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):* **NVF1906555554**
Contact mailing address: **614 Reilly Ave, Farmington, NM 87401**	

Location of Release Source

Latitude **36.431197** Longitude **-107.442322** *(NAD 83 in decimal degrees to 5 decimal places)*

Site Name **Canyon Largo #147 Drip Tank**	Site Type **Natural Gas Liquids Collection Tank**
Date Release Discovered: **2/8/2019**	Serial Number *(if applicable)*: **N/A**

Unit Letter	Section	Township	Range	County
D	**2**	**25N**	**6W**	**Rio Arriba**

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

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): **5-7 Barrels**	Volume Recovered (bbls): **None**
☐	ıme Released (Mcf):	Volume Recovered (Mcf):
☐ Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

Cause of Release: On February 8, 2019, an Enterprise technician discovered a release of condensate on the Canyon Largo #147 Drip tank. An area of approximately 10 feet long by 10 feet wide was impacted by the released fluids. The release was a result of a cracked valve on the drip tank. The valve was repaired. Enterprise began remediation activities on February 13, 2019 and on February 14, 2019, Enterprise determined the release reportable per NMOCD regulation due to the volume of impacted subsurface soil. Remediation activities were completed on April 5, 2019. The final excavation dimensions measured approximately 34 feet long by 38 feet wide by ranging from approximately 0.5 to 8 feet deep. Approximately 302 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. A third party closure report is included with this "Final." C-141.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Jon E. Fields Title: Director, Environmental

Signature: Jon E. Fields Date: 9/3/19

email: jefields@eprod.com Telephone: (713) 381-6684

OCD Only

Received by: OCD Date: 9/6/19

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: Cory Date: 9/10/19

Printed Name: Cory Title: Environmental Specalist

CLOSURE REPORT

Property:

Canyon Largo 147 Drip Line Release
NW ¼, S2 T25N R6W
Rio Arriba County, New Mexico

August 8, 2019
Ensolum Project No. 05A1226044

Prepared for:

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

Prepared by:

Chad D'Aponti
Field Environmental Scientist

Ranee Deechilly
Environmental Scientist

Kyle Summers, CPG
Sr. Project Manager

Table of Contents

LIST OF APPENDICES

CLOSURE REPORT

Canyon Largo 147 Drip Line Release
NW ¼, S2 T25N R6W
Rio Arriba County, New Mexico

Ensolum Project No. 05A1226044

1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Canyon Largo 147 Drip Line Release (Site)
Location:	36.431197° North, 107.442322° West Northwest (NW) ¼ of Section 2, Township 25 North, Range 6 West Rio Arriba County, New Mexico
Property:	New Mexico State Land Office
Regulatory:	New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On February 8, 2019, a release of natural gas was identified at the Site. Enterprise verified the release and subsequently isolated and locked the drip line out of service. On February 13, 2019, Enterprise performed initial response activities by removing visibly impacted material from the ground surface. Further remediation activities were temporarily postponed due to adverse weather and ground conditions. On April 3, 2019, Enterprise resumed activities to remediate petroleum hydrocarbon impact resulting from the release.

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

1.2 Project Objective

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

2.0 CLOSURE CRITERIA

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

- No water wells were identified within a one-half mile radius of the Site on the OSE Water Rights Reporting System (WRRS) database. Three (3) points-of-diversion (POD) (SJ 00885_7, SJ 00885_3, and SJ 00201) were identified 0.6 to 0.8 miles from the Site, however SJ 00201 was the only POD with a recorded depth to water (500 feet below grade surface (bgs)).

- Three (3) cathodic-protection wells were identified within a mile of the Site. The shallowest water recorded within that distance was a 78 feet bgs "water seep" (located at a lower elevation) at the Canyon Largo Units #166 and #34 which is approximately 0.5 miles from the site. The closest cathodic-protection well (Canyon Largo Units #252 and #65 indicates a "water seep" at 85 feet bgs (approximately 0.46 miles from the site and at a higher elevation). The remaining nearby cathodic well (Canyon Largo Units #294 and #183) identifies depth to water at 100 feet bgs.

- The Site is not located within 300 feet of a New Mexico ENMRD OCD-defined continuously flowing watercourse or significant watercourse.

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

- The Site is not located within 300 feet of a permanent residence, school, hospital, institution or church.

- No springs, or private domestic fresh water wells used by less than five (5) households for domestic or stock watering purposes were identified within 500 feet of the Site.

- No fresh water wells or springs were identified within 1,000 feet of the Site.

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

- The Site is not located within 300 feet of a wetland.

- Based on information identified on the New Mexico Mining and Minerals Division's GIS, Maps and Mine Data database, the Site is not located within an area overlying a subsurface mine.

- The Site is not located within an unstable area.

- The Site is not located within a 100-year floodplain.

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

Closure Criteria for Soils Impacted by a Release			
Minimum depth below any point within horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Method	Limit
51 to 100 feet	Chloride	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	TPH (GRO+DRO)	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

3.0 SOIL REMEDIATION ACTIVITIES

On February 13, 2019, Enterprise initiated activities to remediate potential petroleum hydrocarbon impact resulting from the release. Due to adverse weather and ground conditions remediation activities were temporarily postponed, resuming on April 3, 2019. During the remediation and corrective action activities OFT Construction, Inc. provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

The final excavation measured approximately 34 feet long and 38 feet wide at the maximum extents. The maximum depth of the excavation measured approximately 8 feet bgs, with some areas as shallow as 0.5 feet bgs.

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

A total of approximately 302 cubic yards (cy) of petroleum hydrocarbon affected soils and 15 barrels (bbls) of hydro-excavation soil cuttings and water were transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, New Mexico for disposal/remediation. The executed C-138 solid waste acceptance forms are provided in **Appendix C**. The excavation was backfilled with imported fill 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 drip tank (**Appendix A**). Photographic documentation of the field activities is included in **Appendix D**.

4.0 SOIL SAMPLING PROGRAM

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

Ensolum's soil sampling program included the collection of 10 composite soil samples (S-1 through S-9, and D-1), consisting of five (5) aliquots each, from the remediation area for laboratory analyses. A clean shovel was utilized to obtain fresh aliquots from each area of the excavation. The New Mexico EMNRD OCD provided verbal approval to proceed with the sampling event and were present for the second (final) sampling event on April 5, 2019.

First Sampling Event
Composite soil sample D-1 was collected at a pot-holed location beneath the drip line, prior to further excavation in that area, to evaluate the level of petroleum hydrocarbon impact. Composite soil sample S-3 was collected from a former excavation sidewall (0'-2') and was found to exceed the applicable New Mexico EMNRD OCD closure standards. Soils associated with composite soil samples D-1 and S-3 were removed during subsequent excavation activities and transported to the Envirotech landfarm for disposal/remediation. Composite samples S-1 (0'-2') and S-2 (0'-2') were collected from the west and north sidewalls, respectively, of the excavation. Composite sample S-4 (0'-0.5'), was collected from the south sidewall and a portion of the south floor of the excavation. Composite sample S-5 (2') was collected from the western floor of the excavation (portions of this floor area were later sloped to provide better access to the eastern portion of the excavation which had to be excavated deeper than the western portion).

Second Sampling Event
As a result of the closure standard exceedances identified by composite soil samples D-1 and S-3, the excavation was extended to the east and resampled. Composite soil samples S-6 (0'-8'), S-7 (0'-8'), and S-8 (0'-8') were collected from the sidewalls of the extended excavation, and composite soil sample S-9 (8') was collected from the floor of the extended excavation.

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

5.0 SOIL LABORATORY ANALYTICAL METHODS

The composite soil samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) using Environmental Protection Agency (EPA) SW-846 Method #8021, 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.

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

6.0 DATA EVALUATION

Ensolum compared the BTEX, TPH, and chloride laboratory analytical results or laboratory practical quantitation limits (PQLs) associated with the composite soil samples (S-1, S-2, and S-4 through S-9) to the applicable New Mexico EMNRD OCD closure criteria. Soil associated with composite soil samples S-3 and D-1 were removed by excavation and 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, which are less than the New Mexico EMNRD OCD closure criteria of 10 mg/kg.

- The laboratory analytical results for the composite soil samples collected from soils remaining in place indicate total BTEX concentrations ranging from less than the PQLs to 17 mg/kg (S-9), which do not exceed the New Mexico EMNRD OCD closure criteria of 50 mg/kg.

- The laboratory analytical results for composite soil samples collected from soils remaining in place indicate combined TPH GRO/DRO concentrations ranging from less than the laboratory PQLs to 430 mg/kg (S-9), which do not exceed the applicable New Mexico EMNRD OCD closure criteria of 1,000 mg/kg.

- The laboratory analytical results for composite soil samples collected from soils remaining in place indicate combined TPH GRO/DRO/MRO concentrations ranging from less than the PQLs to 430 mg/kg (S-9), which do not exceed the applicable New Mexico EMNRD OCD closure criteria of 2,500 mg/kg.

- The laboratory analytical results for composite soil samples S-2 and S-5, collected from soils remaining in place, indicate chloride concentrations of 92 mg/kg and 90 mg/kg, respectively, which do not exceed the applicable New Mexico EMNRD OCD closure criteria of 10,000 mg/kg. The laboratory analytical results for the remaining composite soil samples collected from soils remaining in place indicate chloride is not present at concentrations greater than the laboratory PQLs, which are less than the applicable New Mexico EMNRD OCD closure criteria of 10,000 mg/kg for chlorides.

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

7.0 RECLAMATION AND RE-VEGETATION

The excavation was backfilled with imported fill and then contoured to the surrounding grade. The area will continue to be utilized as a driving surface.

8.0 FINDINGS AND RECOMMENDATION

On February 8, 2019, a release of natural gas was identified at the Site. Enterprise verified the release and subsequently isolated and locked the drip line out of service. On February 13, 2019, Enterprise performed initial response activities by removing visibly impacted material from the ground surface. Further remediation activities were temporarily postponed due to adverse weather and ground conditions. On April 3, 2019, Enterprise resumed activities to remediate petroleum hydrocarbon impact resulting from the release.

- The primary objective of the closure activities was to reduce COC concentrations in the on-Site soils to below the applicable New Mexico EMNRD OCD closure criteria using the New Mexico EMNRD OCD's NMAC 19.15.29 *Releases* as guidance.

- A total of ten (10) composite soil samples were collected from the walls and floor of the excavation for laboratory analyses. Based on soil laboratory analytical results, soils remaining in place do not exhibit COC concentrations above the applicable New Mexico EMNRD OCD closure criteria.

- A total of approximately 302 cy of petroleum hydrocarbon affected soils and 15 bbls of hydro-excavation soil cuttings and water were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation. The excavation was backfilled with imported fill and then contoured to surrounding grade.

