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):*** **nAPP2124533703**
Contact mailing address: **614 Reilly Ave, Farmington, NM 87401**	

Location of Release Source

Latitude **36.845013** Longitude **-107.870609** *(NAD 83 in decimal degrees to 5 decimal places)*

Site Name **Atlantic BLS #22**	Site Type **Natural Gas Gathering Pipeline**
Date Release Discovered: **09/01/2021**	Serial Number *(if applicable)*: **N/A**

Unit Letter	Section	Township	Range	County
C	**3**	**30N**	**10W**	**San Juan**

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name*: *Marc and Marcia Yoos*)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☒ Condensate	Volume Released (bbls): **3-5 BBLS**	Volume Recovered (bbls): **None**
☒ Natural Gas	Volume Released (Mcf): **0.281 MCF**	Volume Recovered (Mcf): **None**
☐ Other (describe)	Volume/Weight Released (provide units):	Volume/Weight Recovered (provide units)

Cause of Release: On September 1, 2021, Enterprise discovered another release of natural gas liquids from the Atlantic BLS #22 pipeline during repairs and remediation activities associated with a previous release on the BLS #22 pipeline. The pipeline was temporarily out of service for the repairs and remediation for the other release. No liquids were observed on the ground surface. The release was underground. Liquids are present in the subsurface. The release was located in a small ephemeral wash (blue line) on a topographic map. No residences were affected. No emergency services responded. Remediation was completed on September 3, 2021. The final excavation dimensions measured approximately 33 feet long by 18 feet wide by 20 feet deep. Approximately 240 cubic yards of hydrocarbon impacted soil was excavated and transported to a New Mexico Oil Conservation Division (NMOCD) approved land farm. A third party closure report is included with this "Final." C-141.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Thomas Long Title: Senior Environmental Scientist

Signature: Thomas Long Date: 1-20-2022

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: Nelson Velez Date: 02/23/2022

Printed Name: Nelson Velez Title: Environmental Specialist – Adv

ENSOLUM

CLOSURE REPORT

Property:

Atlantic BLS #22 (9/1/21)
Unit Letter C, S3 T30N R10W
San Juan County, New Mexico

New Mexico EMNRD OCD Incident ID No. NAPP2124533703

November 15, 2021
Ensolum Project No. 05A1226151

Prepared for:

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

Prepared by:

Landon Daniell
Staff Geologist

Kyle Summers, CPG
Sr. Project Manager

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LIST OF APPENDICES

ENSOLUM

CLOSURE REPORT

Atlantic BLS #22 (9/1/21)
Unit Letter C, S3 T30N R10W
San Juan County, New Mexico

Ensolum Project No. 05A1226151

1.0 INTRODUCTION

1.1 Site Description & Background

Operator:	Enterprise Field Services, LLC / Enterprise Products Operating LLC (Enterprise)
Site Name:	Atlantic BLS #22 (9/1/21) (Site)
Incident ID	NAPP2124533703
Location:	36.845013° North, 107.870609° West Unit Letter C, Section 3, Township 30 North, Range 10 West San Juan County, New Mexico
Property:	Private
Regulatory:	New Mexico (NM) Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division (OCD)

On September 1, 2021, Enterprise discovered a release on the Atlantic BLS #22 pipeline during repairs and remediation of a different release on the same pipeline. The pipeline was already isolated and locked out of service by Enterprise due to the previous repairs. Enterprise immediately initiated activities to repair the pipeline and remediate the petroleum hydrocarbon impact.

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

1.2 Project Objective

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

2.0 CLOSURE CRITERIA

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

- The OSE tracks the usage and assignment of water rights and water well installations and records this information in the Water Rights Reporting System (WRRS) database. Water wells and other points of diversion (PODs) are each assigned POD numbers in the database (which is searchable and includes an interactive map). Seven PODs (SJ-00050, SJ-01048, SJ-01651, SJ-03460, SJ-

03230, SJ-04020-POD1, and SJ-03728-POD1) were identified within a one-mile radius of the Site. Of those seven, only PODs SJ-00050, SJ-03230, SJ-03460, and SJ-03728 POD1 have recorded depths to water. As plotted by the OSE on the interactive map, POD SJ-00050 and SJ-03460 are shown in the same location, which is approximately 0.73 miles from the Site, and approximately 102 feet higher in elevation than the Site (approximately 6,294 feet). The records for these PODs indicate depths to water of 306 feet and 500 feet below grade surface (bgs), respectively. As plotted by the OSE on the interactive map, POD SJ-03230 is approximately 0.20 miles from the Site and approximately 33 feet lower in elevation than the Site. The record for this POD indicates a depth to water of 70 feet bgs. As plotted by the OSE on the interactive map, POD SJ-03728 POD1 is approximately 0.95 miles from the Site and approximately 53 feet higher in elevation than the Site. The record for this POD indicates a depth to water of 230 feet bgs. The permits for PODs (SJ-01048, SJ-01651, and SJ-04020-POD1) were approved by the OSE, but apparently, the wells have not been installed, as no additional information is available. Thirteen other PODs were identified in adjacent Public Land Survey System (PLSS) sections. The average depth to water for these PODs is approximately 197 feet bgs (**Figure A**, **Appendix B**).

- Two cathodic protection wells (CPWs) were identified in the NM EMNRD OCD imaging database within the same PLSS section as the Site, and 16 CPWs were identified in adjacent PLSS sections. Of the 18 total CPW locations, 9 are located within approximately one mile of the Site (**Figure B, Appendix B**). The records for the nearest CPW, located near the Atlantic B #8A well location, indicate a depth to water of 120 feet bgs. This CPW is located approximately 0.14 miles west of the site and is approximately 2 feet higher in elevation than the Site (6,294 feet). The records for the CPW located near the Atlantic B# 9A well location indicate a depth to water of 140 feet bgs. This CPW is located approximately 0.53 miles northeast of the site and is approximately 16 feet lower in elevation than the Site. The records for the CPW located near the Atlantic B #9 and #26 and Atlantic B Com #220 well locations indicate a depth to water of 40 feet bgs. This CPW is located approximately 0.58 miles northwest of the site and is approximately 102 feet lower in elevation than the Site. The records for the CPW located near the Atlantic D Com D #5A well location indicate a depth to water of 145 feet bgs. This CPW is located approximately 0.79 miles east of the site. The records for this CPW did not indicate an elevation, but it appears to be approximately 91 feet higher in elevation than the Site. The records for the CPW located near the Atlantic B #7A well location indicate a depth to water of 81 feet bgs. This CPW is located approximately 0.91 miles north of the site and is approximately 51 feet lower in elevation than the Site. The records for the CPW located near the Atlantic C #1, #13, and #201 well locations indicate a depth to water of 140 feet bgs. This CPW is located approximately 0.90 miles northeast of the site and is approximately 108 feet lower in elevation than the Site. The records for the CPW located near the Koch #1A well location indicate a depth to water of 160 feet bgs. This CPW is located approximately 0.66 miles southwest of the site and is approximately 179 feet higher in elevation than the Site. The records for the CPW located near the San Juan #10A and #6A well locations indicate a depth to water of 180 feet bgs. This CPW is located approximately 1.0 miles south of the site and is approximately 172 feet higher in elevation than the Site. The records for the CPW located near the Atlantic D Com D #5 and Atlantic D Com O #16 well locations indicate a depth to water of 170 feet bgs. This CPW is located approximately 0.95 miles southeast of the site and is approximately 170 feet higher in elevation than the Site. The depth to water for the remaining CPWs ranges from 30 feet bgs to 220 feet bgs.

- The Site is located within 300 feet of a NM EMNRD OCD-defined continuously flowing watercourse or significant watercourse. An unnamed ephemeral wash intersects the release area (**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. The residences located within the 1,000 feet may have unregistered water wells (**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 Statues Annotated (NMSA) 1978, Section 3-27-3.

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

- The Site is not located within an unstable area.

- Based on information provided by the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) geospatial database the location of the Site is unlikely to be located 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 kilograms (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 September 1, 2021, Enterprise initiated activities to repair the pipeline and remediate petroleum hydrocarbon impact resulting from the release. During the remediation and corrective action activities, Halo Services Inc. (Halo) provided heavy equipment and labor support, while Ensolum provided environmental consulting support.

The final excavation measured approximately 33 feet long and 18 feet wide at the maximum extents. The maximum depth of the excavation measured approximately 20 feet bgs. The lithology encountered during the completion of remediation activities consisted primarily of unconsolidated silty sand.

An estimated total of 240 cubic yards of petroleum hydrocarbon affected soil was transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, NM for disposal/remediation. The executed C-138 solid waste acceptance form, provided in **Appendix C,** includes the combined total from this Site and the nearby Atlantic B LS #22 (8/16/21) site. Unaffected soils resulting from additional excavation to expose more pipeline for wrapping or replacement was also inadvertently transported to the landfarm. The excavation

was backfilled with imported fill and fill provided by the landowner and was subsequently contoured and compacted to provide a suitable driving surface.

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 13 composite soil samples (S-1 through S-13) from the excavation for laboratory analysis. The composite samples were comprised of five aliquots each and represent an estimated 200 square foot (ft^2) sample area per guidelines outlined in Section D of 19.15.29.12 NMAC. A clean shovel or excavator bucket was utilized to obtain fresh aliquots from each area of the excavation. Regulatory correspondence is provided in **Appendix E**.

On September 3, 2021, a sampling event was performed at the Site. The NM EMNRD OCD was notified of the sampling event although no representative was present during sampling activities. Composite soil samples S-1 (0'-11'), S-4 (0'-12'), S-5 (0'-20'), S-7 (13'-20'), S-8 (0'-20'), S-9 (0'-13'), S-10 (0'-11'), S-12 (0'-11'), and S-13 (11'-20') were collected from vertical or near vertical walls of the excavation. Composite soil samples S-2 (0'-11') and S-3 (0'-13') were collected from the sloped floors/end-wall on the eastern side of the excavation. Composite soil samples S-6 (20') and S-11 (11'-13') were collected from the floors of the excavation.

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 DATA EVALUATION

Ensolum compared the benzene, BTEX, TPH, and chloride laboratory analytical results or laboratory practical quantitation limits (PQLs) / reporting limits (RLs) associated with the composite soil samples (S-1 through S-13) to the applicable NM EMNRD OCD Tier I closure criteria.

- The laboratory analytical results for the composite soil samples indicate benzene is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the applicable NM EMNRD OCD closure criteria of 10 mg/kg.

- The laboratory analytical results for composite soil samples S-6 and S-7 indicate total BTEX concentrations of 0.16 mg/kg and 0.10 mg/kg, respectively, which are less than the applicable NM EMNRD OCD closure criteria of 50 mg/kg. The laboratory analytical results for the remaining composite soil samples indicate total BTEX is not present at concentrations greater than the

laboratory PQLs/RLs, which are less than the applicable NM EMNRD OCD closure criteria of 50 mg/kg.

- The laboratory analytical results for the 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 applicable NM EMNRD OCD closure criteria of 100 mg/kg.

- The laboratory analytical result for composite soil sample S-2 indicates a chloride concentration of 69 mg/kg, which is less than the applicable NM EMNRD OCD closure criteria of 600 mg/kg. The laboratory analytical results for the remaining composite soil samples indicate chloride is not present at concentrations greater than the laboratory PQLs/RLs, which are less than the applicable NM EMNRD OCD closure criteria of 600 mg/kg.

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

7.0 RECLAMATION AND REVEGETATION

The excavation was backfilled with clean imported fill and unaffected fill provided by the landowner. The majority of the excavation was located in the road and was backfilled and compacted to provide a suitable driving surface.

8.0 FINDINGS AND RECOMMENDATION

- Thirteen composite soil samples were collected from the Site. Based on laboratory analytical results, no benzene, BTEX, chloride, or combined TPH GRO/DRO/MRO exceedances were identified in the soils remaining at the Site.

- Approximately 240 cubic yards of petroleum hydrocarbon affected soil was transported to the Envirotech landfarm for disposal/remediation. The excavation was backfilled and compacted to provide a suitable driving surface.

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.

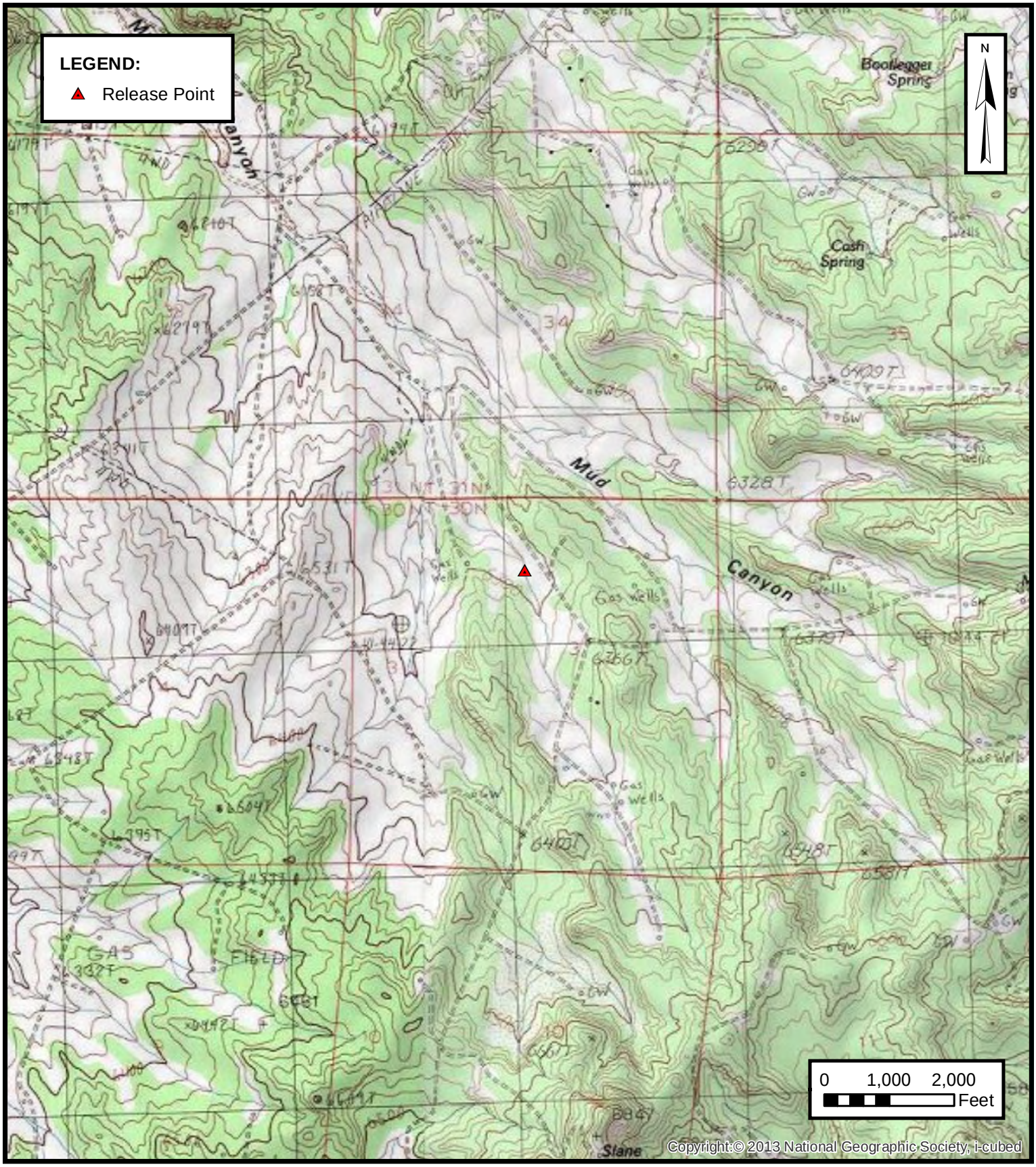
9.3 Reliance

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.

ENSOLUM

APPENDIX A

Figures



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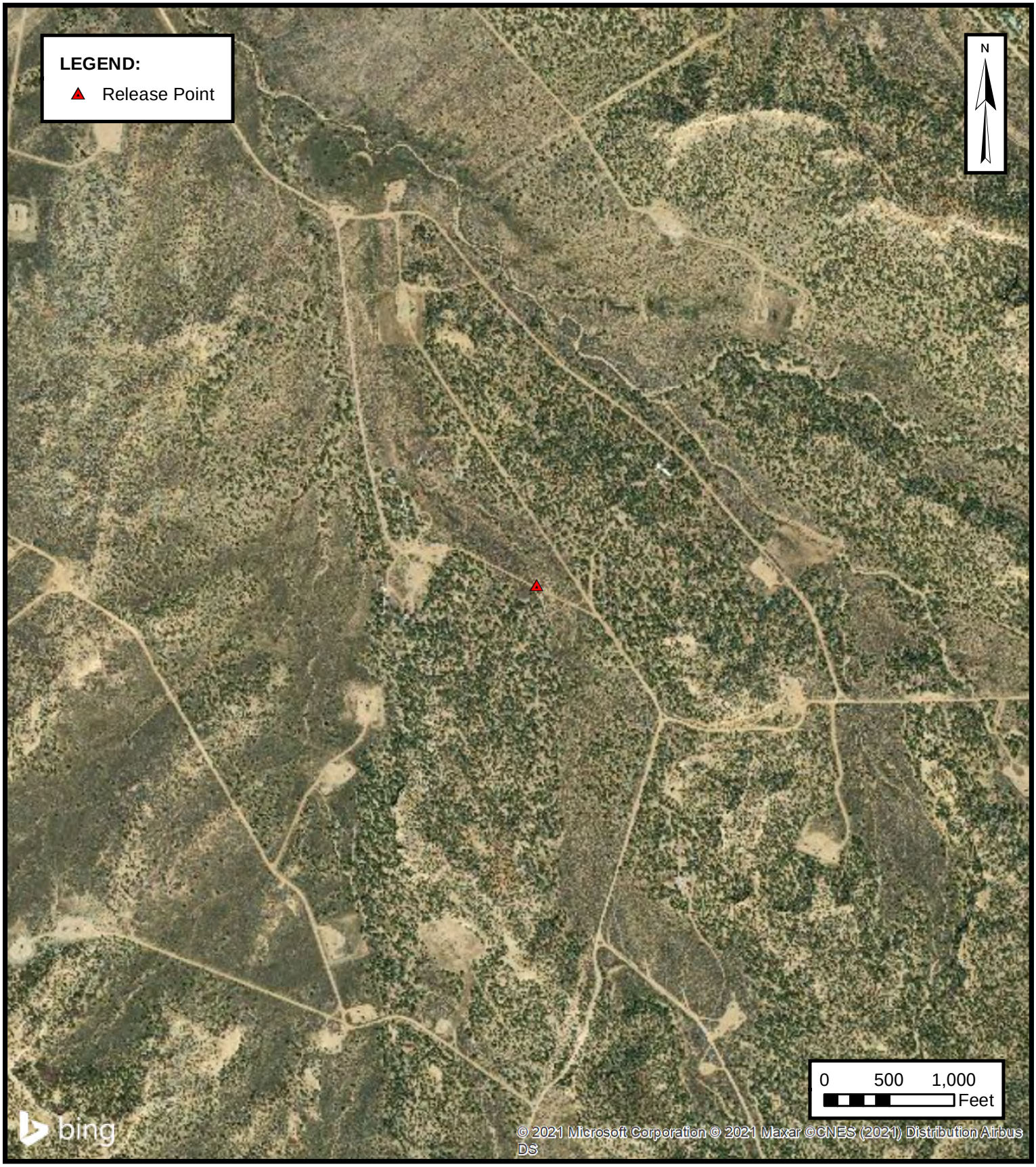
Environmental & Hydrogeologic Consultants

TOPOGRAPHIC MAP

ENTERPRISE FIELD SERVICES, LLC
ATLANTIC BLS #22 (9/1/21)
Unit Letter C, S3 T30N R10W, San Juan County, New Mexico
36.845013° N, 107.870609° W

PROJECT NUMBER: 05A1226154

FIGURE
1



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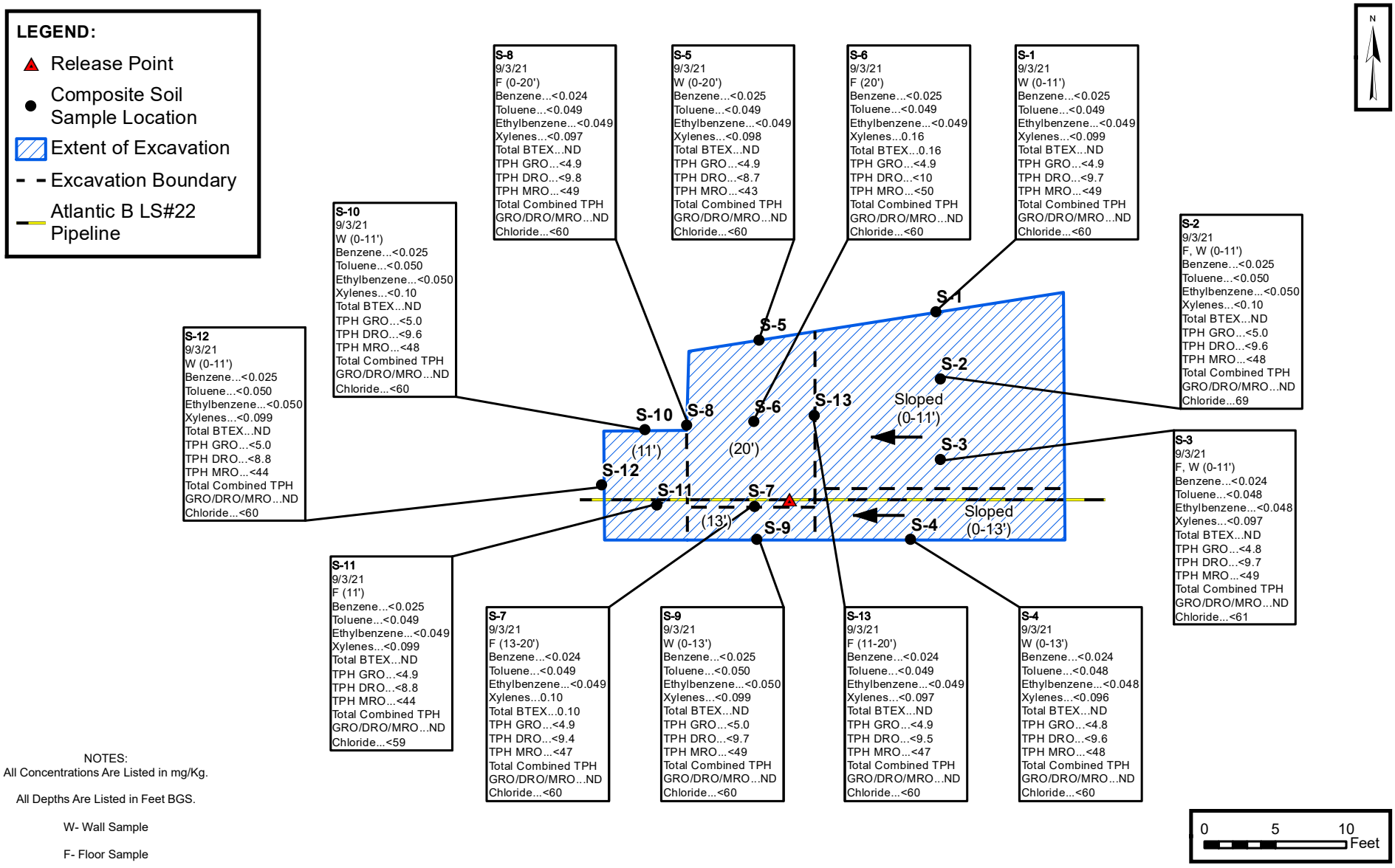
SITE VICINITY MAP

ENTERPRISE FIELD SERVICES, LLC
ATLANTIC BLS #22 (9/1/21)
Unit Letter C, S3 T30N R10W, San Juan County, New Mexico
36.845013° N, 107.870609° W

PROJECT NUMBER: 05A1226154

FIGURE
2



NOTES:
All Concentrations Are Listed in mg/Kg.

