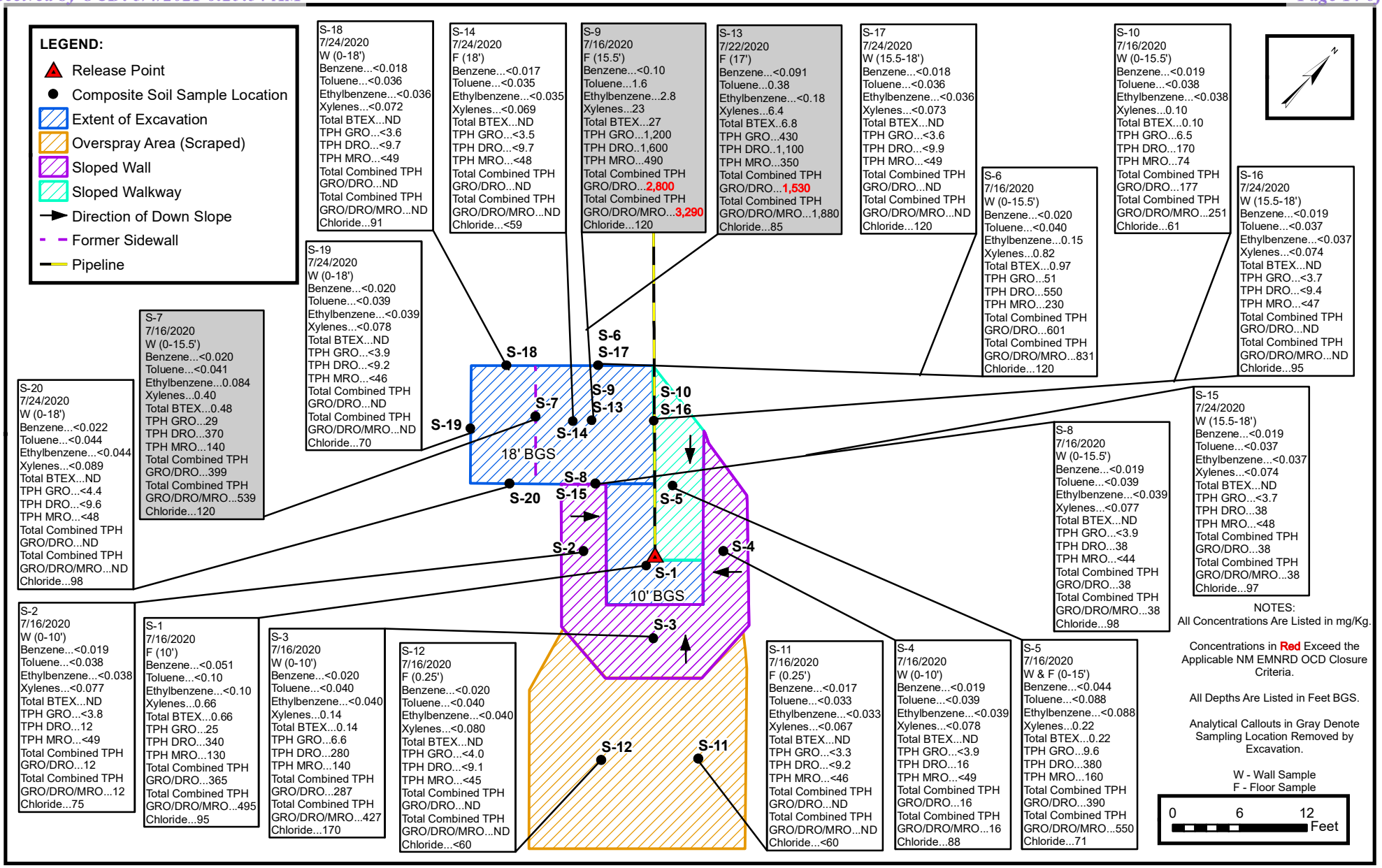
Environmental & Hydrogeologic Consultants

SITE VICINITY MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-120
SW ¼, S18 T23N R4W, Rio Arriba County, New Mexico
36.218566° N, 107.299636° W

PROJECT NUMBER: 05A1226113

FIGURE
2



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SITE MAP WITH SOIL ANALYTICAL RESULTS

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-120
SW ¼, S18 T23N R4W, Rio Arriba County, New Mexico
36.218566° N, 107.299636° W

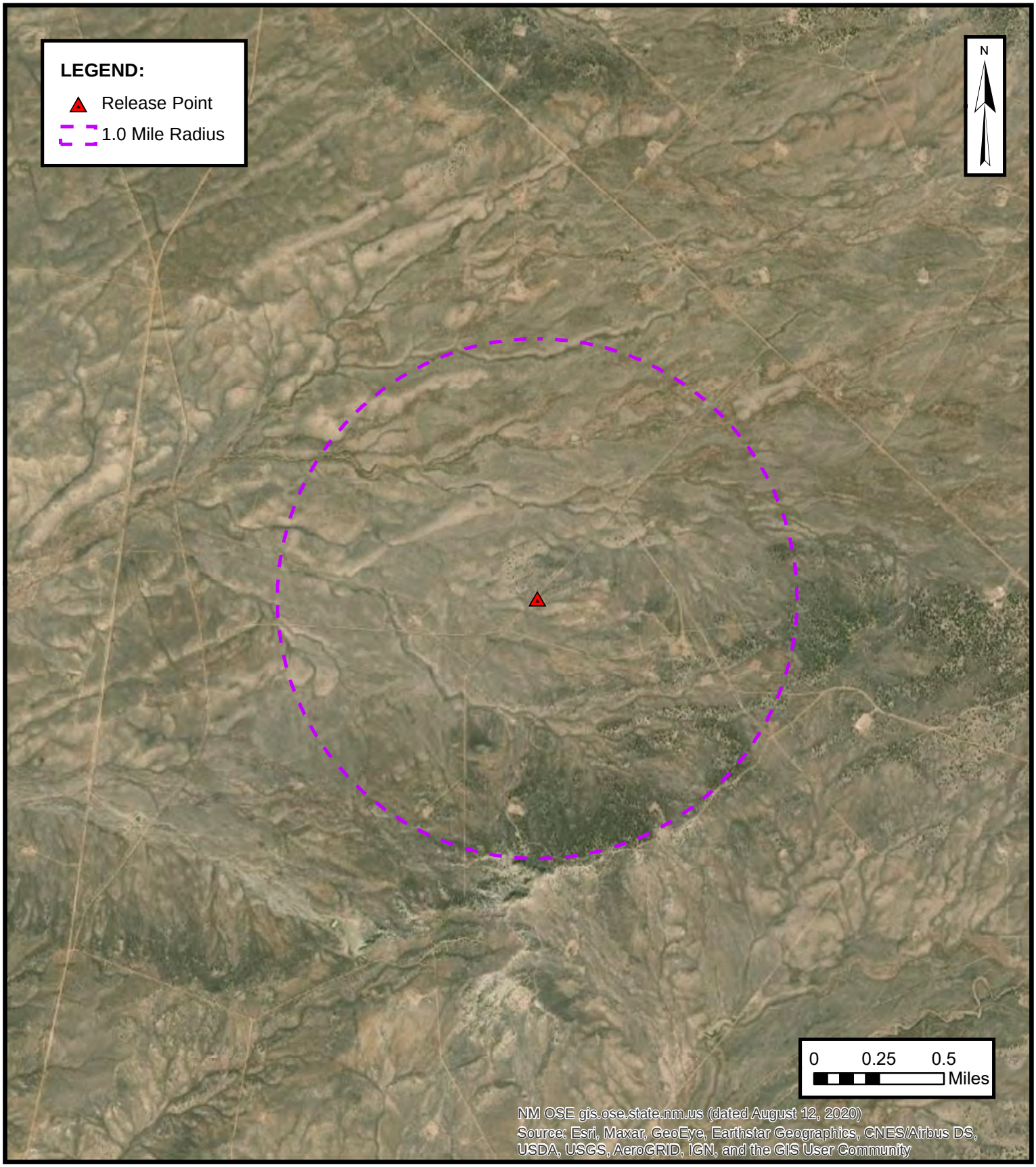
PROJECT NUMBER: 05A1226113

FIGURE
3

ENSOLUM

APPENDIX B

Siting Figures and Documentation



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Environmental & Hydrogeologic Consultants

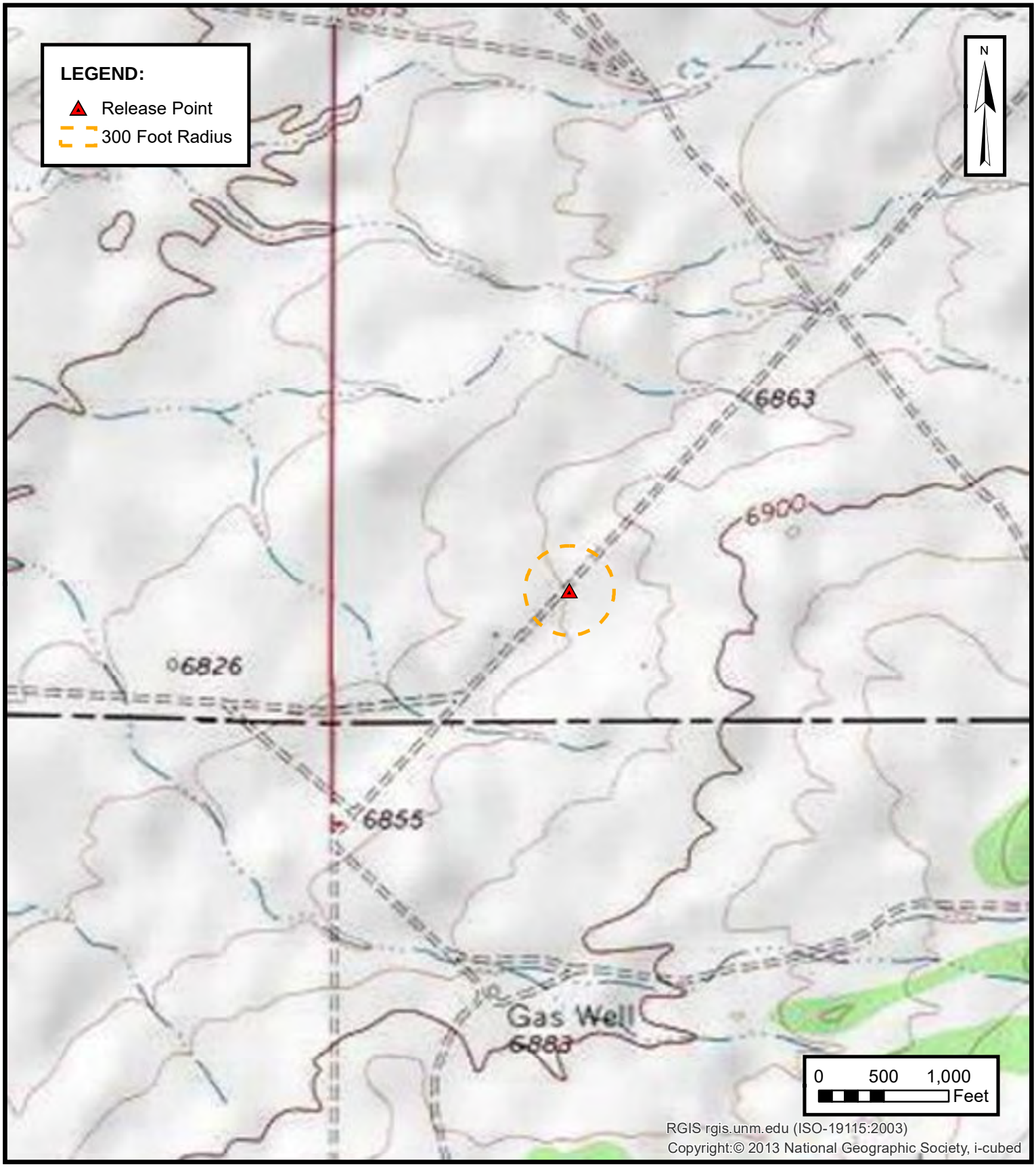
1.0 MILE RADIUS WATER WELL MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-120
SW ¼, S18 T23N R4W, Rio Arriba County, New Mexico
36.218566° N, 107.299636° W