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

9.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

9.1 Standard of Care

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

9.2 Additional Limitations

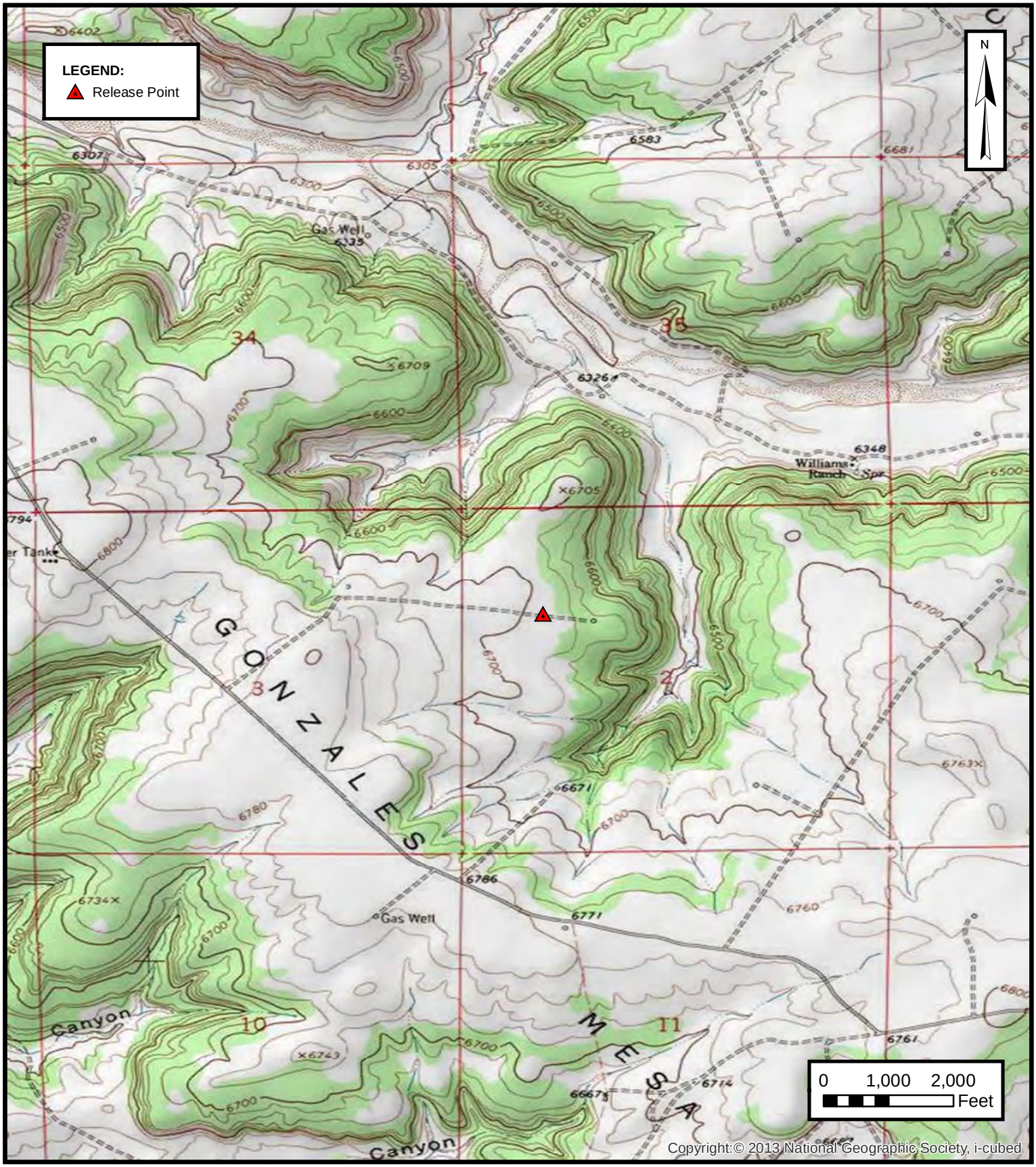
Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence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

9.3 Reliance

This report has been prepared for the exclusive use of Enterprise Products Operating LLC, 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 Enterprise Products Operating LLC and Ensolum. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the Closure Report, and Ensolum's Master Services Agreement. The limitation of liability defined in the agreement is the aggregate limit of Ensolum's liability to the client.

APPENDIX A

Figures



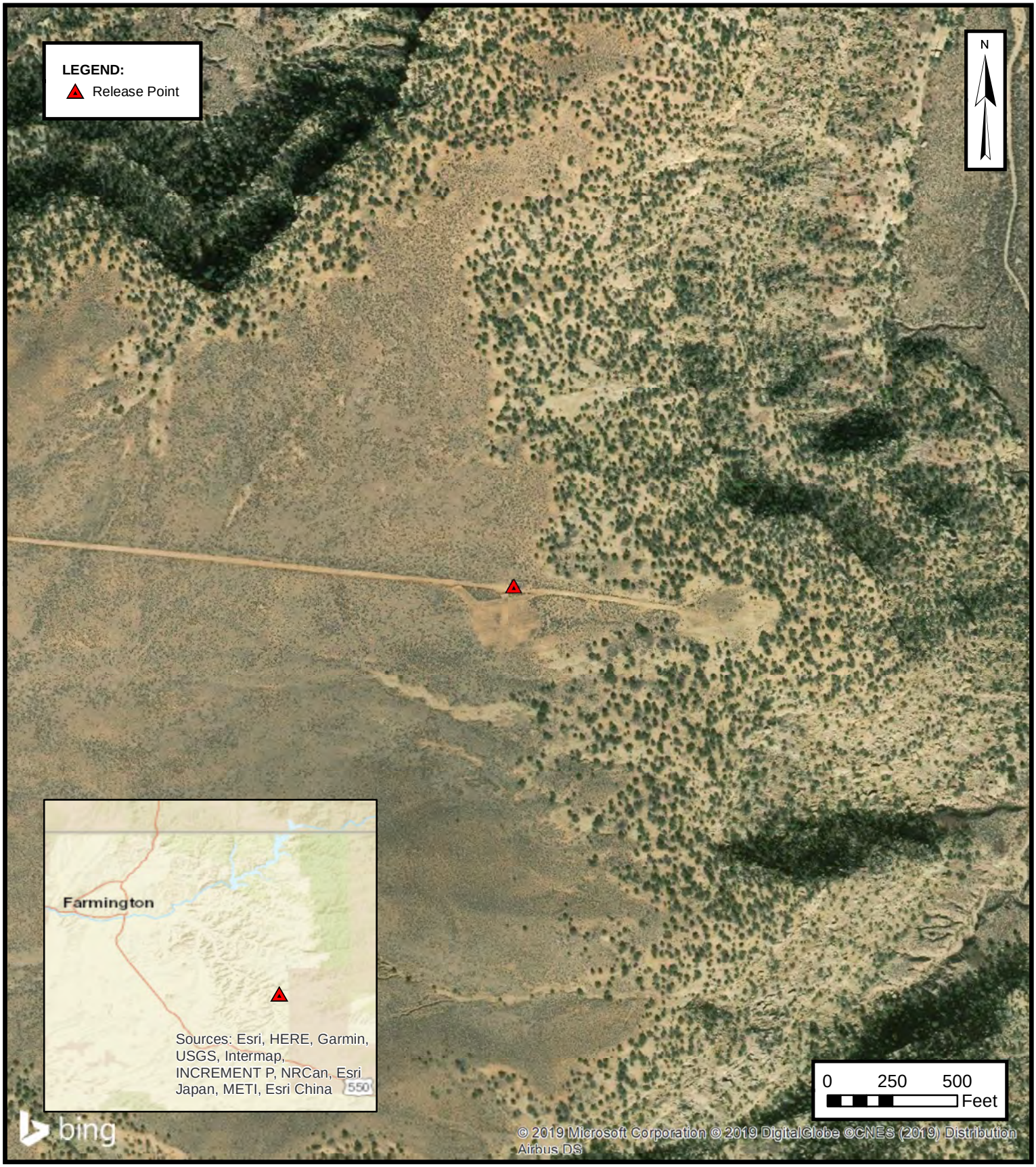
ENSOLUM
Environmental & Hydrogeologic Consultants

TOPOGRAPHIC MAP

ENTERPIRSE FIELD SERVICES, LLC
CANYON LARGO 147 DRIP LINE RELEASE
NW ¼, S2 T25N R6W, NMPM. Rio Arriba County, New Mexico
36.43116° N, 107.44232° W

PROJECT NUMBER: 05A1226042

FIGURE
1



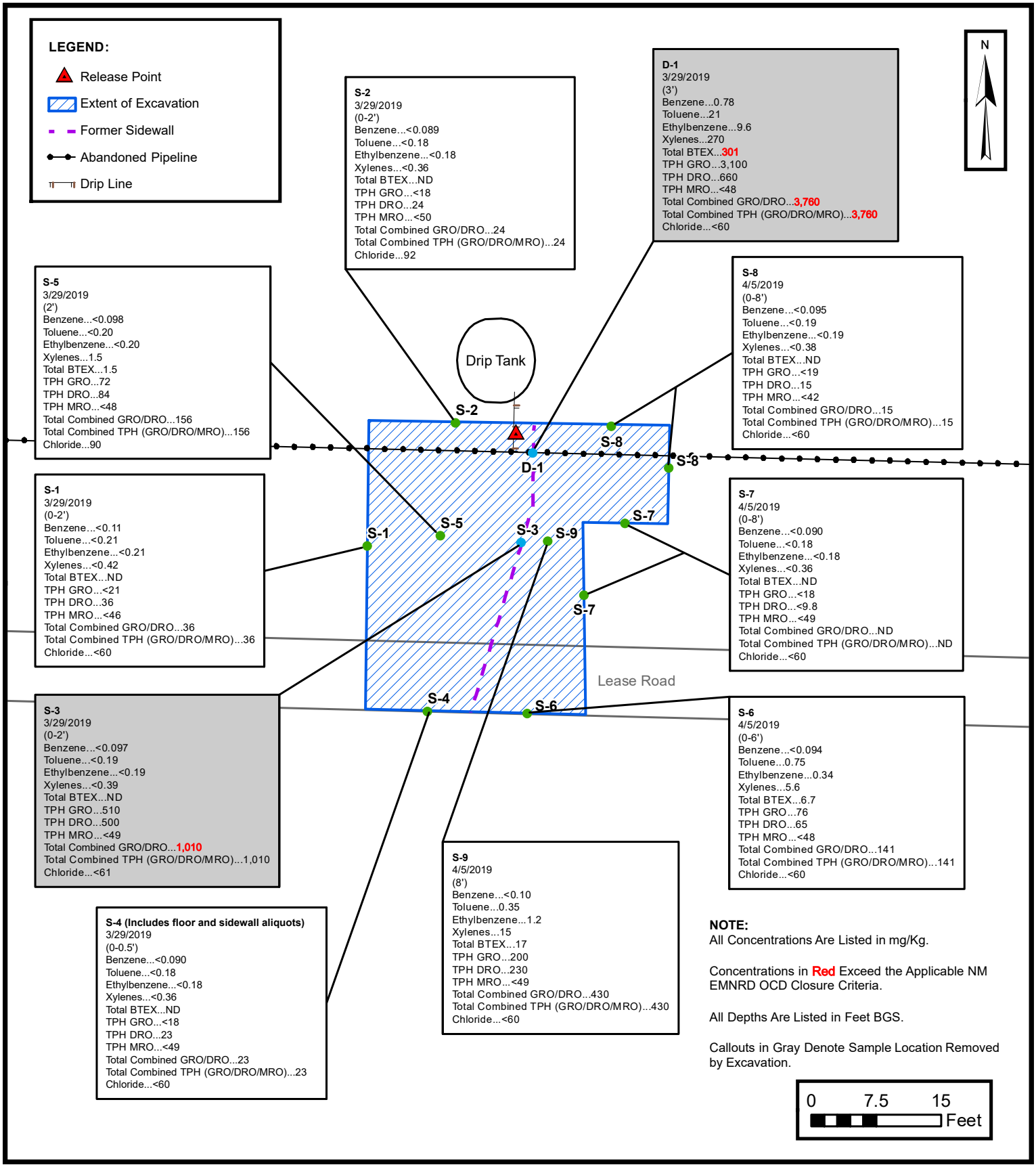
ENSOLUM
Environmental & Hydrogeologic Consultants