All Depths Are Listed in Feet BGS.

W- Wall Sample

F- Floor Sample

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SITE MAP WITH SOIL ANALYTICAL RESULTS

ENTERPRISE FIELD SERVICES, LLC
ATLANTIC BLS #22 (9/1/21)
Unit Letter C, S3 T30N R10W, San Juan County, New Mexico
36.845013° N, 107.870609° W

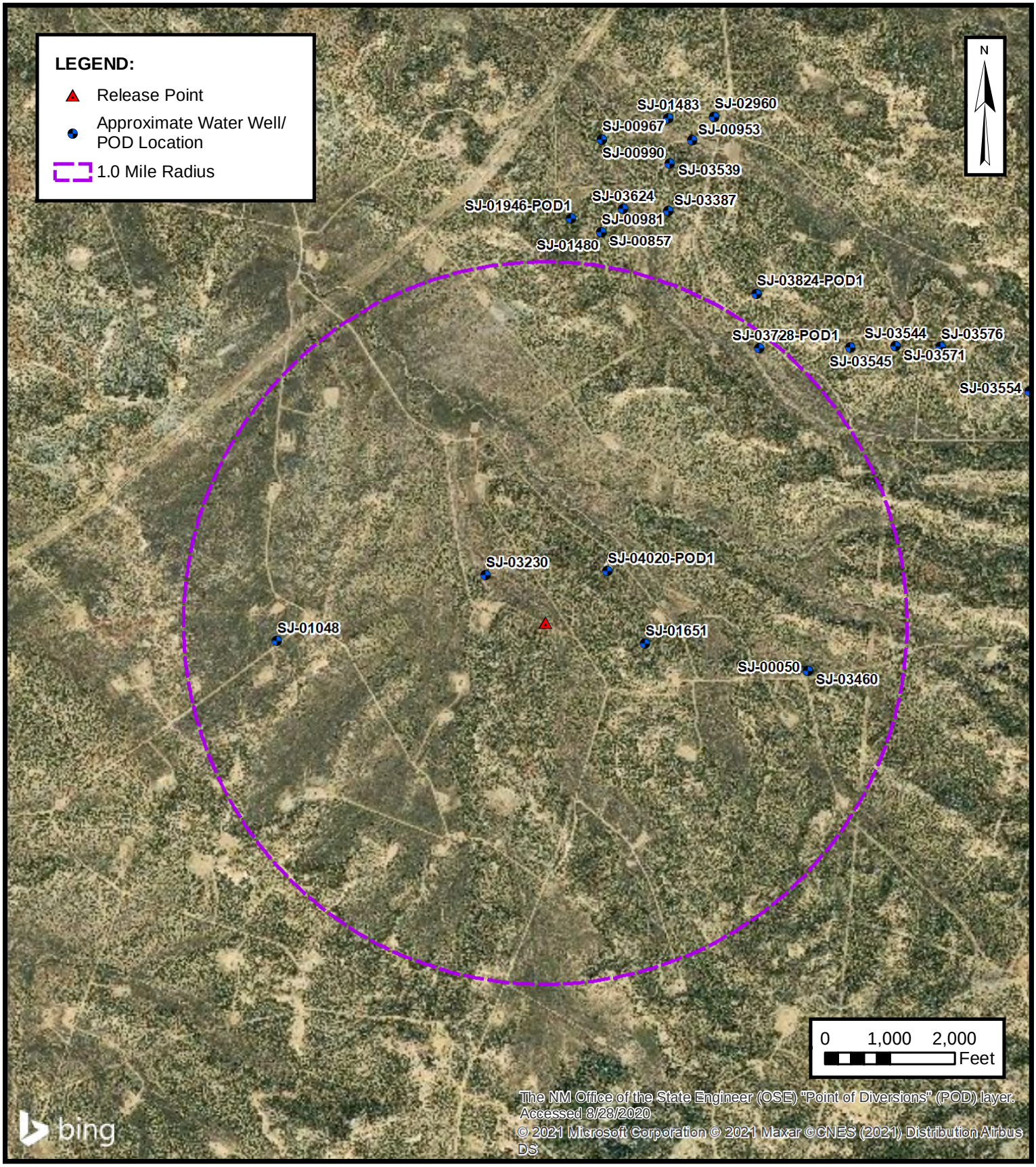
PROJECT NUMBER: 05A1226154

FIGURE
3

ENSOLUM

APPENDIX B

Siting Figures and Documentation



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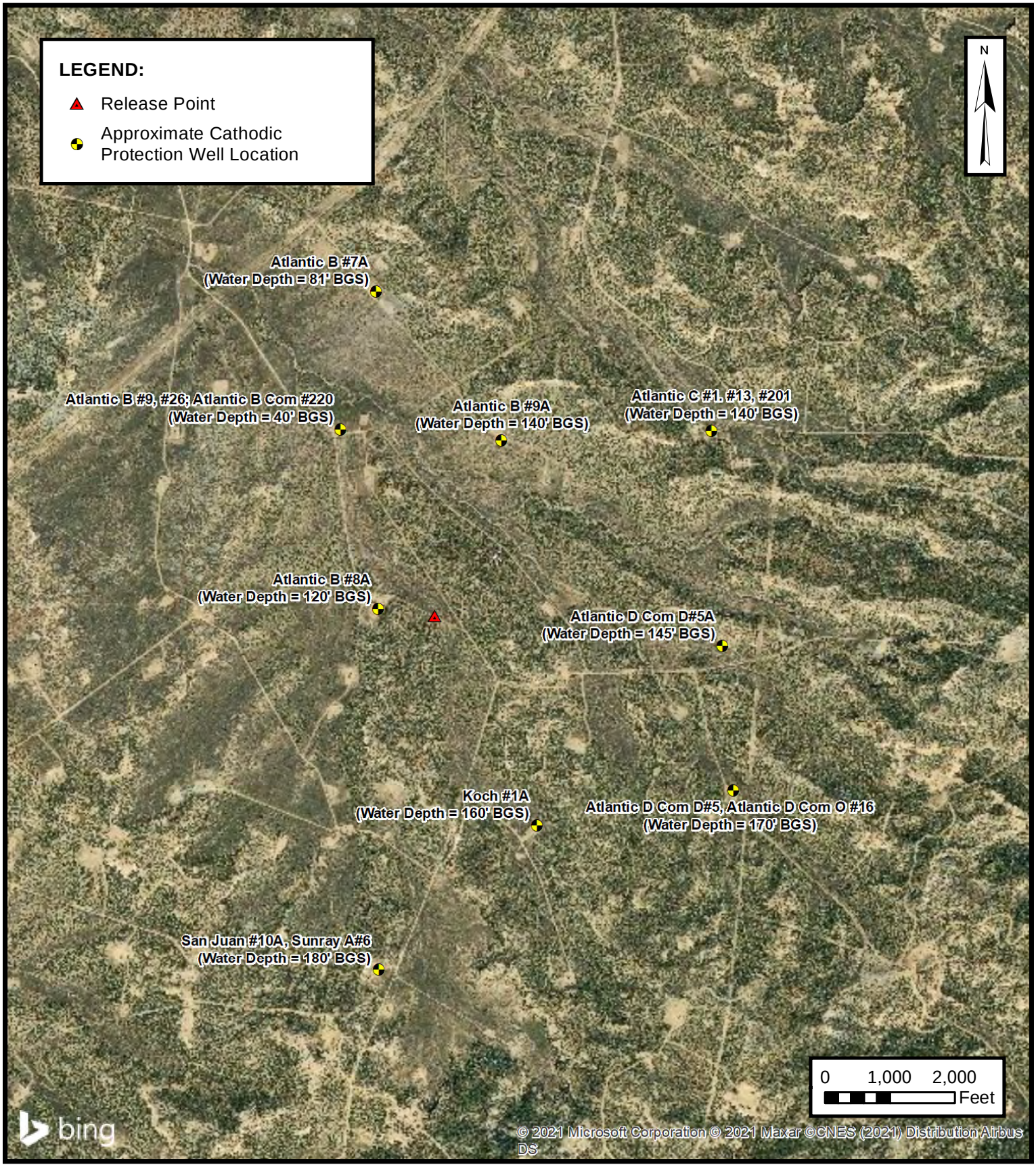
1.0 MILE RADIUS WATER WELL/ POD LOCATION MAP

ENTERPRISE FIELD SERVICES, LLC
ATLANTIC BLS #22 (9/1/21)
Unit Letter C, S3 T30N R10W, San Juan County, New Mexico
36.845013° N, 107.870609° W

PROJECT NUMBER: 05A1226154

FIGURE

A



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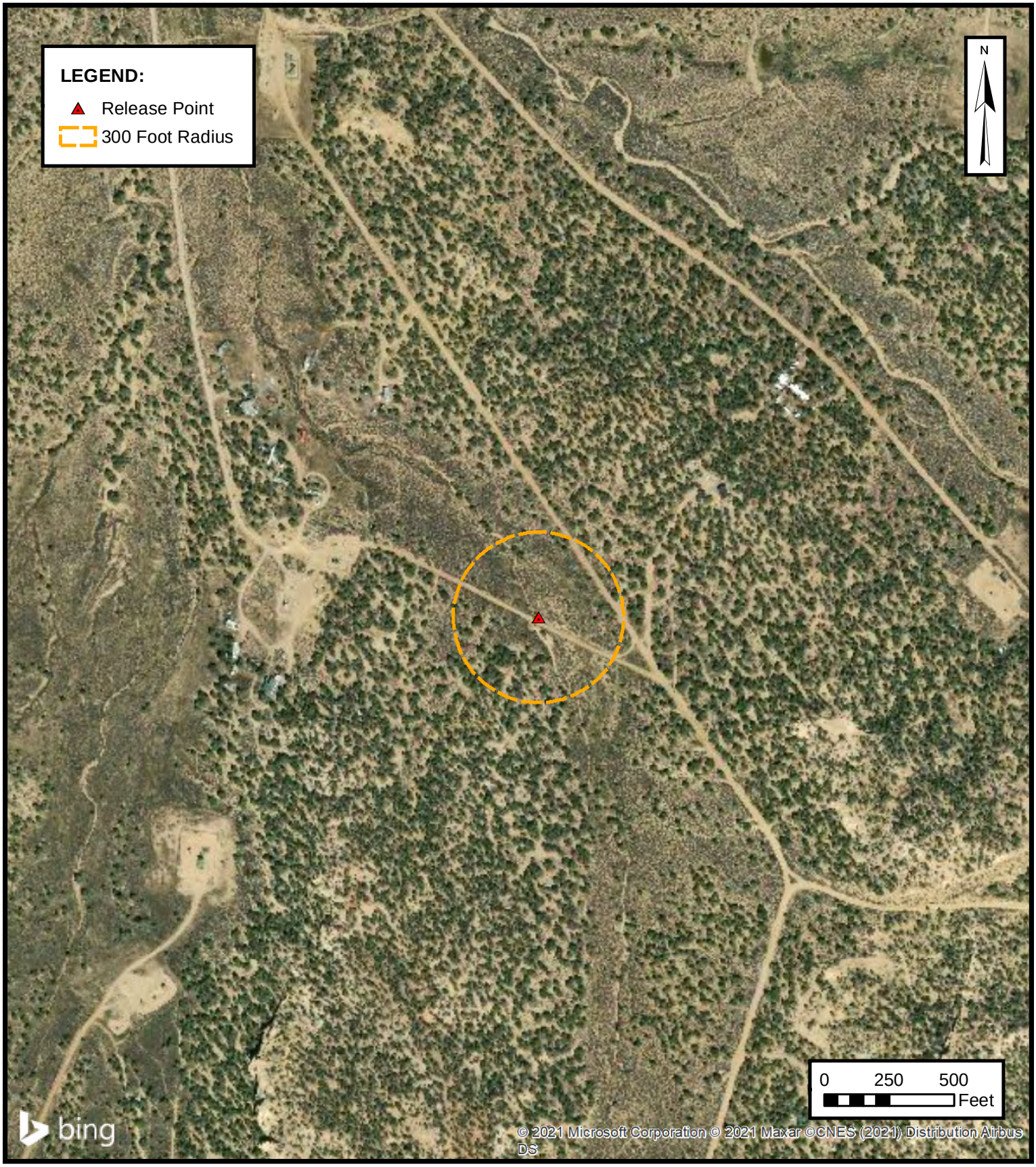
CATHODIC PROTECTION WELL RECORDED DEPTH TO WATER

ENTERPRISE FIELD SERVICES, LLC
ATLANTIC BLS #22 (9/1/21)
Unit Letter C, S3 T30N R10W, San Juan County, New Mexico
36.845013° N, 107.870609° W

PROJECT NUMBER: 05A1226154

FIGURE

B



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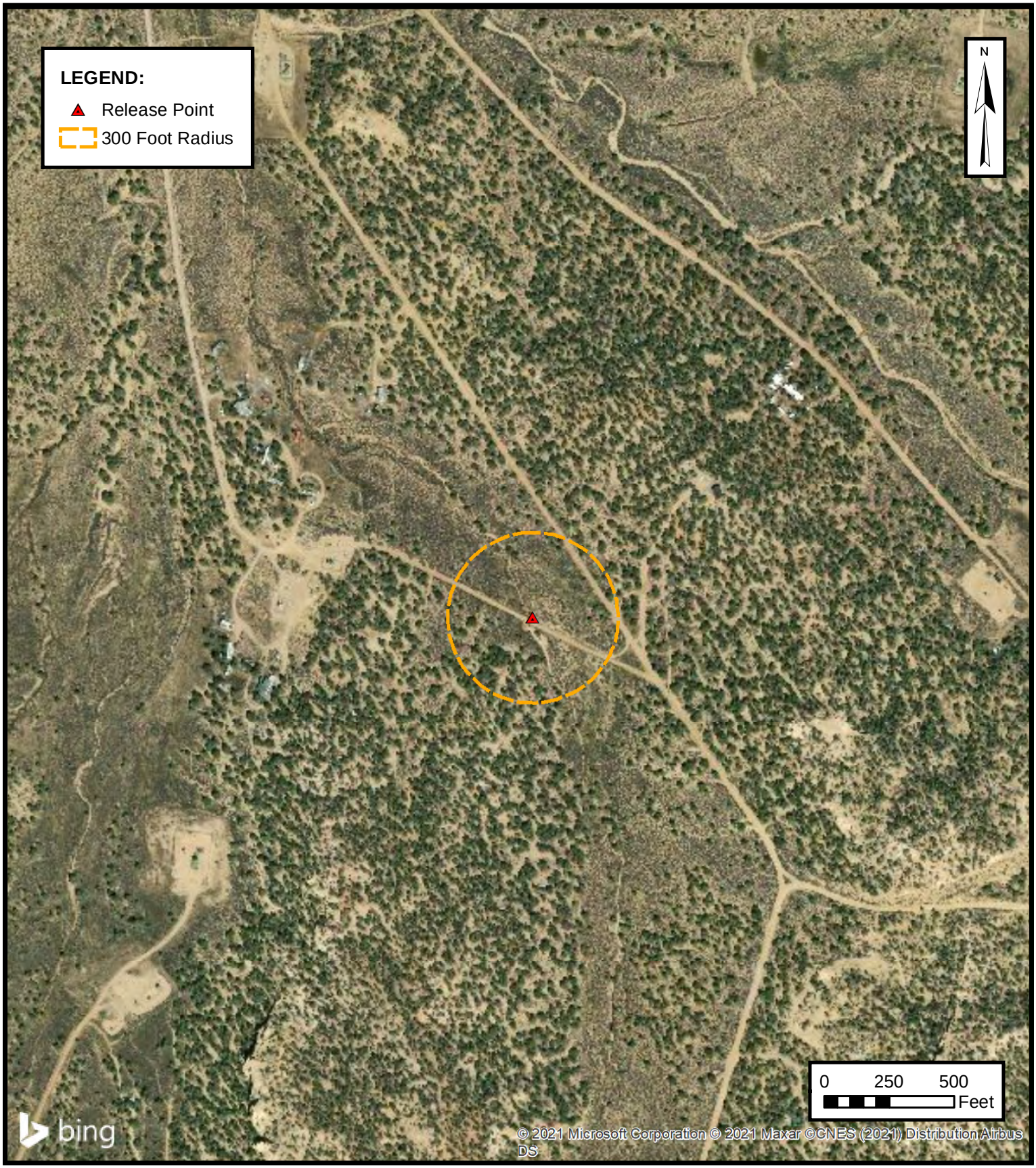
Environmental & Hydrogeologic Consultants

300 FOOT RADIUS
WATERCOURSE AND DRAINAGE IDENTIFICATION

ENTERPRISE FIELD SERVICES, LLC
ATLANTIC BLS #22 (9/1/21)
Unit Letter C, S3 T30N R10W, San Juan County, New Mexico
36.845013° N, 107.870609° W

PROJECT NUMBER: 05A1226154

FIGURE
C



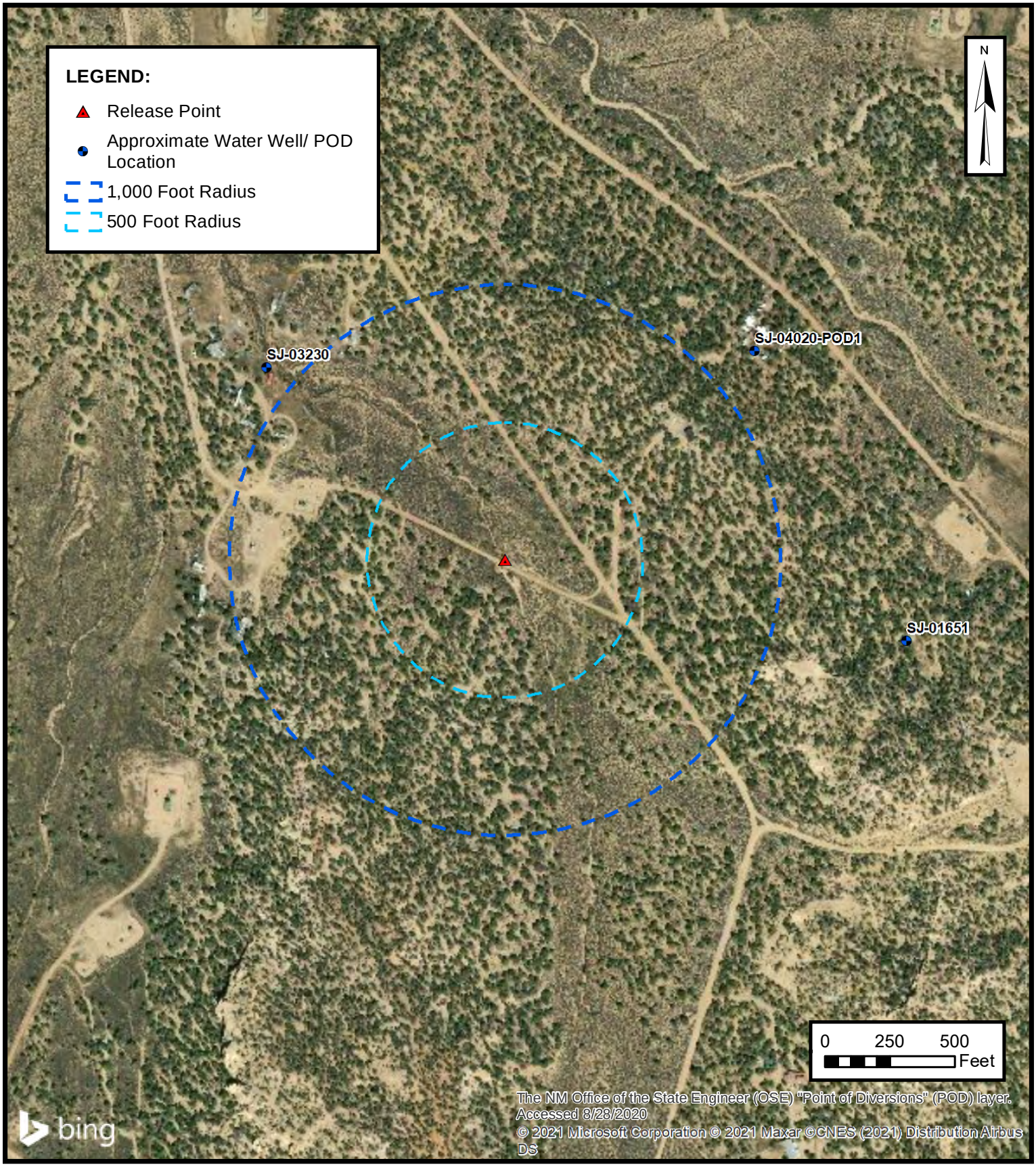
ENSOLUM
Environmental & Hydrogeologic Consultants

300 FOOT RADIUS
OCCUPIED STRUCTURE IDENTIFICATION

ENTERPRISE FIELD SERVICES, LLC
ATLANTIC BLS #22 (9/1/21)
Unit Letter C, S3 T30N R10W, San Juan County, New Mexico
36.845013° N, 107.870609° W

PROJECT NUMBER: 05A1226154

FIGURE
D



ENSOLUM
Environmental & Hydrogeologic Consultants

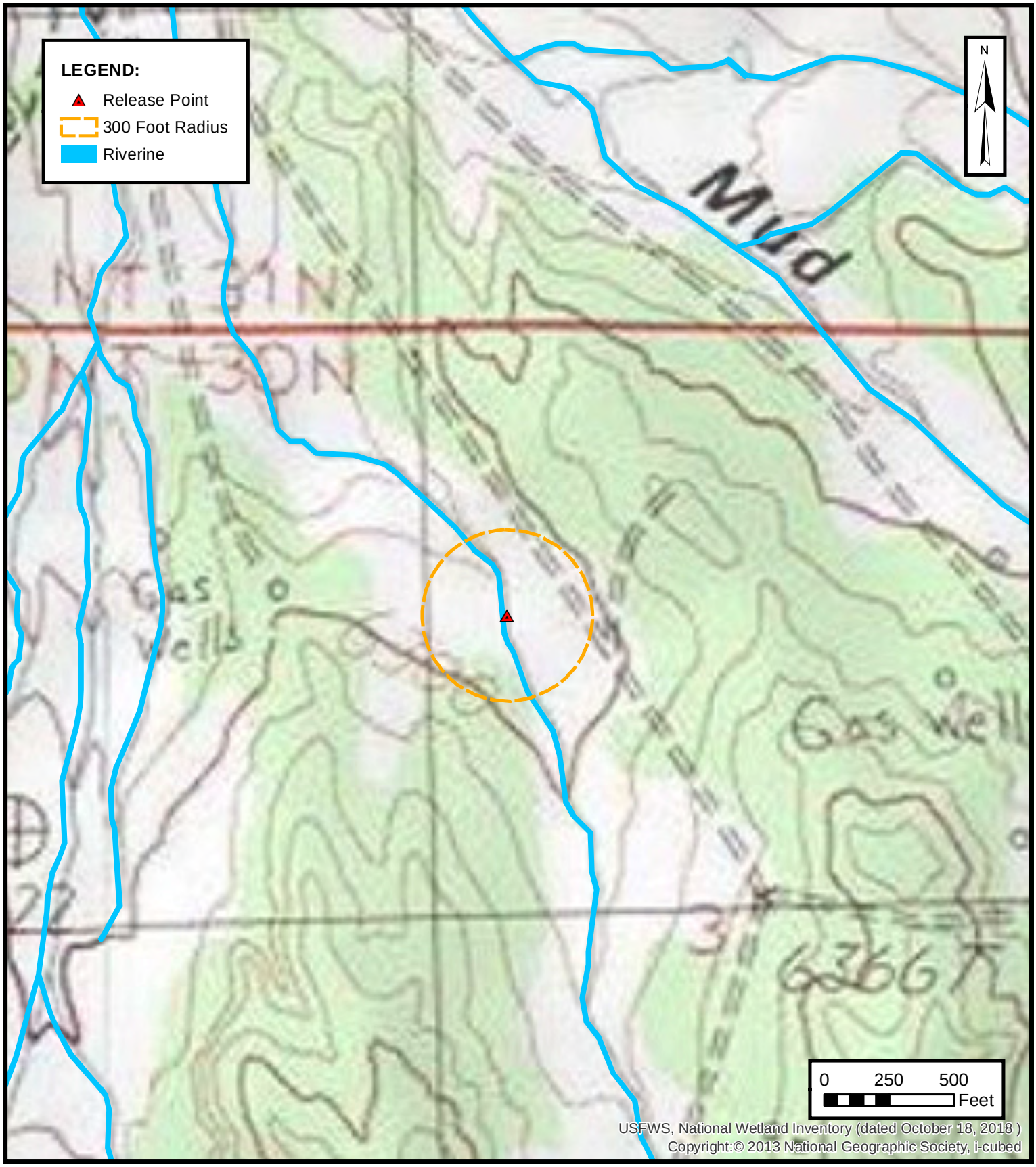
WATER WELL AND NATURAL SPRING LOCATION

ENTERPRISE FIELD SERVICES, LLC
ATLANTIC BLS #22 (9/1/21)
Unit Letter C, S3 T30N R10W, San Juan County, New Mexico
36.845013° N, 107.870609° W