PROJECT NUMBER: 05A1226113

FIGURE

A

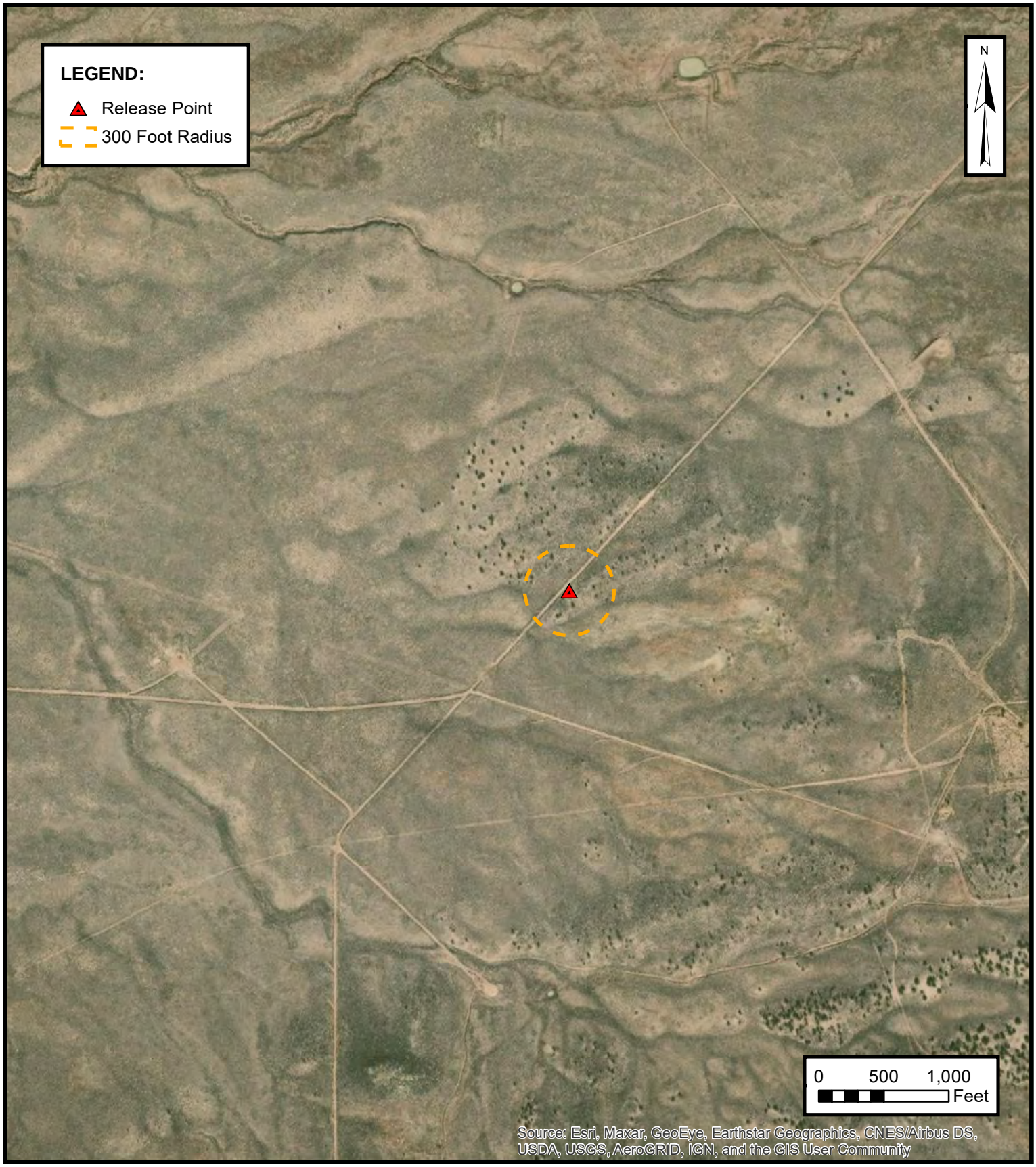


ENSOLUM
Environmental & Hydrogeologic Consultants

300 FOOT RADIUS
WATERCOURSE AND DRAINAGE IDENTIFICATION
ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-120
SW ¼, S18 T23N R4W, Rio Arriba County, New Mexico
36.218566° N, 107.299636° W

PROJECT NUMBER: 05A1226113

FIGURE
B



ENSOLUM
Environmental & Hydrogeologic Consultants

300 FOOT RADIUS
OCCUPIED STRUCTURE IDENTIFICATION
ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-120
SW ¼, S18 T23N R4W, Rio Arriba County, New Mexico
36.218566° N, 107.299636° W

PROJECT NUMBER: 05A1226113

FIGURE
C

ENSOLUM
Environmental & Hydrogeologic Consultants

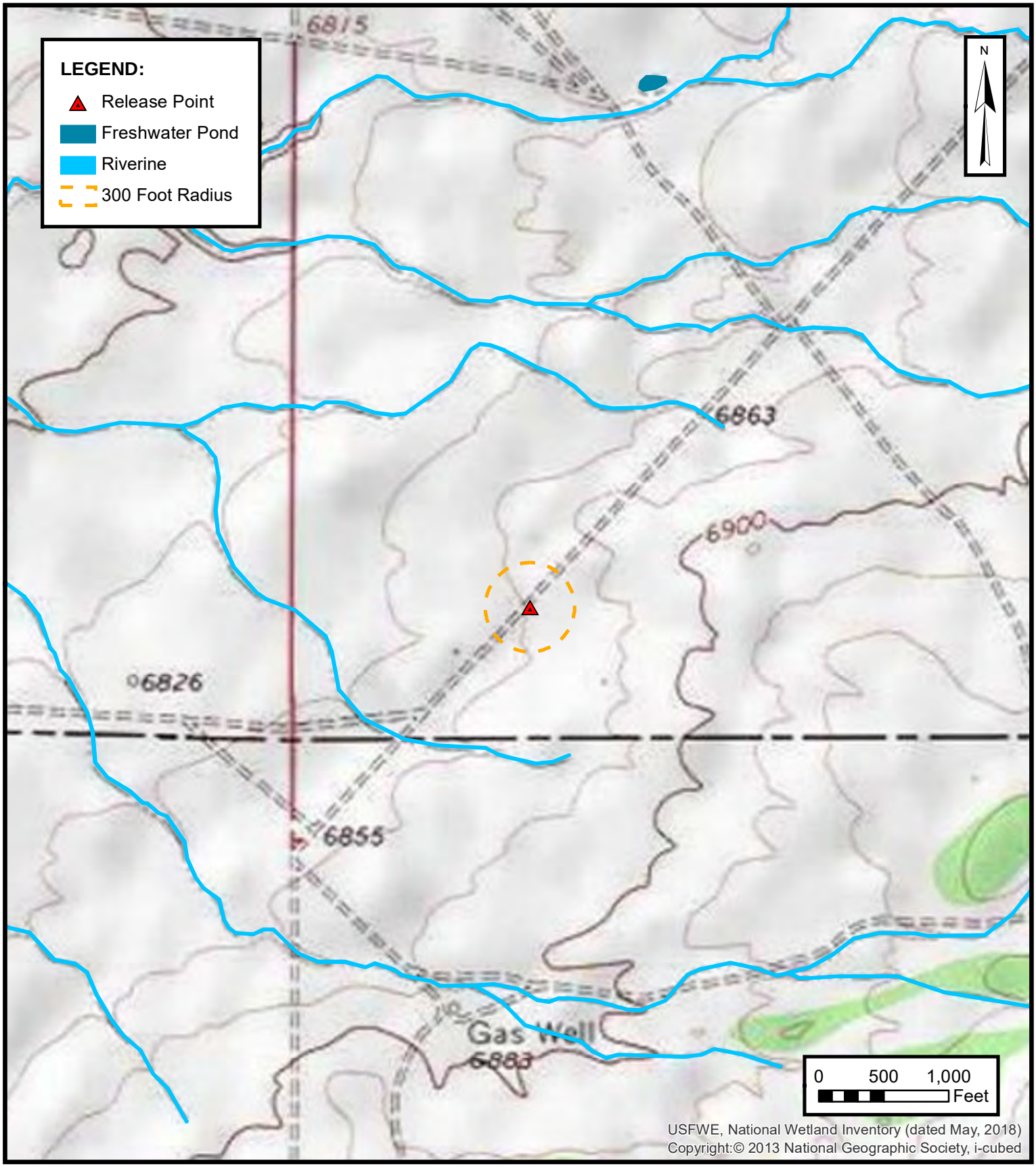
WATER WELL AND NATURAL SPRING LOCATION

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-120
SW ¼, S18 T23N R4W, Rio Arriba County, New Mexico
36.218566° N, 107.299636° W