SITE VICINITY MAP

ENTERPIRSE FIELD SERVICES, LLC
CANYON LARGO 147 DRIP LINE RELEASE
NW ¼, S2 T25N R6W, NMPM. Rio Arriba County, New Mexico
36.43116° N, 107.44232° W

PROJECT NUMBER: 05A1226042

FIGURE
2



ENSOLUM
Environmental & Hydrogeologic Consultants

SITE MAP WITH SOIL ANALYTICAL RESULTS

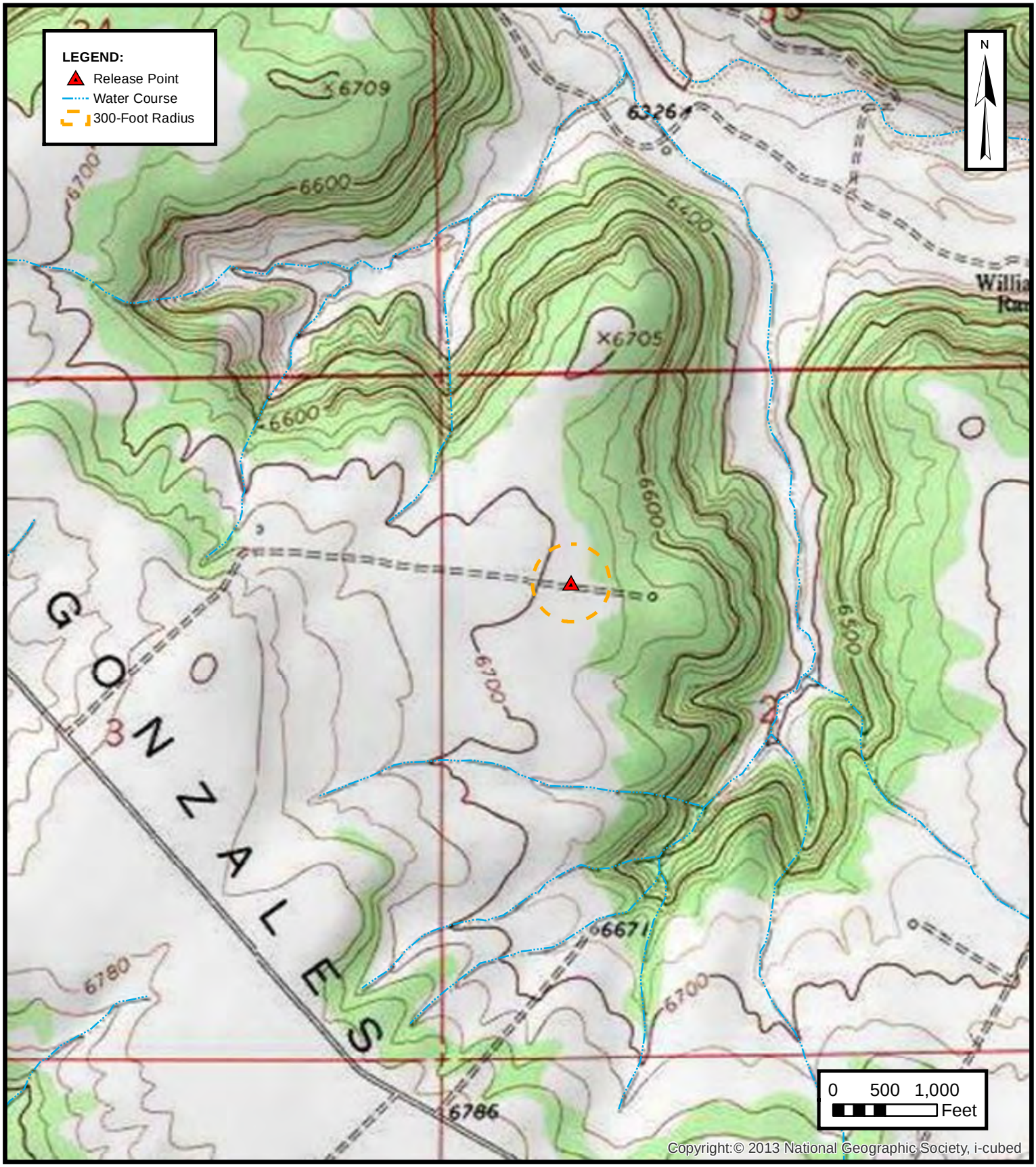
ENTERPIRSE FIELD SERVICES, LLC
CANYON LARGO 147 DRIP LINE RELEASE
NW ¼, S2 T25N R6W, NMPM. Rio Arriba County, New Mexico
36.43116° N, 107.44232° W

PROJECT NUMBER: 05A1226042

FIGURE
3

APPENDIX B

Siting Figures and Documentation



ENSOLUM
Environmental & Hydrogeologic Consultants

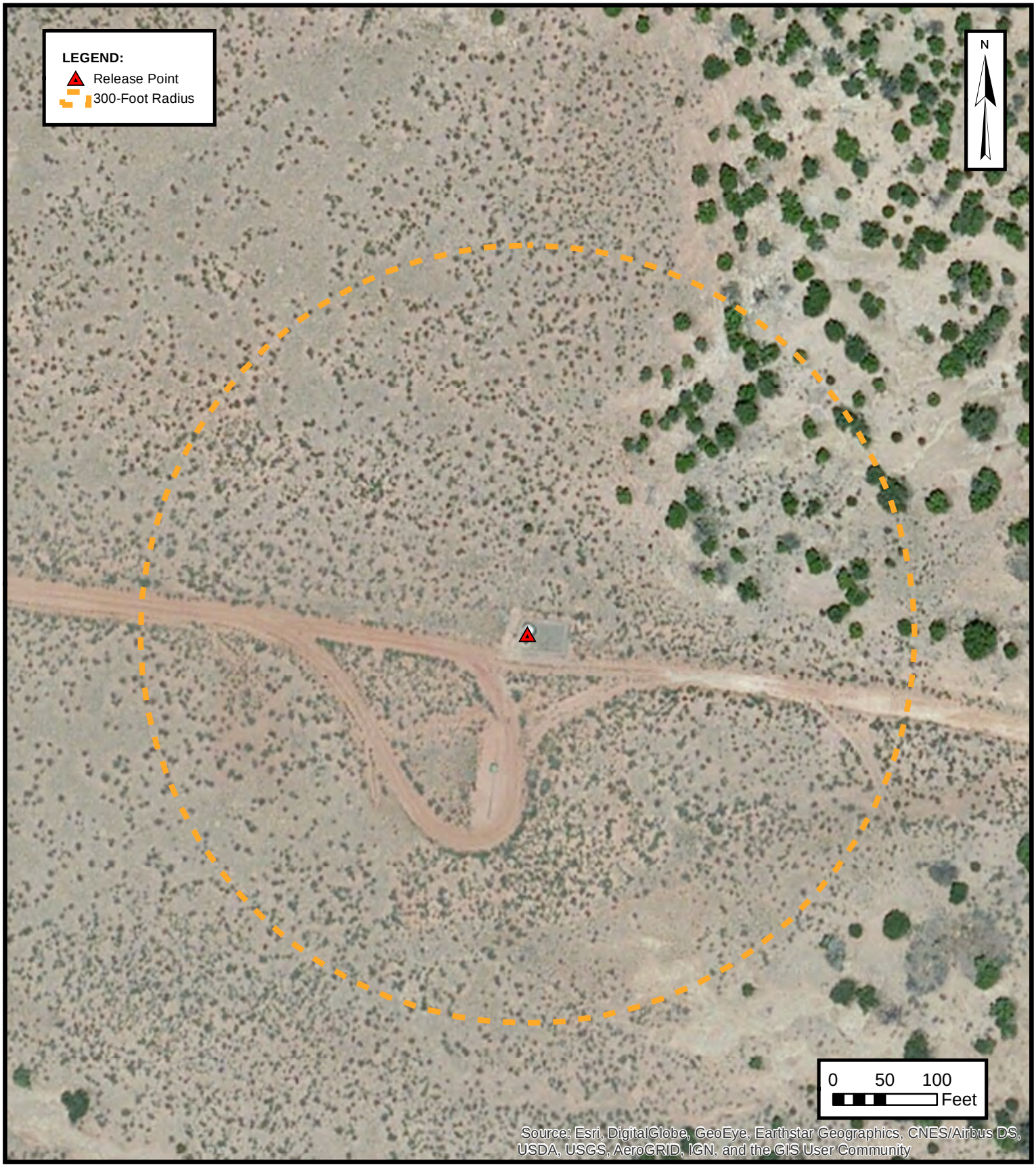
300-FOOT RADIUS WATERCOURSE AND DRAINAGE IDENTIFICATION

ENTERPIRSE FIELD SERVICES, LLC
CANYON LARGO 147 DRIP LINE RELEASE
NW ¼, S2 T25N R6W, NMPM. San Juan County, New Mexico
36.43116° N, 107.44232° W

