

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Enterprise Field Services, LLC	OGRID: 241602
Contact Name: Thomas Long	Contact Telephone: 505-599-2286
Contact email: tjlong@eprod.com	Incident # (assigned by OCD) nAPP2223126700
Contact mailing address: 614 Reilly Ave, Farmington, NM 87401	

Location of Release Source

Latitude **36.865604** Longitude **-107.993802** (NAD 83 in decimal degrees to 5 decimal places)

Site Name Federal 31-11-28 #3	Site Type Natural Gas Gathering Pipeline
Date Release Discovered: 08/18/2022	Serial Number (if applicable): N/A

Unit Letter	Section	Township	Range	County
O	28	31N	11W	San Juan

Surface Owner: State Federal Tribal Private (Name: BLM)

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input checked="" type="checkbox"/> Condensate	Volume Released (bbls): Estimated 5-10 BBLs	Volume Recovered (bbls): None
<input checked="" type="checkbox"/> Natural Gas	Volume Released (Mcf): 0.861 MCF	Volume Recovered (Mcf): None
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

Cause of Release: On August 15, 2022, Enterprise had a release of natural gas from the Federal 31-11-28 #3. The pipeline was isolated, depressurized, locked and tagged out. No liquids were released to the ground surface. No emergency services responded. No fire nor injuries occurred. Remediation and repairs began on August 18, 2022, at which time the release was determined reportable per New Mexico Oil Conservation Division regulation due to the volume of impacted subsurface soil. Remediation and repairs were completed on August 30, 2022. The final excavation dimensions measured approximately 20 feet long by 11 feet wide by seven (7) feet deep. A total of 96 cubic yards of hydrocarbon impacted soil was excavated and transported to a New Mexico Oil Conservation Division (NMOCD) approved land farm. A third party closure report is included with this "Final" C-141.

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

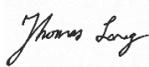
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled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

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

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

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

Printed Name: Thomas Long Title: Senior Environmental Scientist

Signature:  Date: 11-29-2022

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

OCD Only

Received by: _____ Date: _____

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

Closure Approved by:  Date: 12/09/2022

Printed Name: Nelson Velez Title: Environmental Specialist – Adv



ENSOLUM

CLOSURE REPORT

Property:

Federal 31-11-28 #3 (8/18/22)
Unit Letter O, S28 T31N R11W
San Juan County, New Mexico

New Mexico EMNRD OCD Incident ID No. NAPP2223126700

October 19, 2022

Ensolum Project No. 05A1226204

Prepared for:

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

Prepared by:

Landon Daniell
Staff Geologist

Kyle Summers
Senior Managing Geologist

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1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Federal 31-11-28 #3 (08/18/22) (Site)
NM EMNRD OCD Incident ID No.	NAPP2223126700
Location:	36.865604° North, 107.993802° West Unit Letter O, Section 28, Township 31 North, Range 11 West San Juan County, New Mexico
Property:	United States Bureau of Land Management (BLM)
Regulatory:	New Mexico (NM) Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On August 15, 2022, Enterprise was notified by a third party of a possible release on the Federal 31-11-28 #3 well tie pipeline. Enterprise personnel confirmed a leak and subsequently isolated and locked the pipeline out of service. On August 18, 2022, Enterprise initiated activities to repair the pipeline and remediate potential petroleum hydrocarbon impact. Additionally, Enterprise determined the release was “reportable” due to the estimated volume of impacted soil. The NM EMNRD OCD was subsequently notified.

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

1.2 Project Objective

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

2.0 CLOSURE CRITERIA

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. Ensolum, LLC (Ensolum) referenced New Mexico Administrative Code (NMAC) 19.15.29 *Releases*, which establishes investigation and abatement action requirements for oil and gas release sites that are subject to reporting and/or corrective action, during the evaluation and remediation of the Site. The appropriate closure criteria for sites are determined using the siting requirements outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC. Ensolum utilized the general site characteristics and information available from NM state agency databases and federal agency geospatial databases to determine the appropriate closure criteria for the Site. Supporting figures and documentation associated with the following Siting bullets are provided in **Appendix B**.

- The NM Office of the State Engineer (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 with recorded depth to water (DTW) were identified within the same Public Land Survey System (PLSS) section as the Site. Numerous PODs were identified in the adjacent PLSS sections, which are associated with the proximity of the Animas River valley (**Figure A, Appendix B**). The closest PODs (SJ-02277, SJ-03505, and SJ-03316) with recorded DTWs are located approximately 0.79 miles, 0.91 miles, and 0.94 miles from the Site and have

recorded DTWs of 7 feet, 14 feet, and 10 feet, respectively. The PODs SJ-02277, SJ-03505, and SJ-03316 are approximately 145 feet, 162 feet, and 178 feet, respectively, lower in elevation than the Site.

- No cathodic protection wells (CPWs) were identified in the NM EMNRD OCD imaging database within the same PLSS section as the site. Six CPWs were identified in the adjacent sections **Figure B (Appendix B)**. The record for the cathodic protection well located near the Turner A #1A and Flood #1 well locations indicates a depth to water of approximately 60 feet bgs. This cathodic protection well is approximately 0.74 miles southeast of the Site and is approximately 143 feet lower in elevation than the Site. The record for the cathodic protection well located near the Calloway #1 A well location indicates a depth to water of approximately 75 feet bgs. This cathodic protection well is approximately 1.1 miles east of the Site and is approximately 189 feet lower in elevation than the Site. The record for the cathodic protection well located near the Calloway LS 2 well location indicates a depth to water of approximately 380 feet bgs. This cathodic protection well is approximately 1.3 miles southwest of the Site and is approximately 212 feet lower in elevation than the Site. The records for the cathodic protection well located near the Heaton #7A well location indicates a depth to water of approximately 65 feet bgs. This cathodic protection well is approximately 1.5 miles northwest of the Site and is approximately 70 feet higher in elevation than the Site. The records for the cathodic protection well located near the Granier #6, #13, and #103 well locations indicate a depth to water of approximately 20 feet bgs. This cathodic protection well is approximately 1.7 miles northwest of the Site and is approximately 177 feet higher in elevation than the Site. The records for the cathodic protection well located near the Calloway #1A well location indicates a depth to water of approximately 100 feet bgs. This cathodic protection well is approximately 1.7 miles northeast of the Site and is approximately 29 feet lower in elevation than the Site.
- The Site is located within 300 feet of a NM EMNRD OCD-defined continuously flowing watercourse or significant watercourse (**Figure C, Appendix B**).
- The Site is not located within 200 feet of a lakebed, sinkhole, or playa lake.
- The Site is not located within 300 feet of a permanent residence, school, hospital, institution, or church (**Figure D, Appendix B**).
- No springs, or private domestic fresh water wells used by less than five households for domestic or stock watering purposes were identified within 500 feet of the Site (**Figure E, Appendix B**).
- No fresh water wells or springs were identified within 1,000 feet of the Site (**Figure E, Appendix B**).
- The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to New Mexico Statutes Annotated (NMSA) 1978, Section 3-27-3.
- Based on information identified in the U.S. Fish & Wildlife Service National Wetlands Inventory Wetlands Mapper, the Site is not within 300 feet of a wetland (**Figure F, Appendix B**).
- Based on information identified in the NM Mining and Minerals Division's Geographic Information System (GIS) Maps and Mine Data database, the Site is not within an area overlying a subsurface mine (**Figure G, Appendix B**).

- The Site is not located within an unstable area per Paragraph (6) of Subsection U of 19.15.2.7 NMAC.
- Based on information provided by the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) geospatial database, the Site is not within a 100-year floodplain (**Figure H, Appendix B**).

Based on available information, the applicable closure criteria for soils remaining in place at the Site include:

Tier I Closure Criteria for Soils Impacted by a Release		
Constituent ¹	Method	Limit
Chloride	EPA 300.0 or SM4500 Cl B	600 mg/kg
TPH (GRO+DRO+MRO) ²	EPA SW-846 Method 8015	100 mg/kg
BTEX ³	EPA SW-846 Method 8021 or 8260	50 mg/kg
Benzene	EPA SW-846 Method 8021 or 8260	10 mg/kg

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

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

³ – Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX).

3.0 SOIL REMEDIATION ACTIVITIES

On August 18, 2022, Enterprise initiated activities to repair the pipeline and remediate petroleum hydrocarbon impact resulting from the release. During the remediation and corrective action activities, West States Energy Contractors (WSEC), provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

The final excavation measured approximately 20 feet long and 11 feet wide at the maximum extents. The maximum depth of the excavation measured approximately seven feet bgs. The lithology encountered during the completion of remediation activities consisted primarily of unconsolidated silty sandy clay.

Approximately 96 cubic yards (yd³) of petroleum hydrocarbon-affected soils and 50 barrels (bbls) of hydro-excavation soil cuttings and water were transported to the Envirotech, Inc., (Envirotech) landfarm near Hilltop, NM for disposal/remediation. The executed C-138 solid waste acceptance form is provided in **Appendix C**. The excavation was backfilled with imported fill and then contoured to the surrounding topography.

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

4.0 SOIL SAMPLING PROGRAM

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

Ensolum's soil sampling program included the collection of five composite soil samples (S-1 through S-5) from the excavation for laboratory analysis. The composite samples were comprised of five aliquots each and represent an estimated 200 square foot (ft²) sample area (or less) per

guidelines outlined in Section D of 19.15.29.12 NMAC. Hand tools were utilized to obtain fresh aliquots from each area of the excavation. Regulatory correspondence is provided in **Appendix E**.

First Sampling Event

On August 18, 2022, sampling was performed at the Site. The NM EMNRD OCD and BLM were notified of the sampling event although no representatives were present during sampling activities. Composite soil sample S-1 (7') was collected from the floor of the excavation. Composite soil samples S-2 (0'-7'), S-4 (0'-7'), and S-5 (0'-7') were collected from the sloped walls of the excavation. Composite soil sample S-3 (0'-7') was collected from the north eastern end-wall of the excavation.

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

5.0 SOIL LABORATORY ANALYTICAL METHODS

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

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

6.0 SOIL DATA EVALUATION

Ensolum compared the 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-5) to the Tier I NM EMNRD OCD closure criteria. The laboratory analytical results are summarized in **Table 1 (Appendix F)**.

- The laboratory analytical result for composite soil sample S-4 indicates a benzene concentration of 0.042 mg/kg, which is less than the NM EMNRD OCD closure criteria of 10 mg/kg. The laboratory analytical results for all other composite soil samples indicate benzene is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the NM EMNRD OCD closure criteria of 10 mg/kg.
- The laboratory analytical results for the composite soil samples S-2 through S-5 indicate total BTEX concentrations ranging from 0.065 mg/kg (S-3) to 0.53 mg/kg (S-4), which are less than the NM EMNRD OCD closure criteria of 50 mg/kg. The laboratory analytical results for composite soil sample S-1 indicate total BTEX is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the NM EMNRD OCD closure criteria of 50 mg/kg.
- The laboratory analytical results for all composite soil samples indicate combined TPH GRO/DRO/MRO is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the New Mexico EMNRD OCD closure criteria of 100 mg/kg.
- The laboratory analytical results for composite soil samples S-1 and S-3 indicate chloride concentrations of 64 mg/kg and 84 mg/kg, respectively, which are less than the New Mexico

EMNRD OCD closure criteria of 600 mg/kg. The laboratory analytical results for all other composite soil samples indicate chloride is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the New Mexico EMNRD OCD closure criteria of 600 mg/kg.

7.0 RECLAMATION AND REVEGETATION

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

8.0 FINDINGS AND RECOMMENDATION

- Five composite soil samples were collected from the Site. Based on laboratory analytical results, benzene, total BTEX, combined TPH GRO/DRO/MRO, and chloride concentrations are below the New Mexico EMNRD OCD closure criteria.
- Approximately 96 yd³ of petroleum hydrocarbon-affected soils and 50 bbls of hydro-excavation soil cuttings and water were transported to the Envirotech landfarm for disposal/remediation. The excavation was backfilled with imported fill and then contoured to the surrounding topography.

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

9.0 STANDARDS OF CARE, LIMITATIONS, AND RELIANCE

9.1 Standard of Care

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

9.2 Limitations

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

9.3 Reliance

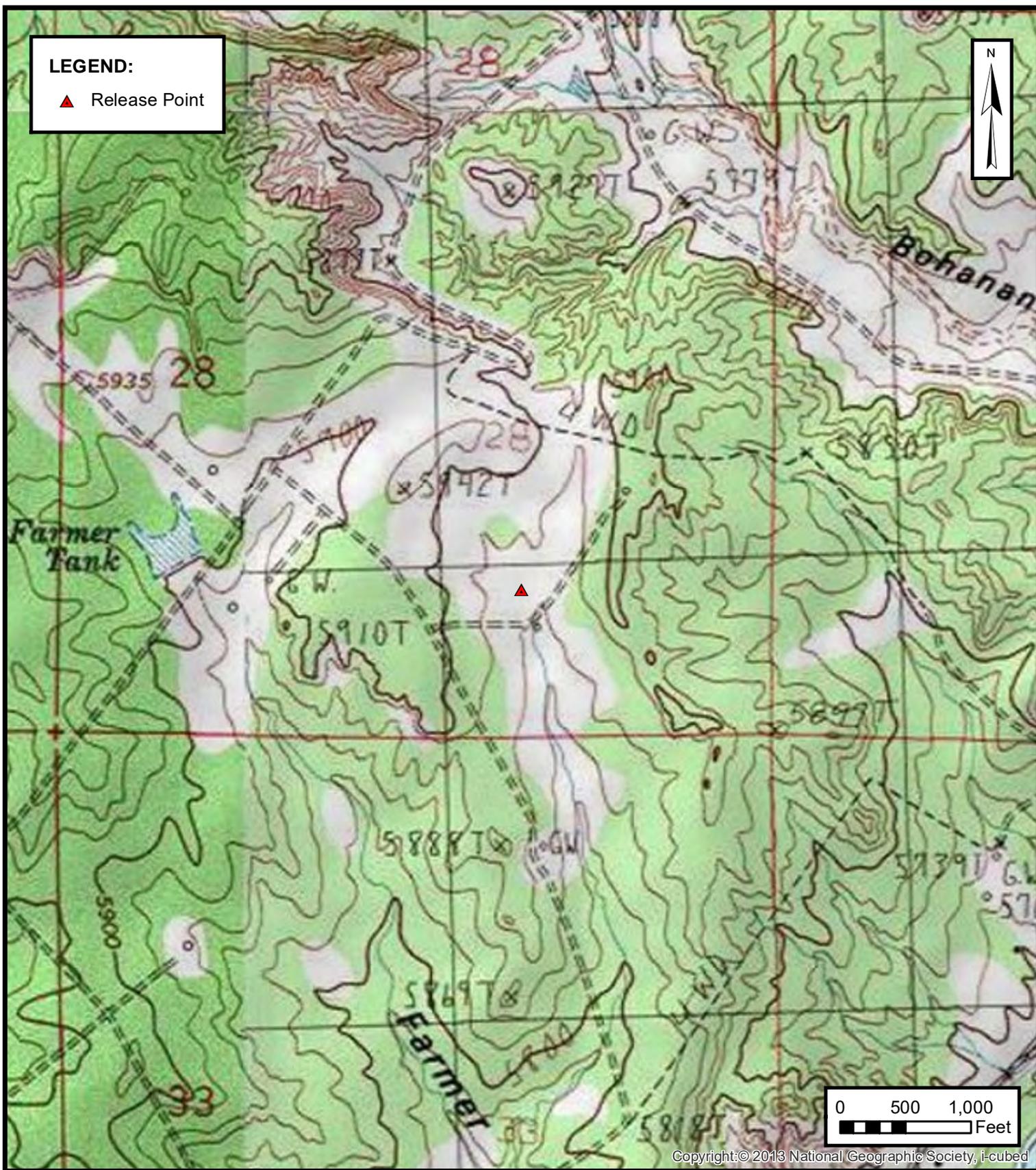
This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is

prohibited without the express written authorization of Enterprise and Ensolum. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the Closure Report and Ensolum's Master Services Agreement. The limitation of liability defined in the agreement is the aggregate limit of Ensolum's liability to the client.