PROJECT NUMBER: 05A1226113

FIGURE

D



ENSOLUM
Environmental & Hydrogeologic Consultants

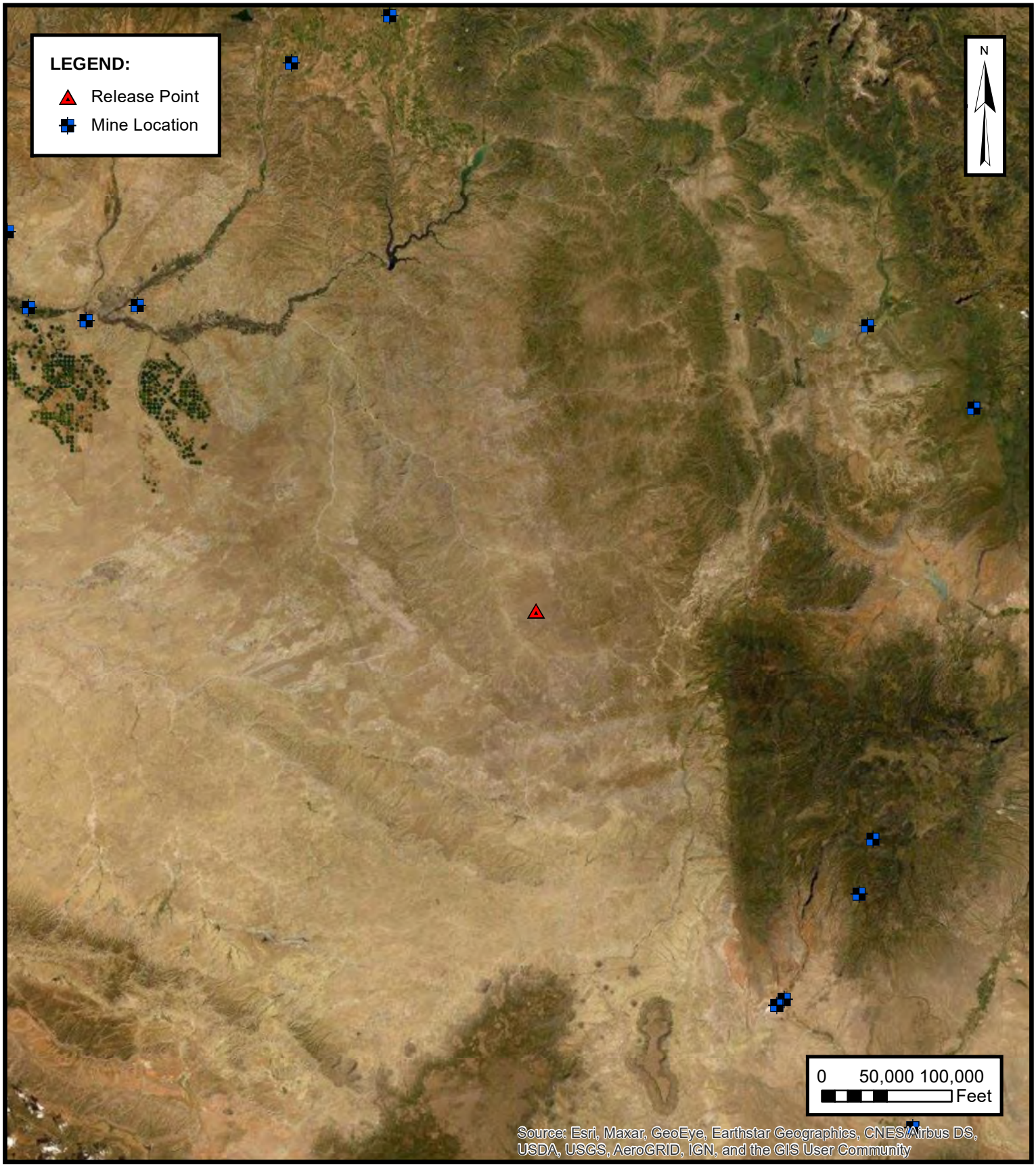
WETLANDS

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-120
SW ¼, S18 T23N R4W, Rio Arriba County, New Mexico
36.218566° N, 107.299636° W

PROJECT NUMBER: 05A1226113

FIGURE

E



ENSOLUM
Environmental & Hydrogeologic Consultants

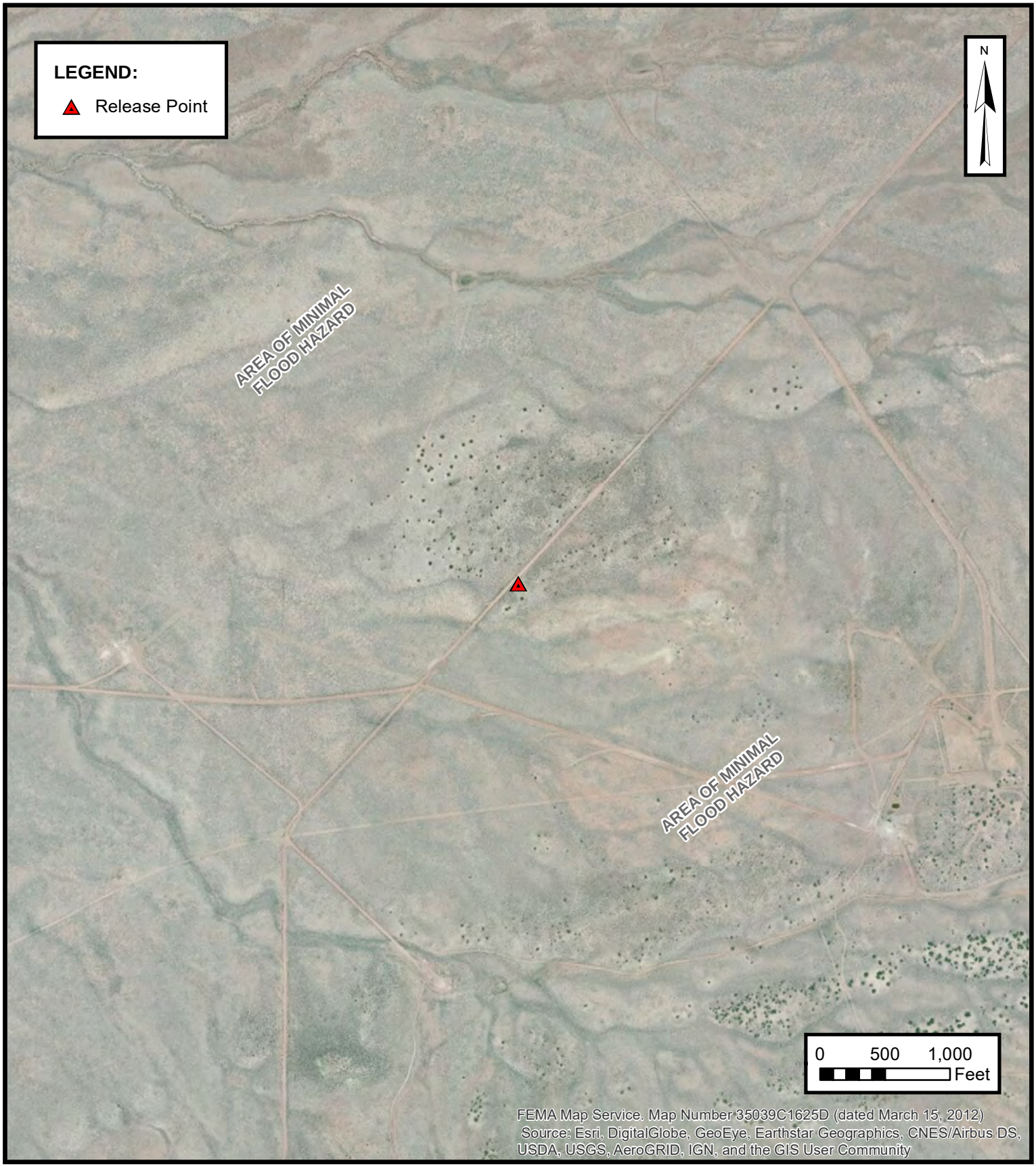
MINES, MILLS AND QUARRIES

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-120
SW ¼, S18 T23N R4W, Rio Arriba County, New Mexico
36.218566° N, 107.299636° W

PROJECT NUMBER: 05A1226113

FIGURE

F



ENSOLUM
Environmental & Hydrogeologic Consultants

100-YEAR FLOOD PLAIN MAP

ENTERPRISE FIELD SERVICES, LLC
LATERAL 2C-120
SW ¼, S18 T23N R4W, Rio Arriba County, New Mexico
36.218566° N, 107.299636° W

PROJECT NUMBER: 05A1226113

FIGURE

G

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

No records found.

PLSS Search:

Section(s): 18, 7, 8, 17, 20, 19 **Township:** 23N **Range:** 04W

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

No records found.

PLSS Search:

Section(s): 12, 13, 24 **Township:** 23N **Range:** 05W

VEGETATION PHOTOGRAPHS

ENSOLUM

Photograph 1 Photograph Description: View of the area that is identified as an “ephemeral wash” southwest of the site (facing east). Shrub and grass are dominate in the area. No evidence of riparian-wetland vegetation.	
Photograph 2 Photograph Description: View of the area that is identified as an “ephemeral wash” southwest of the site (facing southeast). Shrub and grass are dominate in the area. No evidence of riparian-wetland vegetation.	
Photograph 3 Photograph Description: View of the area that is identified as an “ephemeral wash” southwest of the site (facing west). Shrub and grass are dominate in the area. No evidence of riparian-wetland vegetation.	

VEGETATION PHOTOGRAPHS

ENSOLUM

Photograph 4 Photograph Description: View of grass specie identified in the area. No evidence of riparian-wetland vegetation.	
Photograph 5 Photograph Description: View of grass specie identified in the area. No evidence of riparian-wetland vegetation.	

ENSOLUM

APPENDIX C

Regulatory Correspondence

From: Long, Thomas
To: "Yahoo Warning"; "Smith, Cory, EMNRD (Cory.Smith@state.nm.us)"
Cc: Stone, Brian
Subject: FW: Lateral 2C-120 - UL N Section 18 T23N R4W; 36.218566, -107.299636
Date: Tuesday, July 28, 2020 7:22:00 AM
Attachments: Lateral 2C-120_Site Map_v3.pdf
Lateral 2C 120.pdf

Keith/Cory,

Please find the attached site sketch and lab report for the Lateral 2C-120 release. This complete the remediation of this release as that all sample results are below the NMOCD Tier II standard. Enterprise will backfill the excavation with clean native soils. 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

Enterprise Products

From: Long, Thomas
Sent: Thursday, July 23, 2020 3:13 PM
To: 'Yahoo Warning' <kcmanwell@yahoo.com>; 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: Lateral 2C-120 - UL N Section 18 T23N R4W; 36.218566, -107.299636

Keith/Cory,

Please find the attached site sketch and lab report for the Lateral 2C-120 excavation. Soil sample S-13 still exceeds the NMOCD Tier II standard with the DRO/GRO TPH components exceeding 1, 000 ppm. Enterprise will be excavating and resampling tomorrow, July 24, 2020 at 12:00 p.m. If you have any questions, please call or email.

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

tjlong@eprod.com

From: Long, Thomas
Sent: Monday, July 20, 2020 11:07 AM
To: 'Yahoo Warning' <kcmanwell@yahoo.com>; 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: Lateral 2C-120 - UL N Section 18 T23N R4W; 36.218566, -107.299636

Keith/Cory,

Please find the attached site sketch, summary table, lab report and siting summary for the Lateral 2C-120 excavation. Enterprise is requesting a remediation standard (siting criteria) variance. Based off the attached data, Enterprise requests that this release site fall under the criteria of a NMOCD Tier II remediation standard. Currently, all soil samples are below a NMOCD Tier II remediation standard except for soil sample S-9 (base) with a TPH result for 3,290 ppm TPH. Entperise will mobilize a track hoe to excavate additional soil from the base of the excavation and then resample. Please acknowledge acceptance of this remediation standard variance request. I will keep up informed as to when we are ready to collect additional soil samples for laboratory analysis. 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

From: Long, Thomas <tjlong@eprod.com>
Sent: Wednesday, July 15, 2020 4:22 PM
To: EMNRD Smith Cory <Cory.Smith@state.nm.us>; kcmanwell@yahoo.com
Cc: Stone, Brian <bmstone@eprod.com>
Subject: Fwd: Lateral 2C-120 - UL N Section 18 T23N R4W; 36.218566, -107.299636

Keith/Cory,

Change in sampling time. The personnel in the field called and said they won't be ready at 9:00 am and sampling at 12:00 pm would be better. If this is an inconvenience, please let me know. If you have any questions, please call or email.

Tom Long

Begin forwarded message:

From: "Long, Thomas" <tjlong@eprod.com>
Date: July 15, 2020 at 3:28:53 PM MDT
To: EMNRD Smith Cory <Cory.Smith@state.nm.us>, "kcmanwell@yahoo.com" <kcmanwell@yahoo.com>
Cc: "Stone, Brian" <bmstone@eprod.com>
Subject: Fwd: Lateral 2C-120 - UL N Section 18 T23N R4W; 36.218566, -107.299636

Keith/Cory,

This email is to notify you that Enterprise will be collecting soil samples for laboratory analysis at the Lateral 2C-120 excavation tomorrow July, 16 2020 at 9:00 a.m. if you have any questions, please call or email.