PROJECT NUMBER: 05A1226154

FIGURE

E



ENSOLUM
Environmental & Hydrogeologic Consultants

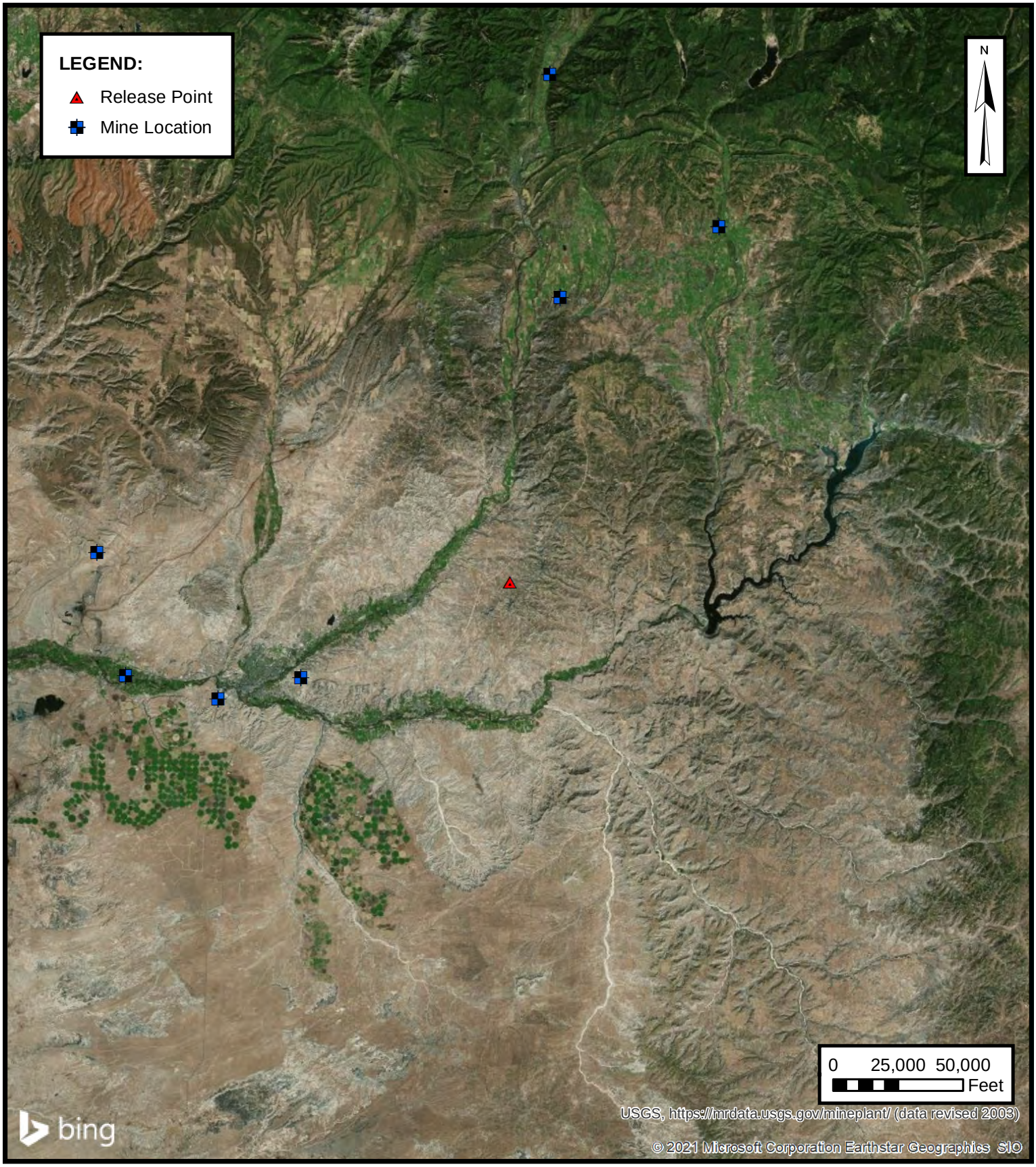
WETLANDS

ENTERPRISE FIELD SERVICES, LLC
ATLANTIC BLS #22 (9/1/21)
Unit Letter C, S3 T30N R10W, San Juan County, New Mexico
36.845013° N, 107.870609° W

PROJECT NUMBER: 05A1226154

FIGURE

F



ENSOLUM
Environmental & Hydrogeologic Consultants

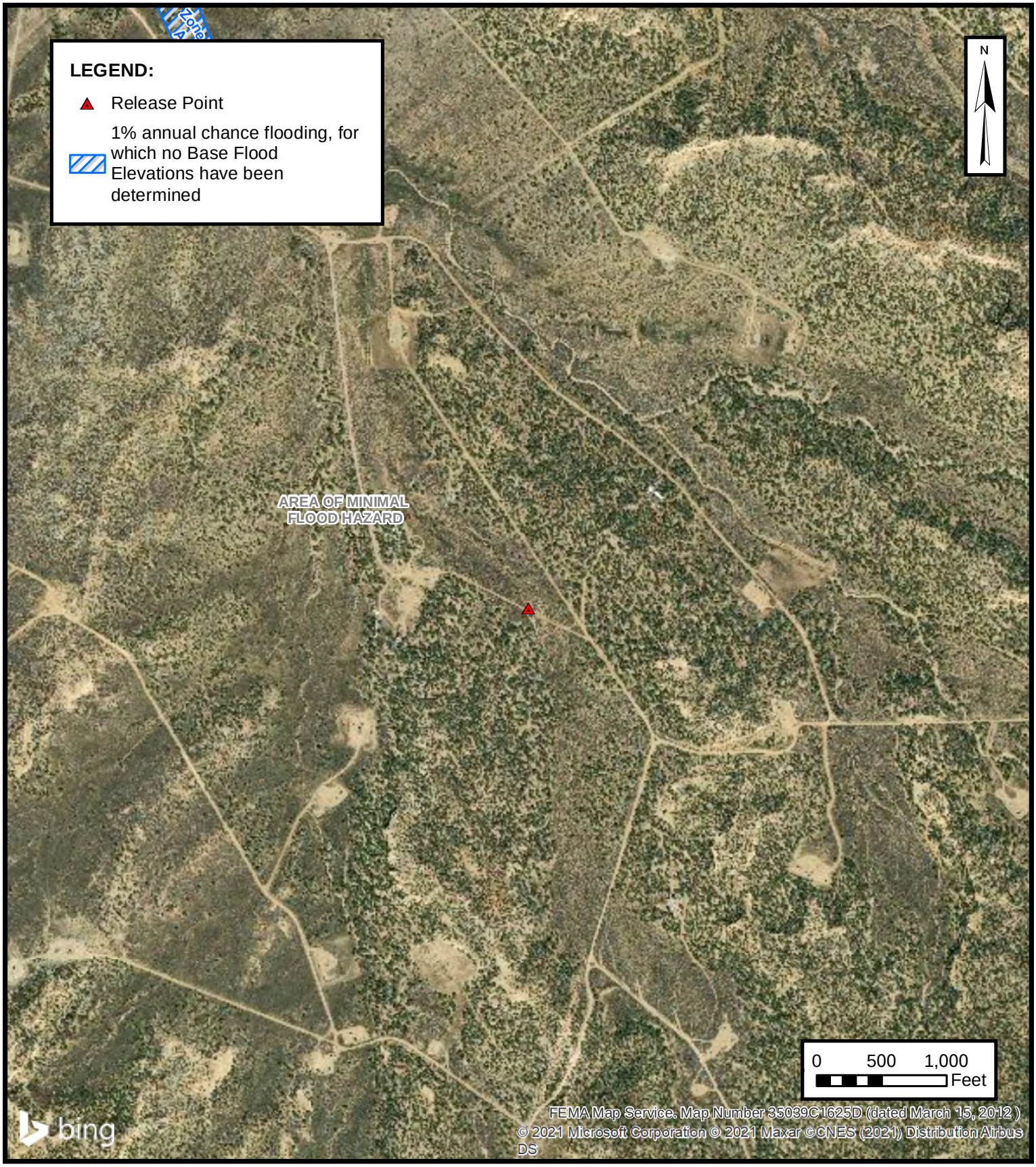
MINES, MILLS AND QUARRIES

ENTERPRISE FIELD SERVICES, LLC
ATLANTIC BLS #22 (9/1/21)
Unit Letter C, S3 T30N R10W, San Juan County, New Mexico
36.845013° N, 107.870609° W

PROJECT NUMBER: 05A1226154

FIGURE

G



ENSOLUM
Environmental & Hydrogeologic Consultants

100-YEAR FLOOD PLAIN MAP

ENTERPRISE FIELD SERVICES, LLC
ATLANTIC BLS #22 (9/1/21)
Unit Letter C, S3 T30N R10W, San Juan County, New Mexico
36.845013° N, 107.870609° W

PROJECT NUMBER: 05A1226154

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-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
SJ 00050	SJ	SJ	2	3	1	02	30N	10W	245187	4081290*	520	306	214
SJ 03230	SJ	SJ	1	2	1	03	30N	10W	243782	4081752*	120	70	50
SJ 03460	SJ	SJ	2	3	1	02	30N	10W	245187	4081290*	520	500	20
SJ 04020 POD1	SJ	SJ		1	2	03	30N	10W	244319	4081753	325		

Average Depth to Water: **292 feet**

Minimum Depth: **70 feet**

Maximum Depth: **500 feet**

Record Count: 4

PLSS Search:

Section(s): 3, 2, 4, 9, 10, 11 **Township:** 30N **Range:** 10W

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

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

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

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

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
SJ 00981	SJ	SJ		1	2	34	31N	10W	244338	4083246*	164	118	46
SJ 01480	SJ	SJ		1	2	34	31N	10W	244338	4083246*	245	125	120
SJ 01946 POD1	SJ	SJ		1	2	34	31N	10W	244207	4083309	187		
SJ 03387	SJ	SJ	1	2	2	34	31N	10W	244634	4083331*	250	200	50
SJ 03544	SJ	SJ	4	4	1	35	31N	10W	245616	4082705*	325	220	105
SJ 03545	SJ	SJ	3	4	1	35	31N	10W	245416	4082705*	455	317	138
SJ 03554	SJ	SJ	1	2	4	35	31N	10W	246198	4082488*	454	317	137
SJ 03570	SJ	SJ	4	4	2	35	31N	10W	246399	4082687*	250		
SJ 03571	SJ	SJ	4	4	1	35	31N	10W	245616	4082705*	250		
SJ 03576	SJ	SJ	3	3	2	35	31N	10W	245814	4082696*	450	137	313
SJ 03624	SJ	SJ	2	1	2	34	31N	10W	244437	4083345*	165	65	100
SJ 03728 POD1	SJ	SJ	3	3	1	35	31N	10W	245017	4082714*	365	230	135
SJ 03824 POD1	SJ	SJ	1	3	1	35	31N	10W	245011	4082953	385	245	140

Average Depth to Water: **197 feet**
Minimum Depth: **65 feet**
Maximum Depth: **317 feet**

Record Count: 13

PLSS Search:

Section(s): 33, 34, 35 **Township:** 31N **Range:** 10W

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

READ INSTRUCTIONS ON BACK **Revised March 1979**

APPLICATION TO APPROPRIATE UNDERGROUND WATERS IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

228062

STATE ENGINEER
SANTA FE, N. M.
'82 NOV 23 AM 11 09

File No. SJ-1651

1. Name and Address of Applicant:

Carl L. Foust
Box 167
Aztec N.M. 87410

2. Describe well location under one of the following subheadings:

a. ____ ¼ ____ ¼ NE ¼ of Sec. 3 Twp. 30N Rge. 10 W N.M.P.M., in SAN JUAN County.

b. Tract No. ____ of Map No. ____ of the ____

c. Lot No. 2 H of Block No. ____ of the ____ Subdivision, recorded in SAN JUAN County.

d. X = ____ feet, Y = ____ feet, N.M. Coordinate System ____ Zone in the ____ Grant.

e. Give street address or route and box No. of property upon which well is to be located, or location by direction and distance from known landmarks 3½ Miles East on Hart Canyon Road Turn Right To Y in Road Then Left To Lot

3. Approximate depth (if known) From 100' To 150' feet; outside diameter of casing 4 7/8 inches.

Name of driller (if known) ____

4. Use of water (check appropriate box or boxes):

- [x] One household, non-commercial trees, lawn and garden not to exceed 1 acre.
- [x] Livestock watering.
- [ ] More than one household, non-commercial trees, lawns and gardens not to exceed a total of 1 acre.
- [ ] Drinking and sanitary purposes and the irrigation of non-commercial trees, shrubs and lawns in conjunction with a commercial operation.
- [ ] Prospecting, mining or drilling operations to discover or develop natural resources.
- [ ] Construction of public works, highways and roads.

If any of the last four were marked, give name and nature of business under Remarks. (Item 5)

5. Remarks: ____

I, Carl L. Foust, affirm that the foregoing statements are true to the best of my knowledge and belief and that development shall not commence until approval of the permit has been obtained.

Carl L. Foust, Applicant

By: ____ Date: 10/22/82

ACTION OF STATE ENGINEER

This application is approved for the use indicated, subject to all general conditions and to the specific conditions numbered 4 on the reverse side hereof. This permit will automatically expire unless this well is drilled or driven and the well record filed on or before November 30, 1983.

S.E. Reynolds, State Engineer

By: E. C. Barry
E.C. Barry, Water Resource Spec. I, Water Rights Division

Date: 11/29/82 File No. SJ-1651

G .NERAL CONDITIONS OF APPROVAL

A. The maximum amount of water that may be appropriated under this permit is 3 acre feet in any calendar year.

B The well shall be drilled only by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated. A licensed driller shall not be required for the construction of a driven well; provided, that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter (Section 72-12-12).

C. Driller's log must be filed with the State Engineer within 10 days after the well is drilled or driven. Failure to file the log within that time shall result in automatic cancellation of the permit. Log forms will be provided by the State Engineer upon request.

D. The casing shall not exceed 7 inches outside diameter except under specific conditions in which reasons satisfactory to the State Engineer are shown.

E. If the well under this permit is used at any time to serve more than one household, livestock in a commercial feed lot operation, or any other commercial purpose, the permittee shall comply with Specific Condition of Approval number 5(b).

F. In the event this well is combined with other wells permitted under Section 72-12-1 New Mexico Statutes Annotated, the total outdoor use shall not exceed the irrigation of one acre of non-commercial trees, lawn, and garden, or the equivalent outside consumptive use, and the total appropriation for household and outdoor use from the entire water distribution system shall not exceed 3 acre feet per annum.

SPECIFIC CONDITIONS OF APPROVAL

(Applicable only when so indicated on the other side of this form.)

1. Depth of the well shall not exceed the thickness of the (a) the valley fill or (b) Ogallala formation.
2. The well shall be constructed to artesian well specifications and the State Engineer shall be notified before casing is landed or cemented.
3. Appropriation and use of water under this permit shall not exceed a period of one year from the date of approval.
4. Use shall be limited to household, non-commercial trees, lawn and garden not to exceed one acre and/or stock use.
5. A totalizing meter shall be installed before the first branch of the discharge line from the well and the installation shall be acceptable to the State Engineer; the Engineer shall be advised of the make, model, serial number, date of installation, and initial reading of the meter prior to appropriation of water and pumping records shall be submitted to the District Supervisor; (a) for each calendar month, on or before the 30th day of the following month (b) on or before the 10th of January, April, July and October of each year for the three preceding calendar months (c) for each calendar year on or before the 30th day of January of the following year.
6. The well shall be plugged upon completion of the permitted use and a plugging report shall be filed with the State Engineer within 10 days.
7. Final approval for the use of the well shall be dependent upon a leakage test made by the State Engineer.
8. Use shall be limited strictly to household and/or drinking and sanitary purposes; water shall be conveyed from the well to the place of use in closed conduit and the effluent returned to the underground so that it will not appear on the surface. No irrigation of lawns, gardens, trees or use in any type of pool or pond is authorized under this permit.

INSTRUCTIONS

The application shall be made in the name of the actual user of the well for the purpose specified in the application.

The application shall be executed in triplicate and forwarded with a $1.00 filing fee to the State Engineer.

A separate application must be filed for each well to be drilled or used.

If well to be used is an existing well, an explanation (and file number, if possible) should be given under Remarks. (Item 5.)

Applications for appropriation, well logs and request for information in the following basins should be addressed to the State Engineer at the location indicated:

Bluewater, Estancia, Rio Grande, Sandia and San Juan Basins
District No. 1, 2340 Menaul NE, Room 206, Albuquerque, New Mexico 87107

Capitan, Carlsbad, Fort Sumner, Hondo, Jal, Lea, Penasco, Portales, Roswell, and Upper Pecos Basins
District No. 2, Box 1717, Roswell, New Mexico 88201

Animas, Gila-San Francisco, Hot Springs, Las Animas Creek, Lordsburg, Mimbres, Nutt-Hockett, Playas, San Simon, and Virden Valley Basins
District No. 3, Box 844, Deming, New Mexico 88030

Canadian River Basin
State Engineer, State Capitol, Bataan Memorial Bldg., Santa Fe, New Mexico 87503

Revised June 1972

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well Tonia Goelz Owner's Well No. SJ-3230

Street or Post Office Address 182 CR 2772

City and State Aztec, N.M. 87410

Well was drilled under Permit No. SJ-3230 and is located in the:

a. NW ¼ NE ¼ NW ¼ ¼ of Section 3 Township 30N Range 10W N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in SAN JAUN County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Bill Hargis Sr. License No. WD-1508

Address 16 CR 3523 Flora Vista N.M. 87410

Drilling Began 7-6-2002 Completed 7-10-2002 Type tools Cable Tool Size of hole 6 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 120 ft.

Completed well is [XX] shallow [ ] artesian. Depth to water upon completion of well 70 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
88	105	17	Course Blue Water Sand, small gravel	3

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
4 1/2	sch 80	plas.	0	120	20		70	120
7	20		0	10	Surface Casing			

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
0	120				Clear Water

'02 JUL 19 PM 4 00
STATE ENGINEER OFFICE
AZTEC, NEW MEXICO

Section 5. PLUGGING RECORD

Plugging Contractor _____

Address _____

Plugging Method _____

Date Well Plugged _____

Plugging approved by:

_____
State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received 7-19-2002

Quad _____ FWL _____ FSL _____

File No. SJ-3230 Use Domestic Location No. 30N.10W.3.121

Section 6. LOG OF HOLE

Depth in Feet		Thickness in Feet	Color and Type of Material Encountered
From	To		
0	20	20	Yellow Sandstone
20	50	30	Fine Gray Sandstone
50	60	10	Fine Hard Pan Sandstone
60	88	28	Blue + Gray Sandstone * Clay
88	105	17	Course Blue Water Sand + Small Gravel
105	120	15	Sandy Shale , Blue

Section 7. REMARKS AND ADDITIONAL INFORMATION

Gravel Pack From 0 to 120' 1/2 in. round gravel
Cement Surface 0 to 10'

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Bill Harkins
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(d Section 5 need be completed.

STATE ENGINEER OFFICE
AZTEC, NEW MEXICO

2012 AUG 16 AM 11:01

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

POD NUMBER (WELL NUMBER)	OSE FILE NUMBER(S) SJ-4020 POD1
WELL OWNER NAME(S) James A. Shinn	PHONE (OPTIONAL) 432-464-0002
WELL OWNER MAILING ADDRESS 1207 La Paz	CITY Andrews / STATE Texas / ZIP 79714

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	36	50	49.70	N
LONGITUDE	107	52	3.10	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS
198 Road 2772, Aztec, NM 87410. Well is located uphill side of the trailer, next to the small well house.

2. OPTIONAL

(2.5 ACRE)	(10 ACRE)	(40 ACRE)	(160 ACRE)	SECTION	TOWNSHIP	RANGE
¼	¼	NW ¼	NE ¼	3	30 ☑ NORTH ☐ SOUTH	10 ☐ EAST ☑ WEST

SUBDIVISION NAME	LOT NUMBER	BLOCK NUMBER	UNIT/TRACT

HYDROGRAPHIC SURVEY	MAP NUMBER	TRACT NUMBER

3. DRILLING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
	Terry Hood	Western Water Wells

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
		325		

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT)

DRILLING FLUID: ☐ AIR ☐ MUD ☐ ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)

4. WATER BEARING STRATA

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	YIELD (GPM)

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA

TOTAL ESTIMATED WELL YIELD (GPM)

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	SJ-4020	POD NUMBER	POD1	TRN NUMBER
LOCATION	30N.10W.03.210			PAGE 1 OF 2

5. SEAL AND PUMP

TYPE OF PUMP: ☑ SUBMERSIBLE ☐ JET ☐ NO PUMP – WELL NOT EQUIPPED
☐ TURBINE ☐ CYLINDER ☐ OTHER – SPECIFY:

ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT

6. GEOLOGIC LOG OF WELL

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO

ATTACH ADDITIONAL PAGES AS NEEDED TO FULLY DESCRIBE THE GEOLOGIC LOG OF THE WELL

7. TEST & ADDITIONAL INFO

WELL TEST — METHOD: ☐ BAILER ☐ PUMP ☐ AIR LIFT ☐ OTHER – SPECIFY:

TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

ADDITIONAL STATEMENTS OR EXPLANATIONS:

The Well Log is being submitted by the owner and filled out to the best of his ability. This well was drilled in 1991 and no permit was ever filed and so an after-the-fact well permit was issued. This Well log is being submitted to satisfy the conditions of approval.

8. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

James A. Klinn — SIGNATURE OF ~~DRILLER~~ owner

8/16/2012 — DATE

2012 AUG 20 AM 11:01 STATE ENGINEER OFFICE AZTEC, NEW MEXICO

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	SJ-4020	POD NUMBER	POD1	TRN NUMBER	
LOCATION	30N.10W.03.210				PAGE 2 OF 2

STATE OF NEW MEXICO

STATE ENGINEER OFFICE

SANTA FE

S. E. REYNOLDS
STATE ENGINEER

BATAAN MEMORIAL BUILDING
STATE CAPITOL
SANTA FE, NEW MEXICO 87503

SJ- 1651

November 29, 1982

Mr. Carl L. Foust
Box 187
Aztec, New Mexico 87410

Dear Mr. Foust:

Enclosed is your copy of the above-numbered permit which has been approved subject to all the general conditions of the approval stated on the reverse side of the permit and the specific conditions of the approval numbered 4 stated on the reverse side of the permit.

Well may only be drilled by a licensed driller and a well log must be filed within 10 days of completion of the well.

Also enclosed is Receipt No. 102317 covering the $1.00 filing fee.

Very truly yours,

S.E. Reynolds
State Engineer

By: E. C. Barry

E.C. Barry
Water Resources
Spec I
Water Rights Division

dg
encl.
cc - J.T. Smith

CH(5)-C1765
#5 02

TRN #237725

READ INSTRUCTIONS ON BACK

Revised June 1991

APPLICATION TO APPROPRIATE UNDERGROUND WATERS IN ACCORDANCE WITH SECTION 72-12-1 NEW MEXICO STATUTES

1. Name and mailing address of applicant:

File No. SJ-3230

Tonia Goelz

182 CR 2772

Aztec, NM 87410

2. Describe well location under one of the following subheadings:

a. NW ¼ NE ¼ NW ¼ of Sec. 3 Twp. 30N Rge. 10W NMPM, in San Juan County.

b. X = _____ feet, Y = _____ feet, New Mexico Coordinate System _____ Zone in the _____ Grant.

3. Approximate depth (if known) 150 feet; outside diameter of casing 7 inches.

Name of driller (if known) Bill Hargis

4. Use of water (check use applied for):

X One household, non-commercial trees, lawn and garden not to exceed one acre.

____ Livestock watering.

____ More than one household, non-commercial trees, lawns and gardens not to exceed a total of one acre.

____ Drill and test a well intended to be used for domestic, drinking and sanitary or stock water purposes in conjunction with the building or dwelling unit.

____ Drinking and sanitary purposes and the irrigation of non-commercial trees, shrubs and lawns in conjunction with a commercial operation.

____ Prospecting, mining or drilling operations to discover or develop natural resources.

____ Construction of public works, highways and roads.

If any of the last three items were marked, give name and nature of business under Remarks (Item 5).

5. Remarks: _____

'02 JUL 3 PM 4 00
STATE ENGINEER OFFICE
AZTEC, NEW MEXICO

I, Tonia Goelz, affirm that the foregoing statements are true to the best of my knowledge and belief and that development shall not commence until approval of the permit has been obtained.

Tonia Goelz, Applicant

By: _____ Date: July 3, 2002

ACTION OF STATE ENGINEER

This application is approved for the use indicated, subject to all general conditions and to specific conditions numbered 1a & 4 on the reverse side hereof. This permit will automatically expire unless this well is drilled or driven and the well record filed on or before July 3, 2003.

Thomas C. Turney, State Engineer

By: Bill Enenbach
Bill Enenbach

Date: July 3, 2002 File No. SJ-3230

GENERAL CONDITIONS OF APPROVAL

A. The maximum amount of water that may be appropriated under this permit is 3 acre-feet in any year.

B. The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated. A licensed driller shall not be required for the construction of a driven well; provided, that the casing shall not exceed two and three-eights (2 3/8) inches outside diameter (Section 72-12-12).

C. Driller's well record must be filed with the State Engineer within 10 days after the well is drilled or driven. Failure to file the well record within that time shall result in automatic cancellation of the permit. Well record forms will be provided by the State Engineer upon request.

D. The casing shall not exceed 7 inches outside diameter except under specific conditions in which reasons satisfactory to the State Engineer are shown.

E. If the well under this permit is used at any time to serve more than one household or livestock in a commercial feed lot operation, or for drinking and sanitation purposes in conjunction with a commercial operation, the permittee shall comply with Specific Conditions of Approval number 5(b).

F. In the event this well is combined with other wells permitted under Section 72-12-1 New Mexico Statutes Annotated, the total outdoor use shall not exceed the irrigation of one acre of non-commercial trees, lawn, and garden, or the equivalent outside consumptive use, and the total appropriation for household and outdoor use from the entire water distribution system shall not exceed 3 acre-feet in any year.

G. If artesian water is encountered, all rules and regulations pertaining to the drilling and casing of artesian wells shall be complied with.

H & I See side margins.

SPECIFIC CONDITIONS OF APPROVAL

(Applicable only when so indicated on the other side of this form.)

1. Depth of the well shall not exceed the thickness of the (a) valley fill or (b) Ogallala formation.
2. The well shall be constructed to artesian well specifications and the State Engineer shall be notified before casing is landed or cemented.
3. Appropriation and use of water under this permit shall not exceed a period of one year from the date of approval.
4. Use shall be limited to household, non-commercial trees, lawn and garden not to exceed one acre and/or stock use.
5. A totalizing meter shall be installed before the first branch of the discharge line from the well and the installation shall be acceptable to the State Engineer; the Engineer shall be advised of the make, model, serial number, date of installation, and initial reading of the meter prior to appropriation of water; pumping records shall be submitted to the District Supervisor: (a) for each calendar month, on or before the 10th day of the following month (b) on or before the 10th of January, April, July and October of each year for the three preceding calendar months (c) for each calendar year on or before the 10th day of January of the following year.
6. The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.
7. Final approval for the use of the well shall be dependent upon a leakage test made by the State Engineer.
8. Use shall be limited strictly to household, drinking and sanitary purposes; water shall be conveyed from the well to the place of use in closed conduit and the effluent returned to the underground so that it will not appear on the surface. No irrigation of lawns, gardens, trees or use in any type of pool or pond is authorized under this permit.
9. No water shall be used from this well unless and until a permit has been issued to an applicant who intends to use the water for any of the purposes described in § 72-12-1.

INSTRUCTIONS

The application shall be made in the name of the actual user of the well for the purpose specified in the application.

The application shall be filed in triplicate and forwarded with a $5.00 filing fee to the State Engineer.

A separate application must be filed for each well to be drilled or used.

If well to be used is an existing well, an explanation (and the file number, if possible) should be given under Remarks (Item 5).

Applications for appropriation, well records and requests for information in the following basins should be addressed to the State Engineer at the location indicated.

Bluewater, Estancia, Rio Grande, Sandia, Gallup and San Juan Basins
District No. 1, Office of the State Engineer, 121 Tijeras, NE., Suite 2000, Albuquerque, NM 87102-3400

Capitan, Carlsbad, Curry County, Fort Sumner, Hondo, Jal, Lea County, Penasco, Portales, Roswell, Tucumcari and Upper Pecos Basins District No. 2, 1900 West Second Street, Roswell, NM 88201

Animas, Gila-San Francisco, Lordsburg, Mimbres, Nutt-Hockett, Playas, San Simon and Virden Valley Basins
District No. 3, P.O. Box 844, Deming, NM 88031

Lower Rio Grande, Tularosa, Hueco, Las Animas Creek and Hot Springs Basins
District No. 4, 133 Wyatt Drive, Suite 3, Las Cruces, NM 88005

Canadian River Basin
State Engineer Office, P.O. Box 25102, Santa Fe, NM 87504-5102

San Juan Basin
State Engineer Office
100 S. Oliver
Aztec, NM 87410

SUPPLEMENTAL INSTRUCTION

If the well under this permit is to be used for livestock watering on state or federal land, **proof** of the following must be provided as part of this application: (1) applicant is legally entitled to place his livestock on the land where the water is to be used ; (2) applicant has been granted access to the drilling site and has permission to occupy the portion of the land as is necessary to drill and operate the well.

H. The amount and uses of water permitted under this application are subject to such limitations as may be imposed by the courts or by lawful municipal and county ordinances which are more restrictive than applicable State Engineer Regulations and the conditions of this permit.

I. The permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

STATE ENGINEER OFFICE/INTERSTATE STREAM COMMISSION - AZTEC

OFFICIAL RECEIPT NUMBER 5-01765 DATE 7-3-2002 FILE NO. SJ-3230

TOTAL RECEIVED: $ 5.00 RECEIVED: five DOLLARS CHECK NO ____ CASH: ☐

FROM: Tonia Goelz BANK NAME: ____

RECEIVED BY: (Signature) Bill Enerbock (TITLE) ____

INSTRUCTIONS: Indicate the number of actions to the left of the appropriate type of filing. Complete the receipt information. **Original** to payor; **pink** copy to MSD; **yellow** copy to Water Rights - Santa Fe, and **goldenrod** copy for District file. If you make a mistake, void original and all copies and submit to MSD along with valid receipts and the weekly report.

A. Ground Water Rights Filing Fees (411840)

____	1. Declaration of Water Right	$ 1.00
X	2. Application to Appropriate; Domestic, Stock, Other Use	$ 5.00
____	3. Application for Test, Exploratory, or Observation Well	$ 5.00
____	4. Application to Change Location Domestic Well	$ 5.00
____	5. Application to Repair or Deepen	$ 5.00
____	6. Application to Dewater	$ 5.00
____	7. Application to Appropriate Irrig., Mun., Ind., or Com. Use	$25.00
____	8. Application to Combine Wells and/or Use	$25.00
____	9. Application for Supplemental Well	$25.00
____	10. Application to Change Location of Non-72-12-1 Well	$25.00
____	11. Application to Change Place	$25.00
____	12. Application to Change Location of Well and Place and/or Purpose of Use	$50.00
____	13. Application for Extension of Time (Specify: ____)	$25.00
____	14. Certificate and License (for each permit therein) (VAR)	$25.00
____	15. Application for Plan of Replacement	$25.00
____	16. Other (As per Art. 6-2 of Rules and Regulations) Specify: ____ ____	$25.00 (VAR)
____	17. Application to Change Point of Diversion and Place and/or Purpose of Use from Surface to Ground Water	$50.00

B. Surface Water Rights Filing Fees (411840)

____	1. Declaration of Water Right	$ 1.00
____	2. Declaration of Livestock Dam	$ 1.00
____	3. Application to Change Point of Diversion	$25.00
____	4. Application to Change Place and/or Purpose of Use	$50.00
____	5. Application to Change Point of Diversion and Place and/or Purpose of Use	$50.00
____	6. Notice of Intent to Appropriate	$25.00
____	7. Application to Appropriate	$25.00
____	8. Application for Extension of Time	$50.00
____	9. Certificate of Construction	$25.00
____	10. License to Appropriate	$25.00
____	11. Application to Enlarge of Amend	$25.00
____	12. Other (As per 72-2-6.J NMSA 1978) (Specify: ____)	(VAR)
____	13. Application to Change Point of Diversion and Place and/or Purpose of Use from Ground to Surface Water	$50.00

C. Miscellaneous Fees (411840)

____	1. Application to Construct Flood-Control Dam. Same as #6 below	
____	2. Application for Well Driller's License	$50.00
____	3. Application for Renewal of Well Driller's License	$20.00
____	4. Application to Amend Well Driller's License	$ 5.00
____	5. Issue of Certified Letter	$ 5.00
____	6. Review of Plans for Safety of Dams ($10.00 + $2.00/$1,000 of estimated construction cost)	(VAR)

D. Hearing Deposit (411890) $ ____

E. Reproduction of Documents (419740) 20¢/copy, limit 10 copies of each document. $ ____

F. Water Right Determination $ ____

G. Certification $ ____

H. Other (Specify - Not for Filing Fees) $ ____

COMMENTS:

STATE ENGINEER OFFICE ALBUQUERQUE NEW MEXICO
02 JUL 26 PM 3:36

File No. SJ-4020

NEW MEXICO OFFICE OF THE STATE ENGINEER

APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS IN ACCORDANCE WITH SECTIONS 72-12-1.1, 72-12-1.2, OR 72-12-1.3 NEW MEXICO STATUTES

For fees, see State Engineer website: http://www.ose.state.nm.us/

2022 AUG -3 PM 5:01 STATE ENGINEER OFFICE AZTEC, NEW MEXICO

1. APPLICANT(S)

Name: **James A. Shinn**	Name:
Contact or Agent: check here if Agent ☐	Contact or Agent: check here if Agent ☐
Mailing Address: **1207 La Paz**	Mailing Address:
City: **Andrews**	City:
State: **TX** Zip Code: **79714**	State: Zip Code:
Phone: **432-464-0002** ☒ Home ☐ Cell Phone (Work): **575-394-5583**	Phone: ☐ Home ☐ Cell Phone (Work):
E-mail (optional): **jashinn3@msn.com**	E-mail (optional):

2. WELL LOCATION Required: Coordinate location must be New Mexico State Plane (NAD 83), UTM (NAD 83), or Lat/Long (WGS84). District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

NM State Plane (NAD83) - In feet	NM West Zone ☐ NM Central Zone ☐ NM East Zone ☐	X (in feet): Y (in feet):				
UTM (NAD83) - In meters	UTM Zone 13N ☐ UTM Zone 12N ☐	Easting (in meters): Northing (in meters):				
Lat/Long (WGS84) - To 1/10th of second	Latitude: **36**	deg	**50**	min	**49.7**	sec
	Longitude: **-107**	deg	**52**	min	**3.1**	sec

Other Location Information (complete the below, if applicable):

PLSS Quarters or Halves: N/2 NW/4 NE/4 Section: 03 Township: 30N Range: 10W

County: **San Juan**

Land Grant Name (if applicable):

Lot No: Block No: Unit/Tract: Subdivision:

Hydrographic Survey: Map: Tract:

Other description relating point of diversion to common landmarks, streets, or other: Physical Address is 198 Road 2772, Aztec, NM 87410 UPC: 2-057-179-181-494

Point of Diversion is on Land Owned by (Required): James A. And Irene Shinn Recorded In Book 1193, Page 697

FOR OSE INTERNAL USE Application for Permit, Form wr-01, Rev 3/8/12

File Number:	Trn Number: 613041	
Sub-basin:	POD No.	Log Due Date:

3. PURPOSE OF USE

- ☒ Domestic use for one household
- ☐ Livestock watering
- ☐ Domestic use for more than one household. Number of households _____
- ☐ Drinking and sanitary uses that are incidental to the operations of a governmental, commercial, or non-profit facility
- ☐ Prospecting, mining or drilling operations to discover or develop natural resources
- ☐ Construction of public works, highways and roads
- ☐ Domestic use for one household and livestock watering
- ☐ Domestic use for multiple households and livestock watering
- ☐ Domestic well to accompany a house or other dwelling unit constructed for sale

4. WELL INFORMATION

File Information: (If existing well, provide OSE no. & indicate below if well is to be replacement, repaired or deepened, or supplemental. If new well, leave blank, as OSE must assign no.)

OSE Well No.(If Existing)	New Well No. (provided by OSE) SJ-4020
Driller Name: Terry Hood	**Driller License Number:**
Approximate Depth of Well (feet): **325.00**	Outside Diameter of Well Casing (inches): **6.00**

☐ Replacement well (List all existing wells if more than one):	☐ Repair or Deepen: ☐ Clean out well to original depth ☐ Deepen well from _____ to _____ ft. ☐ Other (Explain):	☐ Supplemental well (List OSE No. for all wells this will supplement):

5. ADDITIONAL STATEMENTS OR EXPLANATIONS

Well was drilled in Summer 1991 by Terry Hood. Current well pump is 1 horsepower pump installed at a depth of 260 or 280 feet.

ACKNOWLEDGEMENT

STATE ENGINEER OFFICE
AZTEC, NEW MEXICO
2012 AUG -3 PM 5:01

I, We (name of applicant(s)), **James A. Shinn**
Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

James A. Shinn
Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER (FOR OSE USE ONLY)

This application is approved subject to the attached general and specific conditions of approval.

Witness my hand and seal this 3 day of **August** 20 **12**, for the State Engineer,

By: Savannah Lindsay
Signature

Savannah Lindsay
Print

FOR OSE INTERNAL USE

Application for Permit, Form wr-01, Rev 3/8/12

File Number:		Trn Number:
Sub-basin:	POD No.	Log Due Date:

NEW MEXICO OFFICE OF THE STATE ENGINEER
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTIONS 72-12-1.1, 72-12-1.2, AND 72-12-1.3 NEW MEXICO STATUTES

INSTRUCTIONS

1. The application shall be made in the name of the actual user of the well for the purpose specified in the application (if the agent is submitting the application, check the agent box).
2. The application shall be filed with the appropriate filing fee.
3. A separate application must be filed for each well to be drilled or used.
4. If well to be used is an existing well, an explanation (and the file number, if possible) should be given under Remarks (Item 5).

FEE SCHEDULE FOR APPLICATIONS
72-12-1.1 (domestic) = $125.00
72-12-1.2 (livestock) = $5.00
72-12-1.3 (temporary) = $5.00
Replacement well = $ 75.00
Supplemental well= $125.00
Repair or Deepen = $ 75.00
Amend Domestic Use = $ 75.00

5. If well is to be used for livestock watering on state or federal land, proof of the following must be included as part of the application; (a) applicant is legally entitled to place his or her livestock on the land where the water is to be used, (b) applicant has been granted access to the drilling site and has permission to occupy the portion of the land as is necessary to drill and operate the well.
6. An application to drill a well on land owned by another person, the state of New Mexico, the federal government, or another entity shall be accompanied by written consent of the landowner.
7. For an application for drinking and sanitary uses that are incidental to the operations of a governmental, commercial, or non-profit facility, the applicant shall demonstrate that no alternative water supply is reasonably accessible or available.
8. An application for a 72-12-1.1 domestic well to serve multiple households shall be filed with documentation listing the number of households to be served by the well, the owner's contact information for each household to be served, and a description of the legal lot of record for each household to be served. A copy of a well share agreement may be filed to support the claim that the 72-12-1.1 domestic well will serve more than one household.
9. The Office of the State Engineer may require an application to be filed with a deed or purchase contract and plat of survey on file with the appropriate county.
10. See General Conditions of Approval for more information.

Application for permit, well records and requests for information in the following basins should be addressed to the Office of the State Engineer at:

Bluewater, Estancia, Gallup, Middle Rio Grande, Northern Tularosa, and Sandia Basins
District No. 1. 5550 San Antonio Dr. NE , Albuquerque, NM 87109 Phone # 505-383-4000

Capitan, Carlsbad, Casey Lingo, Curry County, Fort Sumner, Hagerman Canal, Hondo, Jal, Lea County, Peñasco, Roswell-Artesian, and Portales Basins
District No. 2. 1900 West Second St., Roswell, NM 88201 Phone # 575-622-6521

Animas, Cloverdale, Gila-San Francisco, Hachita, Lordsburg Valley, Mimbres, Mount Riley, Nutt-Hockett, Playas, San Simon, Virden Valley, and Yaqui Basins
District No. 3. P.O. Box 844, Deming, NM 88031 Phone # 575-546-2851

Lower Rio Grande, Southern Tularosa, Hueco, Las Animas Creek, Salt, and Hot Springs Basins
District No. 4. 1680 Hickory Loop, Suite J, Las Cruces, NM 88005. Phone # 575-524-6161

San Juan Basin
District No. 5. 100 Gossett Drive, Suite A, Aztec, NM 87410 Phone # 505-334-4571

Northern Rio Grande and Upper Pecos Basins
District No. 6. P.O. Box 25102, Santa Fe, NM 87504-5102 Phone # 505-827-6120

Canadian River, Clayton, and Tucumcari Basins
District No. 7. P.O. Box 481, 301 East 9th Street, Cimarron, NM 87714 Phone # 575-376-2918

2012 AUG -3 PM 5:01
STATE ENGINEER OFFICE
AZTEC, NEW MEXICO

NEW MEXICO OFFICE OF THE STATE ENGINEER
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTIONS 72-12-1.1, 72-12-1.2, or 72-12-1.3 NEW MEXICO STATUTES

GENERAL CONDITIONS OF APPROVAL

06A The maximum amount of water that may be appropriated under this permit is 1.0 acre-feet in any year.

06B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated. A licensed driller shall not be required for the construction of a driven well; provided, that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter (Section 72-12-12).

06C Driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request, or may be printed from the OSE website at www.ose.state.nm.us, under applications & forms.

06D The casing shall not exceed 7 inches outside diameter except under specific conditions in which reasons satisfactory to the State Engineer are shown.

06E To request a change to the use of water authorized under this permit, the permittee shall file an application with the State Engineer.

06F An application for a new 72-12-1.1 domestic well permit where the proposed point of diversion is to be located on the same legal lot of record as an operational 72-12-1.1 domestic well shall be treated as an application for a supplemental well.

06G If artesian water is encountered, all rules and regulations pertaining to the drilling and casing of artesian wells shall be complied with.

06H The drilling of the well and amount and uses of water permitted are subject to such limitations as may be imposed by a court or by lawful municipal or county ordinance which are more restrictive than the conditions of this permit and applicable State Engineer regulations.

06I The permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

06J The well shall be set back a minimum of 50 feet from an existing well of other ownership unless a variance has been granted by the State Engineer. The State Engineer may grant a variance for a replacement well or to allow for maximum spacing of the well from a source of groundwater contamination. The well shall be set back from potential sources of contamination in accordance with rules and regulations of the New Mexico Environment Department.

06K Pursuant to Section 72-8-1 NMSA, the permittee shall allow the State Engineer and his representatives entry upon private property for the performance of their respective duties, including access to the well for meter reading and water level measurement.

06L The permit is subject to cancellation for non-compliance with the conditions of approval or if otherwise not exercised in accordance with the terms of the permit.

06M The right to divert water under this permit is subject to curtailment by priority administration as implemented by the State Engineer or a court.

06N In the event of any change of ownership to this permit the new owner shall file a change of ownership form with the State Engineer in accordance with Section 72-1-2.1 NMSA.

06O This well permit shall automatically expire unless the well is completed and the well record is filed with the State Engineer within one year of the date of issuance of the permit. It is the responsibility of the permit holder to ensure that the well record has been properly filed with the State Engineer.

NEW MEXICO OFFICE OF THE STATE ENGINEER
APPLICATION FOR PERMIT TO USE UNDERGROUND WATERS
IN ACCORDANCE WITH SECTIONS 72-12-1.1, 72-12-1.2, or 72-12-1.3 NEW MEXICO STATUTES
CONDITIONS OF APPROVAL
(Domestic One Household)

FILE NUMBER: **SJ-4020**
PERMITTEE: **James A. Shinn**

1. If applicable, the well being replaced shall be plugged upon completion of the replacement well. A plugging report shall be filed with the State Engineer within 20 days of the well being plugged. (Condition 06-6b)

2. The total diversion from all wells under this permit shall not exceed **1.0** acre-foot per annum. (Condition 06-10)

3. This permit authorizes the diversion of water for domestic use to serve a single household. The total diversion of water under this permit shall not exceed **1.0** acre-foot per year. The diversion of water for domestic use may include the watering of non-commercial trees, lawn and garden not to exceed one acre. (Condition 06-11)

4. Any diversion of water made in excess of the authorized maximum diversion amount in any calendar year shall be repaid with twice the amount of the over-diversion during the following calendar year. Repayment shall be made by either: (a) reducing the diversion during the following calendar year from the well that is the source of the over-diversion; or (b) acquiring or leasing a valid, existing consumptive use water right in an amount equal to the repayment amount and submitting to the state engineer for his approval a plan for the proposed repayment during the following calendar year. The plan for the proposed repayment shall be on a form prescribed by the state engineer. (Condition 06-18)

5. **Well Record shall be due on or before August 3, 2013.**

Witness my hand and seal this 3rd day of August, A.D., 2012.