APPENDIX A

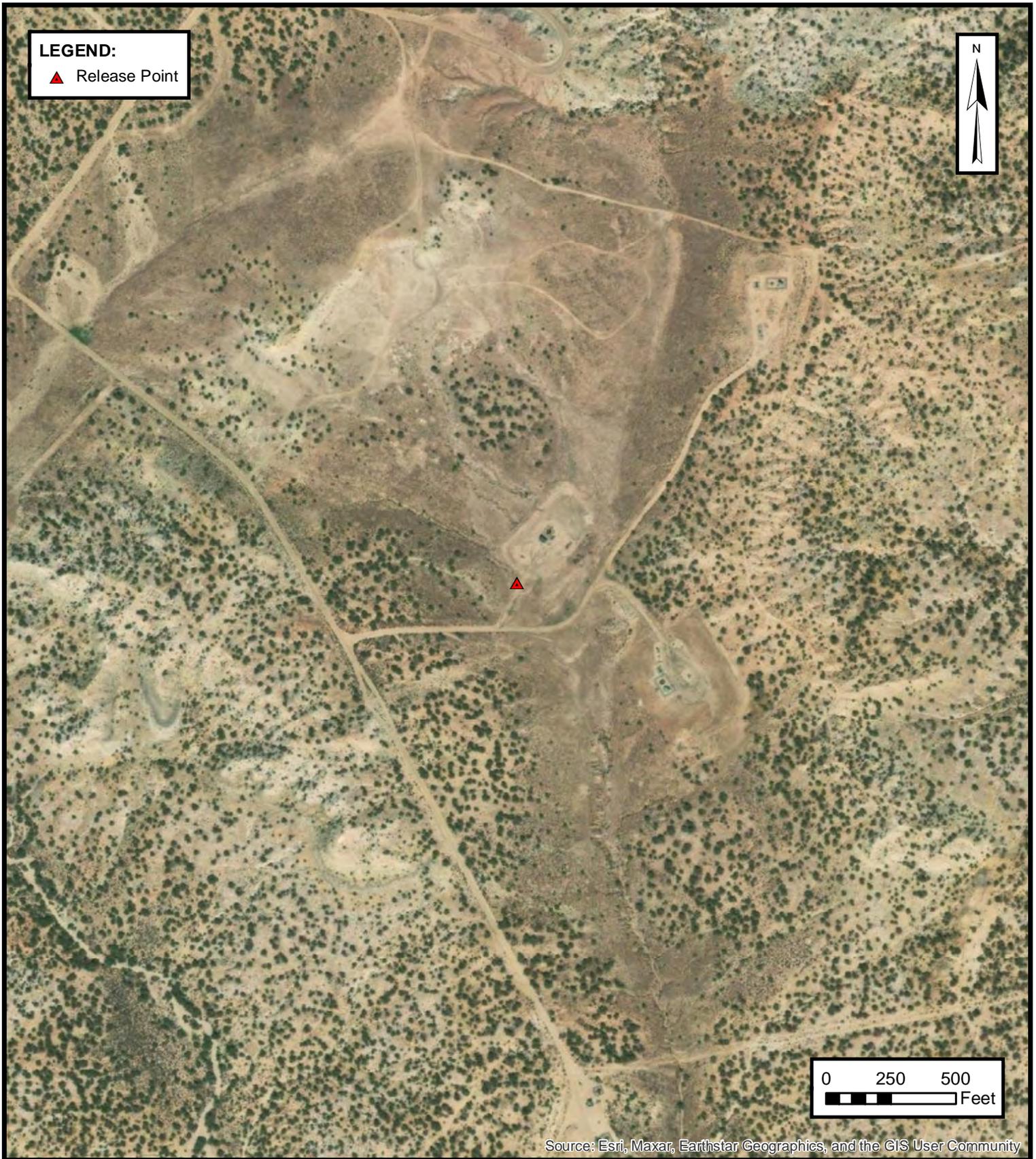
Figures



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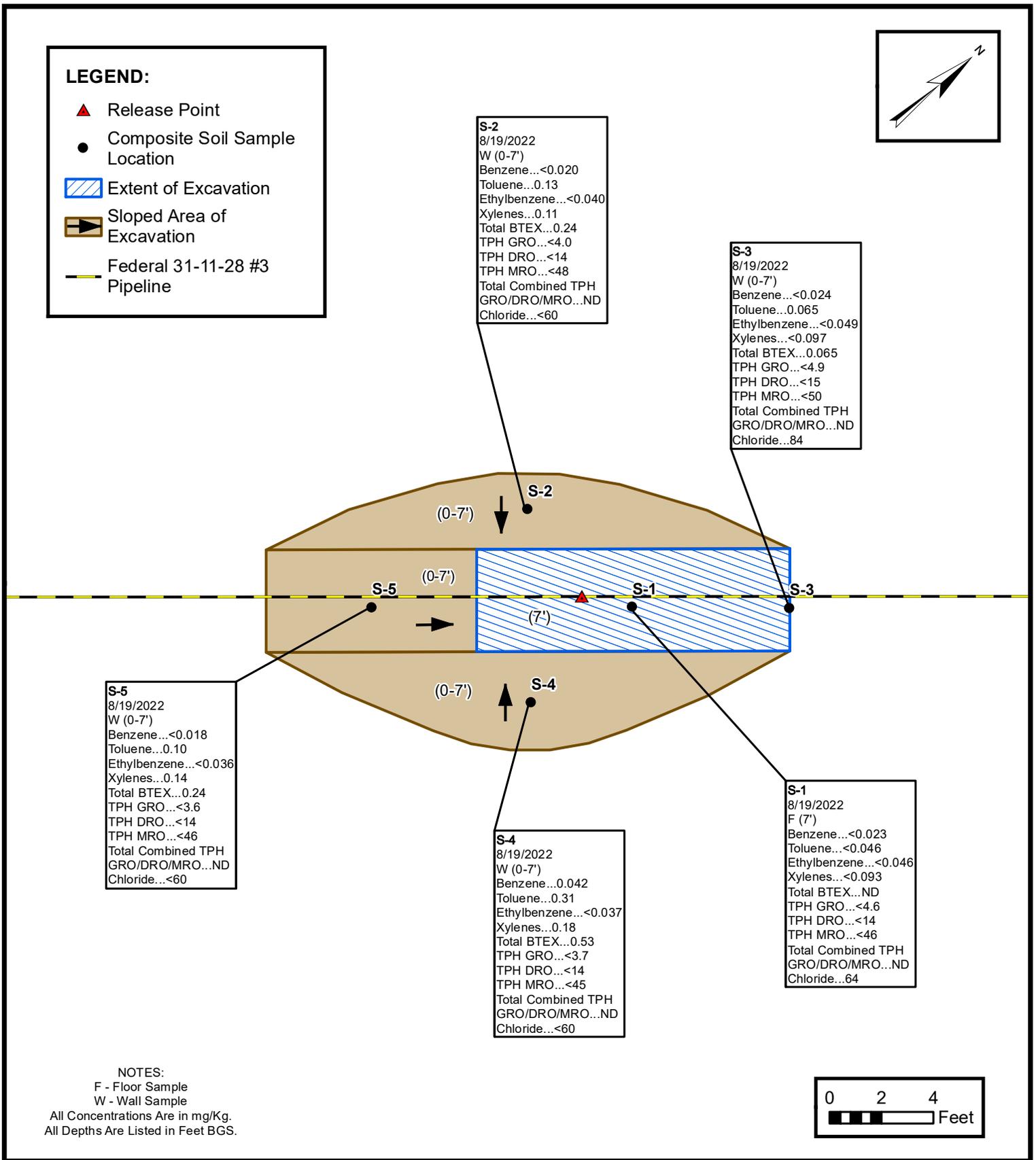
TOPOGRAPHIC MAP
 ENTERPRISE FIELD SERVICES, LLC
 FEDERAL 31-11-28 #3 (8/18/22)
 Unit Letter O, S28 T31N R11W, San Juan County, New Mexico
 36.865604° N, 107.993802° W
 PROJECT NUMBER: 05A1226204

FIGURE
1



SITE MAP
ENTERPRISE FIELD SERVICES, LLC
FEDERAL 31-11-28 #3 (8/18/22)
Unit Letter O, S28 T31N R11W, San Juan County, New Mexico
36.865604° N, 107.993802° W
PROJECT NUMBER: 05A1226204

FIGURE
2



SITE MAP WITH SOIL ANALYTICAL RESULTS

ENTERPRISE FIELD SERVICES, LLC
 FEDERAL 31-11-28 #3 (8/18/22)
 Unit Letter O, S28 T31N R11W, San Juan County, New Mexico
 36.865604° N, 107.993802° W