PROJECT NUMBER: 05A1226042

FIGURE

A



ENSOLUM
Environmental & Hydrogeologic Consultants

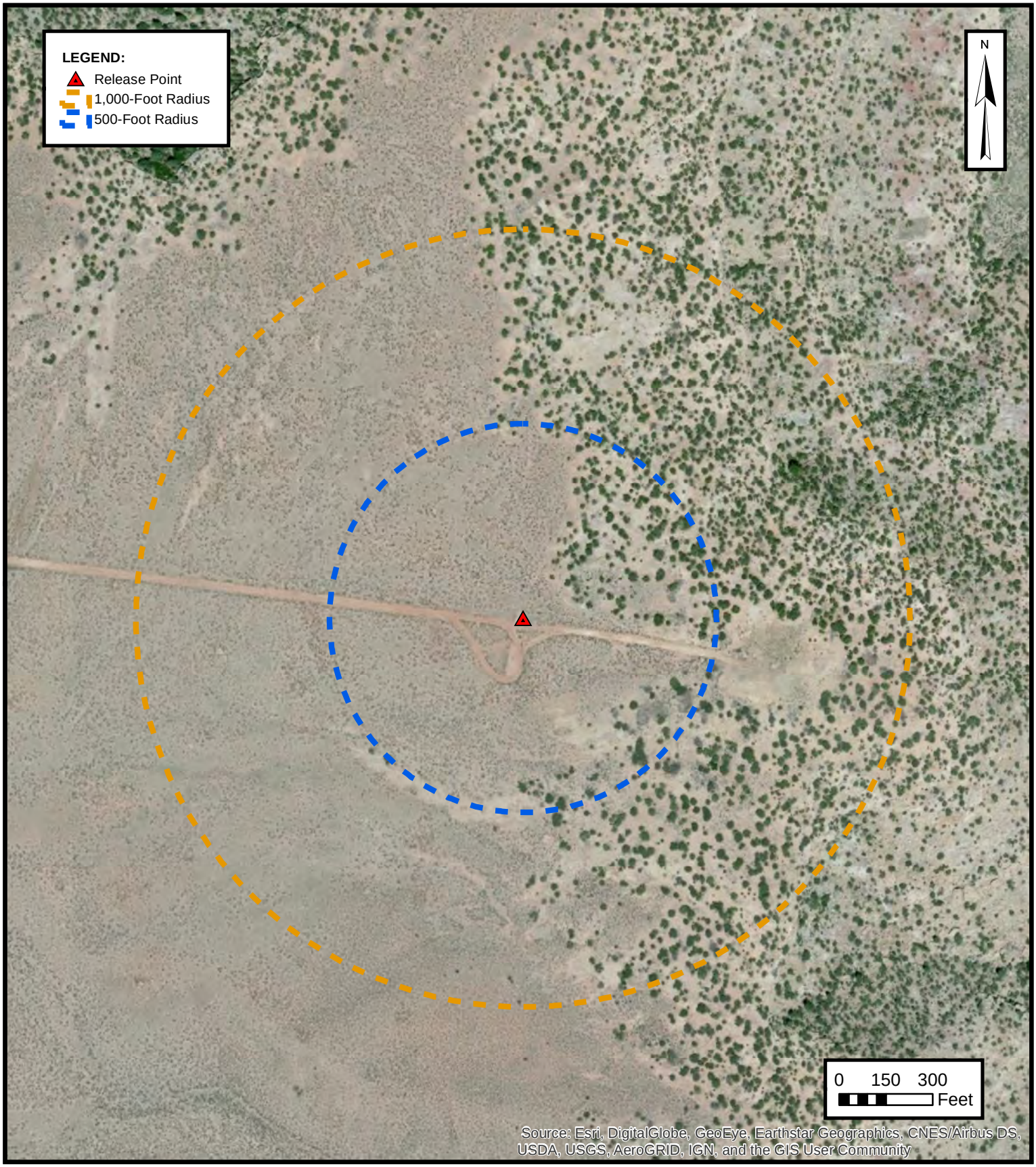
300-FOOT RADIUS OCCUPIED STRUCTURE IDENTIFICATION

ENTERPIRSE FIELD SERVICES, LLC
CANYON LARGO 147 DRIP LINE RELEASE
NW ¼, S2 T25N R6W, NMPM. San Juan County, New Mexico
36.43116° N, 107.44232° W

PROJECT NUMBER: 05A1226042

FIGURE

B



ENSOLUM
Environmental & Hydrogeologic Consultants

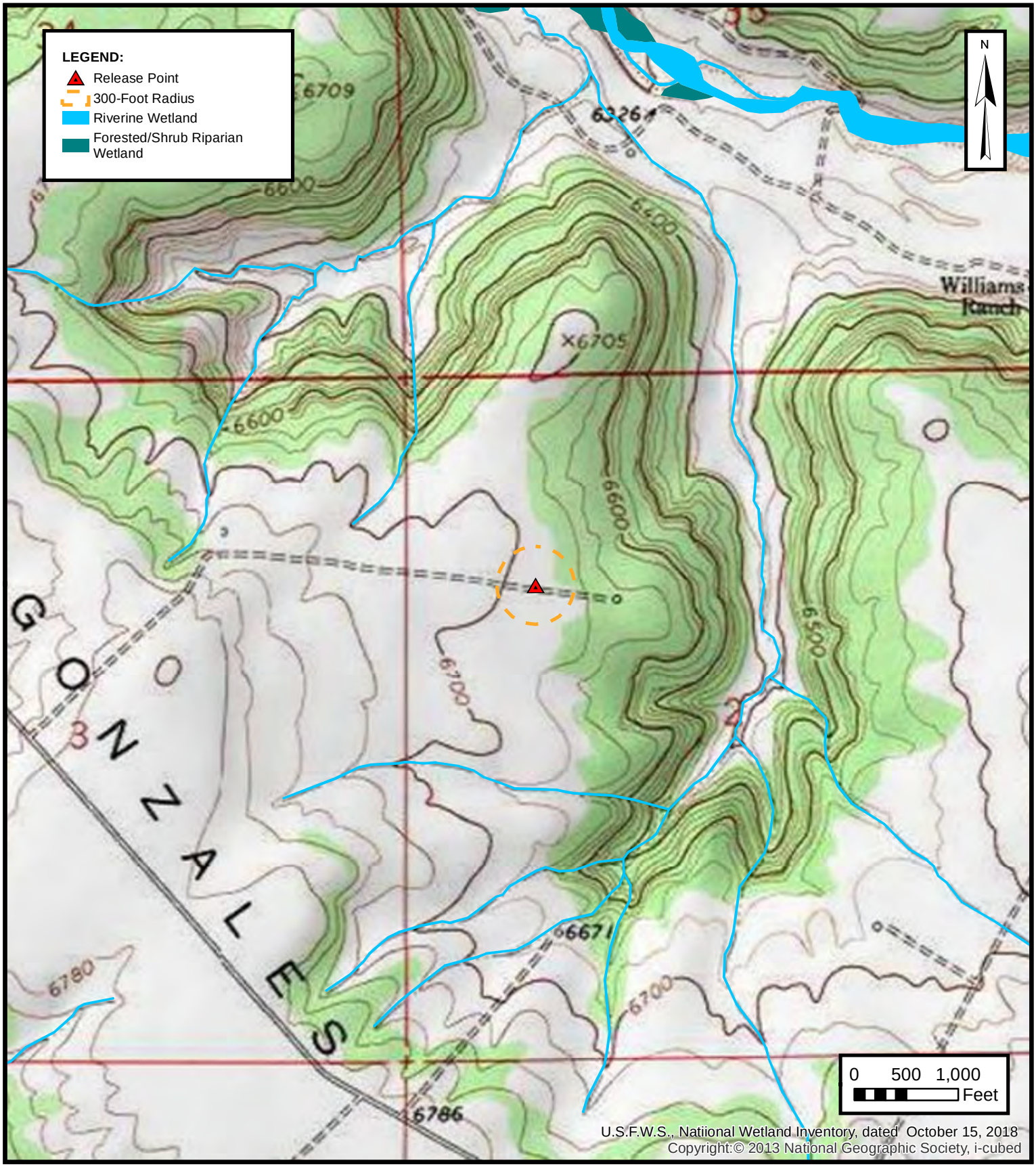
WATER WELL AND NATURAL SPRING LOCATION

ENTERPIRSE FIELD SERVICES, LLC
CANYON LARGO 147 DRIP LINE RELEASE
NW ¼, S2 T25N R6W, NMPM. San Juan County, New Mexico
36.43116° N, 107.44232° W

PROJECT NUMBER: 05A1226042

FIGURE

C



ENSOLUM
Environmental & Hydrogeologic Consultants

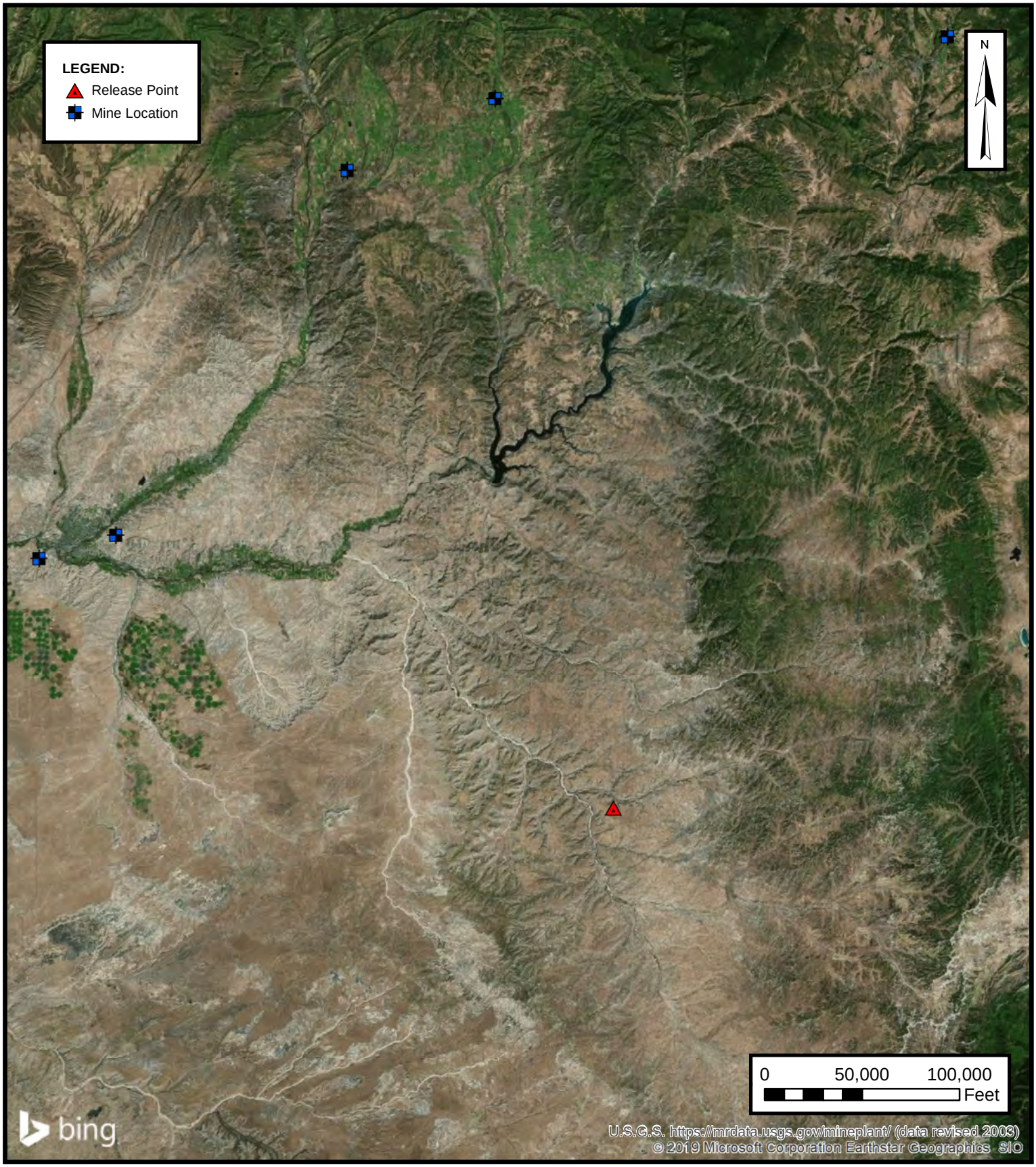
WETLANDS

ENTERPIRSE FIELD SERVICES, LLC
CANYON LARGO 147 DRIP LINE RELEASE
NW ¼, S2 T25N R6W, NMPM. San Juan County, New Mexico
36.43116° N, 107.44232° W