Scott A. Verhines, P.E.
New Mexico State Engineer

By: S Lindsay
Savannah Lindsay
Water Rights Division
District 5

STATE ENGINEER OFFICE
AZTEC, NEW MEXICO
2012 AUG -3 PM 5: 02

Trn Desc.: _____ File Number: SJ-4020
Log Due Date: August 3, 2013 Trn Number: _____

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
AZTEC

Scott A. Verhines, P.E.
State Engineer

100 Gossett Drive, Suite A
Aztec, New Mexico 87410
(505) 334-4571

August 15, 2012

James A. Shinn
1207 La Paz
Andrews, TX 79714

Permit File No. SJ-4020

Dear Mr. Shinn:

Your application for an after the fact Permit to Use Underground Waters in Accordance with Section 72-12-1 New Mexico Statutes submitted has been approved. Enclosed you will find an original of the permit for your records, along with a receipt for the $125 filing fee. The number of your Permit to Appropriate Underground Waters is **SJ-4020.**

Our office must receive a driller's Well Record for your water well permit by the expiration date of August 3, 2013. If the Well Record is not submitted to this office by the expiration date, you will need to reapply for a new permit. This form was sent to you via electronic mail with further instructions. Please include your permit file number, **SJ-4020**, in all communications.

If you have any questions, feel free to contact me.

Sincerely,

Savannah Lindsay
Water Rights Division

Enclosure

cc: Aztec File
WATERS
Aztec Reading

OFFICE OF THE STATE ENGINEER/INTERSTATE STREAM COMMISSION – AZTEC OFFICE

OFFICIAL RECEIPT NUMBER: 5-4635 DATE: _____ FILE NO.: _____

TOTAL: _____ RECEIVED: _____ DOLLARS CHECK NO.: _____ CASH: _____

PAYOR: _____ ADDRESS: _____ CITY: _____ STATE: NM

ZIP: _____ RECEIVED BY: _____

INSTRUCTIONS: Indicate the number of actions to the left of the appropriate type of filing. Complete the receipt information. **Original** to payor; **pink** copy to Program Support/ASD; **yellow** copy remains in district office, and **goldenrod** copy to accompany application being filed. If you make an error, void original and all copies and submit to Program Support/ASD along with other valid receipts.

A. Ground Water Rights Filing Fees

___ 1.	Declaration of Water Right	$ 1.00
___ 2.	Application to Appropriate or Supplement Domestic 72-12-1 Well	$125.00
___ 3.	Application for Stock Well	$ 5.00
___ 4.	Application to Repair or Deepen 72-12-1 Well	$ 75.00
___ 5.	Application for Replacement 72-12-1 Well	$ 75.00
___ 6.	Application to Change Purpose of Use 72-12-1 Well	$ 75.00
___ 7.	Application to Appropriate Irrig., Mun., or Comm. Use	$ 25.00
___ 8.	Application for Supplemental Non 72-12-1 Well	$ 25.00
___ 9.	Application to Change Point of Diversion of Non 72-12-1 Well	$ 25.00
___10.	Application to Change Place or Purpose of Use Non 72-12-1 Well	$ 25.00
___11.	Application to Change Point of Diversion and Place and/or Purpose of Use	$ 50.00
___12.	Application for Extension of Time	$ 25.00
___13.	Proof of Application to Beneficial Use	$ 25.00
___14.	Application to Change Point of Diversion and Place and/or Purpose of Use from Surface Water to Ground Water	$ 50.00
___15.	Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Ground Water	$ 50.00
___16.	Application for Test, Expl. Observ. Well	$ 5.00
___17.	Change of Ownership of Water Right	$ 2.00
___18.	Application to Repair or Deepen Non 72-12-1 Well	$ 5.00
___19.	Application for Replacement Well Non 72-12-1 Well	$ 5.00

B. Surface Water Rights Filing Fees

___ 1.	Declaration of Water Right	$ 10.00
___ 2.	Amended Declaration	$ 25.00
___ 3.	Declaration of Livestock Water Impoundment	$ 10.00
___ 4.	Application for Livestock Water Impoundment	$ 10.00
___ 5.	Application to Appropriate	$ 25.00
___ 6.	Notice of Intent to Appropriate	$ 25.00
___ 7.	Application to Change Point of Diversion	$100.00
___ 8.	Application to Change Place and/or Purpose of Use	$100.00
___ 9.	Application to Change Point of Diversion and Place and/or Purpose of Use	$200.00
___10.	Application to Change Point of Diversion and Place and/or Purpose of Use from Ground Water to Surface Water	$200.00
___11.	Application for Extension of Time	$ 50.00
___12.	Supplemental Well to a Surface Right	$100.00
___13.	Return Flow Credit	$100.00
___14.	Proof of Completion of Works	$ 25.00
___15.	Proof of Application of Water to Beneficial Use	$ 25.00
___16.	Water Development Plan	$100.00
___17.	Change of Ownership of Water Right	$ 5.00

C. Miscellaneous Fees

___ 1.	Application for Well Driller's License	$50.00
___ 2.	Application for Renewal of Well Driller's License	$50.00
___ 3.	Application to Amend Well Driller's License	$50.00

D. Reproduction of Documents

_____ @ 0.20¢/copy $_____

_____ Map(s) $_____

E. Certification $_____

F. Other $_____

G. Comments:

_____

_____

_____

_____

_____

WATERCHECK / NATIONAL TESTING LABORATORIES INC.

Dear Customer:

Enclosed is your Watercheck report and suggestions as to what you can do to correct any problems which may have been found. On your report the Date Analyzed is the date when all tests were completed. Coliform bacteria and many of the other tests were started on the Date Received.

Your results are presented in four columns, as follows:

1) Analysis performed: shows the material analyzed.

2) Maximum Contaminant Level (MCL): acceptable levels as recommended by the U.S. Environmental protection Agency or by one of the agencies listed in the footnotes.

3) Detection Levels: the level at which our instruments and procedures are able to produce results within normally acceptable limits of accuracy. However, we are constantly striving to reduce our detection limits in order to provide our customers with the most meaningful analysis possible. Therefore, when we find a contaminant present in concentrations below our detection level we will report it for "information purposes" only. (see 4c below)

4) Level Detected: what we found in your water expressed in "parts per million". This is also sometimes written as "milligrams per liter" or "ppm" or "mg/l".

   a) "nd" indicates that analytical procedures did not find this material in your water.

   b) "*" indicates that the level detected exceeded the recommended safe level or MCL.

   c) When we are able to identify the presence of a contaminant below our detection level we report these findings. However, it must be understood that the level reported is too low to have been measured within our normal limits of accuracy.

We have analyzed your water for two types of contamination... 1) unhealthy chemicals and bacteria and 2) unpleasant but not unhealthy compounds.

6151 Wilson Mills Rd. • Cleveland, Ohio 44143 • (216) 449-2525 • Fax (216) 449-8585

The sample contained some elements which may be troublesome to your family's lifestyle. The water is hard and contains manganese at a level which may be staining laundry and causing objectionable mineral build-up on your tubs and showers. Hard water shortens the life of your water heaters and probably causes you to use more soaps, shampoos and cleaning products than you would use with soft water. A water softener with sufficient capacity will cure these problems and is readily available from a reputable water conditioning dealer in your area.

The level of total dissolved solids and sulfates may be lending an unpleasant taste or odor to your drinking water. If this is the case you can obtain clean, good tasting water for drinking, cooking and ice making through the use of a "third faucet" drinking water reverse osmosis filter or a distillation device.

Your water is turbid which may be contributing an unpleasant taste and odor to your drinking water. Filtration devices or filtration plus oxidation using ozone or chlorine as the oxidation agent should cure the problem.

Now only you can determine when the next checkup should be made, but remember that ground water is always moving...like a very slow river, and as it moves it dissolves or absorbs metals and chemicals from the soil through which it passes.

Stay alert to the possibility of change caused by leaking buried chemical and gasoline storage tanks, fertilizers and pesticides if you live in a farming community, brine intrusion from oil and gas drilling, and even a drop in pH (acidity) caused by acid rain.

If you live near a landfill it is probably a good idea to have an analysis run every year or two to insure that no toxic substances are being leached out of the fill by rainfall and have found their way into your well.

Best of all, do what you can to remain informed about the water you may be drinking, and if you have any doubts at all as to its quality have it analyzed again...hopefully by National Testing Laboratories. In addition we stand ready to answer whatever questions you may have...if we know the answers. We will do what we can to help.

Sincerely,

F. Jerome Tone

F. Jerome Tone
President

FJT/sh

6151 Wilson Mills Rd. • Cleveland, Ohio 44143 • (216) 449-2525 • Fax (216) 449-8585

DATE COLLECTED	DATE RECEIVED	DATE COMPLETED	SAMPLE CODE
09/16/91	09/20/91	09/30/91	9330677

CUSTOMER ADDRESS

JAMES A. SHINA
198 ROAD 2772
AZTEC, NM 87410-

DEALER ADDRESS

CULLIGAN OF FARMINGTON
209 W. BROADWAY
FARMINGTON, NM 87401-

WATERCHECK / NATIONAL TESTING LABORATORIES INC.
6151 Wilson Mills Road
Cleveland, OH 44143
(216) 449-2525

DRINKING WATER ANALYSIS RESULTS

NOTE: "*" indicates that the MCL (Maximum Contaminant Level) has been exceeded, or in the case of pH is either too high OR too low.
"ND" indicates that none of this contaminant has been detected at or above our detection level.
"**" Result may be invalid due to lack of "Time Collected" or because the sample has exceeded the 30-hour time frame.
"BD" Bacteria destroyed due to lack of collection information or because the sample has exceeded the 48-hour time frame.
TNTC-Too Numerous To Count NBS-No Bacteria Submitted

Analysis performed	MCL (mg/l)	Detection Level	Level Detected
Microbiological:			
Total coliform (organism/100ml)	0	0.0	BD
Inorganic chemicals - metals:			
Arsenic	0.05	0.002	ND
Barium	1.0	0.30	ND
Cadmium	0.01	0.002	ND
Chromium	0.05	0.004	ND
Copper	1.0	0.004	ND
Iron	0.3	0.020	0.081
Lead	0.05	0.002	ND
Manganese	0.05	0.004	0.59*
Mercury	0.002	0.0002	ND
Nickel	0.15	0.02	ND
Selenium	0.01	0.002	ND
Silver	0.05	0.002	ND
Sodium	---	1.0	233
Zinc	5.0	0.004	0.25
Inorganic chemicals - other, and physical factors:			
Alkalinity (Total as CaCO3)	---	10.0	165
Chloride	250	10.0	ND
Fluoride	4.0	0.50	0.6
Nitrate as N	10	0.5	ND
Nitrite as N	---	0.5	ND
Sulfate	250	10.0	1745*
Hardness (suggested limit = 100)		10.0	1400*
pH (Standard Units)	6.5-8.5	---	7.7
Total Dissolved Solids	500	20.0	3477*
Turbidity (Turbidity Units)	1.0	0.1	1.4*
Organic chemicals - trihalomethanes:			
Bromoform	---	0.004	ND
Bromodichloromethane	---	0.002	ND
Chloroform	---	0.002	ND
Dibromochloromethane	---	0.004	ND
Total THMs (sum of four above)	0.1	0.002	ND
Organic chemicals - volatiles:			
Benzene	0.005	0.001	ND
Vinyl Chloride	0.002	0.001	ND
Carbon Tetrachloride	0.005	0.001	ND
1,2-Dichloroethane	0.005	0.001	ND

 Sample code: 9330677

Analysis performed	MCL (mg/l)	Detection Level	Level Detected
Trichloroethylene	0.005	0.001	ND
1,4-Dichlorobenzene	0.075	0.001	ND
1,1-Dichloroethylene	0.007	0.001	ND
1,1,1,-Trichloroethane	0.20	0.001	ND
Bromobenzene	---	0.002	ND
Bromomethane	---	0.002	ND
Chlorobenzene	---	0.001	ND
Chloroethane	---	0.002	ND
Chloroethylvinyl ether	---	0.002	ND
Chloromethane	---	0.002	ND
2-Chlorotoluene	---	0.001	ND
4-Chlorotoluene	---	0.001	ND
Dibromochloropropane (DBCP)	---	0.001	ND
Dibromomethane	---	0.002	ND
1,2-Dichlorobenzene	---	0.001	ND
1,3-Dichlorobenzene	---	0.001	ND
Dichlorodifluoromethane	---	0.002	ND
1,1-Dichloroethane	---	0.002	ND
Trans-1,2-Dichloroethylene	---	0.002	ND
cis-1,2-Dichloroethylene	---	0.002	ND
Dichloromethane	---	0.002	ND
1,2-Dichloropropane	---	0.002	ND
trans-1,3-Dichloropropene	---	0.002	ND
cis-1,3-Dichloropropene	---	0.002	ND
2,2-Dichloropropane	---	0.002	ND
1,1-Dichloropropene	---	0.002	ND
1,3-Dichloropropane	---	0.002	ND
Ethylbenzene	---	0.001	ND
Ethylenedibromide (EDB)	---	0.001	ND
Styrene	---	0.001	ND
1,1,1,2-Tetrachloroethane	---	0.002	ND
1,1,2,2-Tetrachloroethane	---	0.002	ND
Tetrachloroethylene (PCE)	---	0.002	ND
Trichlorobenzene(s)	---	0.002	ND
1,1,2-Trichloroethane	---	0.002	ND
Trichlorofluoromethane	---	0.002	ND
1,2,3-Trichloropropane	---	0.002	ND
Toluene	---	0.001	ND
Xylene	---	0.001	ND
Organic chemicals - pesticides, herbicides & PCBs			
Alachlor	---	0.005	ND
Atrazine	---	0.050	ND
Chlordane	0.02	0.01	ND
Aldrin	---	0.005	ND
Dichloran	---	0.005	ND
Dieldren	---	0.002	ND
Endrin	0.0002	0.0002	ND
Heptachlor	0.01	0.002	ND
Heptachlor Epoxide	---	0.002	ND
Hexachlorobenzene	0.02	0.005	ND
Hexachloropentadiene	---	0.005	ND
Lindane	0.004	0.004	ND
Methoxychlor	0.1	0.05	ND
PCBs	0.008	0.004	ND
Pentachloronitrobenzene	---	0.005	ND
Silvex 2,4,5-TP	0.01	0.005	ND
Simazine	---	0.050	ND
Toxaphene	0.005	0.005	ND
Trifluralin	---	0.005	ND
2,4-D	0.1	0.010	ND

I certify that the analyses performed for this report are accurate, and that the laboratory tests were conducted by methods approved by the U.S. Environmental Protection Agency or variations of these EPA methods. These test results are intended to be used for informational purposes only and may not be used for regulatory compliance.

PRESIDENT, NATIONAL TESTING LABORATORIES, INC.

REV. 2-91

4A = 30-045-22523
8 = 30-045-20886

5056

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

Operator MERIDIAN OIL Location: Unit J Sec. 2 Twp 30 Rng 10

Name of Well/Wells or Pipeline Serviced ATLANTIC D COM C #4A

ATLANTIC D COM G #8 cps 1313w

Elevation 6516' Completion Date 11/2/88 Total Depth 460' 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. 220'

Depths gas encountered: N/A

Type & amount of coke breeze used: N/A

Depths anodes placed: 410', 395', 385', 356', 344', 3[illegible], 2[illegible], 280', 270'

Depths vent pipes placed: 438'

Vent pipe perforations: 240'

Remarks: gb #2

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)

Redrill

WELL CASING

CATHODIC PROTECTION CONSTRUCTION REPORT

DAILY LOG

Drilling Log (Attach Hereto) ☐

Completion Date 11/2/88

CP#	Well Name, Line or Plant:	Work Order #	Static:	Ins. Union Check
1313 W	ATLANTIC D COM C-4A	48992A		☐ Good ☐ Bad

Location:	Anode Size:	Anode Type:	Size Bit:
J-2-30-10	2"x60"	Durion	6 3/4"

Depth Drilled	Depth Logged	Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
460'	448'				

Anode Depth	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
	410	395	385	356	350	344	336	328	280	270
Anode Output (Amps)	2.6	2.3	2.8	3.2	3.9	3.8	3.6	3.1	3.9	3.2
Anode Depth	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Output (Amps)										

Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 12.4	Amps 14.8	Ohms .84		

Remarks: WATER AT 220', DID NOT GET WATER SAMPLE, HAD TO START MUD AT 180'. INSTALLED 438' of 1" vent pipe, (PVC) PERFORATED 240'.

1026867

555-E041-001-00-7

G.B 4170,00

Rectifier Size: — V — A

Addn'l Depth 0

Depth Credit: -52 -182,00

Extra Cable: 10' ~~2.50~~ -2.40

Ditch & 1 Cable: 70' ~~52.50~~ 49.00

~~Ditch & 2 Cable~~:

25' Meter Pole: 0

20' Meter Pole: 0

10' Stub Pole: 0

Junction Box: 1 249.00

~~4292.00~~ 4288.40

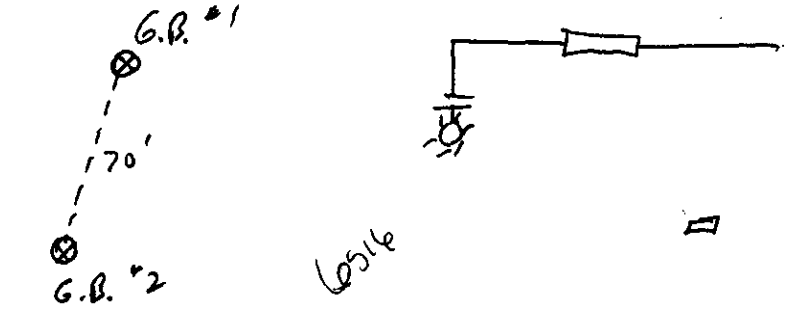
TAX 214.60 214.42

TOTAL 4506.60 4502.820KGS

All Construction Completed

J E Mabb

(Signature)



D. Crass DRILLING CO.

Drill No. 3

DRILLER'S WELL LOG

S. P. No. Atlantic Com C #4A Date 11-2-88

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	260	Sandstone
260	305	Shale
305	325	Sandstone
325	360	Shale
360	380	Sandstone
380	420	Shale
420	460	Sandstone

Mud Bran Lime

Rock Bit Number Make

Remarks: Water @ 220'

Driller Connie Brown

Form 7.1 (Rev. 9.77)

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet 1 of 1
Date:
By:
File:

Atlantic D Com C #4-A SE 2-30-10 1313W 57220-21
CONTRACT #2

STATIC 600 W = 0.85
2" x 2" x 48" GRAPHITE ANODES

DRILLER SAID MAKING WATER @ 200'. DRILLED TO 220'. NEXT A.M. BLEW WATER. MAKING MORE WATER @ 260'. 5 GALS PER MIN. PERFORATED 220' OF 1" PVC VENT PIPE. INSTALLED 420' OF 1" PVC VENT PIPE SLURRYED SACKS OF COKE.

200	.4		80	.6	
	.4			.6	
10	.4		90	1.2	②
	.7			1.2	
20	.4		400	.9	①
	.3			.6	
30	.4		10	1.1	
	.4			.8	
40	.3		20		TD & DRILLED
	.4				
50	.4				
	.5				
60	.7				
	.7				
70	1.1				
	1.1	⑩			
80	1.6				
	1.5	⑨			
90	1.5				
	1.3	⑧			
300	1.3				
	1.1	⑦			
10	.4				
	.2				
20	.2				
	.9				
30	1.6	⑥			
	1.5				
40	1.4	⑤			
	1.5				
50	1.4	④			
	1.3				
60	.9	③			
	.7				
70	.6				
	.4				

400 V 16 A Rectifier
Stub Pole
Hole Depth = -86
Ditch/Cable = 232'
Extra Cable = 178'

①	400	1.2	2.7
②	390	1.4	2.8
③	360	1.2	2.1
④	350	1.6	2.8
⑤	340	1.5	2.6
⑥	330	1.8	3.0
⑦	305	1.4	2.4
⑧	295	1.4	3.0
⑨	285	1.9	3.5
⑩	275	1.2	2.8

VOLTS 12.0
AMPS 12.5
OHMS 0.96

MW		gals/mol
16.04	C_1	6.4
30.07	C_2	10.12
44.10	C_3	10.42
58.12	iC_4	12.38
58.12	nC_4	11.93
72.15	iC_5	13.85
72.15	nC_5	13.71
86.18	iC_6	15.50
86.18	C_6	15.57
100.21	iC_7	17.2
100.21	C_7	17.46
114.23	C_8	19.39
28.05	$C_2^=$	9.64
42.08	$C_3^=$	9.67

MISC.

MW		gals/mol
32.00	O_2	3.37
28.01	CO	4.19
44.01	CO_2	6.38
64.06	SO_2	5.50
34.08	H_2S	5.17
28.01	N_2	4.16
2.02	H_2	3.38

EL PASO NATURAL GAS COMPANY
SAN JUAN DIVISION
FARMINGTON, NEW MEXICO
PRODUCTION DEPARTMENT WATER ANALYSIS

Analysis No. 1-9412 Date 12-12-78

Operator _____ Well Name ATLANTIC D COM C #4A 1313W

Location S# 2-30-10 County _____ State _____

Field _____ Formation _____

Sampled From 1313 W

Date Sampled _____ By _____

Tbg. Press. _____ Csg. Press. _____ Surface Csg. Press _____

	ppm	epm		ppm	epm
Sodium	129	6	Chloride	20	.6
Calcium	420	21	Bicarbonate	288	5
Magnesium	65	5	Sulfate	1250	26
Iron	PRESENT		Carbonate	0	0
H_2S	ABSENT		Hydroxide	0	0

cc: D.C.Adams
R.A.Ullrich
E.R.Paulek
J.W.McCarthy
A.M.Smith
W.B.Shropshire
File

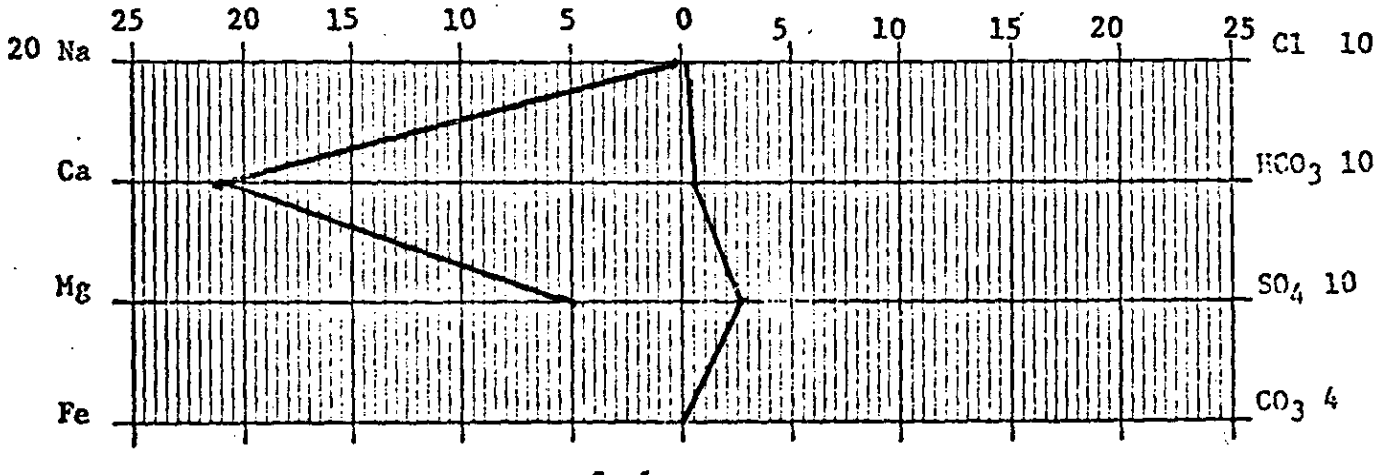
Total Solids Dissolved 2474

pH 7.3

Sp. Gr. 1.0033 at _____ 60°F

Resistivity 420 ohm-cm at 75 °F

Barnett Ellsbury
Chemist



Scale: epm

 30-045 09919

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

Operator MERIDIAN OIL Location: Unit NE Sec. 2 Twp 30 Rng 10

Name of Well/Wells or Pipeline Serviced ATLANTIC D COM C #4

cps 366w

Elevation 6489' Completion Date 11/5/76 Total Depth 337' 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. 110' - 130'

Depths gas encountered: N/A

Type & amount of coke breeze used: 5200 lbs.