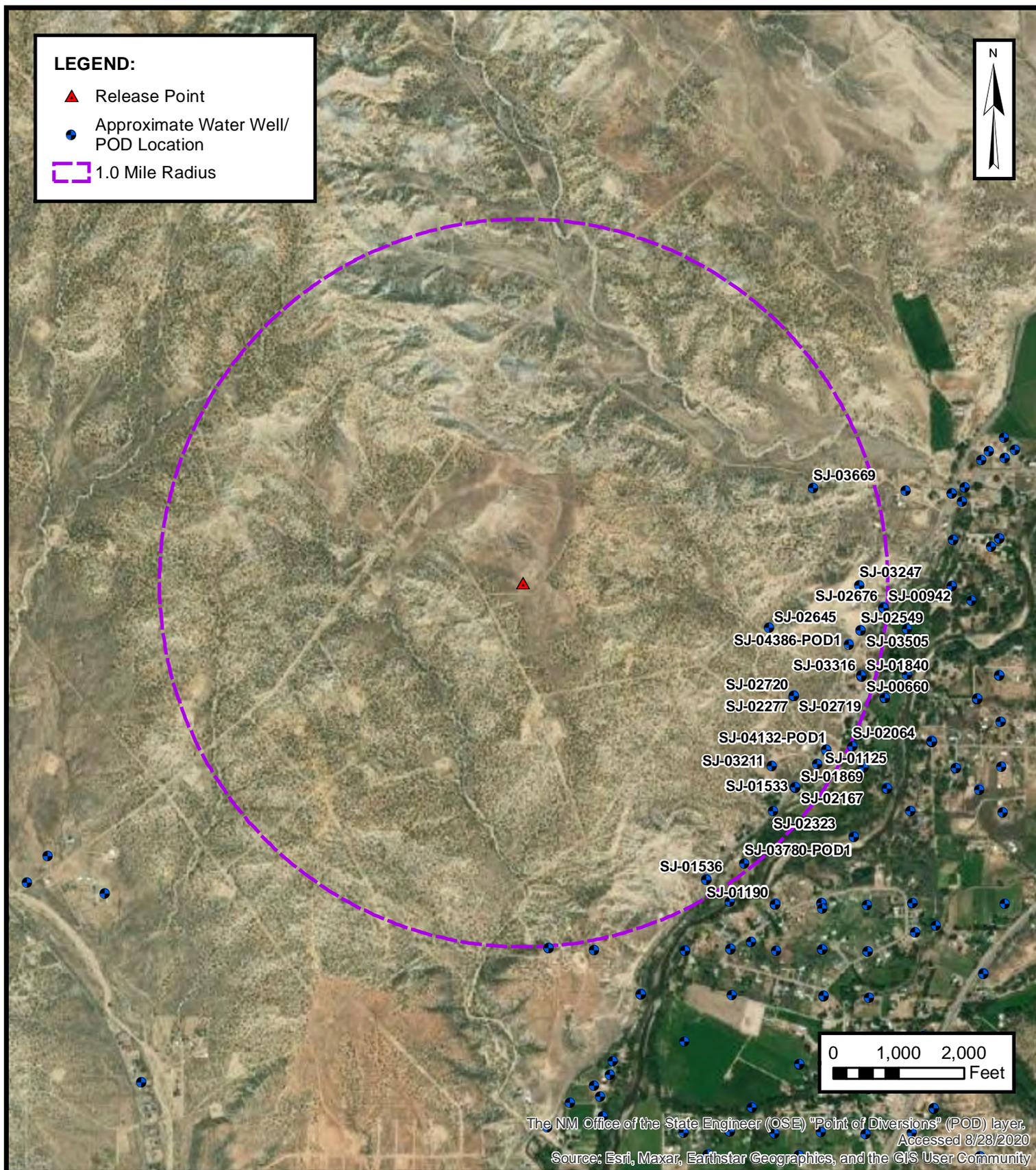
PROJECT NUMBER: 05A1226204

FIGURE
3



APPENDIX B

Siting Figures and Documentation

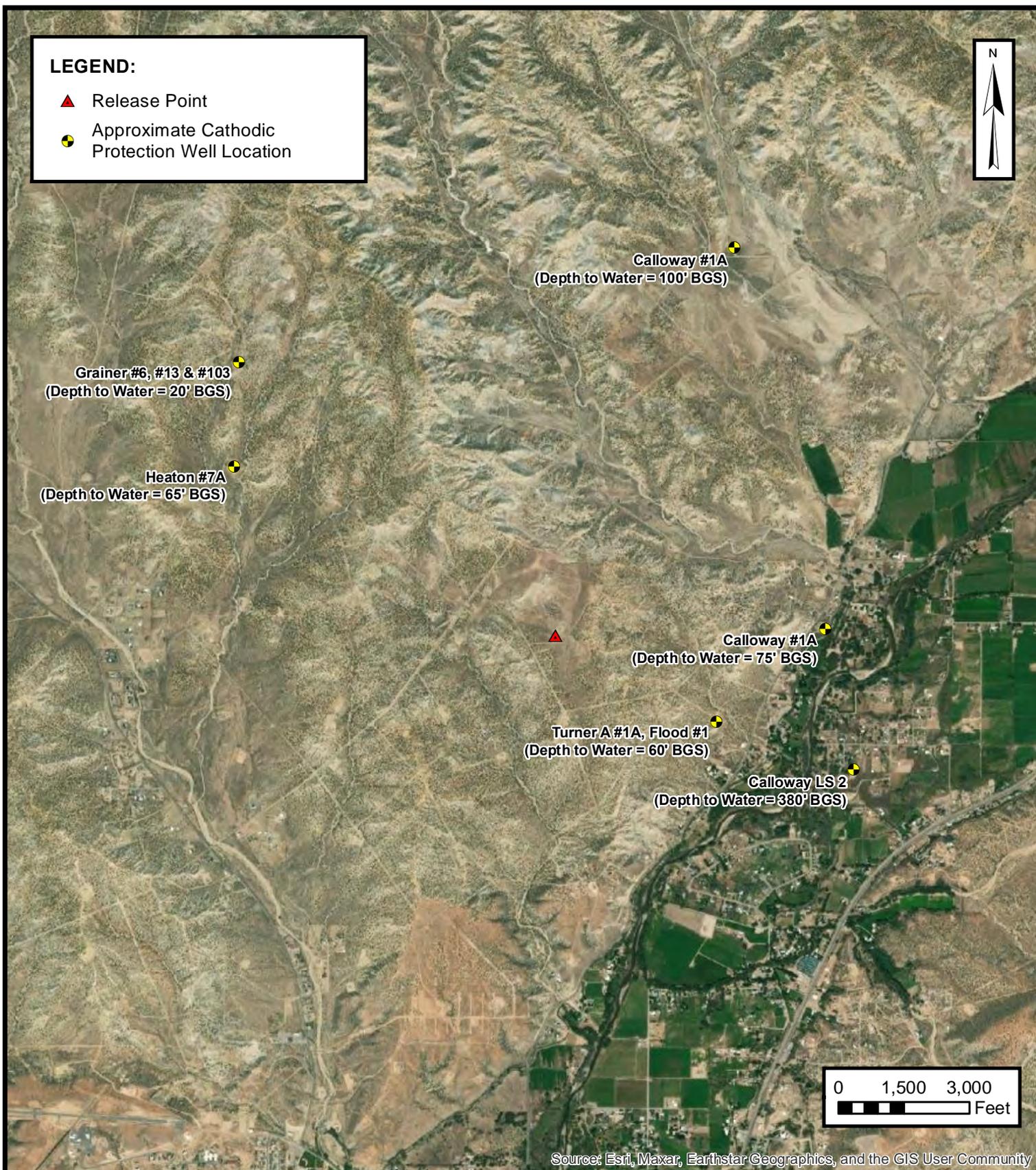


1.0 MILE RADIUS WATER WELL/ POD LOCATION MAP

ENTERPRISE FIELD SERVICES, LLC
 FEDERAL 31-11-28 #3 (8/18/22)
 Unit Letter O, S28 T31N R11W, San Juan County, New Mexico
 36.865604° N, 107.993802° W

PROJECT NUMBER: 05A1226204

FIGURE
A

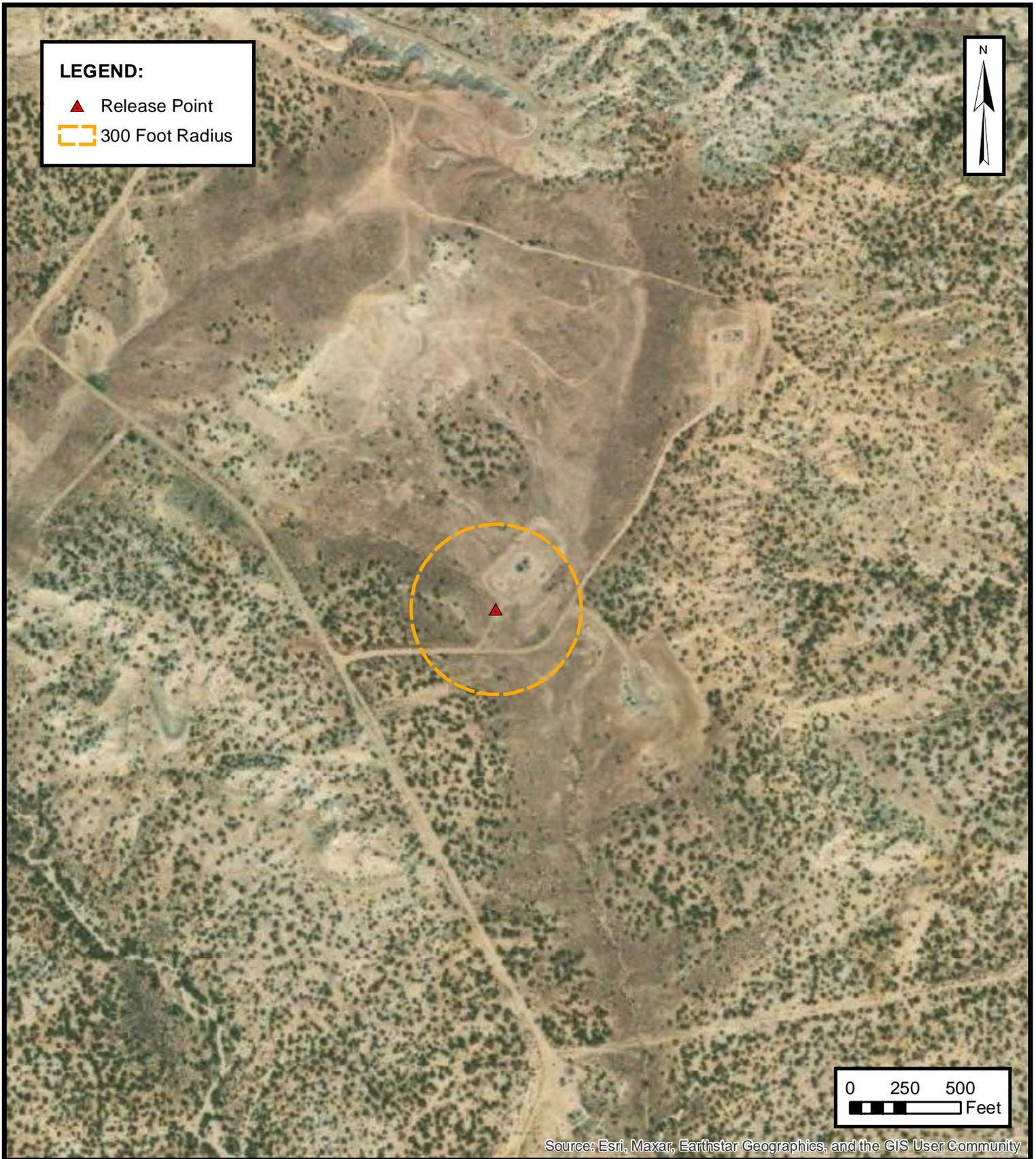


CATHODIC PROTECTION WELL RECORDED DEPTH TO WATER

ENTERPRISE FIELD SERVICES, LLC
 FEDERAL 31-11-28 #3 (8/18/22)
 Unit Letter O, S28 T31N R11W, San Juan County, New Mexico
 36.865604° N, 107.993802° W

PROJECT NUMBER: 05A1226204

FIGURE B

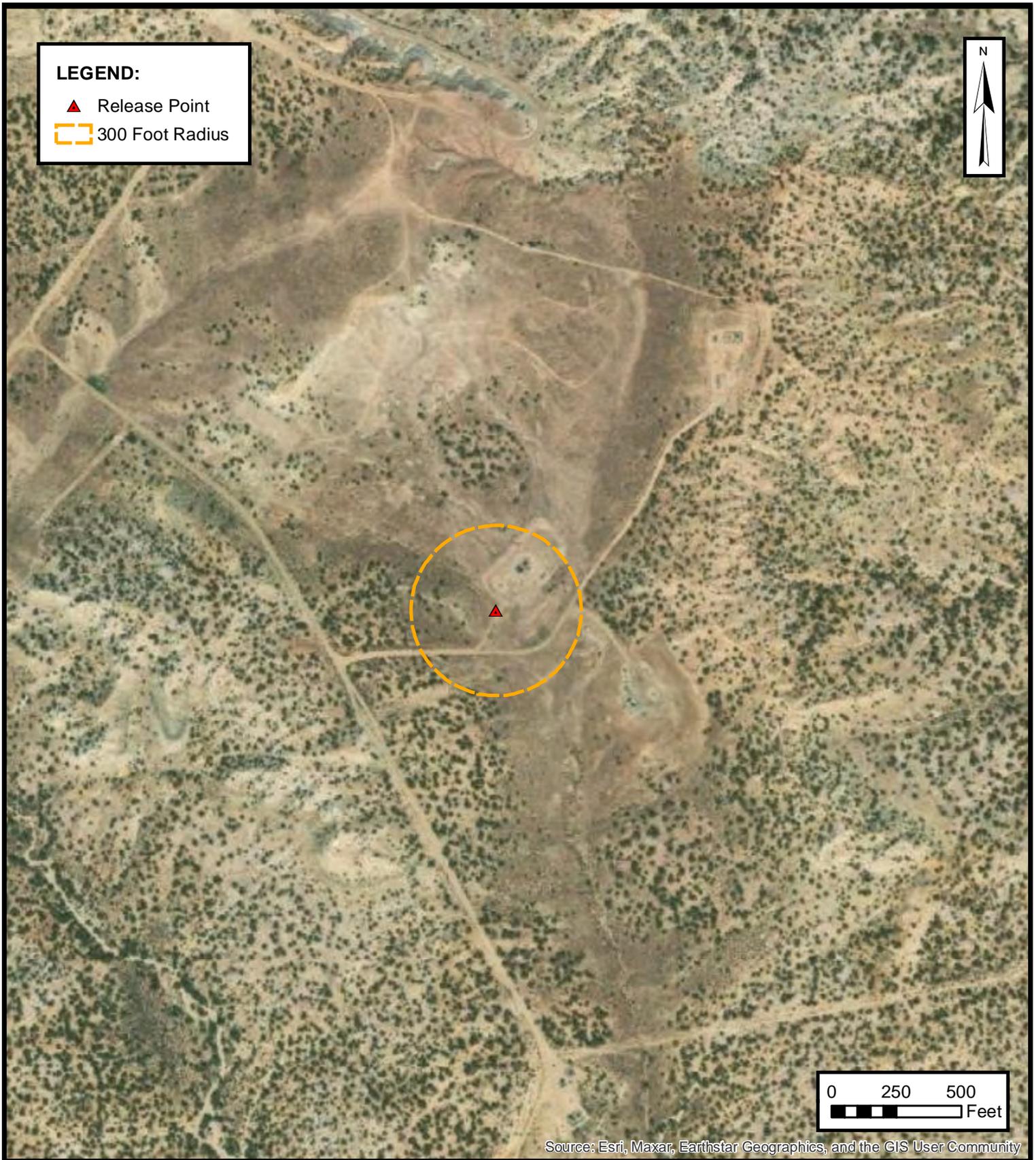


Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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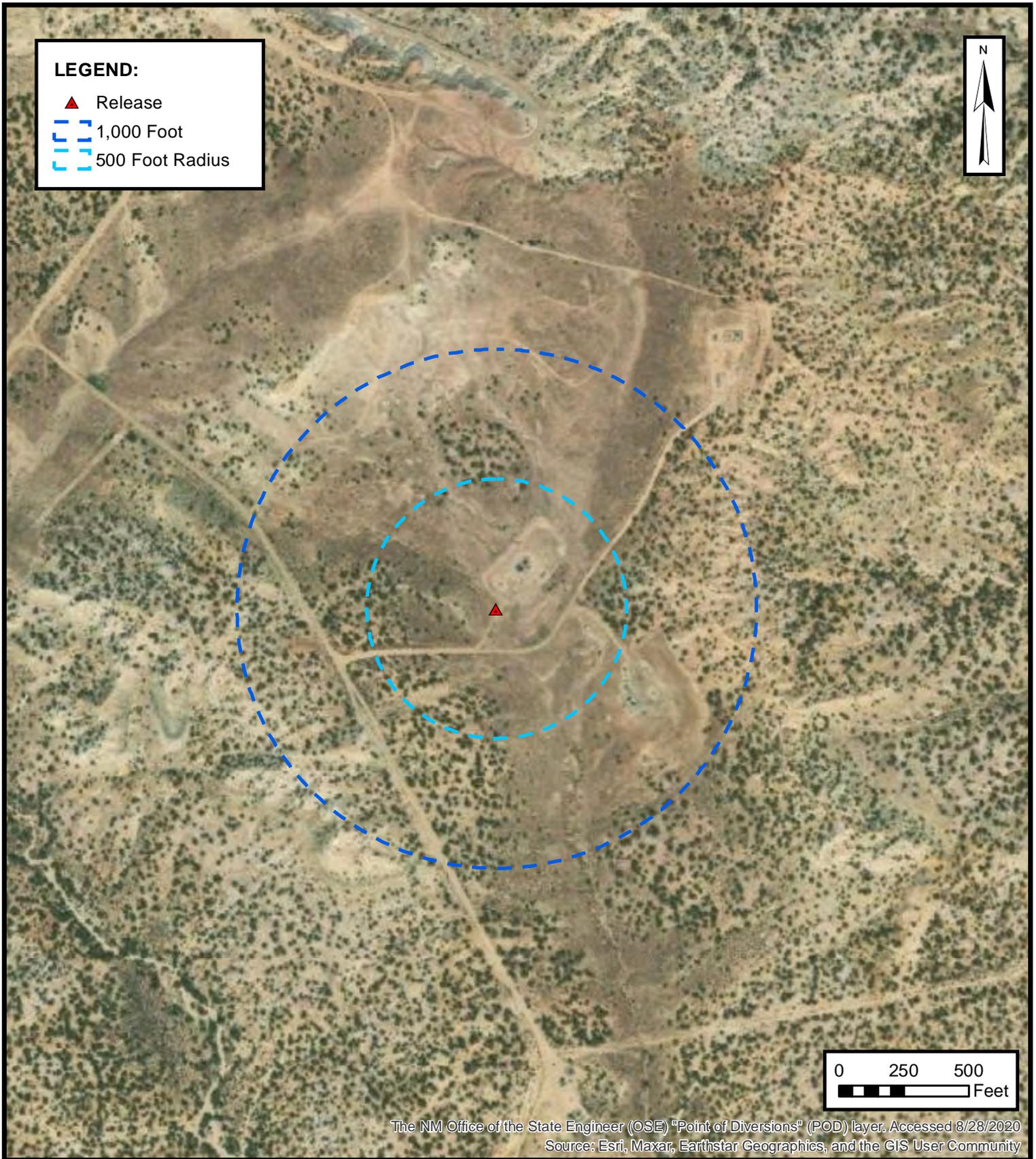
**300 FOOT RADIUS
WATERCOURSE AND DRAINAGE IDENTIFICATION**
ENTERPRISE FIELD SERVICES, LLC
FEDERAL 31-11-28 #3 (8/18/22)
Unit Letter O, S28 T31N R11W, San Juan County, New Mexico
36.865604° N, 107.993802° W
PROJECT NUMBER: 05A1226204