PROJECT NUMBER: 05A1226042

FIGURE

D



ENSOLUM
Environmental & Hydrogeologic Consultants

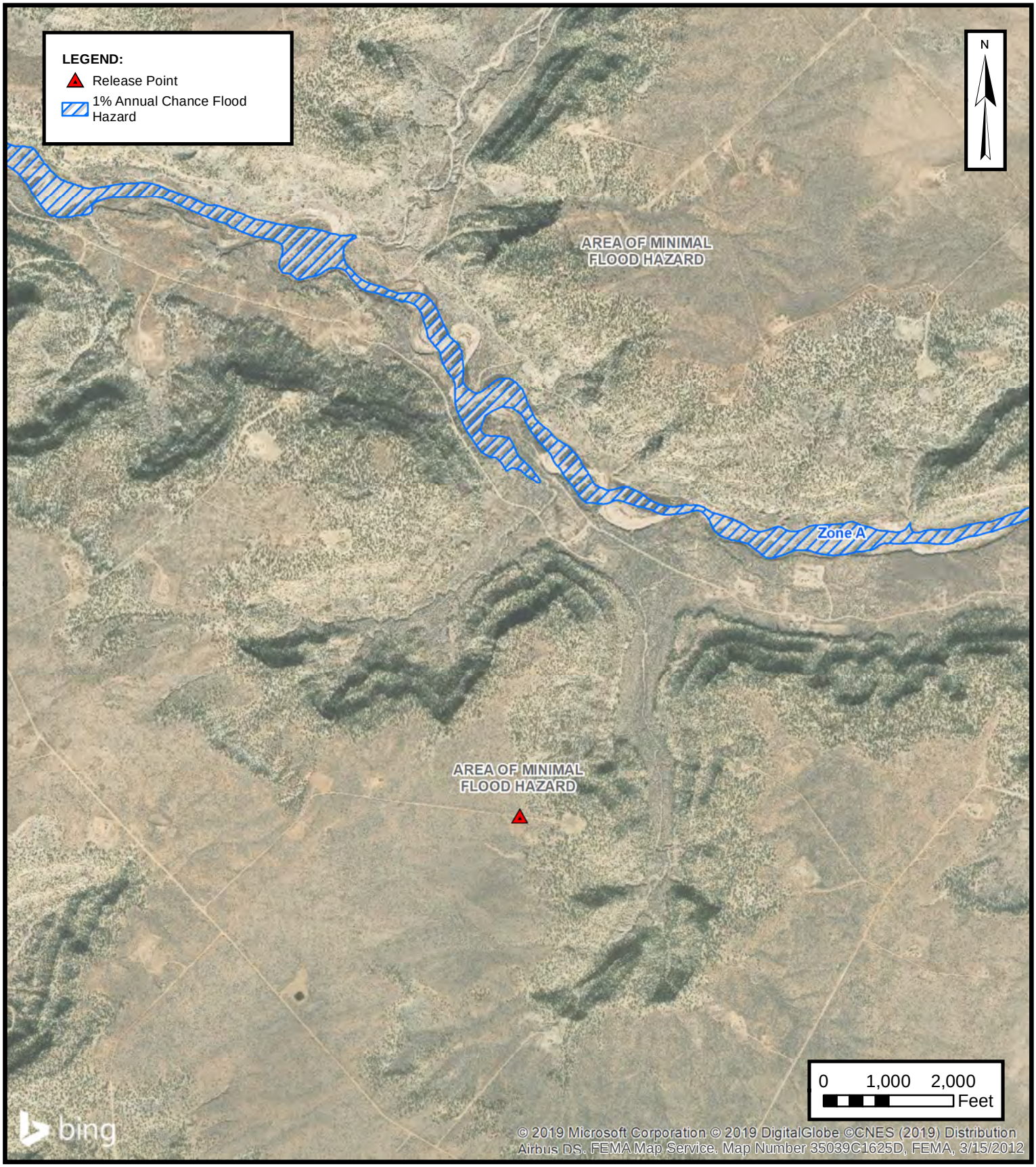
MINES, MILLS AND QUARRIES

ENTERPIRSE FIELD SERVICES, LLC
CANYON LARGO 147 DRIP LINE RELEASE
NW ¼, S2 T25N R6W, NMPM. San Juan County, New Mexico
36.43116° N, 107.44232° W

PROJECT NUMBER: 05A1226042

FIGURE

E



ENSOLUM
Environmental & Hydrogeologic Consultants

100-YEAR FLOOD PLAN MAP

ENTERPIRSE FIELD SERVICES, LLC
CANYON LARGO 147 DRIP LINE RELEASE
NW ¼, S2 T25N R6W, NMPM. San Juan County, New Mexico
36.43116° N, 107.44232° W

PROJECT NUMBER: 05A1226042

FIGURE

F

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

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 281072.85 **Northing (Y):** 4034538.52 **Radius:** 804.67

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

No PODs found.

UTMNAD83 Radius Search (in meters):

Easting (X): 281072.85 **Northing (Y):** 4034538.52 **Radius:** 804.67

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

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

(R=POD has been replaced, O=orphaned, C=the file is closed)

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
SJ 00201	SJ	RA	1	4	03	25N	06W		280124	4034064*	1060	1346	500	846

Average Depth to Water: **500 feet**

Minimum Depth: **500 feet**

Maximum Depth: **500 feet**

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 281072.85 **Northing (Y):** 4034538.52 **Radius:** 1609.3

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

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

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

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q 6416	q 4	q	Sec	Tws	Rng	X	Y	Distance
SJ 00885	SJ	DOM	24	BARBARA TRUBY	RA	SJ 00885 7					4	1	4	03	25N	06W	280223	4033963*	1026
SJ 00201	SJ	OFM	4	BURLINGTON RESOURCES OIL & GAS	RA	SJ 00201				Artesian		1	4	03	25N	06W	280124	4034064*	1060
SJ 00885	SJ	DOM	24	BARBARA TRUBY	RA	SJ 00885 3					1	4	1	03	25N	06W	279636	4034564*	1437

Record Count: 3

UTMNAD83 Radius Search (in meters):

Easting (X): 281072.85 **Northing (Y):** 4034538.52 **Radius:** 1609.3

Sorted by: Distance

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

Canyon Largo 147 Drip Line Release			
Well Name	**Location**	**Depth to Water**	**Approximate Distance to Site***
Canyon Largo Units #252 and #64	Unit A, Sec 3 T25N R6W	85 feet	0.46 Miles
Canyon Largo Units #166 and #34	Unit N, Sec 2 T25N R6W	78 feet	0.5 Miles
Canyon Largo Units #294 and #183	Unit A, Sec 2 T25N R6W	100 feet	0.5 Miles

*Based on assumed well pad identification on aerial imagery

294=30-039-22308
183=30-039-20527

3641

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

Operator Meridian Oil Inc. Location: Unit A Sec. 02 Twp 25 Rng 06

Name of Well/Wells or Pipeline Serviced

Canyon Largo Units #294 And #183

Elevation 6691' Completion Date 8-8-93 Total Depth 392' Land Type #5

Casing Strings, Sizes, Types & Depths 6/15 Set 59' of 8" PVC Casing.

No Gas, Water, or Boulders Were Encountered During Casing.

If Casing Strings are cemented, show amounts & types used Cemented

With 11 Sacks.

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

None

Depths & thickness of water zones with description of water: Fresh, Clear, Salty, Sulphur, Etc. 100' - Fresh

Depths gas encountered: None

Ground bed depth with type & amount of coke breeze used: 392'

Asbury - 5250 lbs

Depths anodes placed: #1-351, 344, 285, 279, 272, 266, 259, 252, 245, 238, 231, 224, 217, 140, 130

Depths vent pipes placed: Surface to 392'

Vent pipe perforations: From 92' to 392'

Remarks: No gas encountered during drilling

RECEIVED
JAN 31 1994
OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

252 = 30-039-20805
65 = 30-039-06187

3632

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

Operator Meridian Oil Inc. Location: Unit A Sec. 03 Twp 25 Rng 06

Name of Well/Wells or Pipeline Serviced

Canyon Largo Units #252 And #65

Elevation 6720' Completion Date 7/19/93 Total Depth 413' Land Type F

Casing Strings, Sizes, Types & Depths 6/21 Set 59' of 8" PVC Casing, No Gas, Water, Or Boulders Were Encountered During Casing.

If Casing Strings are cemented, show amounts & types used Cemented With 12 Sacks.

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

Depths & thickness of water zones with description of water: Fresh, Clear, Salty, Sulphur, Etc. Driller Reported A Water Seep At 85'. Not Enough For A Sample.

Depths gas encountered: None

Ground bed depth with type & amount of coke breeze used: 413' Depth Used 20 Sack of Lotesco SW, And 74 Bags of Asbury (5700#)

Depths anodes placed: 346', 340', 334', 274', 268', 262', 247', 241', 235', 229', 190', 184', 178', 130', 124'

Depths vent pipes placed: Surface To 413'

Vent pipe perforations: Bottom 300'

Remarks:

RECEIVED
JAN 31 1994
OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

#24 30-039-60041
#166 30-039-21505

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

Operator Meridian Oil Inc. Location: Unit N Sec. 02 Twp 25 Rng 06

Name of Well/Wells or Pipeline Serviced

Canyon Largo Units #166 and #24

Elevation 6674 Completion Date 7/22/93 Total Depth _____ Land Type F S

Casing Strings, Sizes, Types & Depths 6/20 Set 59' of 8" PVC Casing.
No Gas, Water, or Boulders were Encountered During Casing.

If Casing Strings are cemented, show amounts & types used Cemented
with 12 Sacks.