Depths anodes placed: 320', 310', 290', 280', 245'

Depths vent pipes placed: N/A

Vent pipe perforations: 225'

Remarks: gb #2

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.

El Paso Natural Gas Company
Form 7-238 (Rev. 1-69)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Logged

Drilling Log (Attach Hereto). ☐ Completion Date 11-5-76

Well Name	Location	CPS No.
ATLANTIC "D" COM #4 #1	NE 2-30-10	366W
Type & Size Bit Used: 6 3/4		Work Order No. 52472 ~~52432~~

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
Log 337		52 SACKS		

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	320	310	290	280	245					
Anode Output (Amps)	3.0	3.0	2.5	2.7	3.5					

	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Depth										
Anode Output (Amps)										

Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 11.8	Amps 10.5	Ohms 1.12		

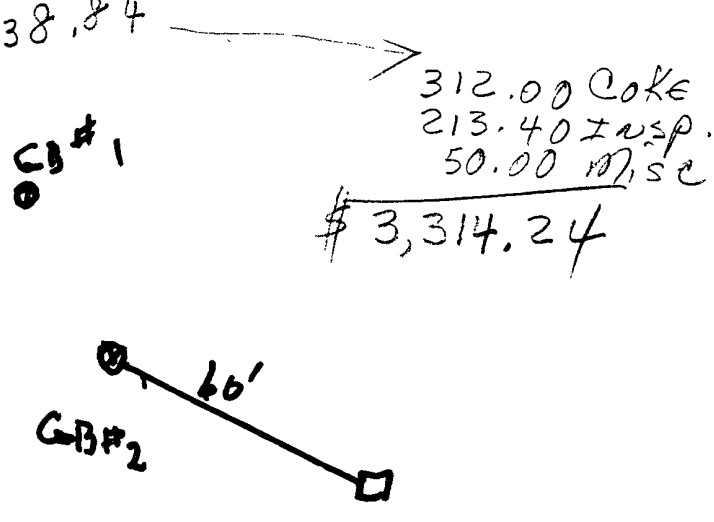
Remarks: DRILLER SAID WATER @ ~~105'~~ 110'-130'
VENT PERF 225'
52 SACKS SLURRY

$2,648.00
-39.00 Depth Credit
24.50 Surf. Cable
2,633.50
105.34
2,738.84

All Construction Completed

C. Williams
(Signature)

GROUND BED LAYOUT SKETCH



Original & 1 Copy All Reports

Form 7-1 (Rev 8-75)

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet: _____ of _____
Date:
By:
File: 11-5-76

ATLANTIC "D" COM #4 NE 2-30-10 366W
#1 5247
3253

MW		gals/mol
16 04	C_1	6.4
30 07	C_2	10 12
44.10	C_3	10 42
58.12	iC_4	12 38
58.12	nC_4	11 93
72 15	iC_5	13 85
72.15	nC_5	13 71
86.18	iC_6	15 50
86 18	C_6	15.57
100 21	iC_7	17.2
100.21	C_7	17 46
114 23	C_8	19.39
28.05	$C_2^=$	9 64
42.08	$C_3^=$	9 67

MISC MW		gals/mol
32 00	O_2	3 37
28 01	CO	4 19
44 01	CO_2	6 38
64.06	SO_2	5 50
34 08	H_2S	5 17
28 01	N_2	4 16
2 02	H_2	3 38

100		230	2.0			
10			2.0			
20			337 T.D.			
30						
40						
50						
60						
70						
80						
90						
200	.3					
10	.4 .4 .2					
20	.4					
30	.4 .5					
40	.5 .8 1.4 –					
50	1.3			1. 320	2.5	30
60	1.3 1.3 .8			2. 310	2.3	30
				3. 290	1.8	25
				4. 280	1.7	27
70	.6			5. 245	1.7	35
80	1.0 1.4 –					
90	1.4 1.4 – 1.0		DEWT PERF 225° 10-5 A 11.8 V 1.12			
300	.4 1.0 –					
10	1.1 – 2.0					
20	2.0 –					

Form 22-2 (Rev. 1-61)

EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

DAILY DRILLING REPORT

LEASE WELL NO. 366W CONTRACTOR RIG NO. REPORT NO. DATE 11-5-76 19

MORNING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.

SER. NO. NO. DC SIZE LENG.

SIZE STANDS

TYPE SINGLES

MAKE DOWN ON KELLY

TOTAL DEPTH

MUD RECORD			MUD, ADDITIVES USED AND RECEIVED
Time	Wt.	Vis.	

FROM	TO	TIME BREAKDOWN
0	7	Surface
7	105	Sand Dry
105	110	Shale
110	130	Sand wet
130	137	Shale
137	170	Sand wet

REMARKS –

170-178	Shale
178-182	Sand wet
182-184	Shale
184-205	Sand wet
205-215	Shale
215-245	Sand wet
245-270	Shale
270-290	Sand wet

DAYLIGHT

Driller Foosy Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.

SERIAL NO. NO. DC SIZE LENG.

SIZE STANDS

TYPE SINGLES

MAKE DOWN ON KELLY

TOTAL DEPTH

MUD RECORD			MUD, ADDITIVES USED AND RECEIVED
Time	Wt.	Vis.	

FROM	TO	TIME BREAKDOWN
290	320	Shale
320	340	Sandy ~~Shale~~ Shale

REMARKS –

EVENING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.

SERIAL NO. NO. DC SIZE LENG.

SIZE STANDS

TYPE SINGLES

MAKE DOWN ON KELLY

TOTAL DEPTH

MUD RECORD			MUD, ADDITIVES USED AND RECEIVED
Time	Wt.	Vis.	

FROM	TO	TIME BREAKDOWN

REMARKS – Water 130 ft

First water at 110'

SIGNED: Toolpusher _____ Company Supervisor _____

1 = 30-045-10075
13 = 30-045-21269
201 = 30-045-26965

3513

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 L Sec. 35 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced ATLANTIC C #1, #13, #201

cps 2082w

Elevation 6390' Completion Date 1/23/89 Total Depth 300' 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. 140' NO SAMPLE

Depths gas encountered: N/A

Type & amount of coke breeze used: N/A

Depths anodes placed: 285', 277', 269', 261', 250', 230', 165', 155'

Depths vent pipes placed: N/A

Vent pipe perforations: N/A

Remarks: gb #4

RECEIVED
MAY 31 1991
OIL CON. DIV.

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 1-27-89

Drilling Log (Attach Hereto) ☒ #1 #13

Completion Date 1-23-89

CPS #	Well Name, Line or Plant:	Work Order #	Static:	Ins. Union Check
2082W	Atlantic C 201	3188A	.78 NW	☑ Good ☐ Bad

Location:	Anode Size:	Anode Type:	Size Bit:
L 35-31-10	2" x 60"	Duriron	6 3/4"

Depth Drilled	Depth Logged	Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
300'	300'	Long time			

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	180	170	285'	277'	269'	261'	250'	230'	165'	155
Anode Output (Amps)	5.2	4.6	4.5	4.8	4.8	3.4	4.1	2.8	3.9	4.7

	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Depth										
Anode Output (Amps)										

Total Circuit Resistance				No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 12.2	Amps 19.2	Ohms .635			

Remarks: Driller said water was at 140', no water sample was taken. Drilled to 380' on first hole and only logged to 240'. loaded #1 & 2 anodes with 140' of perforated vent pipe. Moved over 25' and drilled second hole with mud to 300', logged to 300'

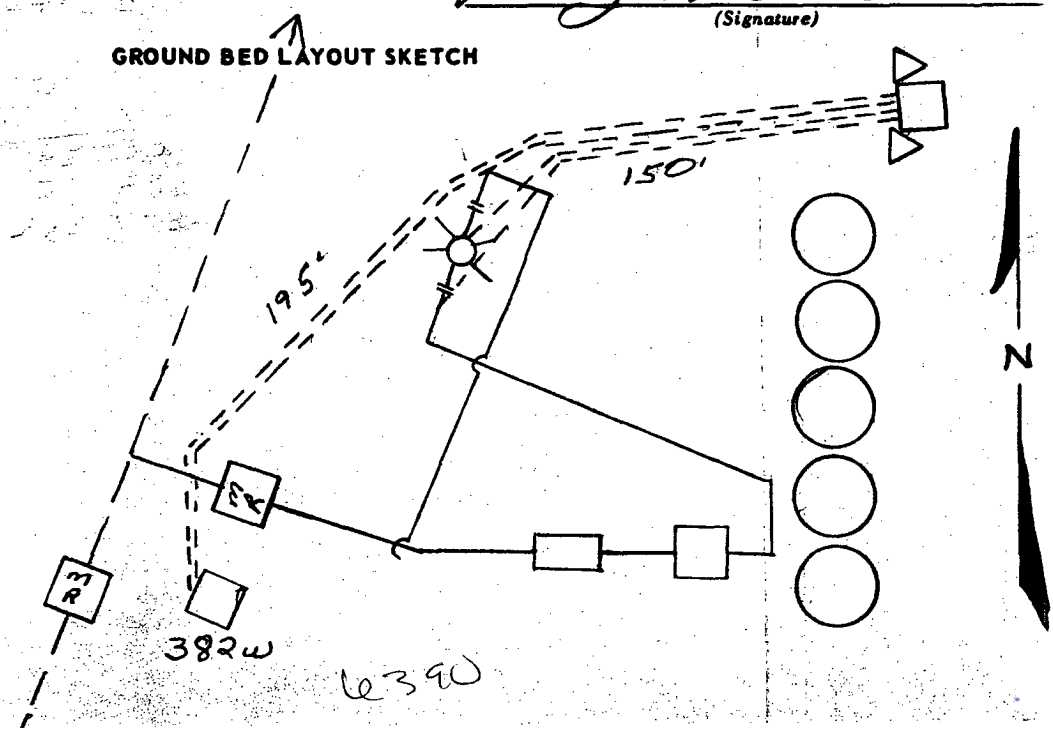
Rectifier Size: 40 V 16 A
Addn'l Depth
Depth Credit: 200 . 3.50
Extra Cable: 340' 24
Ditch & 1 Cable: 345' 70
25' Meter Pole:
20' Meter Pole:
10' Stub Pole: 158.50
Junction Box: 225.00

4074.00
669.00
-700.00 ✓
81.60 ✓
241.50 ✓
158.50 ✓
225.00 ✓
4749.60 ✓
237.48 ✓
4987.08

All Construction Completed

Randy Smith
(Signature)

GROUND BED LAYOUT SKETCH



_____ DRILLING CO.

Drill No. 10

DRILLER'S WELL LOG

S. P. No. Atlantic C 201 Date 1-24-89

Client _____ Prospect _____

County Eddy State _____

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

FROM	TO	FORMATION — COLOR — HARDNESS
0	40	Sand Gravel
40	60	Sandy Clay
60	190	Shale
190	200	Sandy
200	300	Shale

Mud _____ Bran _____ Lime _____

Rock Bit Number _____ Make _____

Remarks: Water 140' to 180'

Driller _____

_____ DRILLING CO.

Drill No. 10

DRILLER'S WELL LOG

S. P. No. Atlantic C (A) 201 Date 1-23-89

Client _____ Prospect _____

County Eddy State _____

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

FROM	TO	FORMATION — COLOR — HARDNESS
0	40	Sand & Gravel
40	40	Sandy Clay
40	60	Sandy
60	80	Shale
80	160	Sandy
160	210	Rebely
210	260	Sandy
260	280	Shale
200	300	Sand

Mud _____ Bran _____ Lime _____

Rock Bit Number _____ Make _____

Remarks: Water 160'

Driller _____

· 968

30-045- 22977

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

Operator MERIDIAN OIL Location: Unit SE Sec. 34 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced ATLANTIC B #9A

cps 1449w

Elevation 6278' Completion Date 7/9/79 Total Depth 370' 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. 140' SAMPLE TAKEN

Depths gas encountered: N/A

Type & amount of coke breeze used: 48 SACKS

Depths anodes placed: 340', 330', 320', 310', 295', 280', 240', 230', 220', 210'

Depths vent pipes placed: 370'

Vent pipe perforations: 260'

Remarks: gb #1

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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.

El Paso Natural Gas Company
Form 7-238 (Rev. 11-71)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Drilling Log (Attach Hereto). ☐ Contract #2 Completion Date 7-9-79

Well Name	Location	CPS No.
Atlantic B #9-A	SE 34-31-10	1449w

Type & Size Bit Used	Work Order No.
6 3/4 10-2"X60" DuRiRon	57327-21

Anode Hole Depth	Total Drilling Rig Time	~~Petrolite~~ Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
370'		48 SACKS	0	0

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	340	330	320	310	295	280	240	230	220	210
Anode Output (Amps)	3.0	3.3	4.2	3.4	1.7	2.0	1.9	2.6	2.6	3.3
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

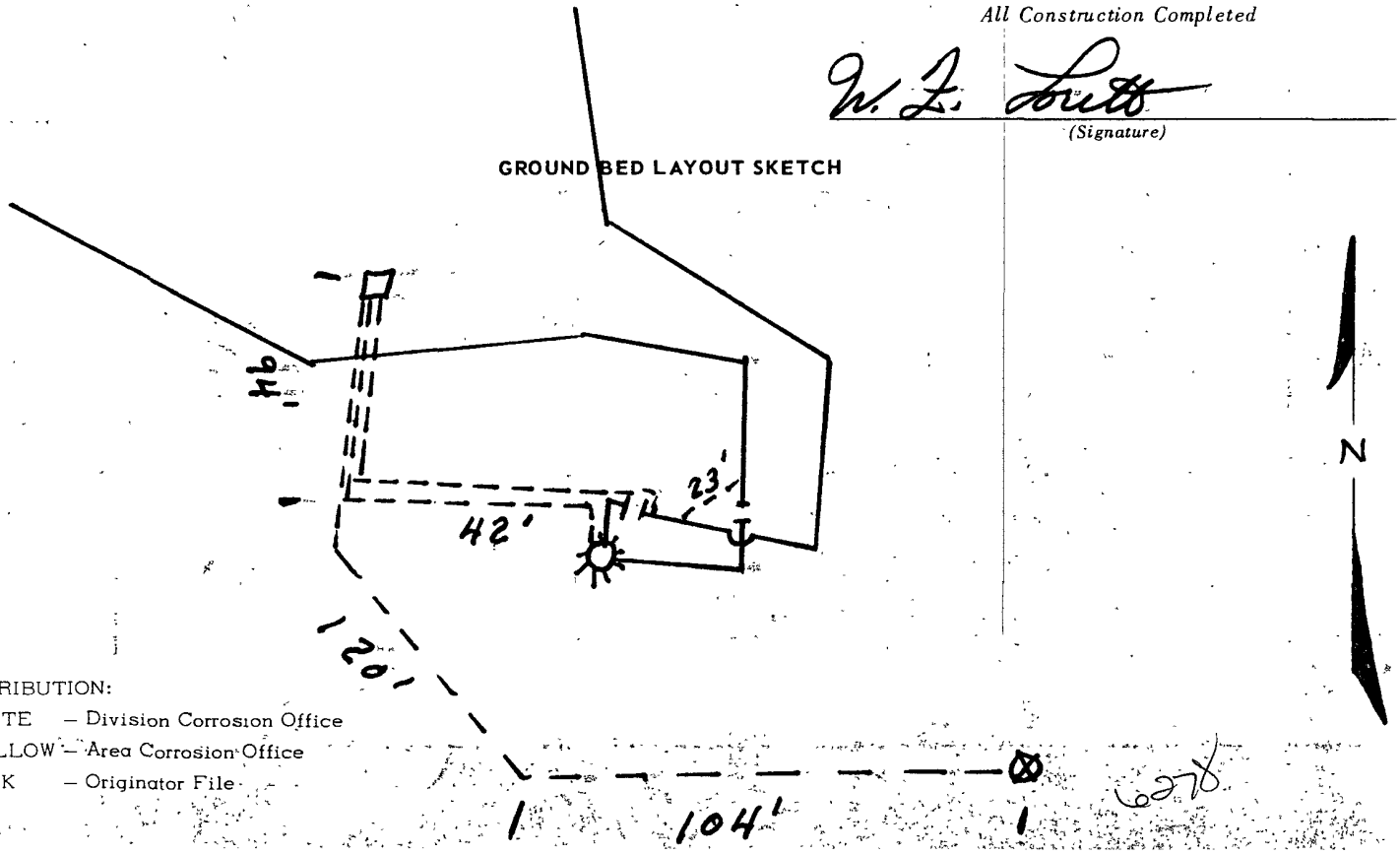
Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 12.0	Amps 13.3	Ohms 0.90		

Remarks: Static 600'NW=0.82. Driller said water @140'. 4 GALS PER MIN. Installed 370' of 1" PVC Vent Pipe. Perforated 260' of 1" PVC vent Pip slurryed 48 SACKS of coke.
40-16 Rectifier. EXTRA CABLE=250'
Stub Pole Ditch & 1 CABLE=383'
Hole Credit = -130'

All Construction Completed

W. L. Lutts
(Signature)

GROUND BED LAYOUT SKETCH



DISTRIBUTION:
WHITE – Division Corrosion Office
YELLOW – Area Corrosion Office
PINK – Originator File

EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

1HH9 W | Contract # 2 | DAILY DRILLING REPORT

LEASE | WELL NO. | CONTRACTOR O'Brient | RIG NO. 1 | REPORT NO. | DATE 7-9-79 19

MORNING

Driller | Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. | NO. DC ___ SIZE ___ LENG. ___

SERIAL NO. | NO. DC ___ SIZE ___ LENG. ___

SIZE | STANDS

TYPE | SINGLES

MAKE | DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
0	35	Sand
35	41	Shale
41	170	Sand water
170	178	Shale
178	210	Sand - Bentonite
210	235	Shale Sandy

REMARKS –

DAYLIGHT

Driller | Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. | NO. DC ___ SIZE ___ LENG. ___

SERIAL NO. | NO. DC ___ SIZE ___ LENG. ___

SIZE | STANDS

TYPE | SINGLES

MAKE | DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
235	275	Sand
275	370	Shale w/small sand streaks

REMARKS –

EVENING

Driller | Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. | NO. DC ___ SIZE ___ LENG. ___

SERIAL NO. | NO. DC ___ SIZE ___ LENG. ___

SIZE | STANDS

TYPE | SINGLES

MAKE | DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

6¾ – 370 ft
Logged 370
Water overnite @ 140
estimate 4 gpm water
Jerry Langley

SIGNED: Toolpusher O'Brient Company Supervisor

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet: ___ of ___
Date: ___
By: ___
File: ___

Atlantic B #9-A 1449W SE 34-31-10 57327-21
Contract #2

STATIC 600' NW = 0.82
40V 16A Rectifier
Stub Pole
10 - 2" X 60" Durion
Hole Credit = -130

DRILLER SAID water @ 140' 4 GALS PER MIN

Installed 370' of 1" PVC vent Pipe
Perforated 266 of 1" PVC vent Pipe
Slurried SACKS of coke

Extra Cable = 250'
Ditch'd Cable = 383'

7-9-79 11 HRS

MW		gals/mol
16.04	C_1	6 4
30.07	C_2	10 12
44 10	C_3	10 42
58.12	iC_4	12.38
58.12	nC_4	11 93
72.15	iC_5	13 85
72.15	nC_5	13 71
86.18	iC_6	15 50
86 18	C_6	15 57
100.21	iC_7	17.2
100.21	C_7	17 46
114.23	C_8	19 39
28.05	$C_2^=$	9 64
42.08	$C_3^=$	9.67

MISC. MW		gals/mol
32.00	O_2	3.37
28.01	CO	4.19
44 01	CO_2	6.38
64 06	SO_2	5 50
34.08	H_2S	5 17
28 01	N_2	4.16
2.02	H_2	3.38

140	.7	90	1.1				
	.7	(5)	1.2				
50	1.4	300	1.2				
	1.2		.9				
60	.7	(4) 10	1.1				
	.6		2.3				
70	.6	(3) 20	2.5				
	.9		2.4				
80	.8	(2) 30	2.1				
	.6		1.8				
90	1.3	(1) 40	1.7				
	2.2		1.7				
200	2.4	50	1.4				
	2.3		1.3				
(10)	10. 2.1	60	.7				
	1.7		.7				
(9)	20 1.7	70	.7	Logged & Drilled			
	1.7						
(8)	30 1.5						
	1.4						
(7)	40 1.3						
	1.1						
50	.9						
	.7						
60	.7						
	.7						
70	.7						
	.8						
(6) (2)	80 1.4			Volts	12.0		
	1.4			Amps	13.3		
				Ohms	0.90		

(1)	340	2.1	3.0
(2)	330	2.3	3.3
(3)	320	3.5	4.2
(4)	310	2.8	3.4
(5)	295	1.4	1.7
(6)	280	1.7	2.0
(7)	240	1.5	1.9
(8)	230	1.8	2.6
(9)	220	2.1	2.6
(10)	210	2.6	3.3

EL PASO NATURAL GAS COMPANY
SAN JUAN DIVISION
FARMINGTON, NEW MEXICO
PRODUCTION DEPARTMENT WATER ANALYSIS

Analysis No. 1-9622 Date 7-11-79

Operator EPNG Well Name ATLANTIC B #9A

Location SE 34-31-10 County SAN JUAN State NM

Field _____ Formation _____

Sampled From CPS 1449 W 140'

Date Sampled _____ By _____

Tbg. Press. _____ Csg. Press. _____ Surface Csg. Press _____

	ppm	epm		ppm	epm
Sodium	161	7	Chloride	28	1
Calcium	616	31	Bicarbonate	161	3
Magnesium	47	4	Sulfate	1850	38
Iron	PRESENT		Carbonate	0	0
H_2S	ABSENT		Hydroxide	0	0

cc: D.C.Adams
R.A.Ullrich
E.R.Paulek
J.W.McCarthy
A.M.Smith
W.B.Shropshire
File
C. B. O'Nan

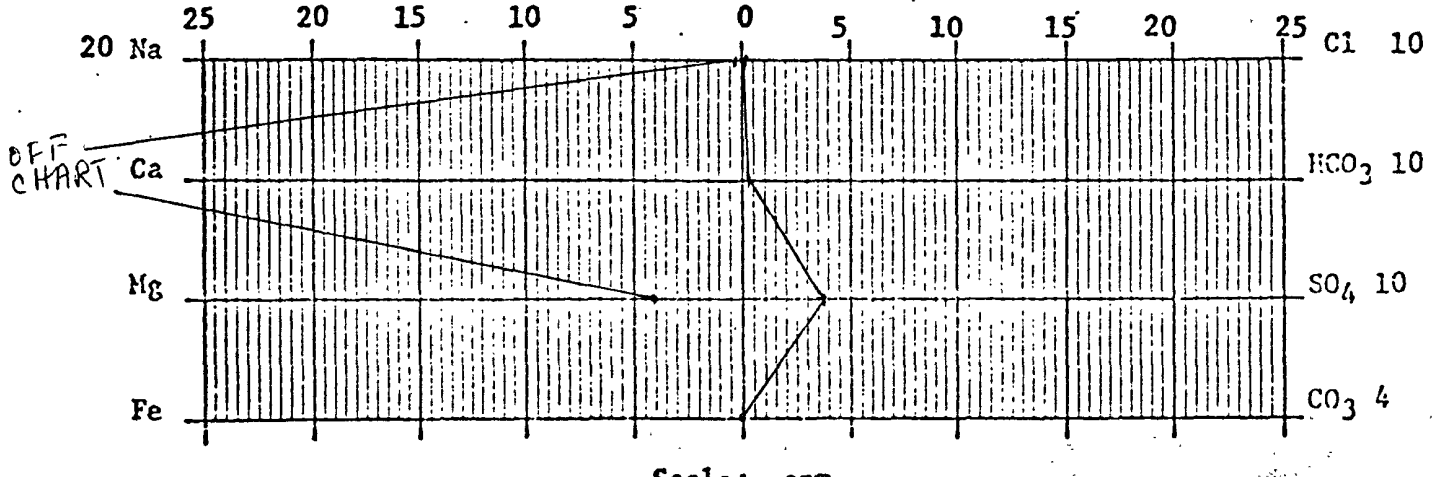
Total Solids Dissolved 3308

pH 8.4

Sp. Gr. 1.0039 at _____ 60°F

Resistivity 300 ohm-cm at 74 °F

Cheryl Tessmer
Chemist



9= 30-045-10072

26= 30-045-23044

220- 30-045-27148

4299

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

Operator MERIDIAN OIL Location: Unit SW Sec. 34 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced ATLANTIC B #9, #26,

ATLANTIC B COM #220 cps 372w

Elevation 6192' Completion Date 10/17/74 Total Depth 260' 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. N/A 40' FIRST HOLE

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DIST. 3

Depths gas encountered: N/A

Type & amount of coke breeze used: 4800 lbs.