**FIGURE
C**



**300 FOOT RADIUS
OCCUPIED STRUCTURE IDENTIFICATION**
ENTERPRISE FIELD SERVICES, LLC
FEDERAL 31-11-28 #3 (8/18/22)
Unit Letter O, S28 T31N R11W, San Juan County, New Mexico
36.865604° N, 107.993802° W
PROJECT NUMBER: 05A1226204

**FIGURE
D**

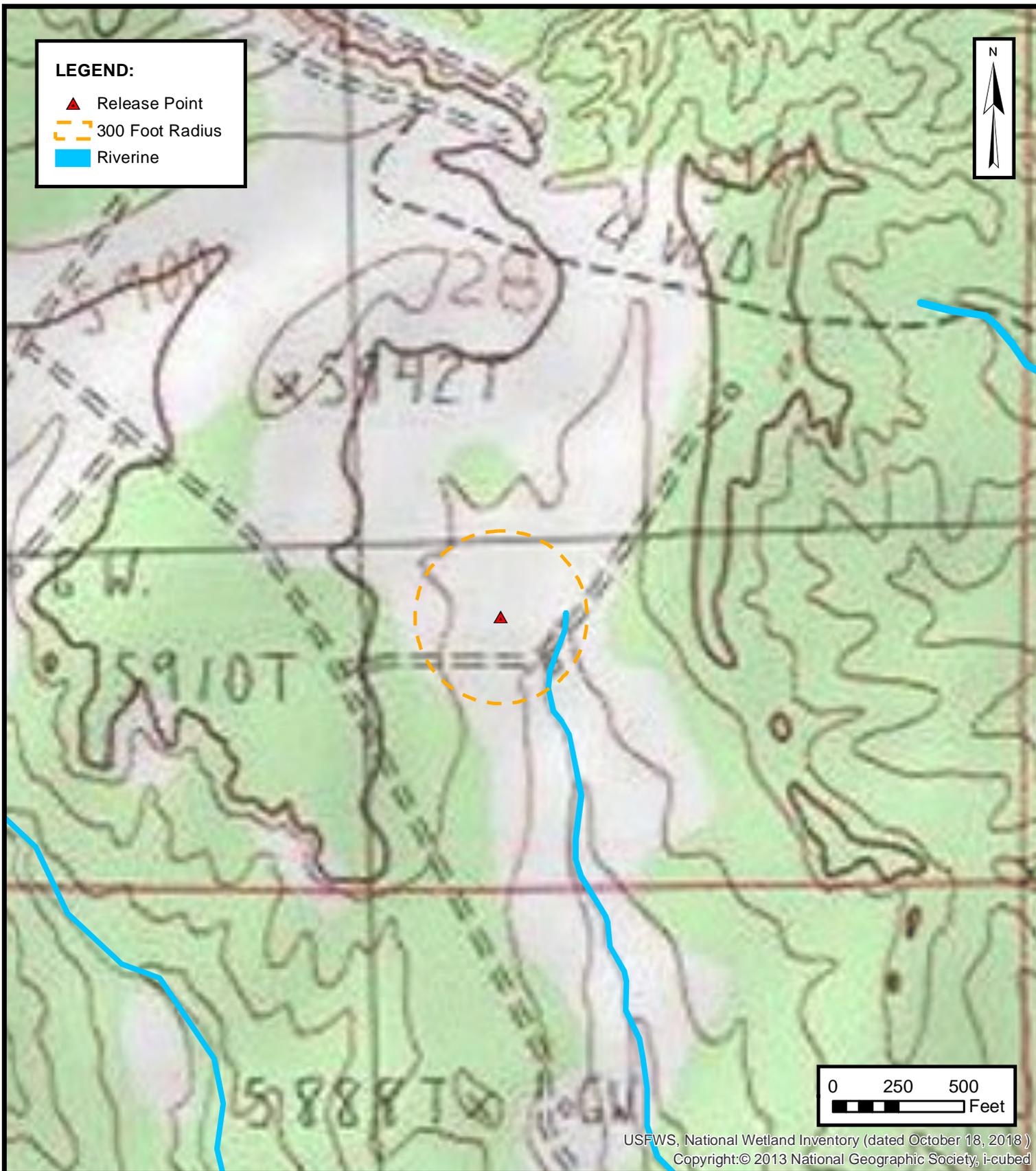


WATER WELL AND NATURAL SPRING LOCATION

ENTERPRISE FIELD SERVICES, LLC
 FEDERAL 31-11-28 #3 (8/18/22)
 Unit Letter O, S28 T31N R11W, San Juan County, New Mexico
 36.865604° N, 107.993802° W

PROJECT NUMBER: 05A1226204

FIGURE
E



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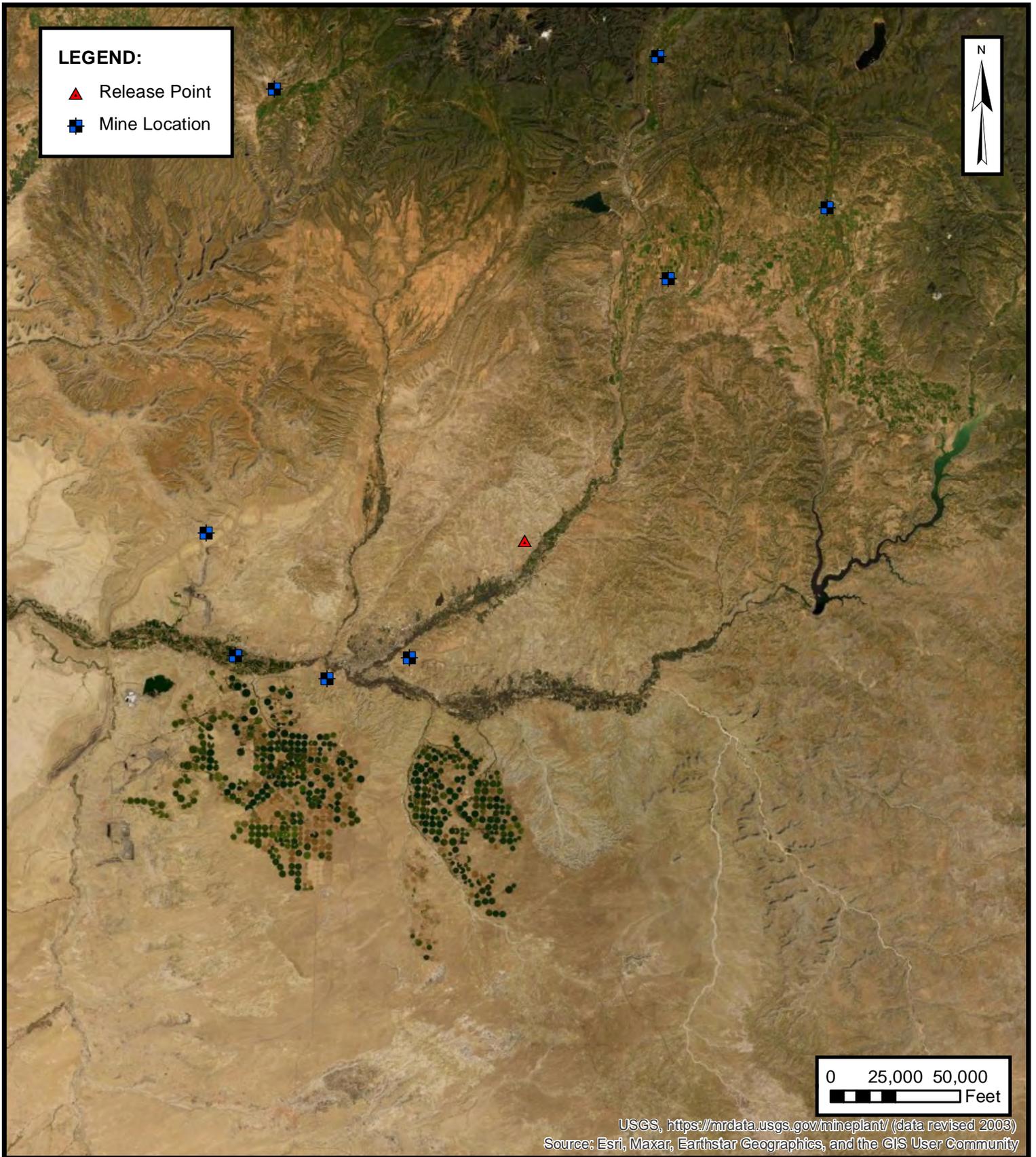
WETLANDS

ENTERPRISE FIELD SERVICES, LLC
FEDERAL 31-11-28 #3 (8/18/22)
Unit Letter O, S28 T31N R11W, San Juan County, New Mexico
36.865604° N, 107.993802° W

PROJECT NUMBER: 05A1226204

FIGURE

F



MINES, MILLS AND QUARRIES
ENTERPRISE FIELD SERVICES, LLC
FEDERAL 31-11-28 #3 (8/18/22)
Unit Letter O, S28 T31N R11W, San Juan County, New Mexico
36.865604° N, 107.993802° W
PROJECT NUMBER: 05A1226204

FIGURE
G



ENSOLUM
 Environmental, Engineering and
 Hydrogeologic Consultants

100-YEAR FLOOD PLAIN MAP

ENTERPRISE FIELD SERVICES, LLC
 FEDERAL 31-11-28 #3 (8/18/22)
 Unit Letter O, S28 T31N R11W, San Juan County, New Mexico
 36.865604° N, 107.993802° W

PROJECT NUMBER: 05A1226204

FIGURE

H



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
SJ 00631	SJAR	SJ		2	34	31N	11W			234857	4083377*	30	11	19
SJ 00632	SJAR	SJ		2	34	31N	11W			234857	4083377*	25	7	18
SJ 00656	SJAR	SJ		2	34	31N	11W			234857	4083377*	30	8	22
SJ 00659	SJAR	SJ		3	2	34	31N	11W		234656	4083176*	33	11	22
SJ 00660	SJAR	SJ		1	1	2	34	31N	11W	234558	4083671*	50	30	20
SJ 00661	SJAR	SJ		1	3	2	34	31N	11W	234555	4083275*	52	32	20
SJ 00985	SJAR	SJ		4	4	34	31N	11W		235049	4082356*	40	16	24
SJ 01125	SJAR	SJ		2	4	1	34	31N	11W	234355	4083292*	59	42	17
SJ 01137	SJAR	SJ		4	4	4	33	31N	11W	233553	4082312*	37	19	18
SJ 01251	SJAR	SJ		4	1	34	31N	11W		234256	4083193*	79	65	14
SJ 01267	SJAR	SJ		1	2	34	31N	11W		234659	4083572	65	45	20
SJ 01533	SJAR	SJ		4	1	34	31N	11W		234256	4083193*	58	40	18
SJ 01608	SJAR	SJ		4	34	31N	11W			234849	4082569*	48	17	31
SJ 01618	SJAR	SJ		1	2	34	31N	11W		234659	4083572*	28	8	20
SJ 01656	SJAR	SJ		2	34	31N	11W			234857	4083377*	20	6	14
SJ 01657	SJAR	SJ		2	34	31N	11W			234857	4083377*	20	6	14
SJ 01675	SJAR	SJ		2	34	31N	11W			234857	4083377*	33	7	26
SJ 01721	SJAR	SJ		2	2	34	31N	11W		235062	4083556*	22	10	12
SJ 01768	SJAR	SJ		2	2	34	31N	11W		235062	4083556*	20	6	14
SJ 01840	SJAR	SJ		1	1	2	34	31N	11W	234558	4083671*	65	25	40
SJ 02113	SJAR	SJ		3	2	34	31N	11W		234656	4083176*	12	4	8
SJ 02119	SJAR	SJ		3	2	34	31N	11W		234656	4083176*	11	3	8
SJ 02167	SJAR	SJ		4	1	34	31N	11W		234256	4083193*	83	69	14
SJ 02215	SJAR	SJ		3	4	27	31N	11W		234663	4083969*	54	23	31
SJ 02277	SJAR	SJ		2	1	34	31N	11W		234260	4083594*	16	7	9
SJ 02468	SJAR	SJ		3	2	4	27	31N	11W	234978	4084254*	49	30	19

*UTM location was derived from PLSS - see Help

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

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

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

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

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
SJ 02482	SJAR	SJ		2	1	4	27	31N	11W	234775	4084473*	75	55	20
SJ 02549	SJAR	SJ		3	3	4	27	31N	11W	234562	4083868*	49	30	19
SJ 02656	SJAR	SJ		4	2	4	27	31N	11W	235178	4084254*	21	9	12
SJ 02676	SJAR	SJ			3	4	27	31N	11W	234663	4083969*	19	7	12
SJ 02852	SJAR	SJ		3	2	3	34	31N	11W	234152	4082687*	23	7	16
SJ 02853	SJAR	SJ		4	3	4	27	31N	11W	234762	4083868*	22	6	16
SJ 02856	SJAR	SJ		3	2	3	34	31N	11W	234152	4082687*	24	6	18
SJ 02857	SJAR	SJ		1	4	3	34	31N	11W	234149	4082482*	23	6	17
SJ 02859	SJAR	SJ		4	1	3	34	31N	11W	233954	4082703*	22	6	16
SJ 02861	SJAR	SJ		1	3	3	34	31N	11W	233751	4082497*	21	7	14
SJ 02871	SJAR	SJ		4	2	4	27	31N	11W	235178	4084254*	22	11	11
SJ 02914	SJAR	SJ		3	2	4	27	31N	11W	234978	4084254*	25	15	10
SJ 02966	SJAR	SJ		3	3	4	34	31N	11W	234547	4082267*	48	20	28
SJ 02967	SJAR	SJ		3	2	3	34	31N	11W	234152	4082687*	20	5	15
SJ 02972	SJAR	SJ		4	3	2	34	31N	11W	234755	4083075*	15	5	10
SJ 02984	SJAR	SJ		1	4	4	27	31N	11W	234966	4084052*	20		
SJ 02993	SJAR	SJ		2	3	4	33	31N	11W	233155	4082527*	280	160	120
SJ 02994	SJAR	SJ		2	3	4	33	31N	11W	233155	4082527*	300	200	100
SJ 03002	SJAR	SJ		4	2	3	34	31N	11W	234352	4082687*	22		
SJ 03014	SJAR	SJ		4	2	3	34	31N	11W	234352	4082687*	30	5	25
SJ 03016	SJAR	SJ		1	3	4	34	31N	11W	234547	4082467*	35		
SJ 03025	SJAR	SJ		3	2	3	34	31N	11W	234152	4082687*	22	5	17
SJ 03042	SJAR	SJ		2	3	3	34	31N	11W	233951	4082497*	23	6	17
SJ 03047	SJAR	SJ		4	2	2	34	31N	11W	235161	4083455*	19	6	13
SJ 03048	SJAR	SJ		4	3	3	34	31N	11W	233951	4082297*	21	4	17
SJ 03065	SJAR	SJ		3	2	3	34	31N	11W	234152	4082687*	22	7	15
SJ 03106	SJAR	SJ		1	4	2	34	31N	11W	234957	4083258*	25		
SJ 03107	SJAR	SJ		1	4	2	34	31N	11W	234957	4083258*	18	8	10
SJ 03172	SJAR	SJ		2	2	2	34	31N	11W	235161	4083655*	19	7	12