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

None

Depths & thickness of water zones with description of water: Fresh, Clear, Salty, Sulphur, Etc. Hit a Water Seep at 78', and a Major Water Vein at 371'. Water Sample was Taken.

Depths gas encountered: None

Ground bed depth with type & amount of coke breeze used: 430' Depth.
Used 30 Sacks of Loresco SW and 60 Sacks of Asbury 2185 (6000#)

Depths anodes placed: 380', 291', 285', 279', 273', 245', 240', 234', 210', 204', 198', 192', 186', 180', +158'

Depths vent pipes placed: Surface to 430

Vent pipe perforations: Bottom 320'

Remarks:

RECEIVED
JAN 31 1994
OIL CON. DIV.
DIST. 3

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

APPENDIX C

Executed C-138 Solid Waste Acceptance Forms

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 97057-0992

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.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

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

3. **Originating Site:**
Canyon Largo #147

4. **Location of Material (Street Address, City, State or ULSTR):**
Section 2 T25N R6W; 36.431197 -107.442322. Feb. 2019

4. **Source and Description of Waste:** Hydrocarbon/Methanol impacted soil from remediation activities associated with a natural gas meter tube release.

5. Estimated Volume 10 (yd³) / bbls Known Volume (to be entered by the operator at the end of the haul) 28 (yd³) / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Thomas Long representative or authorized agent for Enterprise Field Services, LLC do hereby 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, 2-13-19, 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~~ OFT

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: Envir. Manager DATE: 2/13/19

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

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 97057-0090

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.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

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

3. **Originating Site:**
Canyon Largo #147

4. **Location of Material (Street Address, City, State or ULSTR):**
Section 2 T25N R6W; 36.431197 -107.442322. March/April 2019

4. **Source and Description of Waste:** Hydrocarbon/Methanol impacted soil from remediation activities associated with a natural gas meter tube release.
5. Estimated Volume 50 (yd³) / bbls Known Volume (to be entered by the operator at the end of the haul) 274/15 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) 3-26-19, 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~~ Stan Horn, Sierra, B+B Vac, OFT, Riley

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: Envirn Manager DATE: 3/27/19

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

APPENDIX D

Photographic Documentation

SITE PHOTOGRAPHS

Enterprise Field Services, LLC
Closure Report
Canyon Largo 147 Drip Line Release
Ensolum Project No. 05A1226044

ENSOLUM

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

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

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

APPENDIX E

Table 1 – Soil Analytical Summary

ENSOLUM

TABLE 1
Canyon Largo 147 Drip Line Release
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total Combined GRO/DRO (mg/kg)	Total Combined TPH (GRO/DRO/MRO) (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Closure Criteria				10	NE	NE	NE	50				1,000	2,500	10,000
Preliminary Composite Soil Samples Removed by Excavation														
S-3	3.29.19	C	0 to 2	<0.097	<0.19	<0.19	<0.39	ND	510	500	<49	**1,010**	1,010	<61
D-1	3.29.19	C	3	0.78	21	9.6	270	**301**	3,100	660	<48	**3,760**	**3,760**	<60
Final Confirmation Composite Soil Samples														
S-1	3.29.19	C	0 to 2	<0.11	<0.21	<0.21	<0.42	ND	<21	36	<46	36	36	<60
S-2	3.29.19	C	0 to 2	<0.089	<0.18	<0.18	<0.36	ND	<18	24	<50	24	24	92
S-4	3.29.19	C	0 to 0.5	<0.090	<0.18	<0.18	<0.36	ND	<18	23	<49	23	23	<60
S-5	3.29.19	C	2	<0.098	<0.20	<0.20	1.5	1.5	72	84	<48	156	156	90
S-6	4.05.19	C	0 to 6	<0.094	0.75	0.34	5.6	6.7	76	65	<48	141	141	<60
S-7	4.05.19	C	0 to 8	<0.090	<0.18	<0.18	<0.36	ND	<18	<9.8	<49	ND	ND	<60
S-8	4.05.19	C	0 to 8	<0.095	<0.19	<0.19	<0.38	ND	<19	15	<42	15	15	<60
S-9	4.05.19	C	8	<0.10	0.35	1.2	15	17	200	230	<49	430	430	<60

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

ND = Not Detected above the Practical Quantitation Limits

NA = Not Analyzed

NE = Not established

mg/kg = milligram per kilogram

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics

TPH = Total Petroleum Hydrocarbon

APPENDIX F

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: www.hallenvironmental.com

April 02, 2019

Kyle Summers

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

RE: Canyon Largo 147 Drip OrderNo.: 1903E74

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 6 sample(s) on 3/30/2019 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-1
Project: Canyon Largo 147 Drip
Collection Date: 3/29/2019 11:00:00 AM
Lab ID: 1903E74-001 **Matrix:** SOIL
Received Date: 3/30/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	4/1/2019 9:20:19 AM	43997
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	36	9.2		mg/Kg	1	4/1/2019 9:08:22 AM	43986
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/1/2019 9:08:22 AM	43986
Surr: DNOP	116	70-130		%Rec	1	4/1/2019 9:08:22 AM	43986
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	21		mg/Kg	5	3/31/2019 11:50:10 AM	G58767
Surr: BFB	108	73.8-119		%Rec	5	3/31/2019 11:50:10 AM	G58767
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.11		mg/Kg	5	3/31/2019 11:50:10 AM	R58767
Toluene	ND	0.21		mg/Kg	5	3/31/2019 11:50:10 AM	R58767
Ethylbenzene	ND	0.21		mg/Kg	5	3/31/2019 11:50:10 AM	R58767
Xylenes, Total	ND	0.42		mg/Kg	5	3/31/2019 11:50:10 AM	R58767
Surr: 4-Bromofluorobenzene	93.3	80-120		%Rec	5	3/31/2019 11:50:10 AM	R58767

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

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-2
Project: Canyon Largo 147 Drip
Collection Date: 3/29/2019 11:05:00 AM
Lab ID: 1903E74-002 **Matrix:** SOIL **Received Date:** 3/30/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	92	60		mg/Kg	20	4/1/2019 9:32:43 AM	43997
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	24	9.9		mg/Kg	1	4/1/2019 10:21:43 AM	43986
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/1/2019 10:21:43 AM	43986
Surr: DNOP	121	70-130		%Rec	1	4/1/2019 10:21:43 AM	43986
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/31/2019 1:00:28 PM	G58767
Surr: BFB	89.6	73.8-119		%Rec	5	3/31/2019 1:00:28 PM	G58767
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.089		mg/Kg	5	3/31/2019 1:00:28 PM	R58767
Toluene	ND	0.18		mg/Kg	5	3/31/2019 1:00:28 PM	R58767
Ethylbenzene	ND	0.18		mg/Kg	5	3/31/2019 1:00:28 PM	R58767
Xylenes, Total	ND	0.36		mg/Kg	5	3/31/2019 1:00:28 PM	R58767
Surr: 4-Bromofluorobenzene	89.9	80-120		%Rec	5	3/31/2019 1:00:28 PM	R58767

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

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-3
Project: Canyon Largo 147 Drip
Collection Date: 3/29/2019 11:10:00 AM
Lab ID: 1903E74-003 **Matrix:** SOIL
Received Date: 3/30/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	61		mg/Kg	20	4/1/2019 10:09:56 AM	43997
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	500	9.8		mg/Kg	1	4/1/2019 10:43:33 AM	43986
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/1/2019 10:43:33 AM	43986
Surr: DNOP	102	70-130		%Rec	1	4/1/2019 10:43:33 AM	43986
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	510	19		mg/Kg	5	3/31/2019 2:10:57 PM	G58767
Surr: BFB	1140	73.8-119	S	%Rec	5	3/31/2019 2:10:57 PM	G58767
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.097		mg/Kg	5	3/31/2019 2:10:57 PM	R58767
Toluene	ND	0.19		mg/Kg	5	3/31/2019 2:10:57 PM	R58767
Ethylbenzene	ND	0.19		mg/Kg	5	3/31/2019 2:10:57 PM	R58767
Xylenes, Total	ND	0.39		mg/Kg	5	3/31/2019 2:10:57 PM	R58767
Surr: 4-Bromofluorobenzene	115	80-120		%Rec	5	3/31/2019 2:10:57 PM	R58767

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

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-4
Project: Canyon Largo 147 Drip
Collection Date: 3/29/2019 11:15:00 AM
Lab ID: 1903E74-004 **Matrix:** SOIL **Received Date:** 3/30/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	4/1/2019 10:22:21 AM	43997
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	23	9.9		mg/Kg	1	4/1/2019 11:05:36 AM	43986
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/1/2019 11:05:36 AM	43986
Surr: DNOP	129	70-130		%Rec	1	4/1/2019 11:05:36 AM	43986
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	3/31/2019 2:34:23 PM	G58767
Surr: BFB	121	73.8-119	S	%Rec	5	3/31/2019 2:34:23 PM	G58767
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.090		mg/Kg	5	3/31/2019 2:34:23 PM	R58767
Toluene	ND	0.18		mg/Kg	5	3/31/2019 2:34:23 PM	R58767
Ethylbenzene	ND	0.18		mg/Kg	5	3/31/2019 2:34:23 PM	R58767
Xylenes, Total	ND	0.36		mg/Kg	5	3/31/2019 2:34:23 PM	R58767
Surr: 4-Bromofluorobenzene	92.1	80-120		%Rec	5	3/31/2019 2:34:23 PM	R58767

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

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-5
Project: Canyon Largo 147 Drip
Collection Date: 3/29/2019 11:20:00 AM
Lab ID: 1903E74-005 **Matrix:** SOIL
Received Date: 3/30/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**smb**
Chloride	90	60		mg/Kg	20	4/1/2019 10:34:46 AM	43997
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**lrm**
Diesel Range Organics (DRO)	84	9.6		mg/Kg	1	4/1/2019 11:27:27 AM	43986
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/1/2019 11:27:27 AM	43986
Surr: DNOP	112	70-130		%Rec	1	4/1/2019 11:27:27 AM	43986
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**RAA**
Gasoline Range Organics (GRO)	72	20		mg/Kg	5	3/31/2019 2:57:54 PM	G58767
Surr: BFB	220	73.8-119	S	%Rec	5	3/31/2019 2:57:54 PM	G58767
EPA METHOD 8021B: VOLATILES						Analyst:	**RAA**
Benzene	ND	0.098		mg/Kg	5	3/31/2019 2:57:54 PM	R58767
Toluene	ND	0.20		mg/Kg	5	3/31/2019 2:57:54 PM	R58767
Ethylbenzene	ND	0.20		mg/Kg	5	3/31/2019 2:57:54 PM	R58767
Xylenes, Total	1.5	0.39		mg/Kg	5	3/31/2019 2:57:54 PM	R58767
Surr: 4-Bromofluorobenzene	95.9	80-120		%Rec	5	3/31/2019 2:57:54 PM	R58767