Depths anodes placed: 245', 235', 220', 210', 200', 190', 180', 130', 120', 110'

Depths vent pipes placed: N/A

Vent pipe perforations: 210'

Remarks: gb #2: FIRST HOLE (240') HIT GAS POCKET. RIG BURNED DOWN.

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.

El Paso Natural Gas Company
Form 7-238 (Rev. 1-69)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

LOGGED

Drilling Log (Attach Hereto). ☐

Completion Date 10/17/64

Well Name	Location	CPS No.
ATLANTIC B #9	SW 34-31N-10W	372 W

Type & Size Bit Used	Work Order No.
6 3/4"	52395

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
260'		4,800		

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	245	235	220	210	200	190	180	130	120	110
Anode Output (Amps)	2.0	1.9	1.8	2.4	3.0	4.2	2.7	2.1	5.0	3.0

	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Depth										
Anode Output (Amps)										

Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 12.0	Amps 12.8	Ohms 0.93	210'	

Remarks: Hole #1 Drilled with Air To 240' Hit Gas Pocket Rig Burned Down Driller said water @ 40' To 60' on Hole #1 Drilled Hole No 2 With Mud. Vent Hose Perforated 210'

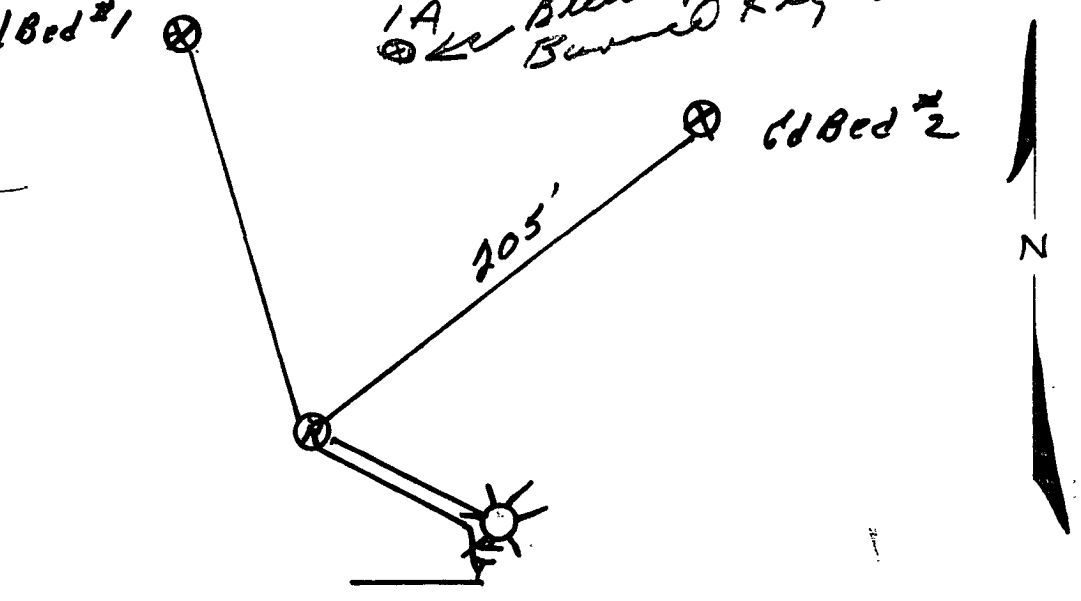
- One Bulk 1A
Blew gas - Burned Rig up

All Construction Completed

Edward R. Pauldk
(Signature)

$3,409.00
84.00 Cable
$3,493.00
-480.00 Depth Credit
$3,013.00
120.52 TAX
$3,133.52

GROUND BED LAYOUT SKETCH



EL PASO NATURAL GAS COMPANY
ENGINEERING DEPARTMENT

Date:
By:

4/372W   X = 4.0

1260/0 0
22/0

50	2.2		30	.9
	2.2	(2)		1.3
60	2.7		40	1.1
	2.2	(1)		1.4
70	2.3		50	2.3
	2.6			2.0
80	2.2		60	Bottom
	1.5			
90	1.0		70	
	1.6			
100	1.3			
	1.0			
(10) 10	1.8			
	1.9			
(9) 20	2.6			
	1.0			
(8) 30	1.4			
	.8			
40	.5			
	.8			
50	1.0			
	.9			
60	.9			
	.9			
70	.8			
	.6			
(7) 80	1.4			
	2.2			
(6) 90	2.3			
	2.0			
(5) 200	1.8			
	1.4			
(4) 10	1.5			
	1.0			
(3) 20	1.1			
	1.2			

Driller said water on Hole #1 40' To 60' Hit gas Barut w/o rig
Drill Hole #2 with Mud
Vent Hose Perforated 210'

		Water	Cokr
(1)	245	1.4	2.0
2	235	1.3	1.9
3	220	1.2	1.8
4	210	1.7	2.4
5	200	2.0	3.0
6	190	2.7	4.2
7	180	1.7	2.7
8	130	1.7	2.1
9	120	3.1	5.0
10	110	2.0	3.0

12.0V   12.8A   0.93

MW		gals/mol
16	C_1	6 4
30	C_2	9 56
44	C_3	10 42
58	IC_4	12 38
"	NC_4	11 93
72	IC_5	13 85
"	NC_5	13 71
86	IC_6	15 50
"	C_6	15 57
100	IC_7	17 2
"	C_7	17 46
114	C_8	19 38
28	$C_2^=$	19 64
42	$C_3^=$	19 67

MISC.

MW		gals/mol
44	CO_2	6 38
34	H_2S	5 17
28	N_2	4 16
2	H_2	3 38

STORM WATER WELL DRILLING INC.

DIAMOND CORE DRILLING
DIAMOND DRILLING EQUIPMENT
GROUTING
FOUNDATION TESTING
MINING
QUARRYING
SHAFT SINKING
WATER WELL DRILLING

CONTRACTORS
14991 W. 44TH AVENUE
GOLDEN, COLORADO 80401
PHONE (303) 278-9505

GENERAL OFFICE
14991 W. 44TH AVENUE
BAILEY OFFICE
CALL 1-838-4821

HOLE # 372W

Drill 655 C.P. Date 10-17-74

Owner CPA

Location
City Aztec State NW County

From	To	Formation	Color	Hardness
0	40	Sand.	Brn + White TAN	Soft
40	60	Shale.	Blue	Med,
60	80	Shale + Sand Stringers	Blue	Med
80	100	SAND + Clay,	Blue.	Med
100	120	SAND	White	Hard,
120	180	SAND + CLAY	Blue	Hard.
180	200	SHALE & SAND	Blue	Med
200	220	Sand.	White	Med. Hard
220	260	Shale.	Blue.	Med.

40 TO 60'
WATER

Total Hours 13 1/2
Equipment Down Time 4
Hours Drilling 9 1/2
Driller FRANCIS
Helper RAY
Helper ART

C.P.S. Time
S.W.W.D.I. Time
Total Footage

Approval of
C.P.S. Engineer

961 30-045-22975

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

Operator TENNECO Location: Unit NW Sec. 3 Twp 30 Rng 10

Name of Well/Wells or Pipeline Serviced ATLANTIC B #8A

cps 1448w

Elevation 6296' Completion Date 7/6/79 Total Depth 360' 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. 120' SAMPLE TAKEN

Depths gas encountered: N/A

Type & amount of coke breeze used: 44 SACKS

Depths anodes placed: 320', 310', 300', 290', 280', 270', 260', 250', 240', 230'

Depths vent pipes placed: 350'

Vent pipe perforations: 260'

Remarks: gb #1 NOT A MERIDIAN WELL.

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.

El Paso Natural Gas Company
Form 7-238 (Rev. 11-71)

WELL CASING

CATHODIC PROTECTION CONSTRUCTION REPORT

DAILY LOG

#32

Drilling Log (Attach Hereto): ☐ CONTRACT II 2 2X60 ANODES Completion Date 7-6-79

Well Name	Location	CPS No.
ATLANTIC B II 8A	NW 3-30-10	1448W

Type & Size Bit Used	Work Order No.
6 3/4	57305-21

Anode Hole Depth	Total Drilling Rig Time	Total Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
360' logged 350		44 Sacks		

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	320	310	300	290	280	270	260	250	240	230
Anode Output (Amps)	2.9	3.5	4.0	4.3	3.5	2.3	2.9	4.8	4.3	4.0

	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Depth										
Anode Output (Amps)										

Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 11.6	Amps 15.5	Ohms .78		

Remarks: DRILLER SAID HIT WATER AT 120'

INSTALLED 350' OF 1" VENT PIPE, PERFORATED 260' OF VENT PIPE

SLURRYED 44 SACK OF COKE

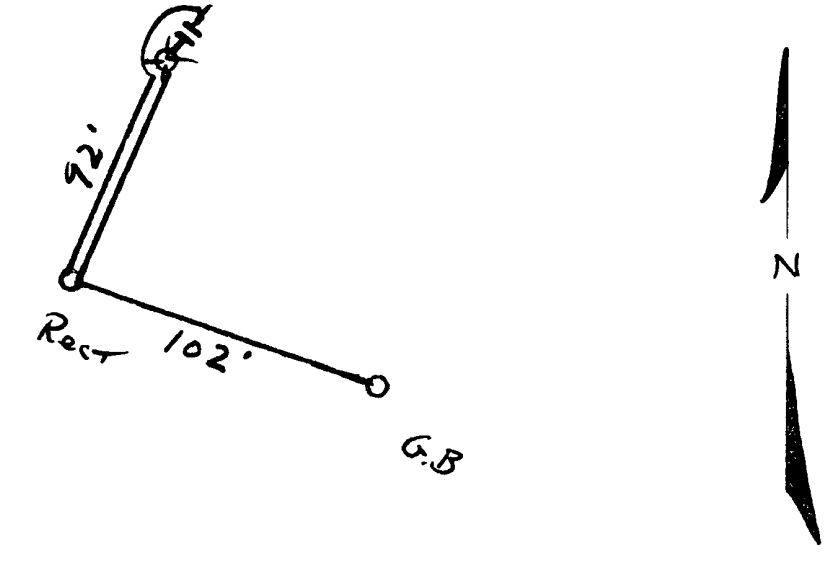
STATIC 600' E .85

1 40V16A RECT
1 STUB POLE
DITCH + 1 CABLE 194'
EXTRA CABLE 112'
HOLE - 150

All Construction Completed

Willis Dwight Jr.
(Signature)

GROUND BED LAYOUT SKETCH



DISTRIBUTION:
WHITE — Division Corrosion Office
YELLOW — Area Corrosion Office
PINK — Originator File

6292

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet: of
Date: 7-6-79
By: WK
File:

ATLANTIC B # 8A
NW 3-30-10
W/O 57305-21
CPS 1448W

CONTRACT # 2 2X60 ANODES
STATIC - 600 E = .85

1 40V 16A Rect
1 STUB Pole
DITCH + 1 cable
EXTRA Cable
Hole - 150'

DRILLER Said HIT WATER AT 120'
INSTALLED 350' of 1" VENT PIPE
PERFORATED 260' of VENT PIPE
SLURRIED 44 SACKS of COKE

MW		gals/mol
16.04	C_1	6.4
30.07	C_2	10.12
44.10	C_3	10.42
58.12	iC_4	12.38
58.12	nC_4	11.93
72.15	iC_5	13.85
72.15	nC_5	13.71
86.18	iC_6	15.50
86.18	C_6	15.57
100.21	iC_7	17.2
100.21	C_7	17.46
114.23	C_8	19.39
28.05	$C_2^=$	9.64
42.08	$C_3^=$	9.67

MISC. MW		gals/mol
32.00	O_2	3.37
28.01	CO	4.19
44.01	CO_2	6.38
64.06	SO_2	5.50
34.08	H_2S	5.17
28.01	N_2	4.16
2.02	H_2	3.38

120		20	1.3 (6)	7-6-79 10 HRS
			1.5	
30	1.8	80	1.8 (5)	
	1.7		2.1	
40	1.9	90	2.1 (4)	
	1.9		2.4	
50	1.7	300	2.3 (3)	
	1.3		2.2	
60	1.1	10	2.1 (2)	
	.8		1.7	
70	.8	20	1.5 (1)	
	1.2		2.1	
80	2.0	30	2.3	
	2.0		2.3	
90	1.6	40	2.3	
	1.2		2.0	
200	1.3	50	2.0 TD	
	1.3			
10	1.7	30		
	1.7			
20	1.4			
	1.7			
30	2.1 (9)			
	2.1			
40	2.3 (8)			
	2.1			
50	2.4 (8)			
	2.1			
60	1.8 (7)			
	1.4			

(1)	320	1.9	2.9
(2)	310	2.7	3.5
(3)	300	3.4	4.0
(4)	290	3.2	4.3
(5)	280	2.5	3.5
(6)	270	1.7	2.3
(7)	260	2.2	2.9
(8)	250	3.8	4.8
(9)	240	3.3	4.3
(10)	230	3.2	4.0

V 11.6 A 155 42 .78

EL PASO NATURAL GAS COMPANY
SAN JUAN DIVISION
FARMINGTON, NEW MEXICO
PRODUCTION DEPARTMENT WATER ANALYSIS

Analysis No. 1-9621 Date 7-11-79

Operator EPNG Well Name ATLANTIC B #8A

Location NW 3-30-10 County SAN JUAN State NM

Field _____ Formation _____

Sampled From CPS[redacted]

Date Sampled _____ By _____

Tbg. Press. _____ Csg. Press. _____ Surface Csg. Press _____

	ppm	epm		ppm	epm
Sodium	46	2	Chloride	20	1
Calcium	608	30	Bicarbonate	78	1
Magnesium	29	2	Sulfate	1550	32
Iron	PRESENT		Carbonate	0	0
H_2S	ABSENT		Hydroxide	0	0

Total Solids Dissolved 2726

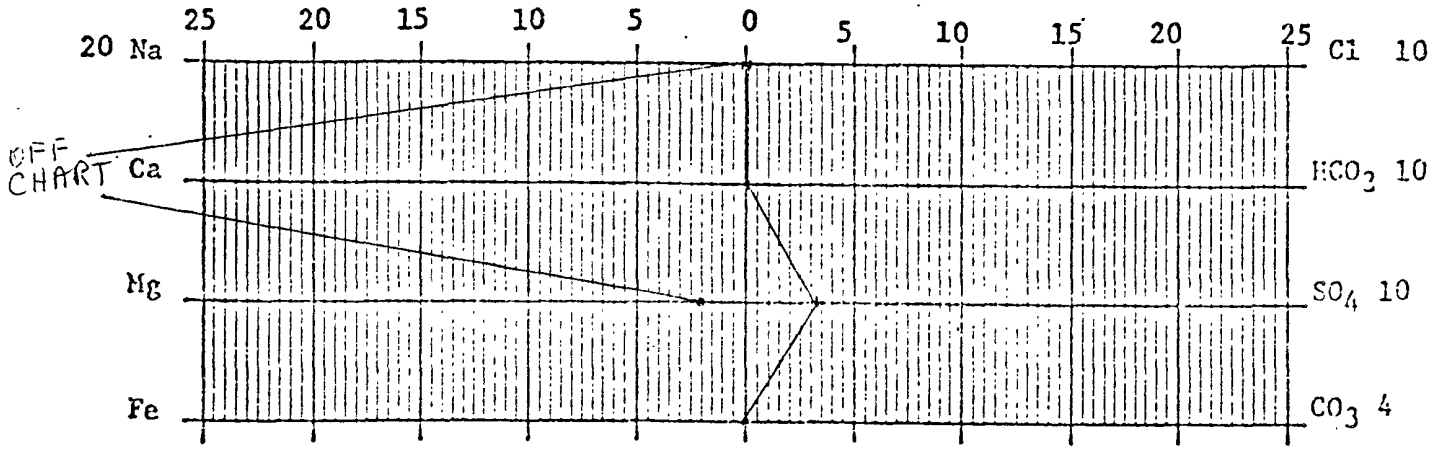
pH 8.5

Sp. Gr. 1.0034 at 60°F

Resistivity 340 ohm-cm at 74 °F

cc: D.C.Adams
R.A.Ullrich
E.R.Paulek
J.W.McCarthy
A.M.Smith
W.B.Shropshire
File
C. B. O'Nan

Chemist



Scale: epm

Form 22-2 (Rev. 1-61)

EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

DAILY DRILLING REPORT

LEASE WELL NO. 1448 W CONTRACTOR Posey RIG NO. REPORT NO. DATE 7-6- 19 74

MORNING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

NO. DC ____ SIZE ____ LENG. ____

BIT NO. ____ NO. DC ____ SIZE ____ LENG. ____

SER NO. ____ STANDS

SIZE ____ SINGLES

TYPE ____ DOWN ON KELLY

MAKE ____ TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
0	10	SAND SURFACE
10	30	SAND
30	50	SAND STONE
50	90	SHALE
90	95	SAND STONE
95	135	SAND WET

REMARKS –

DAYLIGHT

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

NO. DC ____ SIZE ____ LENG. ____

BIT NO. ____ NO. DC ____ SIZE ____ LENG. ____

SERIAL NO. 3111 STANDS

SIZE 6 3/4 11 SINGLES

TYPE ____ DOWN ON KELLY

MAKE ____ TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
135	160	SHALE
160	175	SANDY SHALE
175	200	SHALE
200	205	SANDY SHALE
205	215	SHALE
215	230	SANDY SHALE

REMARKS –

EVENING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

T.D. 360' 350'

NO. DC ____ SIZE ____ LENG. ____

BIT NO. Tooth NO. DC ____ SIZE ____ LENG. ____

SERIAL NO. ____ STANDS

SIZE ____ SINGLES

TYPE ____ DOWN ON KELLY

MAKE ____ TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
230	270	SHALE
270	275	SHALE / SAND
275	310	SHALE
310	330	SANDY SHALE
330	360	SHALE

REMARKS –

Water Sample @ 120'

SIGNED: Toolpusher Posey Company Supervisor

966

30-045- 22996

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

Operator TENNECO Location: Unit NW Sec. 34 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced ATLANTIC B #7A

cps 1447w

Elevation 6243' Completion Date 7/6/79 Total Depth 400' 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. 81' - 155' SAMPLE TAKEN

Depths gas encountered: N/A

Type & amount of coke breeze used: 51 SACKS

Depths anodes placed: 385', 375', 365', 355', 345', 335', 325', 315', 305', 275'

Depths vent pipes placed: 400'

Vent pipe perforations: 280'

Remarks: gb #1 NOT A MERIDIAN WELL.

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.

El Paso Natural Gas Company
Form 7-238 (Rev. 11-71)

WELL CASING

CATHODIC PROTECTION CONSTRUCTION REPORT

DAILY LOG

Drilling Log (Attach Hereto) ☐ CONTRACT # 2 Completion Date 7-6-79

Well Name	Location	CPS No.
ATLANTIC B # 7-A	NW 34-31-10	1447W

Type & Size Bit Used	Work Order No.
6 3/4" 10-2"x60" DURIRON	57326-21

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
Logged 400' — 400'		51 SACKS	0	0

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	385	375	365	355	345	335	325	315	305	275
Anode Output (Amps)	4.8	5.6	5.0	5.1	5.0	4.5	4.7	4.6	3.6	3.2
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. 12 C.P. Cable Used
Volts 11.9	Amps 18.9	Ohms 0.63		

Remarks: STATIC 600'W = 0.83. DRILLER SAID WATER @ 81' TO 155'. DRILLED TO 140' NEXT A.M. WATER STANDING @ 105'. 3 GALS PER MIN. INSTALLED 400' OF 1" PVC VENT PIPE. PERFORATED 280' OF 1" PVC VENT PIPE. SLURRYED 51 SACKS OF COK

40 V 16 A RECTIFIER — HOLE CREDIT = -100'

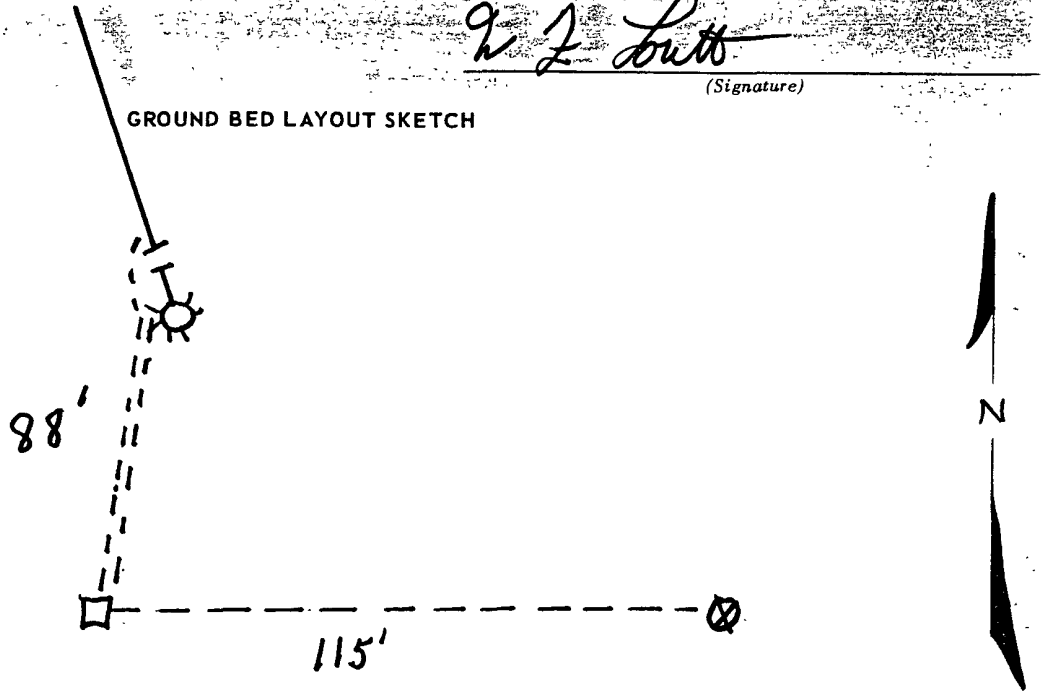
20' METER POLE — EXTRA CABLE = 108'