*UTM location was derived from PLSS - see Help

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

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

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

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

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
SJ 03181	SJAR	SJ		1	4	4	27	31N	11W	234966	4084052*	19	10	9
SJ 03183	SJAR	SJ		4	4	2	34	31N	11W	235157	4083058*	19	6	13
SJ 03211	SJAR	SJ		1	4	1	34	31N	11W	234155	4083292*	24	14	10
SJ 03220	SJAR	SJ		1	3	3	34	31N	11W	233751	4082497*	20	6	14
SJ 03247	SJAR	SJ		1	3	4	27	31N	11W	234562	4084068*	70		
SJ 03260	SJAR	SJ		4	4	3	34	31N	11W	234349	4082282*	41	3	38
SJ 03316	SJAR	SJ		1	1	2	34	31N	11W	234558	4083671*	30	10	20
SJ 03357	SJAR	SJ		2	4	3	34	31N	11W	234349	4082482*	22	6	16
SJ 03377	SJAR	SJ		4	2	4	34	31N	11W	235152	4082656*	20	2	18
SJ 03402	SJAR	SJ		4	1	4	34	31N	11W	234751	4082671*	25		
SJ 03448	SJAR	SJ			1	2	34	31N	11W	234659	4083572*	41	21	20
SJ 03492	SJAR	SJ		2	4	3	34	31N	11W	234349	4082482*	30		
SJ 03493	SJAR	SJ		2	4	3	34	31N	11W	234349	4082482*	25	15	10
SJ 03497	SJAR	SJ		4	1	4	34	31N	11W	234751	4082671*	30	10	20
SJ 03505	SJAR	SJ		3	3	4	27	31N	11W	234562	4083868*	50	14	36
SJ 03540	SJAR	SJ		1	2	4	27	31N	11W	234978	4084454*	40	21	19
SJ 03600	SJAR	SJ		1	2	4	27	31N	11W	234978	4084454*	51	39	12
SJ 03609	SJAR	SJ		4	4	3	34	31N	11W	234349	4082282*	27	6	21
SJ 03631	SJAR	SJ		2	4	3	34	31N	11W	234349	4082482*	27	6	21
SJ 03710 POD1	SJAR	SJ		2	3	3	34	31N	11W	233951	4082497*	20	4	16
SJ 03720 POD1	SJAR	SJ		3	1	4	34	31N	11W	234551	4082671*	21	6	15
SJ 03739 POD1	SJAR	SJ		1	3	4	34	31N	11W	234547	4082467*	25	3	22
SJ 03772 POD1	SJAR	SJ		1	2	4	27	31N	11W	235035	4084480	41	30	11
SJ 03780 POD1	SJAR	SJ		2	1	3	34	31N	11W	234021	4082870	28	12	16
SJ 03834 POD1	SJAR	SJ		2	3	4	34	31N	11W	234758	4082544	28	4	24
SJ 03885 POD3	SJAR	SJ		2	3	1	33	31N	11W	237547	4087396	25	17	8
SJ 03937	SJAR	SJ		4	1	3	32	31N	11W	230722	4082828	67	52	15
SJ 03994 POD1	SJAR	SJ		4	4	2	27	31N	11W	235213	4084695	27	14	13
SJ 04052 POD1	SJAR	SJ		4	4	2	27	31N	11W	235213	4084602	28	14	14

*UTM location was derived from PLSS - see Help

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

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

(In feet)

POD Number	POD Sub-Code	basin	County	Q 6	Q 4	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
SJ 04139 POD1	SJAR	SJ	SJ	4	2	3	34	31N	11W	234356	4082663		19	6	13
SJ 04141 POD1	SJAR	SJ	SJ	2	3	3	34	31N	11W	234040	4082526		28	12	16
SJ 04170 POD1	SJAR	SJ	SJ	4	4	2	27	31N	11W	235259	4084636		35	15	20
SJ 04252 POD4	SJ	SJ	SJ	2	2	20	31N	11W	235248	4089951		35			
SJ 04305 POD1	SJAR	SJ	SJ	1	4	4	27	31N	11W	235050	4083983		40	30	10
SJ 04378 POD1	SJAR	SJ	SJ	4	2	3	32	31N	11W	231227	4082825		120		
SJ 04401 POD1	SJAR	SJ	SJ	4	2	27	31N	11W	235144	4084637		55			
SJ 04402 POD1	SJAR	SJ	SJ	4	2	27	31N	11W	235112	4084599		55			

Average Depth to Water: **19 feet**

Minimum Depth: **2 feet**

Maximum Depth: **200 feet**

Record Count: 92

PLSS Search:

Section(s): 28, 20, 21, 22, 27, 29, 32, 33, 34
Township: 31N
Range: 11W

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

30-045-10494
13- 30-045- 10483
103- 30-045- 27283

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

Operator MERIDIAN OIL CO. Location: Unit SW Sec. 20 Twp 31 Rng 11

Name of Well/Wells or Pipeline Serviced Granier # 6 & # 13 & # 103

Elevation _____ Completion Date 7/17/90 Total Depth 300 ft. Land Type _____

Casing Strings, Sizes, Types & Depths Set 60 ft. 8" PVC CEMENTED WITH
FIVE SACKS

If Casing Strings are cemented, show amounts & types used FIVE SACKS OF
PORTLAND CEMENT

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

Depths & thickness of water zones with description of water: Fresh, Clear,
Salty, Sulphur, Etc. 110 to 120 ft., no sample also water sand at 45-50 ft.
wash water 0 to 20 ft.

Depths gas encountered: _____

Ground bed depth with type & amount of coke breeze used: _____
290 logged and 3000 lbs of Ashbury Petroleum Coke used.

Depths anodes placed: 265, 255, 245, 235, 225, 215, 205, 195, 185, 175

Depths vent pipes placed: 290 ft. 1" vent pipe

Vent pipe perforations: 190 ft. perforated

Remarks: _____

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.

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

2

Drilling Log (Attach Hereto)

Completion Date 7-17-90

CPS #	Well Name, Line or Plant:			Work Order #	Static:	Ins. Union Check				
4065-W	GRANIOR # 6					<input checked="" type="checkbox"/> Good <input type="checkbox"/> Bad				
	GRANIOR # 13									
	GRANIOR # 103									
Location:	Anode Size:	Anode Type:		Size Bit:						
SW20-31-11	2" X 60'	ANOTEC		6 3/4"						
Depth Drilled	Depth Logged	Drilling Rig Time		Total Lbs. Coke Used	Lost Circulation Mat'l Used		No. Sacks Mud Used			
300'	290'			3000 #						
Anode Depth	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10
	265'	255'	245'	235'	225'	215'	205'	195'	185'	175'
Anode Output (Amps)	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10
	6.6	4.9	5.5	6.5	7.0	6.5	6.3	7.3	7.4	7.8
Anode Depth	# 11	# 12	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20
Anode Output (Amps)	# 11	# 12	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20
Total Circuit Resistance	Volts		Amps		Ohms		No. 8 C.P. Cable Used		No. 2 C.P. Cable Used	
	12.6		23.6		.53					

Remarks: SET 60' of 8" PVC casing. DRILLER SAID HIT WATER AT 20'. HAD TO INJECT WATER TO SET CASING. DID NOT GET WATER SAMPLE. POURED 30 gal. of CEMENT and let equalized outside and inside pipe INSIDE PIPE and 15 gal. of cement ON OUTSIDE OF PIPE TO SEAL OFF WATER. DRILLER SAID HIT WATER SAND AT 110'. INJECTING WATER, DID NOT GET WATER SAMPLE INSTALLED 290' of 1" VENT PIPE. ISOLATED WATER ZONES BY CASING AND CEMENT LEFT COKE BREEZE APPROX. 130' DOWN HOLE. PERFORATED 190' of 1" VENT PIPE

Rectifier Size: _____ V _____ A
 Addn'l Depth _____
 Depth Credit: _____
 Extra Cable: 10'
 Ditch & 1 Cable: 227'
 25' Meter Pole: _____
 20' Meter Pole: _____
 10' Stub Pole: _____
 Junction Box: 1

All Construction Completed

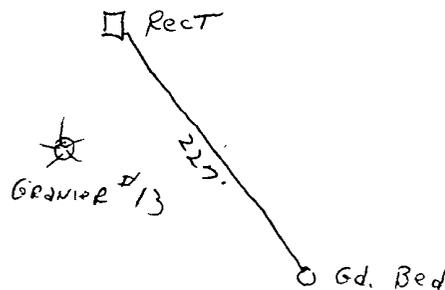
Willis Doughty, Jr
(Signature)

GROUND BED LAYOUT SKETCH

~~GRANIOR # 103~~

~~GRANIOR # 6~~

RECEIVED
 AUG 28 1990
 OIL CON. DIV. I
 DIST 3



CPS #: 4065-W WELL NAME: GRANIER #6-13-103 LOCATION: SW20-31-11 DATE: 7-17-90

TOTAL VOLTS: 12.6 TOTAL AMPS: 23.6 OHMS RESISTANCE: 53

DEEP	LOG ANODE NO.	ANODE NO.	DEEP	LOG ANODE	ANODE NO.	DEEP	LOG ANODE	ANODE No.	DEEP	LOG ANODE	ANODE No.	ANODE READINGS			
												NO.	DEPTH	NO COKE	WITH COKE
5			185	1.9	9	365			545			1	265	3.3	6.6
10			190	2.1		370			550			2	255	2.2	4.9
15			195	1.8	8	375			555			3	245	2.6	5.5
20			200	1.9		380			560			4	235	3.8	6.5
25			205	1.8	7	385			565			5	225	3.1	7.0
30			210	1.7		390			570			6	215	3.2	6.5
35			215	1.9	6	395			575			7	205	2.2	6.3
40			220	2.1		400			580			8	195	2.4	7.3
45			225	2.0	5	405			585			9	185	2.5	7.4
50			230	1.8		410			590			10	175	2.7	7.8
55			235	2.0	4	415			595						
60			240	2.0		420			600						
65			245	1.7	3	425			605						
70			250	2.0		430			610						
75			255	2.1	2	435			615						
80			260	2.4		440			620						
85			265	2.8	1	445			625						
90			270	4.1		450			630						
95			275	4.3		455			635						
100	1.2		280	3.9		460			640						
105	1.0		285	3.9		465			645						
110	1.0		290	3.8	T.D	470			650						
115	1.90		295			475			655						
120	1.2		300			480			660						
125	1.60		305			485			665						
130	1.50		310			490			670						
135	1.3		315			495			675						
140	2.1		320			500			680						
145	1.9		325			505			685						
150	1.7		330			510			690						
155	2.3		335			515			695						
160	2.0		340			520			700						
165	2.0		345			525			705						
170	1.7		350			530			710						
175	2.1	10	355			535			715						
180	2.0		360			540			720						

REMARKS:

BURGE CORROSION SYSTEMS, INC.

P.O. BOX 1359 - PHONE 334-6141
AZTEC, NEW MEXICO 87410

COMPANY Meridian Oil DAILY DRILLING REPORT July 17, 1970

WELL NAME:	WELL NUMBER:	SECTION:	TOWNSHIP:	RANGE:
<u>GRENIER 6.13.103</u>				

WATER AT: 20-25' / 45-50' / 120-120' FEET: 300' HOLE MADE:

DESCRIPTION OF FORMATION

FROM	TO	FORMATION IS	COLOR
<u>0</u>	<u>20</u>	<u>Sand - wash sand water</u>	
<u>20</u>	<u>45'</u>	<u>Bentonite, sand, shale</u>	
<u>45'</u>	<u>50'</u>	<u>Water sand</u>	
<u>50'</u>	<u>110'</u>	<u>shale - sand - water</u>	
<u>110'</u>	<u>120'</u>	<u>water sand</u>	
<u>120'</u>	<u>210'</u>	<u>shale - Red, blue, bentonite</u>	
<u>210'</u>	<u>230'</u>	<u>Bentonite</u>	
<u>230'</u>	<u>270'</u>	<u>shale - Blue</u>	
<u>270'</u>	<u>275'</u>	<u>Bentonite</u>	
<u>275'</u>	<u>300'</u>	<u>shale</u>	

REMARKS: Set 20' 8" cemented with 2 sacks - lost hole due to wash sand-water pumping. Mudd and set 60' 8" PVC casing with 5 sacks cement.

Driller Brian E. Burge Tool Dresser

3618

30-045-22436

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

Operator Meridian Oil Co. Location: Unit C Sec. 72 Twp 31 Rng 11

Name of Well/Wells or Pipeline Serviced _____

Calloway #1A

Elevation _____ Completion Date 4-28-93 Total Depth 392' Land Type P

Casing Strings, Sizes, Types & Depths 12/9 Set 100' of 8" PVC casing.

NO GAS, WATER, OR BOULDERS WERE ENCOUNTERED DURING CASING.

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

WITH 25 SACKS

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

N/A

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'

Depths anodes placed: 375, 350, 340, 330, 300, 290, 275, 265, 255, 230, 180, 165, 145, 135, 125

Depths vent pipes placed: 392'

Vent pipe perforations: Bottom 250'

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.