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

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: D-1
Project: Canyon Largo 147 Drip
Collection Date: 3/29/2019 11:25:00 AM
Lab ID: 1903E74-006 **Matrix:** SOIL
Received Date: 3/30/2019 9:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	4/1/2019 10:47:10 AM	43997
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	660	9.6		mg/Kg	1	4/1/2019 11:49:23 AM	43986
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/1/2019 11:49:23 AM	43986
Surr: DNOP	110	70-130		%Rec	1	4/1/2019 11:49:23 AM	43986
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	3100	160		mg/Kg	50	4/1/2019 10:03:04 AM	G58767
Surr: BFB	342	73.8-119	S	%Rec	50	4/1/2019 10:03:04 AM	G58767
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	0.78	0.63		mg/Kg	50	4/1/2019 10:03:04 AM	R58767
Toluene	21	1.6		mg/Kg	50	4/1/2019 10:03:04 AM	R58767
Ethylbenzene	9.6	1.6		mg/Kg	50	4/1/2019 10:03:04 AM	R58767
Xylenes, Total	270	3.1		mg/Kg	50	4/1/2019 10:03:04 AM	R58767
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	50	4/1/2019 10:03:04 AM	R58767

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

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1903E74**

02-Apr-19

Client: ENSOLUM

Project: Canyon Largo 147 Drip

Sample ID: **MB-43997**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **43997**	RunNo: **58782**
Prep Date: **4/1/2019**	Analysis Date: **4/1/2019**	SeqNo: **1976552** Units: **mg/Kg**

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

Sample ID: **LCS-43997**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **43997**	RunNo: **58782**
Prep Date: **4/1/2019**	Analysis Date: **4/1/2019**	SeqNo: **1976553** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.5	90	110			

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1903E74**

02-Apr-19

Client: ENSOLUM

Project: Canyon Largo 147 Drip

Sample ID: **LCS-43986**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **43986**	RunNo: **58785**
Prep Date: **3/30/2019**	Analysis Date: **4/1/2019**	SeqNo: **1975449** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	108	63.9	124			
Surr: DNOP	5.7		5.000		115	70	130			

Sample ID: **MB-43986**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **43986**	RunNo: **58785**
Prep Date: **3/30/2019**	Analysis Date: **4/1/2019**	SeqNo: **1975450** 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	12		10.00		115	70	130			

Sample ID: **1903E74-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-1**	Batch ID: **43986**	RunNo: **58785**
Prep Date: **3/30/2019**	Analysis Date: **4/1/2019**	SeqNo: **1975452** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	84	9.8	48.92	36.07	98.2	53.5	126			
Surr: DNOP	5.6		4.892		114	70	130			

Sample ID: **1903E74-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-1**	Batch ID: **43986**	RunNo: **58785**
Prep Date: **3/30/2019**	Analysis Date: **4/1/2019**	SeqNo: **1975453** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	86	9.9	49.55	36.07	100	53.5	126	2.02	21.7	
Surr: DNOP	4.9		4.955		98.1	70	130	0	0	

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1903E74**
02-Apr-19

Client: ENSOLUM
Project: Canyon Largo 147 Drip

Sample ID: **1903E74-001AMS** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-1** Batch ID: **G58767** RunNo: **58767**
Prep Date: Analysis Date: **3/31/2019** SeqNo: **1974485** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	110	21	105.8	7.239	99.0	69.1	142			
Surr: BFB	5200		4234		124	73.8	119			S

Sample ID: **1903E74-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-1** Batch ID: **G58767** RunNo: **58767**
Prep Date: Analysis Date: **3/31/2019** SeqNo: **1974486** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	110	21	105.8	7.239	96.0	69.1	142	2.80	20	
Surr: BFB	5100		4234		120	73.8	119	0	0	S

Sample ID: **2.5UG GRO LCS** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **G58767** RunNo: **58767**
Prep Date: Analysis Date: **3/31/2019** SeqNo: **1974487** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.1	80.1	123			
Surr: BFB	1000		1000		103	73.8	119			

Sample ID: **RB** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **G58767** RunNo: **58767**
Prep Date: Analysis Date: **3/31/2019** SeqNo: **1974490** 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	910		1000		91.3	73.8	119			

Sample ID: **LCS-43962** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **43962** RunNo: **58796**
Prep Date: **3/29/2019** Analysis Date: **4/1/2019** SeqNo: **1975696** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		101	73.8	119			

Sample ID: **LCS-43991** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **43991** RunNo: **58796**
Prep Date: **3/30/2019** Analysis Date: **4/1/2019** SeqNo: **1975697** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		104	73.8	119			

Qualifiers:

H Holding times for preparation or analysis exceeded
PQL Practical Quanitative Limit
S % Recovery outside of range due to dilution or matrix
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1903E74**

02-Apr-19

Client: ENSOLUM

Project: Canyon Largo 147 Drip

Sample ID: **MB-43962**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **43962**	RunNo: **58796**
Prep Date: **3/29/2019**	Analysis Date: **4/1/2019**	SeqNo: **1975698** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		89.3	73.8	119			

Sample ID: **MB-43991**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **43991**	RunNo: **58796**
Prep Date: **3/30/2019**	Analysis Date: **4/1/2019**	SeqNo: **1975699** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		1000		94.0	73.8	119			

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1903E74**

02-Apr-19

Client: ENSOLUM

Project: Canyon Largo 147 Drip

Sample ID: **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R58767**	RunNo: **58767**
Prep Date:	Analysis Date: **3/31/2019**	SeqNo: **1974493** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.4	80	120			
Toluene	0.96	0.050	1.000	0	95.6	80	120			
Ethylbenzene	0.95	0.050	1.000	0	94.9	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.8	80	120			
Surr: 4-Bromofluorobenzene	0.92		1.000		91.6	80	120			

Sample ID: **1903E74-002AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-2**	Batch ID: **R58767**	RunNo: **58767**
Prep Date:	Analysis Date: **3/31/2019**	SeqNo: **1974495** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.2	0.089	3.569	0	89.5	63.9	127			
Toluene	3.4	0.18	3.569	0.05782	92.5	69.9	131			
Ethylbenzene	3.3	0.18	3.569	0	93.6	71	132			
Xylenes, Total	10	0.36	10.71	0.06103	94.2	71.8	131			
Surr: 4-Bromofluorobenzene	3.4		3.569		94.1	80	120			

Sample ID: **1903E74-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-2**	Batch ID: **R58767**	RunNo: **58767**
Prep Date:	Analysis Date: **3/31/2019**	SeqNo: **1974496** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.1	0.089	3.569	0	88.0	63.9	127	1.77	20	
Toluene	3.3	0.18	3.569	0.05782	90.4	69.9	131	2.32	20	
Ethylbenzene	3.2	0.18	3.569	0	90.9	71	132	2.86	20	
Xylenes, Total	10	0.36	10.71	0.06103	92.9	71.8	131	1.40	20	
Surr: 4-Bromofluorobenzene	3.3		3.569		91.5	80	120	0	0	

Sample ID: **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R58767**	RunNo: **58767**
Prep Date:	Analysis Date: **3/31/2019**	SeqNo: **1974515** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		93.6	80	120			

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1903E74**

02-Apr-19

Client: ENSOLUM

Project: Canyon Largo 147 Drip

Sample ID: **LCS-43962**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **43962**	RunNo: **58796**
Prep Date: **3/29/2019**	Analysis Date: **4/1/2019**	SeqNo: **1975714** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.96		1.000		96.1	80	120			

Sample ID: **LCS-43991**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **43991**	RunNo: **58796**
Prep Date: **3/30/2019**	Analysis Date: **4/1/2019**	SeqNo: **1975715** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.96		1.000		95.6	80	120			

Sample ID: **MB-43962**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **43962**	RunNo: **58796**
Prep Date: **3/29/2019**	Analysis Date: **4/1/2019**	SeqNo: **1975716** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.93		1.000		92.8	80	120			

Sample ID: **MB-43991**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **43991**	RunNo: **58796**
Prep Date: **3/30/2019**	Analysis Date: **4/1/2019**	SeqNo: **1975717** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.96		1.000		96.1	80	120			

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: ENSOLUM AZTEC Work Order Number: 1903E74 RcptNo: 1

Received By: Anne Thorne 3/30/2019 9:20:00 AM

Completed By: Anne Thorne 3/30/2019 9:45:30 AM

Reviewed By:

Labeled by: KT 03/30/19

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

CUSTODY SEALS ON SOIL JARS/at 3/30/19

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
3	1.0	Good	Yes			

Chain-of-Custody Record

Client: Ensolum

Mailing Address: 606 S Rio Grande Suit A Aztec NM

Phone #:

email or Fax#: K Summers @ ensolum.com

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

Accreditation
☐ NELAP ☐ Other ______

☐ EDD (Type) ______

Turn-Around Time: Same Day 100% 4/1/19
☐ Standard ☒ Rush ~~3-30-19~~

Project Name: Canyon Largo 147 Drip

Project #: 05A1226048

Project Manager: K. Summers

Sampler: C D Aponte
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0 3 coolers

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 Request ID	Container Type and # (03/30/19 MeOH Kit)	Preservative Type	HEAL No. 1903E74	BTEX + ~~MTBE~~ + ~~TMB's~~ (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride 300				Air Bubbles (Y or N)
3-29-19	1100	S	S-1	4oz 1 Jar		201	X		X									X				
	1105		S-2			202	X		X									X				
	1110		S-3			203	X		X									X				
	1115		S-4			204	X		X									X				
	1120		S-5			205	X		X									X				
	1125		D-1			206	X		X									X				

Date	Time	Relinquished by	Received by	Date	Time
3-29-19	1400	[signature]	Christina Waters	3/29/19	1400
3/29/19	1840	Christina Waters	[signature]	03/30/19	0920

Remarks: Pay Key RB21200 PM Tom Long AFE # N41350 (Same Day)

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 09, 2019

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

RE: Canyon Largo 147 Drip OrderNo.: 1904416

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/6/2019 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-6
Project: Canyon Largo 147 Drip
Collection Date: 4/5/2019 12:00:00 PM
Lab ID: 1904416-001
Matrix: MEOH (SOIL)
Received Date: 4/6/2019 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	4/8/2019 10:32:49 AM	44191
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	65	9.7		mg/Kg	1	4/8/2019 9:15:30 AM	44189
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/8/2019 9:15:30 AM	44189
Surr: DNOP	100	70-130		%Rec	1	4/8/2019 9:15:30 AM	44189
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	76	19		mg/Kg	5	4/8/2019 8:37:43 AM	G58972
Surr: BFB	181	73.8-119	S	%Rec	5	4/8/2019 8:37:43 AM	G58972
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.094		mg/Kg	5	4/8/2019 8:37:43 AM	B58972
Toluene	0.75	0.19		mg/Kg	5	4/8/2019 8:37:43 AM	B58972
Ethylbenzene	0.34	0.19		mg/Kg	5	4/8/2019 8:37:43 AM	B58972
Xylenes, Total	5.6	0.38		mg/Kg	5	4/8/2019 8:37:43 AM	B58972
Surr: 4-Bromofluorobenzene	91.1	80-120		%Rec	5	4/8/2019 8:37:43 AM	B58972