Tom Long

Begin forwarded message:

From: "Long, Thomas" <tjlong@eprod.com>
Date: July 15, 2020 at 8:20:00 AM MDT
To: "Smith, Cory, EMNRD (Cory.Smith@state.nm.us)" <Cory.Smith@state.nm.us>, Yahoo Warning <kcmanwell@yahoo.com>
Cc: "Stone, Brian" <bmstone@eprod.com>
Subject: FW: Lateral 2C-120 - UL N Section 18 T23N R4W; 36.218566, -107.299636

Cory/Keith,

The email is to notify you that Entperise will be initiating the remediation of this release starting today. I will keep you informed as to when we might collect soil samples. Also, the correct section is Section 18. If you have any questions, please call or email.

Thomas J. Long
Senior Environmental Scientist

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

From: Long, Thomas
Sent: Friday, July 10, 2020 2:11 PM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>; 'Yahoo Warning' <kcmanwell@yahoo.com>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: Lateral 2C-120 - UL N Section 19 T23N R4W; 36.218566, -107.299636

Keith/Cory,

This email is a courtesy notification that Enterprise had a release on the Lateral 2C-120 pipeline riser this afternoon. The release came from a one inch valve. Enterprise has not yet determined this release reportable per NMOCD regulation. An area of approximately 30 feet by 16 feet was misted by the release fluids. No washes have been affected. The pipeline is has been isolated, depressurized, locked and tagged out. The release is located at UL N Section 19 T23N R4W; 36.218566, -107.299636. I will keep you informed on the reporting status and remediation activities. 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

ENSOLUM

APPENDIX D

Executed C-138 Solid Waste Acceptance Form

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

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

Form C-138
Revised August 1, 2011

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

97057-1120

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**
2. Enterprise Field Services, LLC, 614 Reilly Avenue, Farmington, NM 87401

AFE: N48871
PM: Dwayne Dixon
Pay Key: RB21200

3. **Originating Site:**
Lateral 2C-120

4. **Location of Material (Street Address, City, State or ULSTR):**
UL N Section 18 T23N R4W; 36.218566, -107.299636

July 2020

4. **Source and Description of Waste:** Hydrocarbon impacted soil/sludge from remediation activities associated with a natural gas pipeline release.
5. Estimated Volume 50 (yd³) / bbls Known Volume (to be entered by the operator at the end of the haul) 221 (yd³) / bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thomas Long (Thomas Long) representative or authorized agent for Enterprise Field Services, LLC do hereby
PRINT & SIGN NAME COMPANY NAME
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) 7-15-2020, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to
Generator Signature
complete 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.

6. **Transporter: TBD**

OCD Permitted Surface Waste Management Facility
Name and Facility Permit #: **Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011**
Address of Facility: **Hilltop, NM**

Method of Treatment and/or Disposal:
☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: Greg Crabtree TITLE: Enviro Manager DATE: 7/15/2020

SIGNATURE: (Greg Crabtree) TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

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APPENDIX E

Photographic Documentation

SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Closure Report
Lateral 2C-120
Ensolum Project No. 05A1226113

ENSOLUM

Photograph 1 Photograph Description: View of in-process excavation activities.	
Photograph 2 Photograph Description: View of in-process excavation activities.	
Photograph 3 Photograph Description: View of the initial excavation (first sampling event).	

SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Closure Report
Lateral 2C-120
Ensolum Project No. 05A1226113

ENSOLUM

Photograph 4 Photograph Description: View of the scraped overspray area (first sampling event).	
Photograph 5 Photograph Description: View of the excavation (second sampling event).	
Photograph 6 Photograph Description: View of the final excavation (third sampling event).	

SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Closure Report
Lateral 2C-120
Ensolum Project No. 05A1226113

ENSOLUM

Photograph 7 Photograph Description: View of the excavation after initial restoration.	

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APPENDIX F

Table 1 – Soil Analytical Summary

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TABLE 1
Lateral 2C-120
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 (Tier II)				10	NE	NE	NE	50				1,000	2,500	10,000
Composite Soil Samples Removed by Excavation and Transported to the Landfarm for Disposal/Remediation														
S-7	07.16.20	C	0 to 15.5	<0.020	<0.041	0.084	0.40	0.48	29	370	140	399	539	120
S-9	07.16.20	C	15.5	<0.10	1.6	2.8	23	27	1,200	1,600	490	**2,800**	**3,290**	120
S-13	07.22.20	C	17	<0.091	0.38	<0.18	6.4	6.8	430	1,100	350	**1,530**	1,880	85
Composite Soil Sample Collected from Stockpiled Soil														
SP-1	07.24.20	C	Stockpile	<0.021	<0.041	<0.041	<0.082	ND	<4.1	12	<49	12	12	71
Excavation Composite Soil Samples														
S-1	07.16.20	C	10	<0.051	<0.10	<0.10	0.66	0.66	25	340	130	365	495	95
S-2	07.16.20	C	0 to 10	<0.019	<0.038	<0.038	<0.077	ND	<3.8	12	<49	12	12	75
S-3	07.16.20	C	0 to 10	<0.020	<0.040	<0.040	0.14	0.14	6.6	280	140	287	427	170
S-4	07.16.20	C	0 to 10	<0.019	<0.039	<0.039	<0.078	ND	<3.9	16	<49	16	16	88
S-5	07.16.20	C	0 to 15	<0.044	<0.088	<0.088	0.22	0.22	9.6	380	160	390	550	71
S-6	07.16.20	C	0 to 15.5	<0.020	<0.040	0.15	0.82	0.97	51	550	230	601	831	120
S-8	07.16.20	C	0 to 15.5	<0.019	<0.039	<0.039	<0.077	ND	<3.9	38	<44	38	38	98
S-10	07.16.20	C	0 to 15.5	<0.019	<0.038	<0.038	0.10	0.10	6.5	170	74	177	251	61
S-11	07.16.20	C	0.25	<0.017	<0.033	<0.033	<0.067	ND	<3.3	<9.2	<46	ND	ND	<60
S-12	07.16.20	C	0.25	<0.020	<0.040	<0.040	<0.080	ND	<4.0	<9.1	<45	ND	ND	<60
S-14	07.24.20	C	18	<0.017	<0.035	<0.035	<0.069	ND	<3.5	<9.7	<48	ND	ND	<59
S-15	07.24.20	C	15.5 to 18	<0.019	<0.037	<0.037	<0.074	ND	<3.7	38	<48	38	38	97
S-16	07.24.20	C	15.5 to 18	<0.019	<0.037	<0.037	<0.074	ND	<3.7	<9.4	<47	ND	ND	95
S-17	07.24.20	C	15.5 to 18	<0.018	<0.036	<0.036	<0.073	ND	<3.6	<9.9	<49	ND	ND	120
S-18	07.24.20	C	0 to 18	<0.018	<0.036	<0.036	<0.072	ND	<3.6	<9.7	<49	ND	ND	91
S-19	07.24.20	C	0 to 18	<0.020	<0.039	<0.039	<0.078	ND	<3.9	<9.2	<46	ND	ND	70
S-20	07.24.20	C	0 to 18	<0.022	<0.044	<0.044	<0.089	ND	<4.4	<9.6	<48	ND	ND	98

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

ENSOLUM

APPENDIX G

Laboratory Data Sheets & Chain of Custody Documentation

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 21, 2020

Kyle Summers

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

RE: Lateral 2C-120 OrderNo.: 2007888

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 12 sample(s) on 7/17/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2007888**
Date Reported: **7/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-1
Project: Lateral 2C-120 **Collection Date:** 7/16/2020 2:40:00 PM
Lab ID: 2007888-001 **Matrix:** MEOH (SOIL) **Received Date:** 7/17/2020 7:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	95	60		mg/Kg	20	7/17/2020 11:26:09 AM	53789
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	340	9.6		mg/Kg	1	7/17/2020 10:47:33 AM	53785
Motor Oil Range Organics (MRO)	130	48		mg/Kg	1	7/17/2020 10:47:33 AM	53785
Surr: DNOP	174	55.1-146	S	%Rec	1	7/17/2020 10:47:33 AM	53785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	25	10		mg/Kg	2	7/17/2020 10:47:59 AM	R70417
Surr: BFB	160	66.6-105	S	%Rec	2	7/17/2020 10:47:59 AM	R70417
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.051		mg/Kg	2	7/17/2020 10:47:59 AM	BS70417
Toluene	ND	0.10		mg/Kg	2	7/17/2020 10:47:59 AM	BS70417
Ethylbenzene	ND	0.10		mg/Kg	2	7/17/2020 10:47:59 AM	BS70417
Xylenes, Total	0.66	0.20		mg/Kg	2	7/17/2020 10:47:59 AM	BS70417
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	2	7/17/2020 10:47:59 AM	BS70417

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

Analytical Report
Lab Order **2007888**
Date Reported: **7/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-2
Project: Lateral 2C-120 **Collection Date:** 7/16/2020 2:45:00 PM
Lab ID: 2007888-002 **Matrix:** MEOH (SOIL) **Received Date:** 7/17/2020 7:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	75	60		mg/Kg	20	7/17/2020 10:53:34 AM	53790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	12	9.7		mg/Kg	1	7/17/2020 10:57:27 AM	53785
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/17/2020 10:57:27 AM	53785
Surr: DNOP	126	55.1-146		%Rec	1	7/17/2020 10:57:27 AM	53785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	7/17/2020 11:11:31 AM	R70417
Surr: BFB	82.2	66.6-105		%Rec	1	7/17/2020 11:11:31 AM	R70417
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	7/17/2020 11:11:31 AM	BS70417
Toluene	ND	0.038		mg/Kg	1	7/17/2020 11:11:31 AM	BS70417
Ethylbenzene	ND	0.038		mg/Kg	1	7/17/2020 11:11:31 AM	BS70417
Xylenes, Total	ND	0.077		mg/Kg	1	7/17/2020 11:11:31 AM	BS70417
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	7/17/2020 11:11:31 AM	BS70417

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

Analytical Report
Lab Order **2007888**
Date Reported: **7/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-3
Project: Lateral 2C-120 **Collection Date:** 7/16/2020 2:50:00 PM
Lab ID: 2007888-003 **Matrix:** MEOH (SOIL) **Received Date:** 7/17/2020 7:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	170	60		mg/Kg	20	7/17/2020 11:05:59 AM	53790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	280	9.9		mg/Kg	1	7/17/2020 11:07:20 AM	53785
Motor Oil Range Organics (MRO)	140	49		mg/Kg	1	7/17/2020 11:07:20 AM	53785
Surr: DNOP	184	55.1-146	S	%Rec	1	7/17/2020 11:07:20 AM	53785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	6.6	4.0		mg/Kg	1	7/17/2020 11:35:02 AM	R70417
Surr: BFB	138	66.6-105	S	%Rec	1	7/17/2020 11:35:02 AM	R70417
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.020		mg/Kg	1	7/17/2020 11:35:02 AM	BS70417
Toluene	ND	0.040		mg/Kg	1	7/17/2020 11:35:02 AM	BS70417
Ethylbenzene	ND	0.040		mg/Kg	1	7/17/2020 11:35:02 AM	BS70417
Xylenes, Total	0.14	0.080		mg/Kg	1	7/17/2020 11:35:02 AM	BS70417
Surr: 4-Bromofluorobenzene	109	80-120		%Rec	1	7/17/2020 11:35:02 AM	BS70417