3538 30-04S-26865

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL INC. Location: Unit 0 Sec. 27 Twp 31 Rng 11

Name of Well/Wells or Pipeline Serviced CALLOWAY #1A

cps 2095w

Elevation 5684' Completion Date 2/14/89 Total Depth 340' Land Type* N/A

Casing, Sizes, Types & Depths 72' OF 8" STEEL CASING

(RAN 133' OF 7" CASING WHEN PLUGGED AND ABANDONED)

If Casing is cemented, show amounts & types used N/A

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

(43 sxs class "B" 2% Calcium Chloride, w/ 1/4" sx cello'seal plug down)

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. 75' NO SAMPLE

Depths gas encountered: N/A

Type & amount of coke breeze used: N/A

Depths anodes placed: 320', 313', 306', 299', 292', 285', 278', 271', 264', 250'

Depths vent pipes placed: 340'

Vent pipe perforations: 280'

Remarks: gb #1 PLUGGED AND ABANDONED MAY 1990.

RECEIVED
MAY 31 1991
OIL CON. D.
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.

Plug and Abandon	2095W Calloway #1A	0 27-31-11	1990
April 23	Tried to clean hole using air compressor on rig, spent most of Monday blowing down 1" vent pipe to clean coke breeze from hole (not successful)		
April 24	Spent most of day rigging up. Building rig pad. Ground soft from all the rain, rigged up, dug pits.		
April 25	Drilling below 100' starting making lots of water, filled all reserve pits, shut down about 1:00 P.M., raining.		
April 26	Enlarged pits, drilling, making 150-200 bbls. water for 20' of hole. Dawn Trucking hauling water to McGrath #4 (plugged filter system) had to go to Basin Disposal, spent most of day waiting on trucks.		
April 27	Mixed mud and tried to circulate (not successful).		
April 28	Running 7" casing sleeve in 8 5/8" casing. Welding all joints.		
April 29	Shut down.		
April 30	Finished running 7" casing, ran 133' of 7" casing.		
May 1	Drilling 6 3/4" hole below 7" casing, drilled to 320'.		
May 2	20' Cement	Rigged up. Western to cement. Cemented w/43 sxs class "B" 2% Calcium chloride, w/- 1/4" sx cello-seal plug down, 2:00 P.M. W.O.C.	
May 3	W.O.C.		
May 4	Blew well clean, tagged cement @ 221', bottom of casing 133', - 12' plug in bottom of 7" - pulled drill pipe-rigged down.		

doc 27
MDM:jf
5/8/90

CPS 20 95

PA 07-0238 (Rev. 10-82)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Drilling Log (Attach hereto)

Completion Date 2-14-89

CPS #	Well Name, Line or Plant:	Work Order #	Static:	Ins. Union Check
	2095-w CALLOWAY #1-A		600'S = .815	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Bad
Location: <u>0</u>	Anode Size: <u>2" x 60"</u>	Anode Type: <u>Duriron</u>	Size Bit: <u>6 3/4"</u>	
Location: <u>SE 27-31-11</u>				
Depth Drilled <u>340'</u>	Depth Logged <u>335'</u>	Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used
Anode Depth				
# 1 <u>320'</u>	# 2 <u>313'</u>	# 3 <u>306'</u>	# 4 <u>299'</u>	# 5 <u>292'</u>
# 6 <u>285'</u>	# 7 <u>278'</u>	# 8 <u>271'</u>	# 9 <u>264'</u>	# 10 <u>250'</u>
Anode Output (Amps)				
# 1 <u>3.2</u>	# 2 <u>4.4</u>	# 3 <u>5.1</u>	# 4 <u>5.1</u>	# 5 <u>5.3</u>
# 6 <u>4.5</u>	# 7 <u>5.8</u>	# 8 <u>5.9</u>	# 9 <u>5.7</u>	# 10 <u>5.8</u>
Anode Depth				
# 11	# 12	# 13	# 14	# 15
# 16	# 17	# 18	# 19	# 20
Anode Output (Amps)				
# 11	# 12	# 13	# 14	# 15
# 16	# 17	# 18	# 19	# 20
Total Circuit Resistance	No. 8 C.P. Cable Used		No. 2 C.P. Cable Used	
Volts <u>12.08</u>	Amps <u>20.5</u>	Ohms <u>.589</u>		

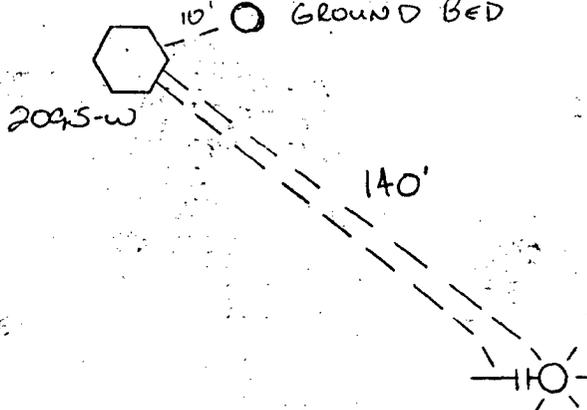
Remarks: DRILLED 340', LOGGED 335'. DRILLER SAID WATER AT 75'
NO SAMPLE. CABLE TOOL RIG SET 72' OF 8" STEEL CASING
INSTALLED 340' OF 1" PVC VENT PIPE, PERFORATED BOTTOM
280'

Rectifier Size: 40 v 16 A
 Addn'l Depth _____
 Depth Credit: 165' 3.50
 Extra Cable: 170' .24
 Ditch & 1 Cable: 150' .70
 25' Meter Pole: _____
 20' Meter Pole: _____
 10' Stub Pole: _____
 Junction Box: 1
 CABLE TOOL 27.50 X 72

All Construction Completed

M. J. Williams
 (Signature)

GROUND BED LAYOUT SKETCH



5684

4074.00
 669.00
 - 577.50 ✓
 40.80 ✓
 105.00 ✓
 297.00 ✓
 225.00 ✓
 1980.00 ✓
6813.30

Daniel Cross DRILLING CO.

Drill No. 2-1

DRILLER'S WELL LOG

S. P. No. Callaway 1A Date 2-14-88
Client Mexican oil Prospect _____
County San Juan State N. Mex

If hole is a redrill or if moved from original staked position show distance and direction moved: _____

FROM	TO	FORMATION — COLOR — HARDNESS
0	80	Mud
80	160	Sandy shale, sandstone
160	260	Sandstone
260	325	shale, sandy shale
325	340	sandstone

Mud _____ Bran _____ Lime _____

Rock Bit Number _____ Make _____

Remarks: Water @ 75'

Driller Ron Mitt

3193

30-045-23715

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL INC. Location: Unit C Sec. 29 Twp 31 Rng 11

Name of Well/Wells or Pipeline Serviced HEATON #7A

cps 1988w

Elevation 5958' Completion Date 8/30/88 Total Depth 320' Land Type* N/A

Casing, Sizes, Types & Depths N/A

If Casing is cemented, show amounts & types used N/A

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

Depths & thickness of water zones with description of water when possible:
Fresh, Clear, Salty, Sulphur, Etc. 65' NO SAMPLE

Depths gas encountered: N/A

Type & amount of coke breeze used: N/A

Depths anodes placed: 280', 270', 260', 250', 240', 230', 220', 210', 195', 185'

Depths vent pipes placed: 320'

Vent pipe perforations: 260'

Remarks: gb #1

RECEIVED

MAY 31 1991

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.

FM-07-0238 (Rev. 10-82)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Comp. *[Signature]*
9 - Completion Date 8-30-88

Drilling Log (Attach Hereto)

CFS	Well Name Log or Plant	Work Order #	Frame	Ins. Union Check
1988W	Theaton #74	49559A V	6005 = .780	<input checked="" type="checkbox"/> Good <input type="checkbox"/> Bad
Location	2" x 60"	Anode Type	Size Ext	
029-31-11	D. Union	634		
Depth Drilled	Depth Logged	Dr. Log & g. Time	Total Lbs. Crk. Used	Loss Circulation Mat. Used
320	320'			
Anode Depth				
= 1 280	= 2 270	= 3 260	= 4 250	= 5 240
= 6 230	= 7 220	= 8 210	= 9 195	= 10 185
Anode Output (Amps)				
= 1 5.3	= 2 6.0	= 3 6.3	= 4 5.3	= 5 5.3
= 6 5.7	= 7 6.2	= 8 5.1	= 9 5.3	= 10 5.1
Anode Depth				
= 11	= 12	= 13	= 14	= 15
= 16	= 17	= 18	= 19	= 20
Anode Output (Amps)				
= 11	= 12	= 13	= 14	= 15
= 16	= 17	= 18	= 19	= 20
Total Circuit Resistance			No. 6 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 12.02	Amps 27.2	Ohms .44		

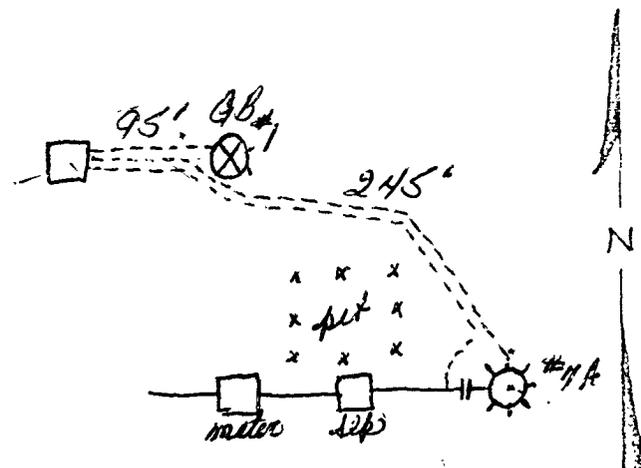
Remarks: Water at 65' no sample. Installed 320' of 1" PVC vent pipe, bottom 260' perforated. Hole drilled with mud due to top 40'-60' of surface sand.

Rectifier Size: 40 V 16 A 669.00
 Add'l Depth: 180' @ 3.50 = 630.00 ✓
 Extra Cable: 465' @ .24 = 111.60
 Ditch & 1 Cable: 340' @ .70 = 238.00 ✓

All Construction Completed

Cahm Redman
Signature

25' Meter Pole: 397.00
 20' Meter Pole: 1 @ 297.00 297.00
 10' Stub Pole: 225.00
 Junction Box: 1 @ 225.00 225.00
 4984.60
 tax 249.23
 5233.83 OK *[Signature]*



CPS # 988W

D. CIASS DRILLING CO.

Drill No. 3

DRILLER'S WELL LOG

S. P. No. Heaton # 7A Date 8-30-88
Client Meridian Oil Co. Prospect
County SAN JUAN State New Mex.

If hole is a redrill or if moved from original staked position show distance and direction moved:

FROM	TO	FORMATION — COLOR — HARDNESS
0	65	SAND
65	160	SHALE
160	185	SANDY SHALE
185	295	SHALE
295	320	SANDY SHALE

Mud _____ Bron _____ Lime _____

Rock Bit Number _____ Make _____

Remarks: WATER @ 65'

Driller: Ronnie Brown

SHEET NO. _____

CPS# 1986W

COMPANY: MERIDIAN OIL JOB No. 13128 DATE: 8/30/88
 WELL: HEATON # 7A PIPELINE: _____
 LOCATION: SEC. 29 TWP. 31N RGE. 11W CO. SAN JUAN STATE NEW MEXICO
 ELEV. _____ FT: ROTARY 320 FT: CABLE TOOL A FT: CASING _____ FT
 GROUNDBED: DEPTH 320 FT. DIA. 6 3/4 IN. GAS. 3200 LBS. ANODES 10 2"X160" TYPE D

DEPTH FT.	DRILLER'S LOG	EXPLORING ANODE TO STRUCTURE			NO COKE	WITH COKE	ANODE NO.	DEPTH TOP OF ANODES
		E	I	R	I	I		
50								
55	1-4.1-290'-5.3							
60	2-4.1-270' 6.0							
65	3-4.2-260' 6.3							
70	4-3.7-250' 5.3			2.2				
75	5-4.0-240' 5.3			2.3				
80	6-3.9-230' 5.7			2.3				
85	7-4.3-220' 6.2			2.1				
90	8-4.0-210' 5.1			1.5				
95	9-4.1-195' 5.3			1.5				
100	10-3.7-185' 5.1			1.6				
5				2.3				
10				2.5				
15				2.7				
20				2.7				
25				2.5				
30				2.4				
35				1.9				
40				1.9				
45				1.8				
50				1.8				
55				2.0				
60				1.9				
65				1.8				
70				1.8				
75				1.6				
80				2.3				
85				2.4				
90				2.6				
95				2.5				
200				2.3				
5				2.7				
10				2.5				
15				2.5				
20				2.7				
25				2.4				
30				2.5				
35				2.4				
40				2.5				
45				2.6				
50				2.4				
55				2.5				

GROUNDBED RESISTANCE: (1) VOLTS 12.02 - AMPS 27.2 - .44 OHMS

(2) VIBROGROUND _____ OHMS

GENERAL CATHODIC PROTECTION SERVICES CO.

DATA SHEET NO. _____

CPS # 1988W

COMPANY MERIDIAN OIL

WELL: HEATON N° 7A

JOB No. 13128 DATE: 8/30/88

LOCATION: SEC 29 TWP 31 N RGE. 11 W CO. SAN JUAN STATE N. MEX.

ELEV. _____ FT: ROTARY 320 FT: CABLE TOOL _____ FT: CASING _____

GROUNDED: DEPTH 320 FT. DIA. 6 3/4 IN. CAS 3200 LBS. ANODES 10 2"X60" TYPE I

DEPTH FT.	DRILLER'S LOG	EXPLORING ANODE TO STRUCTURE			NO COKE	WITH COKE	ANODE NO.	DEPT TOP ANODE
		E	I	R	I	I		
60								
65				2.7				
70				2.4				
75				2.6				
80				2.7				
85				2.6				
90				2.5				
95				2.3				
300				2.1				
5				2.0				
10				2.0				
15				1.5				
20				1.1				
25	TD 320							
30								
35								
40								
45								
50								
55								
60								
65								
70								
75								
80								
85								
90								
95								
400								

GROUNDED RESISTANCE: (1) VOLTS 12.02 - AMPS 27.2 - .44 OHMS

(2) VIBROGROUND _____ OHMS

GENERAL CATHODIC PROTECTION SERVICES CO.

11/28/88

30-045-10137

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator El Paso Field Services Location: Unit H Sec. 34 Twp 32 Rng 11

Name of Well/Wells or Pipeline Served CALLOWAY Ls 2.

71698

Elevation _____ Completion Date 9-3-97 Total Depth 400 Land Type * P

Casing, Sizes, Types & Depths 8 5/8 - P.V.C.

If Casing is cemented, show amounts & types used 23 Bags Zia Type 1 & 2

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

120-130 - 4 bags Zia Type 1 & 2

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. Small Amount w/ Flowing.