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

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-7
Project: Canyon Largo 147 Drip
Collection Date: 4/5/2019 12:05:00 PM
Lab ID: 1904416-002
Matrix: MEOH (SOIL)
Received Date: 4/6/2019 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	4/8/2019 10:45:14 AM	44191
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/8/2019 9:37:34 AM	44189
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/8/2019 9:37:34 AM	44189
Surr: DNOP	99.0	70-130		%Rec	1	4/8/2019 9:37:34 AM	44189
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	4/8/2019 9:01:26 AM	G58972
Surr: BFB	89.5	73.8-119		%Rec	5	4/8/2019 9:01:26 AM	G58972
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.090		mg/Kg	5	4/8/2019 9:01:26 AM	B58972
Toluene	ND	0.18		mg/Kg	5	4/8/2019 9:01:26 AM	B58972
Ethylbenzene	ND	0.18		mg/Kg	5	4/8/2019 9:01:26 AM	B58972
Xylenes, Total	ND	0.36		mg/Kg	5	4/8/2019 9:01:26 AM	B58972
Surr: 4-Bromofluorobenzene	90.6	80-120		%Rec	5	4/8/2019 9:01:26 AM	B58972

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

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-8
Project: Canyon Largo 147 Drip
Collection Date: 4/5/2019 12:10:00 PM
Lab ID: 1904416-003
Matrix: MEOH (SOIL)
Received Date: 4/6/2019 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	4/8/2019 10:57:38 AM	44191
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	15	8.5		mg/Kg	1	4/8/2019 9:59:32 AM	44189
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	4/8/2019 9:59:32 AM	44189
Surr: DNOP	98.6	70-130		%Rec	1	4/8/2019 9:59:32 AM	44189
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	19		mg/Kg	5	4/8/2019 9:25:01 AM	G58972
Surr: BFB	95.3	73.8-119		%Rec	5	4/8/2019 9:25:01 AM	G58972
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.095		mg/Kg	5	4/8/2019 9:25:01 AM	B58972
Toluene	ND	0.19		mg/Kg	5	4/8/2019 9:25:01 AM	B58972
Ethylbenzene	ND	0.19		mg/Kg	5	4/8/2019 9:25:01 AM	B58972
Xylenes, Total	ND	0.38		mg/Kg	5	4/8/2019 9:25:01 AM	B58972
Surr: 4-Bromofluorobenzene	92.9	80-120		%Rec	5	4/8/2019 9:25:01 AM	B58972

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

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM
Client Sample ID: S-9
Project: Canyon Largo 147 Drip
Collection Date: 4/5/2019 12:15:00 PM
Lab ID: 1904416-004
Matrix: MEOH (SOIL)
Received Date: 4/6/2019 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	ND	60		mg/Kg	20	4/8/2019 11:10:04 AM	44191
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**	
Diesel Range Organics (DRO)	230	9.9		mg/Kg	1	4/8/2019 10:21:35 AM	44189
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/8/2019 10:21:35 AM	44189
Surr: DNOP	101	70-130		%Rec	1	4/8/2019 10:21:35 AM	44189
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	200	21		mg/Kg	5	4/8/2019 9:48:32 AM	G58972
Surr: BFB	332	73.8-119	S	%Rec	5	4/8/2019 9:48:32 AM	G58972
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.10		mg/Kg	5	4/8/2019 9:48:32 AM	B58972
Toluene	0.35	0.21		mg/Kg	5	4/8/2019 9:48:32 AM	B58972
Ethylbenzene	1.2	0.21		mg/Kg	5	4/8/2019 9:48:32 AM	B58972
Xylenes, Total	15	0.41		mg/Kg	5	4/8/2019 9:48:32 AM	B58972
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	5	4/8/2019 9:48:32 AM	B58972

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

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904416**

09-Apr-19

Client: ENSOLUM

Project: Canyon Largo 147 Drip

Sample ID: **MB-44191**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **44191**	RunNo: **58977**
Prep Date: **4/8/2019**	Analysis Date: **4/8/2019**	SeqNo: **1984926** Units: **mg/Kg**

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

Sample ID: **LCS-44191**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **44191**	RunNo: **58977**
Prep Date: **4/8/2019**	Analysis Date: **4/8/2019**	SeqNo: **1984927** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.7	90	110			

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904416**

09-Apr-19

Client: ENSOLUM

Project: Canyon Largo 147 Drip

Sample ID: **LCS-44189**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **44189**	RunNo: **58966**
Prep Date: **4/8/2019**	Analysis Date: **4/8/2019**	SeqNo: **1983691** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.1	63.9	124			
Surr: DNOP	4.3		5.000		86.0	70	130			

Sample ID: **MB-44189**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **44189**	RunNo: **58966**
Prep Date: **4/8/2019**	Analysis Date: **4/8/2019**	SeqNo: **1983692** 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	9.6		10.00		95.6	70	130			

Qualifiers:

H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1904416**
09-Apr-19

Client: ENSOLUM
Project: Canyon Largo 147 Drip

Sample ID: **RB**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **G58972**	RunNo: **58972**
Prep Date:	Analysis Date: **4/8/2019**	SeqNo: **1984132** 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	870		1000		87.1	73.8	119			

Sample ID: **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **G58972**	RunNo: **58972**
Prep Date:	Analysis Date: **4/8/2019**	SeqNo: **1984133** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	80.1	123			
Surr: BFB	1000		1000		102	73.8	119			

Sample ID: **1904416-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-6**	Batch ID: **G58972**	RunNo: **58972**
Prep Date:	Analysis Date: **4/8/2019**	SeqNo: **1984134** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	180	19	93.91	75.85	107	69.1	142			
Surr: BFB	7700		3757		205	73.8	119			S

Sample ID: **1904416-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-6**	Batch ID: **G58972**	RunNo: **58972**
Prep Date:	Analysis Date: **4/8/2019**	SeqNo: **1984135** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	170	19	93.91	75.85	99.7	69.1	142	4.00	20	
Surr: BFB	7300		3757		196	73.8	119	0	0	S

Sample ID: **MB-44115**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **44115**	RunNo: **58972**
Prep Date: **4/4/2019**	Analysis Date: **4/8/2019**	SeqNo: **1984136** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		89.4	73.8	119			

Sample ID: **LCS-44115**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **44115**	RunNo: **58972**
Prep Date: **4/4/2019**	Analysis Date: **4/8/2019**	SeqNo: **1984137** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		101	73.8	119			

Qualifiers:

- H Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904416**

09-Apr-19

Client: ENSOLUM

Project: Canyon Largo 147 Drip

Sample ID: **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B58972**	RunNo: **58972**
Prep Date:	Analysis Date: **4/8/2019**	SeqNo: **1984171** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.87		1.000		87.4	80	120			

Sample ID: **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B58972**	RunNo: **58972**
Prep Date:	Analysis Date: **4/8/2019**	SeqNo: **1984172** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	90.6	80	120			
Toluene	0.95	0.050	1.000	0	94.7	80	120			
Ethylbenzene	0.93	0.050	1.000	0	93.2	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.3	80	120			
Surr: 4-Bromofluorobenzene	0.92		1.000		91.9	80	120			

Sample ID: **1904416-002AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-7**	Batch ID: **B58972**	RunNo: **58972**
Prep Date:	Analysis Date: **4/8/2019**	SeqNo: **1984173** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.3	0.090	3.592	0	92.5	63.9	127			
Toluene	3.5	0.18	3.592	0.05639	95.5	69.9	131			
Ethylbenzene	3.4	0.18	3.592	0	95.9	71	132			
Xylenes, Total	10	0.36	10.78	0.05388	96.3	71.8	131			
Surr: 4-Bromofluorobenzene	3.3		3.592		93.1	80	120			

Sample ID: **1904416-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **S-7**	Batch ID: **B58972**	RunNo: **58972**
Prep Date:	Analysis Date: **4/8/2019**	SeqNo: **1984174** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	3.2	0.090	3.592	0	90.0	63.9	127	2.81	20	
Toluene	3.4	0.18	3.592	0.05639	93.0	69.9	131	2.64	20	
Ethylbenzene	3.4	0.18	3.592	0	93.8	71	132	2.25	20	
Xylenes, Total	10	0.36	10.78	0.05388	95.1	71.8	131	1.31	20	
Surr: 4-Bromofluorobenzene	3.2		3.592		88.8	80	120	0	0	

Qualifiers:

- H Holding times for preparation or analysis exceeded
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1904416**

09-Apr-19

Client: ENSOLUM

Project: Canyon Largo 147 Drip

Sample ID: **MB-44115**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **44115**	RunNo: **58972**
Prep Date: **4/4/2019**	Analysis Date: **4/8/2019**	SeqNo: **1984175** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.91		1.000		90.6	80	120			

Sample ID: **LCS-44115**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **44115**	RunNo: **58972**
Prep Date: **4/4/2019**	Analysis Date: **4/8/2019**	SeqNo: **1984176** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.91		1.000		91.0	80	120			

Qualifiers:

H	Holding times for preparation or analysis exceeded
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
W	Sample container temperature is out of limit as specified at testcode

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: ENSOLUM AZTEC Work Order Number: 1904416 RcptNo: 1

Received By: Isaiah Ortiz 4/6/2019 10:45:00 AM I-Ox

Completed By: Isaiah Ortiz 4/6/2019 11:24:19 AM I-Ox

Reviewed By: JL 4.8.19

LB IO 4/8/19

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	IO
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: 4/8/19 (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.9	Good	Yes			
2	3.2	Good	Yes			
3	2.8	Good	Yes			

Chain-of-Custody Record

Client: Ensolum

Mailing Address: 606 S Rio Grande Suite A Aztec NM

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time: 100%
☐ Standard ☒ Rush 48-19

Project Name: Canyon Largo 147 DrID

Project #: 05A 1226048

Project Manager: K Summers

Sampler: C J Apodaca

On Ice: ☒ Yes ☐ No

Sample Temperature: 5.9°C, 3.2°C, 2.8°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 Request ID	Container Type and #	Preservative Type	HEAL No. 1904416	BTEX + ~~MTBE~~ + ~~TMB~~'s (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Chloride 300				Air Bubbles (Y or N)
4-5-19	1200	S	S-6	1 4oz Jar		-001	X		X									X				
"	1205	"	S-7	"		-002	"		"									"				
"	1210	"	S-8	"		-003	"		"									"				
"	1215	"	S-9	"		-004	"		"									"				

Date	Time	Relinquished by:	Received by:	Date	Time
4-5-19	1517			4/5/19	1517
4/5/19	1819		Courier	4/6/19	1045

Remarks: Reg Req RB 21200
PM - Tom Long
AFE # N41350
(Same Day)

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