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

Qualifiers:

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

Analytical Report
Lab Order **2007888**
Date Reported: **7/21/2020**

CLIENT: ENSOLUM
Client Sample ID: S-4
Project: Lateral 2C-120
Collection Date: 7/16/2020 2:55:00 PM
Lab ID: 2007888-004
Matrix: MEOH (SOIL)
Received Date: 7/17/2020 7:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	88	60		mg/Kg	20	7/17/2020 11:18:23 AM	53790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	16	9.9		mg/Kg	1	7/17/2020 11:17:14 AM	53785
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/17/2020 11:17:14 AM	53785
Surr: DNOP	134	55.1-146		%Rec	1	7/17/2020 11:17:14 AM	53785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	7/17/2020 11:58:30 AM	R70417
Surr: BFB	83.3	66.6-105		%Rec	1	7/17/2020 11:58:30 AM	R70417
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	7/17/2020 11:58:30 AM	BS70417
Toluene	ND	0.039		mg/Kg	1	7/17/2020 11:58:30 AM	BS70417
Ethylbenzene	ND	0.039		mg/Kg	1	7/17/2020 11:58:30 AM	BS70417
Xylenes, Total	ND	0.078		mg/Kg	1	7/17/2020 11:58:30 AM	BS70417
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	7/17/2020 11:58:30 AM	BS70417

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

Qualifiers:

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

Analytical Report
Lab Order **2007888**
Date Reported: **7/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-5
Project: Lateral 2C-120 **Collection Date:** 7/16/2020 3:00:00 PM
Lab ID: 2007888-005 **Matrix:** MEOH (SOIL) **Received Date:** 7/17/2020 7:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	71	60		mg/Kg	20	7/17/2020 11:30:48 AM	53790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	380	9.5		mg/Kg	1	7/17/2020 11:27:08 AM	53785
Motor Oil Range Organics (MRO)	160	48		mg/Kg	1	7/17/2020 11:27:08 AM	53785
Surr: DNOP	203	55.1-146	S	%Rec	1	7/17/2020 11:27:08 AM	53785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	9.6	8.8		mg/Kg	2	7/17/2020 12:22:00 PM	R70417
Surr: BFB	125	66.6-105	S	%Rec	2	7/17/2020 12:22:00 PM	R70417
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.044		mg/Kg	2	7/17/2020 12:22:00 PM	BS70417
Toluene	ND	0.088		mg/Kg	2	7/17/2020 12:22:00 PM	BS70417
Ethylbenzene	ND	0.088		mg/Kg	2	7/17/2020 12:22:00 PM	BS70417
Xylenes, Total	0.22	0.18		mg/Kg	2	7/17/2020 12:22:00 PM	BS70417
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	2	7/17/2020 12:22:00 PM	BS70417

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

Qualifiers:

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

Analytical Report
Lab Order **2007888**
Date Reported: **7/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-6
Project: Lateral 2C-120 **Collection Date:** 7/16/2020 3:05:00 PM
Lab ID: 2007888-006 **Matrix:** MEOH (SOIL) **Received Date:** 7/17/2020 7:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	120	60		mg/Kg	20	7/17/2020 11:43:12 AM	53790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	550	9.4		mg/Kg	1	7/17/2020 11:37:02 AM	53785
Motor Oil Range Organics (MRO)	230	47		mg/Kg	1	7/17/2020 11:37:02 AM	53785
Surr: DNOP	183	55.1-146	S	%Rec	1	7/17/2020 11:37:02 AM	53785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	51	4.0		mg/Kg	1	7/17/2020 12:45:31 PM	R70417
Surr: BFB	431	66.6-105	S	%Rec	1	7/17/2020 12:45:31 PM	R70417
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.020		mg/Kg	1	7/17/2020 12:45:31 PM	BS70417
Toluene	ND	0.040		mg/Kg	1	7/17/2020 12:45:31 PM	BS70417
Ethylbenzene	0.15	0.040		mg/Kg	1	7/17/2020 12:45:31 PM	BS70417
Xylenes, Total	0.82	0.080		mg/Kg	1	7/17/2020 12:45:31 PM	BS70417
Surr: 4-Bromofluorobenzene	122	80-120	S	%Rec	1	7/17/2020 12:45:31 PM	BS70417

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

Qualifiers:

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

Analytical Report
Lab Order **2007888**
Date Reported: **7/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-7
Project: Lateral 2C-120 **Collection Date:** 7/16/2020 3:10:00 PM
Lab ID: 2007888-007 **Matrix:** MEOH (SOIL) **Received Date:** 7/17/2020 7:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	120	60		mg/Kg	20	7/17/2020 11:55:37 AM	53790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	370	9.6		mg/Kg	1	7/17/2020 11:47:00 AM	53785
Motor Oil Range Organics (MRO)	140	48		mg/Kg	1	7/17/2020 11:47:00 AM	53785
Surr: DNOP	179	55.1-146	S	%Rec	1	7/17/2020 11:47:00 AM	53785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	29	4.1		mg/Kg	1	7/17/2020 1:09:07 PM	R70417
Surr: BFB	266	66.6-105	S	%Rec	1	7/17/2020 1:09:07 PM	R70417
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.020		mg/Kg	1	7/17/2020 1:09:07 PM	BS70417
Toluene	ND	0.041		mg/Kg	1	7/17/2020 1:09:07 PM	BS70417
Ethylbenzene	0.084	0.041		mg/Kg	1	7/17/2020 1:09:07 PM	BS70417
Xylenes, Total	0.40	0.082		mg/Kg	1	7/17/2020 1:09:07 PM	BS70417
Surr: 4-Bromofluorobenzene	117	80-120		%Rec	1	7/17/2020 1:09:07 PM	BS70417

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

Qualifiers:

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

Analytical Report
Lab Order **2007888**
Date Reported: **7/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-8
Project: Lateral 2C-120 **Collection Date:** 7/16/2020 3:15:00 PM
Lab ID: 2007888-008 **Matrix:** MEOH (SOIL) **Received Date:** 7/17/2020 7:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	98	60		mg/Kg	20	7/17/2020 12:08:01 PM	53790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	38	8.9		mg/Kg	1	7/17/2020 11:56:57 AM	53785
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	7/17/2020 11:56:57 AM	53785
Surr: DNOP	156	55.1-146	S	%Rec	1	7/17/2020 11:56:57 AM	53785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	7/17/2020 1:32:41 PM	R70417
Surr: BFB	95.9	66.6-105		%Rec	1	7/17/2020 1:32:41 PM	R70417
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	7/17/2020 1:32:41 PM	BS70417
Toluene	ND	0.039		mg/Kg	1	7/17/2020 1:32:41 PM	BS70417
Ethylbenzene	ND	0.039		mg/Kg	1	7/17/2020 1:32:41 PM	BS70417
Xylenes, Total	ND	0.077		mg/Kg	1	7/17/2020 1:32:41 PM	BS70417
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	7/17/2020 1:32:41 PM	BS70417

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

Qualifiers:

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

Analytical Report
Lab Order **2007888**
Date Reported: **7/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-9
Project: Lateral 2C-120 **Collection Date:** 7/16/2020 3:20:00 PM
Lab ID: 2007888-009 **Matrix:** MEOH (SOIL) **Received Date:** 7/17/2020 7:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	120	60		mg/Kg	20	7/17/2020 12:20:25 PM	53790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	1600	19		mg/Kg	2	7/17/2020 12:47:05 PM	53785
Motor Oil Range Organics (MRO)	490	96		mg/Kg	2	7/17/2020 12:47:05 PM	53785
Surr: DNOP	436	55.1-146	S	%Rec	2	7/17/2020 12:47:05 PM	53785
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**RAA**
Gasoline Range Organics (GRO)	1200	21		mg/Kg	5	7/17/2020 1:56:14 PM	R70417
Surr: BFB	971	66.6-105	S	%Rec	5	7/17/2020 1:56:14 PM	R70417
EPA METHOD 8021B: VOLATILES						Analyst:	**RAA**
Benzene	ND	0.10		mg/Kg	5	7/17/2020 1:56:14 PM	BS70417
Toluene	1.6	0.21		mg/Kg	5	7/17/2020 1:56:14 PM	BS70417
Ethylbenzene	2.8	0.21		mg/Kg	5	7/17/2020 1:56:14 PM	BS70417
Xylenes, Total	23	0.41		mg/Kg	5	7/17/2020 1:56:14 PM	BS70417
Surr: 4-Bromofluorobenzene	145	80-120	S	%Rec	5	7/17/2020 1:56:14 PM	BS70417

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

Analytical Report
Lab Order **2007888**
Date Reported: **7/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-10
Project: Lateral 2C-120 **Collection Date:** 7/16/2020 3:25:00 PM
Lab ID: 2007888-010 **Matrix:** MEOH (SOIL) **Received Date:** 7/17/2020 7:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	61	59		mg/Kg	20	7/17/2020 12:57:38 PM	53790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	170	9.8		mg/Kg	1	7/17/2020 12:16:55 PM	53785
Motor Oil Range Organics (MRO)	74	49		mg/Kg	1	7/17/2020 12:16:55 PM	53785
Surr: DNOP	181	55.1-146	S	%Rec	1	7/17/2020 12:16:55 PM	53785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	6.5	3.8		mg/Kg	1	7/17/2020 2:19:48 PM	R70417
Surr: BFB	149	66.6-105	S	%Rec	1	7/17/2020 2:19:48 PM	R70417
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.019		mg/Kg	1	7/17/2020 2:19:48 PM	BS70417
Toluene	ND	0.038		mg/Kg	1	7/17/2020 2:19:48 PM	BS70417
Ethylbenzene	ND	0.038		mg/Kg	1	7/17/2020 2:19:48 PM	BS70417
Xylenes, Total	0.10	0.076		mg/Kg	1	7/17/2020 2:19:48 PM	BS70417
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	1	7/17/2020 2:19:48 PM	BS70417

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

Analytical Report
Lab Order **2007888**
Date Reported: **7/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-11
Project: Lateral 2C-120 **Collection Date:** 7/16/2020 3:30:00 PM
Lab ID: 2007888-011 **Matrix:** MEOH (SOIL) **Received Date:** 7/17/2020 7:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	7/17/2020 1:10:03 PM	53790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/17/2020 12:26:55 PM	53785
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/17/2020 12:26:55 PM	53785
Surr: DNOP	121	55.1-146		%Rec	1	7/17/2020 12:26:55 PM	53785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	7/17/2020 3:07:05 PM	R70417
Surr: BFB	87.5	66.6-105		%Rec	1	7/17/2020 3:07:05 PM	R70417
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.017		mg/Kg	1	7/17/2020 3:07:05 PM	BS70417
Toluene	ND	0.033		mg/Kg	1	7/17/2020 3:07:05 PM	BS70417
Ethylbenzene	ND	0.033		mg/Kg	1	7/17/2020 3:07:05 PM	BS70417
Xylenes, Total	ND	0.067		mg/Kg	1	7/17/2020 3:07:05 PM	BS70417
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	7/17/2020 3:07:05 PM	BS70417