Driller spots 380'

Depths gas encountered: _____

Type & amount of coke breeze used: Loresco SW - 4600 lbs

Depths anodes placed: 180-375

Depths vent pipes placed: 380

Vent pipe perforations: 200'

Remarks: _____

RECEIVED
JAN 20 1998
OIL CON. DIV.
DIST. 3

D. D. D. D.

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.

THE LOFTIS COMPANY

DATE: September 3, 1997

COMPANY: EPFS / Amoco

COUNTY: San Juan STATE: New Mexico

CONTRACT NO: FC - 96 - 1000

UNIT NO: CPS # 71698, WO # 2964

Wellname - Calloway LS 2

GROUND BED: DEPTH / FT 400' DIA / INCH: 7 7/8" ANODES: (15) 2 X 60 SHA-2's

CASING: DEPTH / FT 22' SIZE: 8"

DEPTH IN FEET	DRILLERS LOG	RESISTIVITY		ANODE NUMBER	DEPTH TO ANODE TOP	BEFORE COKE	AFTER COKE
		OHMS	AMPS				
5	Casing						
10							
15							
20	Casing to 22'						
25	Shale						
30							
35							
40			3.8				
45			3.2				
50			3.6				
55			3.7				
60			3.2				
65			3.0				
70			2.8				
75			2.8				
80			22.7				
85			2.6				
90			2.4				
95			2.2				
100			1.4				
105			1.6				
110			1.2				
115			2.2				
120			2.9				
125			2.0				
130			1.7				
135			1.2				
140			1.7				
145			2.4				
150			2.4				
155			2.0				
160			2.0				
165			1.5				
170			1.5				
175			2.8				
180			2.9	15	180	2.9	6.6
185			2.8				
190			2.7	14	190	3.1	6.5
195			2.2				
200			1.2				
205			1.8				
210			2.5				

JOB # TDM1350

THE LOFTIS COMPANY

DEPTH IN FEET	DRILLERS LOG	RESISTIVITY		ANODE NUMBER	DEPTH TO ANODE TOP	BEFORE COKE	AFTER COKE
		OHMS	AMPS				
215			2.8	13	215	3.3	7.2
220			3.0				
225			3.0	12	225	3.5	7.1
230			2.8				
235			2.4				
240	Sandstone & Clay		2.6	11	240	3.0	5.9
245			2.5				
250			2.0				
255			2.0				
260			2.2				
265			2.3	10	265	2.7	6.0
270			2.4				
275			2.3	9	275	2.3	5.9
280	Shale		1.9				
285			2.4	8	285	3.2	6.9
290			3.2				
295			3.0	7	295	3.1	7.4
300			3.4				
305			3.5	6	305	3.5	7.3
310			3.0				
315			2.4	5	315	2.4	5.9
320			2.0				
325			2.0				
330			1.8				
335			2.1				
340			2.3	4	340	2.3	5.2
345			1.8				
350			1.6				
355			3.0	3	355	3.3	6.7
360			3.1				
365			3.2	2	365	3.2	6.1
370			2.8				
375			2.9	1	375	2.9	5.4
380			2.4				
385			2.5				
390							
395							
400	Shale						

JOB # TDM1350

FLOOD # 1

30-045-10182

3886

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL INC. Location: Unit C Sec. 34 Twp 31 Rng 11

Name of Well/Wells or Pipeline Serviced TURNER A #1A, FLOOD #1
cps 1959w

Elevation 5716' Completion Date 6/8/88 Total Depth 375' Land Type* N/A

Casing, Sizes, Types & Depths 105' OF 7 5/8" STEEL CASING

If Casing is cemented, show amounts & types used N/A

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

Depths & thickness of water zones with description of water when possible:
Fresh, Clear, Salty, Sulphur, Etc. 60' NO SAMPLE

Depths gas encountered: N/A

Type & amount of coke breeze used: N/A

Depths anodes placed: 345', 335', 325', 315', 305', 295', 285', 275', 230', 215'

Depths vent pipes placed: 375'

Vent pipe perforations: 300'

Remarks: gb #1

RECEIVED

MAY 31 1991.

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.

FM-07 0233 (Rev. 10-82)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Drilling Log (Attach Hereto)

Comp. 6-21-88

Completion Date 6/8/88

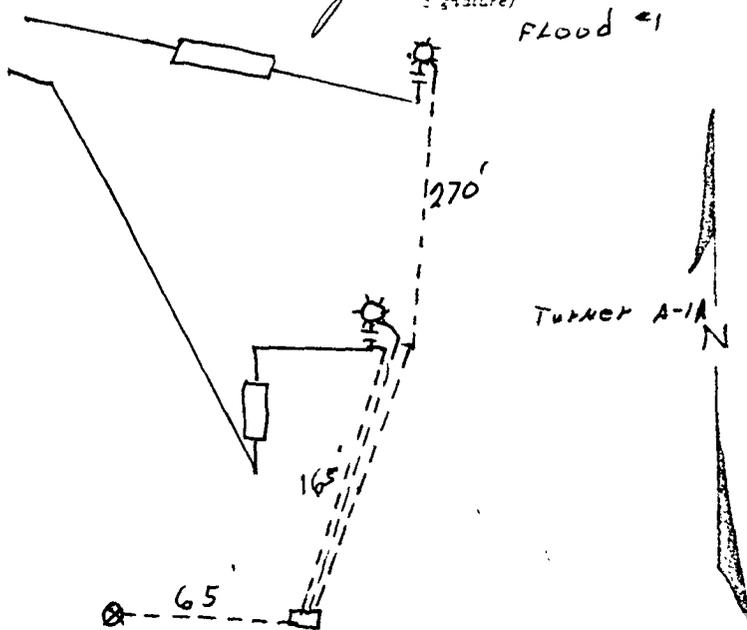
CPS #	Well Name Line or Plant	Work Order #	Static	Ins. Union Check
1959 W	TURNER * A-1A	76150		<input checked="" type="checkbox"/> Good <input type="checkbox"/> Bad
	FLOOD * 1	2076150	600' M = .96V	<input checked="" type="checkbox"/>
		2020860	600' N .94V	
Location	Anode Size	Anode Type	Size Bit	
C-34-31-11	2" X 60"	DURION	6 3/4"	
Depth Drilled	Depth Logged	Drilling Time	Total lbs. Coke Used	Lost Circulation Mat. Used
375'	375'			
Anode Depth				
= 1345	= 2335	= 3325	= 4315	= 5305
= 6295	= 7285	= 8275	= 9270	= 10215
Anode Output (Amps)				
= 16.0	= 25.7	= 36.0	= 45.2	= 54.9
= 64.9	= 75.0	= 85.0	= 96.0	= 105.8
Anode Depth				
= 11	= 12	= 13	= 14	= 15
= 16	= 17	= 18	= 19	= 20
Anode Output (Amps)				
= 11	= 12	= 13	= 14	= 15
= 16	= 17	= 18	= 19	= 20
Total Circuit Resistance				
Volts 12.0	Amps 25.0	Ohms .48		
			No. 8 C.P. Cores Used	No. 2 C.P. Cores Used

Remarks: *Set 105' of 7 5/8" steel casing with cable tool rig, thru Boulder and sand. We furnished the casing, could not get a water sample, water at 60'. Installed 375' of 1" P.V.C. Vent pipe, perforated 300'.*

G.B. 4074.00 ✓
 Rectifier Size: 40V 16A 669.00 ✓
 Add'l Depth _____
 Depth Credit: -125' -437.50 ✓
 Extra Cable: 370' 88.80 ✓
 Ditch & 1 Cable: 500' 350.00 ✓
 25' Meter Pole: _____
 20' Meter Pole: _____ 297.00 ✓
 10' Stub Pole: _____
 Junction Box: _____ 225.00 ✓
 105' of steel (7 5/8") casing with cable tool rig @ 27.50/foot 2887.50 ✓
 We furnished casing 8153.80
 TXX 407.69 ✓
 \$8561.49 ✓
 BT

All Construction Completed

JE Stotts
 (Signature)
 FLOOD ←



D. Crass DRILLING CO.

Drill No. 3

DRILLER'S WELL LOG

S. P. No. Turner A-1A Date 6-7-88
Client Meridian Oil Co Prospect _____
County SAN JUAN State New Mex.

If hole is a redrill or if moved from original staked position show distance and direction moved: _____

FROM	TO	FORMATION — COLOR — HARDNESS
0	105	CASING
105	135	shale
135	150	SANDY shale
150	180	SANDstone
180	240	shale
240	260	SANDY shale
260	280	SANDstone
280	300	SANDY shale
300	310	SANDstone
310	375	shale

Mud _____ Bran _____ Lime _____

Rock Bit Number _____ Make _____

Remarks: WATER 60'

Driller Rennie Brown

Catholic Protection Services Co.
1608 Schofield Ln.
P.O. Box 3
Farmington, NM 87499
(505) 327-9215
(505) 325-1946

1959 W

Date 6/8/80

Company Meridian O.C.

Well No. Turner A² 1A Location C-34-31-11 Volts Applied 12.0 Amperes 25.0

5			230	3.9 - (4)	455		680	
10			235	3.5	460		685	
15			240	3.0	465		690	1-3+5 - 2.7 - 60
20			245	2.8	470		695	2-3 35 - 2.8 - 57
25			250	2.2	475		700	3-3 25 - 2.8 - 60
30			255	2.9	480		705	4-3 15 - 2.5 - 52
35			260	2.6	485		710	5-3 05 - 2.9 - 49
40			265	2.5	490		715	6-2 95 - 2.8 - 49
45			270	3.0	495		720	7-2 85 - 2.8 - 50
50			275	3.3 - (8)	500		725	8-2 75 - 2.9 - 50
55			280	3.7	505		730	9-2 30 - 4.0 - 60
60			285	3.4 - (7)	510		735	10-2 15 - 4.6 - 58
65			290	3.3	515		740	
70			295	3.3 - (6)	520		745	
75			300	3.3	525		750	
80			305	3.6 - (6)	530		755	
85			310	3.3	535		760	Logging Machine
90			315	3.4 - (4)	540		765	GIVE us BAD
95			320	3.3	545		770	Readings on
100			325	3.3 - (3)	550		775	BOTTOM of Log
105	2.2	CASEING	330	3.8	555		780	
110	2.4		335	3.7 - (2)	560		785	
115	2.5		340	4.5	565		790	
120	2.6		345	5.1 - (1)	670		795	
125	2.5		350	5.0	575		800	
130	2.5		355	4.6	580		805'	
135	2.5		360	4.7	585		810	
140	2.7		365	4.3	590		815	
145	2.2		370		595		820	
150	1.3		375	DRILLED TO	600		825	
155	1.4		380		605		830	
160	1.6		385		610		835	
165	1.9		390		615		840	
170	2.0		395		620		845	
175	2.0		400		625		850	
180	2.1		405		630		855	
185	2.1		410		635		860	
190	2.2		415		640		865	
195	2.4		420		645		870	
200	3.6		425		650		875	
205	3.7		430		655		880	
210	3.8		435		660		885	
215	4.3 - (15)		440		665		890	
220	3.7		445		670		895	
225	4.0		450		675		900	



APPENDIX C

Executed C-138 Solid Waste Acceptance Form

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-138
Revised 08/01/11

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

97057-1125

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address:
Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401
PayKey: EM20767
PM: Gary Turner
AFE: N60572

2. Originating Site:
Federal 31-11-28 #3

3. Location of Material (Street Address, City, State or ULSTR):
UL O Section 28 T31N R11W; 36.865604, -107.993802
Aug 2022

4. Source and Description of Waste:
Source: Remediation activities associated with a natural gas pipeline leak.
Description: Hydrocarbon/Condensate impacted soil associated natural gas pipeline release.
Estimated Volume 50 yd³/bbls Known Volume (to be entered by the operator at the end of the haul) 96/50 yd³/bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

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

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

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

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

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long *Thomas Long* 8-17-2022, representative for Enterprise Products Operating authorizes Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

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

5. Transporter: FBD Riley, ACE
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
SIGNATURE: *Greg Crabtree*
Surface Waste Management Facility Authorized Agent

TITLE: Enviro Manager DATE: 8/18/22
TELEPHONE NO.: 505-632-0615



APPENDIX D

Photographic Documentation

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Federal 31-11-28 #3 (8/18/22)
Ensolum Project No. 05A1226204



<p>Photograph 1</p> <p>Photograph Description: View of the in-process excavation activities.</p>	 A vertical photograph showing an excavation site. A yellow excavator is visible at the top right, and a green pipe is laid out in a trench in the center of the frame. The ground is sandy and uneven.
<p>Photograph 2</p> <p>Photograph Description: View of the in-process excavation activities.</p>	 A horizontal photograph showing a close-up view of an excavation. A green pipe is visible in a trench, surrounded by sandy soil. An orange safety fence is visible on the right side of the frame.
<p>Photograph 3</p> <p>Photograph Description: View of the final excavation.</p>	 A horizontal photograph showing a wider view of the excavation site. A green pipe is visible in a trench, surrounded by sandy soil. An orange safety fence is visible on the left side of the frame.

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Federal 31-11-28 #3 (8/18/22)
Ensolum Project No. 05A1226204



Photograph 4

Photograph Description: View of the site after initial restoration.





APPENDIX E

Regulatory Correspondence

From: [Kyle Summers](#)
To: [Landon Daniell](#)
Cc: [Ranee Deechilly](#)
Subject: FW: [EXTERNAL] Federal 31-11-28#3 - UL O Section 28 T31N R11W; 36.865604, -107.993802; Incident #nAPP2223126700
Date: Friday, August 19, 2022 11:31:31 AM
Attachments: [image003.png](#)
[image004.png](#)
[image005.png](#)



Kyle Summers

Principal
903-821-5603
Ensolum, LLC
in f 

From: Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>
Sent: Friday, August 19, 2022 9:56 AM
To: Long, Thomas <tjlong@eprod.com>; rjoyner@blm.gov
Cc: Stone, Brian <bmstone@eprod.com>; Kyle Summers <ksummers@ensolum.com>
Subject: RE: [EXTERNAL] Federal 31-11-28#3 - UL O Section 28 T31N R11W; 36.865604, -107.993802; Incident #nAPP2223126700

[**EXTERNAL EMAIL**]

Tom,

Thank you for the notice. Your variance request is approved.

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

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

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

Regards

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

Office Hrs.:
7:00am – 12:00pm & 1:00 – 3:30 pm Mon.–Thur.
7:00am – 12:00pm & 1:00 – 4:00 pm Fri.