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

Analytical Report
Lab Order **2007888**
Date Reported: **7/21/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-12
Project: Lateral 2C-120 **Collection Date:** 7/16/2020 3:35:00 PM
Lab ID: 2007888-012 **Matrix:** MEOH (SOIL) **Received Date:** 7/17/2020 7:59:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	7/17/2020 1:22:28 PM	53790
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	7/17/2020 12:36:55 PM	53785
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	7/17/2020 12:36:55 PM	53785
Surr: DNOP	112	55.1-146		%Rec	1	7/17/2020 12:36:55 PM	53785
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	7/17/2020 3:30:48 PM	R70417
Surr: BFB	85.0	66.6-105		%Rec	1	7/17/2020 3:30:48 PM	R70417
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.020		mg/Kg	1	7/17/2020 3:30:48 PM	BS70417
Toluene	ND	0.040		mg/Kg	1	7/17/2020 3:30:48 PM	BS70417
Ethylbenzene	ND	0.040		mg/Kg	1	7/17/2020 3:30:48 PM	BS70417
Xylenes, Total	ND	0.080		mg/Kg	1	7/17/2020 3:30:48 PM	BS70417
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	7/17/2020 3:30:48 PM	BS70417

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2007888**

21-Jul-20

Client: ENSOLUM

Project: Lateral 2C-120

Sample ID: **MB-53789** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **53789** RunNo: **70427**

Prep Date: **7/17/2020** Analysis Date: **7/17/2020** SeqNo: **2449288** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-53789** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **53789** RunNo: **70427**

Prep Date: **7/17/2020** Analysis Date: **7/17/2020** SeqNo: **2449289** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.6	90	110			

Sample ID: **MB-53790** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **53790** RunNo: **70420**

Prep Date: **7/17/2020** Analysis Date: **7/17/2020** SeqNo: **2449408** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-53790** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **53790** RunNo: **70420**

Prep Date: **7/17/2020** Analysis Date: **7/17/2020** SeqNo: **2449409** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.6	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative 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#: **2007888**

21-Jul-20

Client: ENSOLUM

Project: Lateral 2C-120

Sample ID: **LCS-53785** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **53785** RunNo: **70416**
Prep Date: **7/17/2020** Analysis Date: **7/17/2020** SeqNo: **2447939** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	60	10	50.00	0	120	70	130			
Surr: DNOP	6.6		5.000		131	55.1	146			

Sample ID: **2007888-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-1** Batch ID: **53785** RunNo: **70416**
Prep Date: **7/17/2020** Analysis Date: **7/17/2020** SeqNo: **2448414** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	250	9.9	49.70	344.9	-192	47.4	136			S
Surr: DNOP	7.7		4.970		156	55.1	146			S

Sample ID: **2007888-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-1** Batch ID: **53785** RunNo: **70416**
Prep Date: **7/17/2020** Analysis Date: **7/17/2020** SeqNo: **2448415** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	390	9.4	47.04	344.9	92.8	47.4	136	43.7	43.4	R
Surr: DNOP	28		4.704		597	55.1	146	0	0	S

Sample ID: **LCS-53751** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **53751** RunNo: **70416**
Prep Date: **7/16/2020** Analysis Date: **7/17/2020** SeqNo: **2448417** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.8		5.000		116	55.1	146			

Sample ID: **MB-53751** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **53751** RunNo: **70416**
Prep Date: **7/16/2020** Analysis Date: **7/17/2020** SeqNo: **2448421** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		117	55.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
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#: **2007888**

21-Jul-20

Client: ENSOLUM

Project: Lateral 2C-120

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

Client ID: **LCSS** Batch ID: **R70417** RunNo: **70417**

Prep Date: Analysis Date: **7/17/2020** SeqNo: **2447942** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.4	72.5	106			
Surr: BFB	1000		1000		103	66.6	105			

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

Client ID: **PBS** Batch ID: **R70417** RunNo: **70417**

Prep Date: Analysis Date: **7/17/2020** SeqNo: **2447948** 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		99.8	66.6	105			

Sample ID: **2007888-001ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **S-1** Batch ID: **R70417** RunNo: **70417**

Prep Date: Analysis Date: **7/17/2020** SeqNo: **2448850** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	73	10	50.76	25.14	94.8	80	120			
Surr: BFB	3600		2030		177	66.6	105			S

Sample ID: **2007888-001amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **S-1** Batch ID: **R70417** RunNo: **70417**

Prep Date: Analysis Date: **7/17/2020** SeqNo: **2448851** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	72	10	50.76	25.14	92.0	80	120	1.93	20	
Surr: BFB	3500		2030		174	66.6	105	0	0	S

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
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#: **2007888**

21-Jul-20

Client: ENSOLUM

Project: Lateral 2C-120

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

Client ID: **LCSS** Batch ID: **BS70417** RunNo: **70417**

Prep Date: Analysis Date: **7/17/2020** SeqNo: **2447951** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	80	120			
Toluene	0.99	0.050	1.000	0	99.3	80	120			
Ethylbenzene	1.0	0.050	1.000	0	99.5	80	120			
Xylenes, Total	3.0	0.10	3.000	0	101	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

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

Client ID: **PBS** Batch ID: **BS70417** RunNo: **70417**

Prep Date: Analysis Date: **7/17/2020** SeqNo: **2447957** 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	1.2		1.000		118	80	120			

Sample ID: **2007888-002ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-2** Batch ID: **BS70417** RunNo: **70417**

Prep Date: Analysis Date: **7/17/2020** SeqNo: **2448877** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.76	0.019	0.7692	0	99.4	78.5	119			
Toluene	0.76	0.038	0.7692	0.008923	97.8	75.7	123			
Ethylbenzene	0.76	0.038	0.7692	0	98.6	74.3	126			
Xylenes, Total	2.3	0.077	2.308	0.01261	99.1	72.9	130			
Surr: 4-Bromofluorobenzene	0.85		0.7692		111	80	120			

Sample ID: **2007888-002amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-2** Batch ID: **BS70417** RunNo: **70417**

Prep Date: Analysis Date: **7/17/2020** SeqNo: **2448878** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.75	0.019	0.7692	0	97.5	78.5	119	2.03	20	
Toluene	0.74	0.038	0.7692	0.008923	95.4	75.7	123	2.41	20	
Ethylbenzene	0.74	0.038	0.7692	0	96.2	74.3	126	2.48	20	
Xylenes, Total	2.2	0.077	2.308	0.01261	96.8	72.9	130	2.29	20	
Surr: 4-Bromofluorobenzene	0.87		0.7692		113	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 Quanitative 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

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

Sample Log-In Check List

Client Name: ENSOLUM Work Order Number: 2007888 RcptNo: 1

Received By: 7/17/2020 7:59:00 AM

Completed By: Juan Rojas 7/17/2020 8:04:43 AM

Reviewed By: DAD 7/17/20

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: SPA 7.17.20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good				

Chain-of-Custody Record

Client: Ensolum, LLC

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

Phone #:

email or Fax#: KSummers@ensolum.com

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

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

Turn-Around Time: SAME DAY
☐ Standard ☒ Rush 100%

Project Name: Lateral 2C-120

Project #: See note)

Project Manager: KSummers

Sampler: RDeehilly
On Ice: ☒ Yes ☐ No
# of Coolers: 1
Cooler Temp(including CF): 2.4 -0.1 = 2.3 (°C)

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2007888	BTEX / ~~MTBE / TMB's~~ (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chlorides
7/16/20	1440	S	S-1	1 x 4oz Jar	COOL	-001	X	X									X
7/16/20	1445	S	S-2	1 x 4oz Jar	COOL	-002	X	X									X
7/16/20	1450	S	S-3	1 x 4oz Jar	COOL	-003	X	X									X
7/16/20	1455	S	S-4	1 x 4oz Jar	COOL	-004	X	X									X
7/16/20	1500	S	S-5	1 x 4oz Jar	COOL	-005	X	X									X
7/16/20	1505	S	S-6	1 x 4oz Jar	COOL	-006	X	X									X
7/16/20	1510	S	S-7	1 x 4oz Jar	COOL	-007	X	X									X
7/16/20	1515	S	S-8	1 x 4oz Jar	COOL	-008	X	X									X
7/16/20	1520	S	S-9	1 x 4oz Jar	COOL	-009	X	X									X
7/16/20	1525	S	S-10	1 x 4oz Jar	COOL	-010	X	X									X
7/16/20	1530	S	S-11	1 x 4oz Jar	COOL	-011	X	X									X
7/16/20	1535	S	S-12	1 x 4oz Jar	COOL	-012	X	X									X

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
7/16/20	1829		Christian Walker		7/16/20	1829
7/16/20	1904	Christian Walker		Courier	7/17/20	0759

Remarks: SAMEDAY
PM - Tom Long (EPROS)
Pay key - RB21200
NonAFE - N98871

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 24, 2020

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

RE: Lateral 2C-120 OrderNo.: 2007B59

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/23/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2007B59**
Date Reported: **7/24/2020**

CLIENT: ENSOLUM **Client Sample ID:** S-13
Project: Lateral 2C-120 **Collection Date:** 7/22/2020 11:30:00 AM
Lab ID: 2007B59-001 **Matrix:** MEOH (SOIL) **Received Date:** 7/23/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	85	60		mg/Kg	20	7/23/2020 10:43:04 AM	53915
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	1100	19		mg/Kg	2	7/23/2020 12:24:09 PM	53910
Motor Oil Range Organics (MRO)	350	96		mg/Kg	2	7/23/2020 12:24:09 PM	53910
Surr: DNOP	115	55.1-146		%Rec	2	7/23/2020 12:24:09 PM	53910
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	430	18		mg/Kg	5	7/23/2020 9:28:52 AM	53903
Surr: BFB	499	66.6-105	S	%Rec	5	7/23/2020 9:28:52 AM	53903
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.091		mg/Kg	5	7/23/2020 9:28:52 AM	53903
Toluene	0.38	0.18		mg/Kg	5	7/23/2020 9:28:52 AM	53903
Ethylbenzene	ND	0.18		mg/Kg	5	7/23/2020 9:28:52 AM	53903
Xylenes, Total	6.4	0.36		mg/Kg	5	7/23/2020 9:28:52 AM	53903
Surr: 4-Bromofluorobenzene	123	80-120	S	%Rec	5	7/23/2020 9:28:52 AM	53903

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2007B59**

24-Jul-20

Client: ENSOLUM

Project: Lateral 2C-120

Sample ID: **MB-53915** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **53915** RunNo: **70560**

Prep Date: **7/23/2020** Analysis Date: **7/23/2020** SeqNo: **2455086** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-53915** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **53915** RunNo: **70560**

Prep Date: **7/23/2020** Analysis Date: **7/23/2020** SeqNo: **2455087** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.1	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative 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#: **2007B59**

24-Jul-20

Client: ENSOLUM

Project: Lateral 2C-120

Sample ID: **LCS-53910** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **53910** RunNo: **70545**

Prep Date: **7/23/2020** Analysis Date: **7/23/2020** SeqNo: **2453976** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	98.9	70	130			
Surr: DNOP	4.8		5.000		96.5	55.1	146			

Sample ID: **MB-53910** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **53910** RunNo: **70545**

Prep Date: **7/23/2020** Analysis Date: **7/23/2020** SeqNo: **2453977** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	55.1	146			

Sample ID: **2007B59-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **S-13** Batch ID: **53910** RunNo: **70551**

Prep Date: **7/23/2020** Analysis Date: **7/23/2020** SeqNo: **2454495** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	890	18	45.62	1125	-515	47.4	136			S
Surr: DNOP	5.9		4.562		129	55.1	146			

Sample ID: **2007B59-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **S-13** Batch ID: **53910** RunNo: **70551**

Prep Date: **7/23/2020** Analysis Date: **7/23/2020** SeqNo: **2454496** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	900	19	46.69	1125	-484	47.4	136	0.985	43.4	S
Surr: DNOP	6.0		4.669		129	55.1	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
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#: **2007B59**

24-Jul-20

Client: ENSOLUM

Project: Lateral 2C-120

Sample ID: **lcs-53903** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **53903** RunNo: **70543**

Prep Date: **7/22/2020** Analysis Date: **7/23/2020** SeqNo: **2455014** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.6	72.5	106			
Surr: BFB	1000		1000		102	66.6	105			

Sample ID: **mb-53903** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **53903** RunNo: **70543**

Prep Date: **7/22/2020** Analysis Date: **7/23/2020** SeqNo: **2455016** 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	920		1000		92.2	66.6	105			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
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#: **2007B59**

24-Jul-20

Client: ENSOLUM

Project: Lateral 2C-120

Sample ID: **LCS-53903** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **53903** RunNo: **70543**

Prep Date: **7/22/2020** Analysis Date: **7/23/2020** SeqNo: **2455068** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	93.7	80	120			
Toluene	0.94	0.050	1.000	0	94.5	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID: **mb-53903** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **53903** RunNo: **70543**

Prep Date: **7/22/2020** Analysis Date: **7/23/2020** SeqNo: **2455070** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		103	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 Quanitative 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

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

Sample Log-In Check List

Client Name: **ENSOLUM** Work Order Number: **2007B59** RcptNo: **1**

Received By: **Isaiah Ortiz** **7/23/2020 8:00:00 AM** I-OK

Completed By: **Isaiah Ortiz** **7/23/2020 8:11:47 AM** I-OK

Reviewed By: IO 07/23/20

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: CMC 7/23/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.4	Good	Yes			

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 6016 S Rio Grande Suite A
Aztec, NM 87410

Phone #:

email or Fax#: KSummers@ensolum.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: SAME DAY
☐ Standard ☒ Rush 100%

Project Name: Lateral 2C-120

Project #: See notes

Project Manager: KSummers

Sampler: RDeechilly

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.4°C | 3.4°C (°C)

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2007B59	BTEX / ~~MTBE~~ / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chlorides
7/22/20	1130	S	S-13	1x4oz Jar	Cool	-001	X	X									X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7/22/20	1409		Christine Walters		7/22/20	1409
7/22/2020	1811	Christine Walters		courier	7/23/20	0800

Remarks: SAME DAY

PM - Tom Long (EPROD)
Pay Key - RB21200
Non AFE - N48871

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 28, 2020

Kyle Summers

Ensolum
606 S Rio Grande Ste A
Aztec, NM 87410
TEL: (903) 821-5603
FAX:

RE: Lateral 2C 120 OrderNo.: 2007D08

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 8 sample(s) on 7/25/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2007D08**
Date Reported: **7/28/2020**

CLIENT: Ensolum
Client Sample ID: S-14
Project: Lateral 2C 120
Collection Date: 7/24/2020 12:00:00 PM
Lab ID: 2007D08-001 **Matrix:** SOIL **Received Date:** 7/25/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	59		mg/Kg	20	7/25/2020 7:38:00 PM	53953
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	7/25/2020 11:36:54 AM	G70607
Surr: BFB	104	70-130		%Rec	1	7/25/2020 11:36:54 AM	G70607
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/27/2020 10:03:04 AM	53962
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/27/2020 10:03:04 AM	53962
Surr: DNOP	96.3	55.1-146		%Rec	1	7/27/2020 10:03:04 AM	53962
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.017		mg/Kg	1	7/25/2020 11:36:54 AM	SL70607
Toluene	ND	0.035		mg/Kg	1	7/25/2020 11:36:54 AM	SL70607
Ethylbenzene	ND	0.035		mg/Kg	1	7/25/2020 11:36:54 AM	SL70607
Xylenes, Total	ND	0.069		mg/Kg	1	7/25/2020 11:36:54 AM	SL70607
Surr: 1,2-Dichloroethane-d4	96.2	70-130		%Rec	1	7/25/2020 11:36:54 AM	SL70607
Surr: 4-Bromofluorobenzene	89.2	70-130		%Rec	1	7/25/2020 11:36:54 AM	SL70607
Surr: Dibromofluoromethane	106	70-130		%Rec	1	7/25/2020 11:36:54 AM	SL70607
Surr: Toluene-d8	105	70-130		%Rec	1	7/25/2020 11:36:54 AM	SL70607

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

Analytical Report
Lab Order **2007D08**
Date Reported: **7/28/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum **Client Sample ID:** S-15
Project: Lateral 2C 120 **Collection Date:** 7/24/2020 12:05:00 PM
Lab ID: 2007D08-002 **Matrix:** SOIL **Received Date:** 7/25/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	97	60		mg/Kg	20	7/25/2020 7:50:25 PM	53953
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	7/25/2020 6:46:15 PM	G70607
Surr: BFB	95.2	70-130		%Rec	1	7/25/2020 6:46:15 PM	G70607
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	38	9.7		mg/Kg	1	7/27/2020 10:27:00 AM	53962
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/27/2020 10:27:00 AM	53962
Surr: DNOP	94.9	55.1-146		%Rec	1	7/27/2020 10:27:00 AM	53962
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.019		mg/Kg	1	7/25/2020 6:46:15 PM	SL70607
Toluene	ND	0.037		mg/Kg	1	7/25/2020 6:46:15 PM	SL70607
Ethylbenzene	ND	0.037		mg/Kg	1	7/25/2020 6:46:15 PM	SL70607
Xylenes, Total	ND	0.074		mg/Kg	1	7/25/2020 6:46:15 PM	SL70607
Surr: 1,2-Dichloroethane-d4	96.0	70-130		%Rec	1	7/25/2020 6:46:15 PM	SL70607
Surr: 4-Bromofluorobenzene	89.3	70-130		%Rec	1	7/25/2020 6:46:15 PM	SL70607
Surr: Dibromofluoromethane	95.5	70-130		%Rec	1	7/25/2020 6:46:15 PM	SL70607
Surr: Toluene-d8	95.4	70-130		%Rec	1	7/25/2020 6:46:15 PM	SL70607

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

Analytical Report
Lab Order **2007D08**
Date Reported: **7/28/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum
Client Sample ID: S-16
Project: Lateral 2C 120
Collection Date: 7/24/2020 12:10:00 PM
Lab ID: 2007D08-003 **Matrix:** SOIL **Received Date:** 7/25/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	95	59		mg/Kg	20	7/25/2020 8:02:50 PM	53953
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	7/25/2020 12:34:02 PM	G70607
Surr: BFB	99.5	70-130		%Rec	1	7/25/2020 12:34:02 PM	G70607
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	7/27/2020 10:50:57 AM	53962
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/27/2020 10:50:57 AM	53962
Surr: DNOP	95.2	55.1-146		%Rec	1	7/27/2020 10:50:57 AM	53962
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.019		mg/Kg	1	7/25/2020 12:34:02 PM	SL70607
Toluene	ND	0.037		mg/Kg	1	7/25/2020 12:34:02 PM	SL70607
Ethylbenzene	ND	0.037		mg/Kg	1	7/25/2020 12:34:02 PM	SL70607
Xylenes, Total	ND	0.074		mg/Kg	1	7/25/2020 12:34:02 PM	SL70607
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	7/25/2020 12:34:02 PM	SL70607
Surr: 4-Bromofluorobenzene	91.7	70-130		%Rec	1	7/25/2020 12:34:02 PM	SL70607
Surr: Dibromofluoromethane	105	70-130		%Rec	1	7/25/2020 12:34:02 PM	SL70607
Surr: Toluene-d8	100	70-130		%Rec	1	7/25/2020 12:34:02 PM	SL70607

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

Analytical Report
Lab Order **2007D08**
Date Reported: **7/28/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum **Client Sample ID:** S-17
Project: Lateral 2C 120 **Collection Date:** 7/24/2020 12:15:00 PM
Lab ID: 2007D08-004 **Matrix:** SOIL **Received Date:** 7/25/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	120	60		mg/Kg	20	7/25/2020 8:15:15 PM	53953
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	7/25/2020 1:02:37 PM	G70607
Surr: BFB	101	70-130		%Rec	1	7/25/2020 1:02:37 PM	G70607
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/27/2020 11:14:50 AM	53962
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/27/2020 11:14:50 AM	53962
Surr: DNOP	94.5	55.1-146		%Rec	1	7/27/2020 11:14:50 AM	53962
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.018		mg/Kg	1	7/25/2020 1:02:37 PM	SL70607
Toluene	ND	0.036		mg/Kg	1	7/25/2020 1:02:37 PM	SL70607
Ethylbenzene	ND	0.036		mg/Kg	1	7/25/2020 1:02:37 PM	SL70607
Xylenes, Total	ND	0.073		mg/Kg	1	7/25/2020 1:02:37 PM	SL70607
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	7/25/2020 1:02:37 PM	SL70607
Surr: 4-Bromofluorobenzene	89.2	70-130		%Rec	1	7/25/2020 1:02:37 PM	SL70607
Surr: Dibromofluoromethane	105	70-130		%Rec	1	7/25/2020 1:02:37 PM	SL70607
Surr: Toluene-d8	101	70-130		%Rec	1	7/25/2020 1:02:37 PM	SL70607

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

Analytical Report
Lab Order **2007D08**
Date Reported: **7/28/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum **Client Sample ID:** S-18
Project: Lateral 2C 120 **Collection Date:** 7/24/2020 12:20:00 PM
Lab ID: 2007D08-005 **Matrix:** SOIL **Received Date:** 7/25/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	91	60		mg/Kg	20	7/25/2020 8:27:39 PM	53953
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	7/25/2020 1:31:13 PM	G70607
Surr: BFB	94.5	70-130		%Rec	1	7/25/2020 1:31:13 PM	G70607
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/27/2020 11:38:48 AM	53962
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/27/2020 11:38:48 AM	53962
Surr: DNOP	94.9	55.1-146		%Rec	1	7/27/2020 11:38:48 AM	53962
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.018		mg/Kg	1	7/25/2020 1:31:13 PM	SL70607
Toluene	ND	0.036		mg/Kg	1	7/25/2020 1:31:13 PM	SL70607
Ethylbenzene	ND	0.036		mg/Kg	1	7/25/2020 1:31:13 PM	SL70607
Xylenes, Total	ND	0.072		mg/Kg	1	7/25/2020 1:31:13 PM	SL70607
Surr: 1,2-Dichloroethane-d4	96.1	70-130		%Rec	1	7/25/2020 1:31:13 PM	SL70607
Surr: 4-Bromofluorobenzene	88.3	70-130		%Rec	1	7/25/2020 1:31:13 PM	SL70607
Surr: Dibromofluoromethane	104	70-130		%Rec	1	7/25/2020 1:31:13 PM	SL70607
Surr: Toluene-d8	98.9	70-130		%Rec	1	7/25/2020 1:31:13 PM	SL70607