From: Long, Thomas <tjlong@eprod.com>
Sent: Friday, August 19, 2022 7:29 AM
To: Velez, Nelson, EMNRD <Nelson.Velez@state.nm.us>; rjoyner@blm.gov
Cc: Stone, Brian <bmstone@eprod.com>; Kyle Summers <ksummers@ensolum.com>
Subject: [EXTERNAL] Federal 31-11-28#3 - UL O Section 28 T31N R11W; 36.865604, -107.993802; Incident #nAPP2223126700

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Nelson/Ryan,

This email is a notification and a variance request. Enterprise is requesting a variance for required 48 hour notification per 19.15.29.12D (1a) NMAC. Enterprise would like to collect closure samples today August 19, 2022 at 11:00 a.m. at the Federal 31-11-28 #3 excavation. We began remediation yesterday and we are done because it was a very small release. Please acknowledge acceptance of this variance request. 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



This message (including any attachments) is confidential and intended for a specific individual and purpose. If you are not the intended recipient, please notify the sender immediately and delete this message.



APPENDIX F

Table 1 – Soil Analytical Summary



TABLE 1
Federal 31-11-28 #3 (08/18/22)
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type	Sample Depth	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX ¹	TPH GRO	TPH DRO	TPH MRO	Total Combined TPH (GRO/DRO/MRO) ¹	Chloride
		C- Composite G - Grab	(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria (Tier I)				10	NE	NE	NE	50	NE	NE	NE	100	600
Excavation Composite Soil Samples													
S-1	8.19.22	C	7	<0.023	<0.046	<0.046	<0.093	ND	<4.6	<14	<46	ND	64
S-2	8.19.22	C	0 to 7	<0.020	0.13	<0.040	0.11	0.24	<4.0	<14	<48	ND	<60
S-3	8.19.22	C	0 to 7	<0.024	0.065	<0.049	<0.097	0.065	<4.9	<15	<50	ND	84
S-4	8.19.22	C	0 to 7	0.042	0.31	<0.037	0.18	0.53	<3.7	<14	<45	ND	<60
S-5	8.19.22	C	0 to 7	<0.018	0.10	<0.036	0.14	0.24	<3.6	<14	<46	ND	<60

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

¹ = Total combined concentrations are rounded to two (2) significant figures to match the laboratory resolution of the individual constituents.

ND = Not Detected above the Practical Quantitation Limits (PQLs) or Reporting Limits (RLs)

NA = Not Analyzed

NE = Not established

mg/kg = milligram per kilogram

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

TPH = Total Petroleum Hydrocarbons

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics



APPENDIX G

Laboratory Data Sheets & Chain of Custody Documentation



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

August 31, 2022

Kyle Summers

ENSOLUM

606 S. Rio Grande Suite A

Aztec, NM 87410

TEL: (903) 821-5603

FAX:

RE: Federal 31 11 28 3

OrderNo.: 2208C59

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 5 sample(s) on 8/20/2022 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued August 26, 2022.

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. 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. All samples are reported as received unless otherwise indicated.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order **2208C59**

Date Reported: **8/31/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-1

Project: Federal 31 11 28 3

Collection Date: 8/19/2022 10:00:00 AM

Lab ID: 2208C59-001

Matrix: SOIL

Received Date: 8/20/2022 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: NAI
Chloride	64	60		mg/Kg	20	8/22/2022 10:55:34 AM	69658
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	8/22/2022 10:19:53 AM	69654
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	8/22/2022 10:19:53 AM	69654
Surr: DNOP	89.3	21-129		%Rec	1	8/22/2022 10:19:53 AM	69654
EPA METHOD 8015D: GASOLINE RANGE							Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/22/2022 9:06:00 AM	A90464
Surr: BFB	101	37.7-212		%Rec	1	8/22/2022 9:06:00 AM	A90464
EPA METHOD 8021B: VOLATILES							Analyst: BRM
Benzene	ND	0.023		mg/Kg	1	8/22/2022 9:06:00 AM	B90464
Toluene	ND	0.046		mg/Kg	1	8/22/2022 9:06:00 AM	B90464
Ethylbenzene	ND	0.046		mg/Kg	1	8/22/2022 9:06:00 AM	B90464
Xylenes, Total	ND	0.093		mg/Kg	1	8/22/2022 9:06:00 AM	B90464
Surr: 4-Bromofluorobenzene	94.2	70-130		%Rec	1	8/22/2022 9:06:00 AM	B90464

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

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

Analytical Report

Lab Order **2208C59**

Date Reported: **8/31/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-2

Project: Federal 31 11 28 3

Collection Date: 8/19/2022 10:05:00 AM

Lab ID: 2208C59-002

Matrix: SOIL

Received Date: 8/20/2022 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: NAI
Chloride	ND	60		mg/Kg	20	8/22/2022 11:07:55 AM	69658
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	8/22/2022 10:33:43 AM	69654
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/22/2022 10:33:43 AM	69654
Surr: DNOP	89.1	21-129		%Rec	1	8/22/2022 10:33:43 AM	69654
EPA METHOD 8015D: GASOLINE RANGE							Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	8/22/2022 9:25:00 AM	A90464
Surr: BFB	106	37.7-212		%Rec	1	8/22/2022 9:25:00 AM	A90464
EPA METHOD 8021B: VOLATILES							Analyst: BRM
Benzene	ND	0.020		mg/Kg	1	8/22/2022 9:25:00 AM	B90464
Toluene	0.13	0.040		mg/Kg	1	8/22/2022 9:25:00 AM	B90464
Ethylbenzene	ND	0.040		mg/Kg	1	8/22/2022 9:25:00 AM	B90464
Xylenes, Total	0.11	0.081		mg/Kg	1	8/22/2022 9:25:00 AM	B90464
Surr: 4-Bromofluorobenzene	92.5	70-130		%Rec	1	8/22/2022 9:25:00 AM	B90464

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

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

Analytical Report

Lab Order **2208C59**

Date Reported: **8/31/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-3

Project: Federal 31 11 28 3

Collection Date: 8/19/2022 10:10:00 AM

Lab ID: 2208C59-003

Matrix: SOIL

Received Date: 8/20/2022 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: NAI
Chloride	84	60		mg/Kg	20	8/22/2022 11:20:16 AM	69658
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	8/22/2022 10:47:31 AM	69654
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/22/2022 10:47:31 AM	69654
Surr: DNOP	90.9	21-129		%Rec	1	8/22/2022 10:47:31 AM	69654
EPA METHOD 8015D: GASOLINE RANGE							Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/22/2022 9:45:00 AM	A90464
Surr: BFB	103	37.7-212		%Rec	1	8/22/2022 9:45:00 AM	A90464
EPA METHOD 8021B: VOLATILES							Analyst: BRM
Benzene	ND	0.024		mg/Kg	1	8/22/2022 9:45:00 AM	B90464
Toluene	0.065	0.049		mg/Kg	1	8/22/2022 9:45:00 AM	B90464
Ethylbenzene	ND	0.049		mg/Kg	1	8/22/2022 9:45:00 AM	B90464
Xylenes, Total	ND	0.097		mg/Kg	1	8/22/2022 9:45:00 AM	B90464
Surr: 4-Bromofluorobenzene	94.7	70-130		%Rec	1	8/22/2022 9:45:00 AM	B90464

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

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

Analytical Report

Lab Order **2208C59**

Date Reported: **8/31/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-4

Project: Federal 31 11 28 3

Collection Date: 8/19/2022 10:15:00 AM

Lab ID: 2208C59-004

Matrix: SOIL

Received Date: 8/20/2022 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: NAI
Chloride	ND	60		mg/Kg	20	8/22/2022 11:32:36 AM	69658
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	8/22/2022 11:01:11 AM	69654
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	8/22/2022 11:01:11 AM	69654
Surr: DNOP	88.6	21-129		%Rec	1	8/22/2022 11:01:11 AM	69654
EPA METHOD 8015D: GASOLINE RANGE							Analyst: BRM
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	8/22/2022 10:05:00 AM	A90464
Surr: BFB	104	37.7-212		%Rec	1	8/22/2022 10:05:00 AM	A90464
EPA METHOD 8021B: VOLATILES							Analyst: BRM
Benzene	0.042	0.019		mg/Kg	1	8/22/2022 10:05:00 AM	B90464
Toluene	0.31	0.037		mg/Kg	1	8/22/2022 10:05:00 AM	B90464
Ethylbenzene	ND	0.037		mg/Kg	1	8/22/2022 10:05:00 AM	B90464
Xylenes, Total	0.18	0.075		mg/Kg	1	8/22/2022 10:05:00 AM	B90464
Surr: 4-Bromofluorobenzene	94.8	70-130		%Rec	1	8/22/2022 10:05:00 AM	B90464

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

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

Analytical Report

Lab Order **2208C59**

Date Reported: **8/31/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM

Client Sample ID: S-5

Project: Federal 31 11 28 3

Collection Date: 8/19/2022 10:20:00 AM

Lab ID: 2208C59-005

Matrix: SOIL

Received Date: 8/20/2022 8:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: NAI
Chloride	ND	60		mg/Kg	20	8/22/2022 11:44:57 AM	69658
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: DGH
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	8/22/2022 11:14:56 AM	69654
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	8/22/2022 11:14:56 AM	69654
Surr: DNOP	89.3	21-129		%Rec	1	8/22/2022 11:14:56 AM	69654
EPA METHOD 8015D: GASOLINE RANGE							Analyst: BRM
Gasoline Range Organics (GRO)	ND	3.6		mg/Kg	1	8/22/2022 10:24:00 AM	A90464
Surr: BFB	107	37.7-212		%Rec	1	8/22/2022 10:24:00 AM	A90464
EPA METHOD 8021B: VOLATILES							Analyst: BRM
Benzene	ND	0.018		mg/Kg	1	8/22/2022 10:24:00 AM	B90464
Toluene	0.10	0.036		mg/Kg	1	8/22/2022 10:24:00 AM	B90464
Ethylbenzene	ND	0.036		mg/Kg	1	8/22/2022 10:24:00 AM	B90464
Xylenes, Total	0.14	0.072		mg/Kg	1	8/22/2022 10:24:00 AM	B90464
Surr: 4-Bromofluorobenzene	91.0	70-130		%Rec	1	8/22/2022 10:24:00 AM	B90464

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2208C59

31-Aug-22

Client: ENSOLUM
Project: Federal 31 11 28 3

Sample ID: MB-69658	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 69658	RunNo: 90467								
Prep Date: 8/22/2022	Analysis Date: 8/22/2022	SeqNo: 3230756	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-69658	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 69658	RunNo: 90467								
Prep Date: 8/22/2022	Analysis Date: 8/22/2022	SeqNo: 3230757	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.6	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 Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2208C59

31-Aug-22

Client: ENSOLUM
Project: Federal 31 11 28 3

Sample ID: MB-69654	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 69654	RunNo: 90468								
Prep Date: 8/22/2022	Analysis Date: 8/22/2022	SeqNo: 3228967	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.5		10.00		84.7	21	129			

Sample ID: LCS-69654	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 69654	RunNo: 90468								
Prep Date: 8/22/2022	Analysis Date: 8/22/2022	SeqNo: 3228968	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	15	50.00	0	87.3	64.4	127			
Surr: DNOP	4.0		5.000		80.7	21	129			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2208C59

31-Aug-22

Client: ENSOLUM
Project: Federal 31 11 28 3

Sample ID: 2208c59-001ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: S-1	Batch ID: A90464	RunNo: 90464								
Prep Date:	Analysis Date: 8/22/2022	SeqNo: 3229631			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	100	70	130			
Surr: BFB	2100		1000		214	37.7	212			S

Sample ID: 2208c59-001amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: S-1	Batch ID: A90464	RunNo: 90464								
Prep Date:	Analysis Date: 8/22/2022	SeqNo: 3229632			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	98.2	70	130	2.06	20	
Surr: BFB	2100		1000		206	37.7	212	0	0	

Sample ID: 2.5ug gro lcs	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: A90464	RunNo: 90464								
Prep Date:	Analysis Date: 8/22/2022	SeqNo: 3230296			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	72.3	137			
Surr: BFB	2100		1000		215	37.7	212			S

Sample ID: mb	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: A90464	RunNo: 90464								
Prep Date:	Analysis Date: 8/22/2022	SeqNo: 3230297			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	37.7	212			

Qualifiers:

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- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2208C59

31-Aug-22

Client: ENSOLUM
Project: Federal 31 11 28 3

Sample ID: 2208c59-002ams	SampType: MS		TestCode: EPA Method 8021B: Volatiles							
Client ID: S-2	Batch ID: B90464		RunNo: 90464							
Prep Date:	Analysis Date: 8/22/2022		SeqNo: 3229665		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.025	1.000	0.01958	81.0	68.8	120			
Toluene	0.98	0.050	1.000	0.1296	85.0	73.6	124			
Ethylbenzene	0.86	0.050	1.000	0.01614	84.6	72.7	129			
Xylenes, Total	2.7	0.10	3.000	0.1145	84.7	75.7	126			
Surr: 4-Bromofluorobenzene	0.95		1.000		95.2	70	130			

Sample ID: 2208c59-002amsd	SampType: MSD		TestCode: EPA Method 8021B: Volatiles							
Client ID: S-2	Batch ID: B90464		RunNo: 90464							
Prep Date:	Analysis Date: 8/22/2022		SeqNo: 3229666		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.025	1.000	0.01958	77.8	68.8	120	3.92	20	
Toluene	0.94	0.050	1.000	0.1296	80.5	73.6	124	4.64	20	
Ethylbenzene	0.83	0.050	1.000	0.01614	80.9	72.7	129	4.39	20	
Xylenes, Total	2.5	0.10	3.000	0.1145	81.0	75.7	126	4.21	20	
Surr: 4-Bromofluorobenzene	0.90		1.000		89.6	70	130	0	0	

Sample ID: 100ng btex lcs	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: B90464		RunNo: 90464							
Prep Date:	Analysis Date: 8/22/2022		SeqNo: 3230303		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.025	1.000	0	81.9	80	120			
Toluene	0.84	0.050	1.000	0	84.0	80	120			
Ethylbenzene	0.86	0.050	1.000	0	85.6	80	120			
Xylenes, Total	2.6	0.10	3.000	0	85.5	80	120			
Surr: 4-Bromofluorobenzene	0.96		1.000		95.8	70	130			

Sample ID: mb	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: B90464		RunNo: 90464							
Prep Date:	Analysis Date: 8/22/2022		SeqNo: 3230304		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		94.5	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
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- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



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

Sample Log-In Check List

Client Name: ENSOLUM Work Order Number: 2208C59 RcptNo: 1

Received By: Tracy Casarrubias 8/20/2022 8:45:00 AM
Completed By: Tracy Casarrubias 8/20/2022 8:59:36 AM
Reviewed By: See 8/20/22

Chain of Custody

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

Log In

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

of preserved bottles checked for pH:
(<2 or >12 unless noted)
Adjusted?
Checked by: JMC 8/20/22

Special Handling (if applicable)

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

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

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 0.5, Good, Yes, , ,

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 161903

CONDITIONS

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 161903
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	12/9/2022