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

Analytical Report
Lab Order **2007D08**
Date Reported: **7/28/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum **Client Sample ID:** S-19
Project: Lateral 2C 120 **Collection Date:** 7/24/2020 12:25:00 PM
Lab ID: 2007D08-006 **Matrix:** SOIL **Received Date:** 7/25/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	70	61		mg/Kg	20	7/25/2020 8:40:03 PM	53953
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	7/25/2020 1:59:48 PM	G70607
Surr: BFB	97.9	70-130		%Rec	1	7/25/2020 1:59:48 PM	G70607
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**CLP**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/27/2020 12:02:47 PM	53962
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/27/2020 12:02:47 PM	53962
Surr: DNOP	94.2	55.1-146		%Rec	1	7/27/2020 12:02:47 PM	53962
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.020		mg/Kg	1	7/25/2020 1:59:48 PM	SL70607
Toluene	ND	0.039		mg/Kg	1	7/25/2020 1:59:48 PM	SL70607
Ethylbenzene	ND	0.039		mg/Kg	1	7/25/2020 1:59:48 PM	SL70607
Xylenes, Total	ND	0.078		mg/Kg	1	7/25/2020 1:59:48 PM	SL70607
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	7/25/2020 1:59:48 PM	SL70607
Surr: 4-Bromofluorobenzene	86.1	70-130		%Rec	1	7/25/2020 1:59:48 PM	SL70607
Surr: Dibromofluoromethane	104	70-130		%Rec	1	7/25/2020 1:59:48 PM	SL70607
Surr: Toluene-d8	102	70-130		%Rec	1	7/25/2020 1:59:48 PM	SL70607

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

Analytical Report
Lab Order **2007D08**
Date Reported: **7/28/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum **Client Sample ID:** S-20
Project: Lateral 2C 120 **Collection Date:** 7/24/2020 12:30:00 PM
Lab ID: 2007D08-007 **Matrix:** SOIL **Received Date:** 7/25/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	98	60		mg/Kg	20	7/25/2020 8:52:28 PM	53953
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	7/25/2020 2:28:28 PM	G70607
Surr: BFB	99.5	70-130		%Rec	1	7/25/2020 2:28:28 PM	G70607
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/27/2020 12:26:47 PM	53962
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/27/2020 12:26:47 PM	53962
Surr: DNOP	93.8	55.1-146		%Rec	1	7/27/2020 12:26:47 PM	53962
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.022		mg/Kg	1	7/25/2020 2:28:28 PM	SL70607
Toluene	ND	0.044		mg/Kg	1	7/25/2020 2:28:28 PM	SL70607
Ethylbenzene	ND	0.044		mg/Kg	1	7/25/2020 2:28:28 PM	SL70607
Xylenes, Total	ND	0.089		mg/Kg	1	7/25/2020 2:28:28 PM	SL70607
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	1	7/25/2020 2:28:28 PM	SL70607
Surr: 4-Bromofluorobenzene	86.9	70-130		%Rec	1	7/25/2020 2:28:28 PM	SL70607
Surr: Dibromofluoromethane	108	70-130		%Rec	1	7/25/2020 2:28:28 PM	SL70607
Surr: Toluene-d8	105	70-130		%Rec	1	7/25/2020 2:28:28 PM	SL70607

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

Analytical Report
Lab Order **2007D08**
Date Reported: **7/28/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Ensolum **Client Sample ID:** SP-1
Project: Lateral 2C 120 **Collection Date:** 7/24/2020 12:40:00 PM
Lab ID: 2007D08-008 **Matrix:** SOIL **Received Date:** 7/25/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	71	60		mg/Kg	20	7/25/2020 9:04:52 PM	53953
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	7/25/2020 2:57:09 PM	G70607
Surr: BFB	96.9	70-130		%Rec	1	7/25/2020 2:57:09 PM	G70607
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**CLP**
Diesel Range Organics (DRO)	12	9.8		mg/Kg	1	7/27/2020 12:50:43 PM	53962
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/27/2020 12:50:43 PM	53962
Surr: DNOP	93.6	55.1-146		%Rec	1	7/27/2020 12:50:43 PM	53962
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**DJF**
Benzene	ND	0.021		mg/Kg	1	7/25/2020 2:57:09 PM	SL70607
Toluene	ND	0.041		mg/Kg	1	7/25/2020 2:57:09 PM	SL70607
Ethylbenzene	ND	0.041		mg/Kg	1	7/25/2020 2:57:09 PM	SL70607
Xylenes, Total	ND	0.082		mg/Kg	1	7/25/2020 2:57:09 PM	SL70607
Surr: 1,2-Dichloroethane-d4	99.1	70-130		%Rec	1	7/25/2020 2:57:09 PM	SL70607
Surr: 4-Bromofluorobenzene	88.0	70-130		%Rec	1	7/25/2020 2:57:09 PM	SL70607
Surr: Dibromofluoromethane	105	70-130		%Rec	1	7/25/2020 2:57:09 PM	SL70607
Surr: Toluene-d8	99.4	70-130		%Rec	1	7/25/2020 2:57:09 PM	SL70607

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2007D08**
28-Jul-20

Client: Ensolum
Project: Lateral 2C 120

Sample ID: **LCS-53953** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **53953** RunNo: **70611**
Prep Date: **7/25/2020** Analysis Date: **7/25/2020** SeqNo: **2456288** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.3	90	110			

Sample ID: **MB-53953** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **53953** RunNo: **70611**
Prep Date: **7/25/2020** Analysis Date: **7/25/2020** SeqNo: **2456289** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
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#: **2007D08**
28-Jul-20

Client: Ensolum
Project: Lateral 2C 120

Sample ID: **MB-53962** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **53962** RunNo: **70623**
Prep Date: **7/27/2020** Analysis Date: **7/27/2020** SeqNo: **2457410** 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	9.8		10.00		97.6	55.1	146			

Sample ID: **LCS-53962** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **53962** RunNo: **70623**
Prep Date: **7/27/2020** Analysis Date: **7/27/2020** SeqNo: **2457411** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.4	70	130			
Surr: DNOP	4.5		5.000		89.2	55.1	146			

Sample ID: **2007D08-008AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP-1** Batch ID: **53962** RunNo: **70623**
Prep Date: **7/27/2020** Analysis Date: **7/27/2020** SeqNo: **2457438** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	9.2	45.79	11.81	90.8	47.4	136			
Surr: DNOP	4.0		4.579		87.6	55.1	146			

Sample ID: **2007D08-008AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SP-1** Batch ID: **53962** RunNo: **70623**
Prep Date: **7/27/2020** Analysis Date: **7/27/2020** SeqNo: **2457439** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	9.3	46.43	11.81	88.5	47.4	136	0.922	43.4	
Surr: DNOP	4.3		4.643		91.7	55.1	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
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#: **2007D08**
28-Jul-20

Client: Ensolum
Project: Lateral 2C 120

Sample ID: **mb1** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **SL70607** RunNo: **70607**
Prep Date: Analysis Date: **7/25/2020** SeqNo: **2455903** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		93.6	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID: **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS** Batch ID: **SL70607** RunNo: **70607**
Prep Date: Analysis Date: **7/25/2020** SeqNo: **2455904** 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	70	130			
Toluene	0.99	0.050	1.000	0	98.9	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		95.4	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		89.6	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.2	70	130			
Surr: Toluene-d8	0.50		0.5000		99.1	70	130			

Sample ID: **2007d08-002ams** SampType: **MS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-15** Batch ID: **SL70607** RunNo: **70607**
Prep Date: Analysis Date: **7/25/2020** SeqNo: **2455908** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.81	0.019	0.7418	0	109	67.9	137			
Toluene	0.76	0.037	0.7418	0	102	70	130			
Surr: 1,2-Dichloroethane-d4	0.39		0.3709		104	70	130			
Surr: 4-Bromofluorobenzene	0.35		0.3709		94.5	70	130			
Surr: Dibromofluoromethane	0.35		0.3709		94.0	70	130			
Surr: Toluene-d8	0.36		0.3709		97.8	70	130			

Sample ID: **2007d08-002amsd** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-15** Batch ID: **SL70607** RunNo: **70607**
Prep Date: Analysis Date: **7/25/2020** SeqNo: **2455909** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.76	0.019	0.7418	0	102	67.9	137	6.40	20	
Toluene	0.74	0.037	0.7418	0	99.1	70	130	2.96	20	

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2007D08**
28-Jul-20

Client: Ensolum
Project: Lateral 2C 120

Sample ID: **2007d08-002amsd** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S-15** Batch ID: **SL70607** RunNo: **70607**
Prep Date: Analysis Date: **7/25/2020** SeqNo: **2455909** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.37		0.3709		98.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.33		0.3709		90.0	70	130	0	0	
Surr: Dibromofluoromethane	0.34		0.3709		92.8	70	130	0	0	
Surr: Toluene-d8	0.37		0.3709		100	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
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#: **2007D08**

28-Jul-20

Client: Ensolum

Project: Lateral 2C 120

Sample ID: **mb1**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **G70607**	RunNo: **70607**
Prep Date:	Analysis Date: **7/25/2020**	SeqNo: **2455935** 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	500		500.0		101	70	130			

Sample ID: **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G70607**	RunNo: **70607**
Prep Date:	Analysis Date: **7/25/2020**	SeqNo: **2455936** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	82.2	70	130			
Surr: BFB	470		500.0		93.6	70	130			

Sample ID: **2007d08-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **S-14**	Batch ID: **G70607**	RunNo: **70607**
Prep Date:	Analysis Date: **7/25/2020**	SeqNo: **2455938** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	14	3.5	17.36	0	80.7	49.2	122			
Surr: BFB	350		347.2		100	70	130			

Sample ID: **2007d08-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **S-14**	Batch ID: **G70607**	RunNo: **70607**
Prep Date:	Analysis Date: **7/25/2020**	SeqNo: **2455939** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	13	3.5	17.36	0	77.8	49.2	122	3.69	20	
Surr: BFB	330		347.2		94.9	70	130	0	0	

Qualifiers:

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

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

Sample Log-In Check List

Client Name: **ENSOLUM** Work Order Number: **2007D08** RcptNo: 1

Received By: **Emily Mocho** **7/25/2020 7:55:00 AM**

Completed By: **Emily Mocho** **7/25/2020 8:00:47 AM**

Reviewed By: EM 7/25/20

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: JR 7/25/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.1	Good	Yes			

Chain-of-Custody Record

Client: Ensolum, LLC

Mailing Address: 6000 S. Rio Grande Suite A
Aztec, NM 87410

Phone #:

email or Fax#: KSummers@ensolum.com

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

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

Turn-Around Time: SAME DAY
☐ Standard ☒ Rush 100%

Project Name: Lateral 2C-120

Project #: See notes

Project Manager: Ksummers

Sampler: RJeechilly

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 5.2-0.1=5.1 (°C)

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2007D08	BTEX / MTBE / TMBs (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chlorides
7/24/20	1200	S	S-14	1x4oz Jar	Cool	-001	X	X									X
7/24/20	1205	S	S-15	1x4oz Jar	Cool	-002	X	X									X
7/24/20	1210	S	S-16	1x4oz Jar	Cool	-003	X	X									X
7/24/20	1215	S	S-17	1x4oz Jar	Cool	-004	X	X									X
7/24/20	1220	S	S-18	1x4oz Jar	Cool	-005	X	X									X
7/24/20	1225	S	S-19	1x4oz Jar	Cool	-006	X	X									X
7/24/20	1230	S	S-20	1x4oz Jar	Cool	-007	X	X									X
7/24/20	1240	S	SP-1	1x4oz Jar	Cool	-008	X	X									X

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
7/24/20	1430		Christian Waller		7/24/20	1430
7/24/20	1754	Christian Waller	EKM	courier	7/29/20	7:55

Remarks: SAMEDAY

PM - Tom Long (EPROD)
Parkey - RB21200
Non AFE - N48871

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

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 19645
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	4/26/2022