10' STUB POLE — DITCH & 1 CABLE = 203'

All Construction Completed

R. L. Lutt
(Signature)

GROUND BED LAYOUT SKETCH



DISTRIBUTION:
WHITE — Division Corrosion Office
YELLOW — Area Corrosion Office
PINK — Originator File

6243

El Paso Natural Gas Company

ENGINEERING CALCULATION

Sheet ___ of ___

Date: 7-6-79

By: NPL

File: 1.30

Atlantic B #7-A 1447W NW 34-31-10 57326-21

STATIC 600'w = 0.83 CONTRACT #2

10-2"X60" DURIRON
20' meter Pole
10' stub Pole
40 U16A Rectifier
Hole credit = -100
Extra Cable = 108'
Ditch for Cable = 203'

DRILLER SAID WATER @ 81' to 155'
DRILLED to 140' next AM WATER @
STANDING @ 105' 3 GALS PER MIN
INSTALLED 700' of 1" PVC VENT PIPE
PERFORATED 240' of 1" PVC VENT PIPE
SLURRYED 57 SACKS OF COKE

7-6-79 10 HRS

MW		gals/mol
16.04	C_1	6.4
30.07	C_2	10.12
44.10	C_3	10.42
58.12	iC_4	12.38
58.12	nC_4	11.93
72.15	iC_5	13.85
72.15	nC_5	13.71
86.18	iC_6	15.50
86.18	C_6	15.57
100.21	iC_7	17.2
100.21	C_7	17.46
114.23	C_8	19.39
28.05	$C_2^=$	9.64
42.08	$C_3^=$	9.67

MISC. MW		gals/mol
32.00	O_2	3.37
28.01	CO	4.19
44.01	CO_2	6.38
64.06	SO_2	5.50
34.08	H_2S	5.17
28.01	N_2	4.16
2.02	H_2	3.38

1.60	.4	60	.5				
	.4		.3				
10	.5	70	1.1				
	.6	(10)	1.7				
20	.6	80	1.4				
	.6		1.3				
30	1.0	90	1.4				
	1.0		1.4				
40	.9	300	.92				
	.8	(9)	1.3				
50	.4	10	2.0				
	.9	(8)	1.8				
60	1.2	20	2.3				
	1.2	(7)	2.4				
70	1.2	30	2.4				
	.9?	(6)	2.4	(1)	385	2.9	4.8
80	1.0	40	2.3	(2)	375	3.3	5.6
	.6	(5)	2.3	(3)	365	2.8	5.0
90	.7	50	2.4	(4)	355	3.1	5.1
	.7	(4)	2.4	(5)	345	3.2	5.0
200	.7	60	2.2	(6)	335	3.1	4.5
	.6	(3)	2.1	(7)	325	3.4	4.7
	.5	70	2.2	(8)	315	3.1	4.6
	.7	(2)	2.4	(9)	305	2.4	3.6
	.5	(2)	2.1	(10)	275	2.1	3.2
	.6	(1)	2.1				
10	.7	90	2.1				
	.8		2.1				
20	.4	400		TDS DRILLED			
	.6						
	.9						

VOLTS 11.9
AMPS 18.9
OHMS 0.63

EL PASO NATURAL GAS COMPANY
SAN JUAN DIVISION
FARMINGTON, NEW MEXICO
PRODUCTION DEPARTMENT WATER ANALYSIS

Analysis No. 1=9620 Date 7-11-79

Operator EPNG Well Name ATLANTIC B #7A

Location NW 34-31-10 County SAN JUAN State NM

Field Formation

Sampled From CPS ~~1447-W~~

Date Sampled By

Tbg. Press. Csg. Press. Surface Csg. Press

	ppm	epm		ppm	epm
Sodium	184	8	Chloride	16	1
Calcium	564	28	Bicarbonate	117	2
Magnesium	22	2	Sulfate	1700	35
Iron	PRESENT		Carbonate	0	0
H_2S	ABSENT		Hydroxide	0	0

cc: D.C.Adams
R.A.Ullrich
E.R.Paulek
J.W.McCarthy
A.M.Smith
W.B.Shropshire
File
C. B. O'Nan

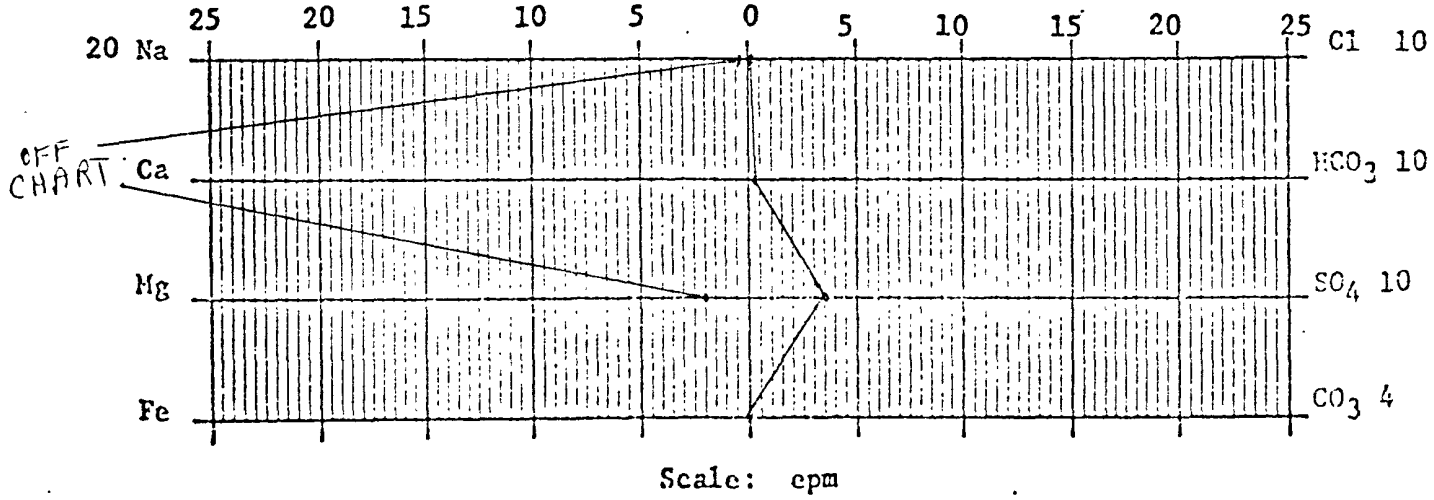
Total Solids Dissolved 2952

pH 8.3

Sp. Gr. 1.0034 at 60°F

Resistivity 320 ohm-cm at 74 °F

Cheryl Trivelpiece
Chemist



Form 22-2 (Rev. 1-61)

EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

DAILY DRILLING REPORT

14470 LEASE | WELL NO. | Contract #2 CONTRACTOR | O'Brian RIG NO. 1 | REPORT NO. | DATE July 6 19 79

MORNING

Driller | Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. | NO. DC ____ SIZE ____ LENG. ____

SER. NO. | NO. DC ____ SIZE ____ LENG. ____

SIZE | STANDS

TYPE | SINGLES

MAKE | DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
0	35	Sand
35	81	Shale
81	155	Sandstone - "water"
155	185	Shale
185	200	Sandstone
200	205	Shale

REMARKS –

DAYLIGHT

Driller | Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. | NO. DC ____ SIZE ____ LENG. ____

SERIAL NO. | NO. DC ____ SIZE ____ LENG. ____

SIZE | STANDS

TYPE | SINGLES

MAKE | DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
205	235	Sandstone
235	240	Sandy Shale
240	310	Sand
310	400	Sandy Shale.

REMARKS –

EVENING

Driller | Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. | NO. DC ____ SIZE ____ LENG. ____

SERIAL NO. | NO. DC ____ SIZE ____ LENG. ____

SIZE | STANDS

TYPE | SINGLES

MAKE | DOWN ON KELLY

TOTAL DEPTH

MUD RECORD

Time	Wt.	Vis.

MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

400 ft. w/ 6¾
Logged to 400
estimate water - 3 gpm -
water @ 105 over-nite.

SIGNED: Toolpusher O'Brian Company Supervisor

#1 = 30-045-10190

#18 = 30-045-22780

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

Operator TENNECO Location: Unit NE Sec 34 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced ATLANTIC B #7, #18

cps 336w

Elevation 6298' Completion Date 5/16/72 Total Depth 300' 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. 120'

RECEIVED
MAY 31 1991
OIL CON. DIV.
DIST. 3

Depths gas encountered: N/A

Type & amount of coke breeze used: 5900 lbs.

Depths anodes placed: 260', 250', 225', 215', 205', 175', 155', 140', 130', 120'

Depths vent pipes placed: N/A

Vent pipe perforations: 260'

Remarks: Cgb #2 **not a MERIDIAN well.**

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.

El Paso Natural Gas Company
Form 7-238 (Rev. 1-69)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Logged

Drilling Log (Attach Hereto). ☑

Completion Date 5-16-72

Well Name	Location	CPS No.
Atlantic #73	N 24-31-10	336 W

Type & Size Bit Used	Work Order No.
6 3/4	184-5285-50-20

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
300		5900	No	No (Air Drill)

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	260	250	225	215	205	175	155	140	130	120
Anode Output (Amps)	5.2	2.1	3.2	5.3	2.8	2.9	4.5	5.7	5.8	5.3

	#11	#12	#13	#14	#15	#16	#17	#18	#19	#20
Anode Depth										
Anode Output (Amps)										

Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 10.5	Amps 13.0	Ohms 0.80		

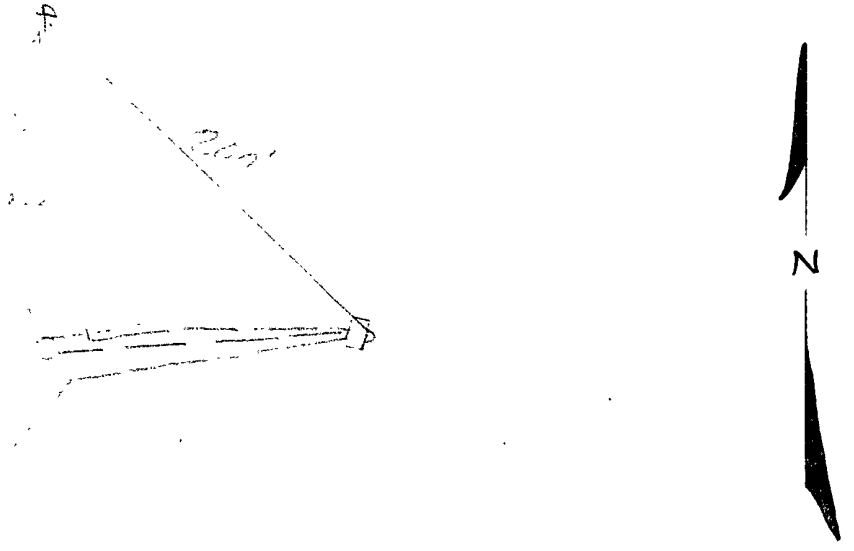
Remarks: Driller Said water at 220'; Drill with air - Stopped Drilling at 1:00 P.M. - Static Logging at 210' Water Level at 170' - Fill with water 3 hrs From 220' To 170', After Holes were in Place. Water level was Below 140'

Hose Perforated 2.50' - Pump 363 Shovels Est 5900 lbs

All Construction Completed

Harris Drulek
(Signature)

GROUND BED LAYOUT SKETCH



Original & 1 Copy All Reports

EL PASO NATURAL GAS COMPANY
ENGINEERING DEPARTMENT

Date:
By:

MW		gals/mol
16	C_1	6 4
30	C_2	9 56
44	C_3	10 42
58	IC_4	12 38
"	NC_4	11 93
72	IC_5	13 85
"	NC_5	13 71
86	IC_6	15 50
"	C_6	15 57
100	IC_7	17 2
"	C_7	17 46
114	C_8	19 38
28	$C_2^=$	9 64
42	$C_3^=$	9 67

MISC

MW		gals/mol
44	CO_2	6 38
34	H_2S	5 17
28	N_2	4 16
2	H_2	3 38

225 W Atlantic #7B

.6 — 2.8 — Drill with air —
.6 — .9 — Driller said water at 120
1.25 — 1.0 — Stop drilling at 1:00 A.M.
1.05 — Log at 9:30 A.M.
2.3 — Water at 120
2.4 — Fill with water & Log from
2.25 — 100 To 175'
2.35
2.50
2.35
2.25
2.2
1.6
1.0
1.70 1.0
1.5 1.55
1.3
1.0
1.2
1.2
1.2
2.25
2.15
2.1
2.16
1.7
1.25
1.25
1.3
1.?
2.5
2.7
2.7
1.0
1.0
2.?

		Log	wtr.	Coke
1	260	2.7	2.2	3.8
2	250	2.5	.95	2.1
3	225	1.9	1.6	3.2
4	215	2.15	1.5	3.2
5	205	2.35	1.3	2.8
6	175	1.55	1.3	2.9
7	155	2.2	1.2	4.5
8	1.40	2.5	NONE	5.7
9	130	2.25	NONE	5.8
10	120	2.3	NONE	5.3

[illegible] Logs

10.5 V 13.2 A

3360'

DRILLING DEPARTMENT

3360' DAILY DRILLING REPORT

LEASE Atlantic WELL NO. 7-B CONTRACTOR Morrow RIG NO. REPORT NO. DATE 5-16 1972

MORNING

Driller Morrow Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.
0	15	loose sand		
15	100	dry sand & shale		
100	110	caving loose sand		
110	120	started blow water		

BIT NO. NO. DC SIZE LENG.
SERIAL NO. NO. DC SIZE LENG.
SIZE STANDS
TYPE SINGLES
MAKE DOWN ON KELLY
TOTAL DEPTH

MUD RECORD Time	Wt.	Vis.	MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

DAYLIGHT

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.
120	160	sandy shale		
160	260	sandy shale streaks		
260	300	sand		

BIT NO. NO. DC SIZE LENG.
SERIAL NO. NO. DC SIZE LENG.
SIZE STANDS
TYPE SINGLES
MAKE DOWN ON KELLY
TOTAL DEPTH

MUD RECORD Time	Wt.	Vis.	MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

EVENING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.
SERIAL NO. NO. DC SIZE LENG.
SIZE STANDS
TYPE SINGLES
MAKE DOWN ON KELLY
TOTAL DEPTH

MUD RECORD Time	Wt.	Vis.	MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

SIGNED: Toolpusher Joe Mercer Company Supervisor

6 - 30-045-10047 4297

20 - 30-045-23496

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

Operator TENNECO Location: Unit SW Sec 33 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced ATLANTIC B #6, #20

cps 371w

Elevation 6294' Completion Date 11/5/76 Total Depth 292' 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. 90'

RECEIVED
MAY 31 1991
OIL CON. DIV
DIST. 3

Depths gas encountered: N/A

Type & amount of coke breeze used: 48 SACKS

Depths anodes placed: 275', 265', 255', 185', 175'

Depths vent pipes placed: N/A

Vent pipe perforations: 185'

Remarks: gb #2 not a MERIDIAN well.

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.

El Paso Natural Gas Company
Form 7-238 (Rev. 1-69)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Logged

Drilling Log (Attach Hereto). ☐ Completion Date 11-5-76

Well Name	Location	CPS No.
ATLANTIC B #6	SW 33-31-10	371W
Type & Size Bit Used: 6 3/4		Work Order No.: 52104

Anode Hole Depth	Total Drilling Rig Time	Total Lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
Log 292		48 Sacks		

	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	# 10
Anode Depth	275	265	255	185	175					
Anode Output (Amps)	2.2	3.7	3.9	3.4	3.9					

	# 11	# 12	# 13	# 14	# 15	# 16	# 17	# 18	# 19	# 20
Anode Depth										
Anode Output (Amps)										

Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 12.0	Amps 10.7	Ohms 1.12		

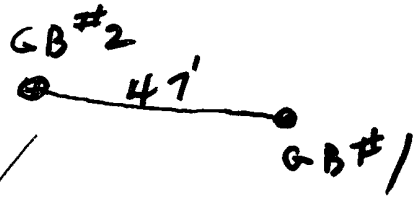
Remarks: DRILLER SAID WATER @ 105'
VENT PERF. 185'
SLURRY 48 SACKS

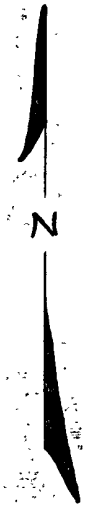
$2,648.00
-174.00 Depth Credit
19.95
$2,493.95
99.75 TAX
2,593.70
288.00 Coke
213.40 Insp.
50.00 Misc.
$3,145.10 TOTAL

All Construction Completed

C. W. Hines
(Signature)

GROUND BED LAYOUT SKETCH





D

Original & 1 Copy All Reports

Form 7-1 (Rev. 8-75)

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet: ____ of ____
Date: 11-5-76
By:
File:

ATLANTIC B #6 371 SW 33-31-10 371 S2 104

371W

MW		gals/mol
16.04	C_1	6.4
30.07	C_2	10.12
44.10	C_3	10.42
58.12	iC_4	12.38
58.12	nC_4	11.93
72.15	iC_5	13.85
72.15	nC_5	13.71
86.18	iC_6	15.50
86.18	C_6	15.57
100.21	iC_7	17.2
100.21	C_7	17.46
114.23	C_8	19.39
28.05	$C_2^=$	9.64
42.08	$C_3^=$	9.67

MW	MISC.	gals/mol
32.00	O_2	3.37
28.01	CO	4.19
44.01	CO_2	6.38
64.06	SO_2	5.50
34.08	H_2S	5.17
28.01	N_2	4.16
2.02	H_2	3.38

100 .4 .5
10 .9 1.0
20 1.0
1.0
30 1.0 1.1
40 1.0 .9
50 .6 .5
60 .6 .4
20 .4
11 X
60 1.6
1.3 X
90 1.6 .8
.8
200 .8 .7
10 .7 .7
20 .7
.8
30 .8 1.0
40 1.1 1.1
50 1.4
2.2 X
60 2.4
2.2 X
70 1.4
1.4 X
80 1.1 1.0
90 292 T.D.
300

1	275	1.5 - 2.2
2	265	2.6 - 3.7
3	255	2.5 - 3.9
4	1.85	1.3 - 3.4
5	175	1.6 - 3.9

VENT PERF. 185'

10.7 A
12.0 U

= 1.12 Ω CR

Form 22-2 (Rev. 1-61)

EL PASO NATURAL GAS COMPANY
DRILLING DEPARTMENT

DAILY DRILLING REPORT

LEASE WELL NO. 27-W CONTRACTOR RIG NO. REPORT NO. DATE 11-5-78 19

MORNING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.
BIT NO. NO. DC SIZE LENG.
SERIAL NO. STANDS
SIZE SINGLES
TYPE DOWN ON KELLY
MAKE TOTAL DEPTH

MUD RECORD Time	Wt.	Vis.	MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN
0	10	Surface Sand Damp
10	75	Shale
75	85	Sand Stone Dry
85	90	Shale
90	105	Sand wet
105	110	Sand ~~wet~~ Stone

REMARKS –
110-150 Shale
150-175 Sand wet
175-178 Sand Stone
178-195 Shale
195-220 Sand wet
220-245 Shale
245-300 Sandy Shale

DAYLIGHT

Driller Posey Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.
BIT NO. NO. DC SIZE LENG.
SERIAL NO. STANDS
SIZE SINGLES
TYPE DOWN ON KELLY
MAKE TOTAL DEPTH

MUD RECORD Time	Wt.	Vis.	MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS –

EVENING

Driller Total Men In Crew

FROM	TO	FORMATION	WT-BIT	R.P.M.

BIT NO. NO. DC SIZE LENG.
BIT NO. NO. DC SIZE LENG.
SERIAL NO. STANDS
SIZE SINGLES
TYPE DOWN ON KELLY
MAKE TOTAL DEPTH

MUD RECORD Time	Wt.	Vis.	MUD, ADDITIVES USED AND RECEIVED

FROM	TO	TIME BREAKDOWN

REMARKS – Water to 105 at 90'

SIGNED: Toolpusher _____ Company Supervisor _____

965

B

30-045-22944

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

Operator TENNECO Location: Unit NW Sec. 33 Twp 31 Rng 10

Name of Well/Wells or Pipeline Serviced ATLANTIC B #6A

cps 1446w

Elevation 6167' Completion Date 7/12/79 Total Depth 300' 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. 100' SAMPLE TAKEN

RECEIVED
MAY 31 1991
OIL CON. DIV.
DIST. 3

Depths gas encountered: N/A

Type & amount of coke breeze used: 39 SACKS

Depths anodes placed: 270', 260', 245', 230', 220', 210', 200', 190', 145', 135'

Depths vent pipes placed: 300'

Vent pipe perforations: 200'

Remarks: gb #1 NOT A MERIDIAN WELL. FIRST HOLE(300') CAVED. LOST 2 ANODES AND 300' OF VENT PIPE.

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.

El Paso Natural Gas Company
Form 7-238 (Rev. 1-69)

WELL CASING
CATHODIC PROTECTION CONSTRUCTION REPORT
DAILY LOG

Drilling Log (Attach Hereto). ☐ CONTRACT #2 2"X60" DURION. Completion Date 7/12/79

Well Name	Location	CPS No.
ATLANTIC B #6A	NW 33-31-10	1446 W

Type & Size Bit Used	Work Order No.
6 3/4"	57325-21

Anode Hole Depth	Total Drilling Rig Time	Total lbs. Coke Used	Lost Circulation Mat'l Used	No. Sacks Mud Used
300' T.D. 300'		39 SACKS		

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Anode Depth	270'	260'	245'	230'	220'	210'	200'	190'	145'	135'
Anode Output (Amps)	2.3	2.9	1.4	1.9	2.5	4.0	4.2	3.2	3.5	3.9
Anode Depth	120'	[redacted]								
Anode Output (Amps)	2.6									

Total Circuit Resistance			No. 8 C.P. Cable Used	No. 2 C.P. Cable Used
Volts 11.8 V	Amps 13.7 A	Ohms .86		

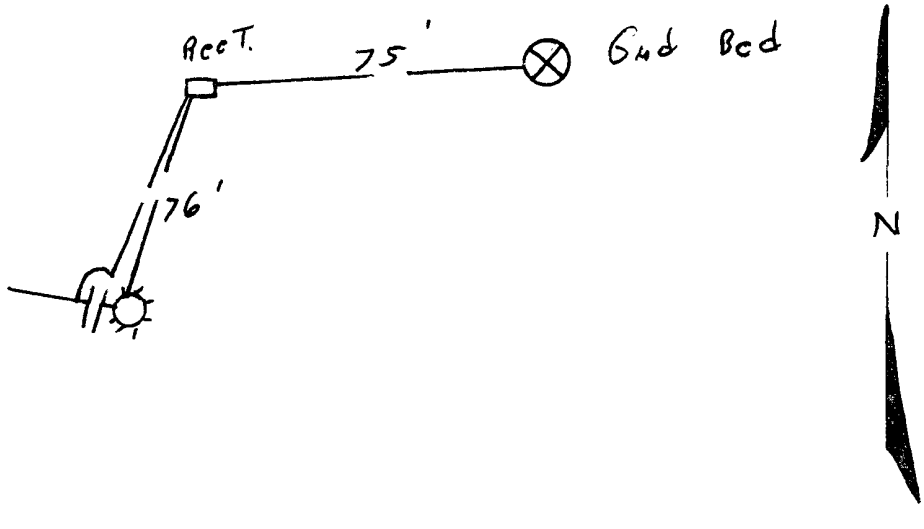
Remarks: STATIC 600' N = .96 V Driller said water at 100' Approx. 10-15 gal/min. Drilled to 300'. Logged 300'. Installed 200' of 1" P.V.C. vent pipe, perforated 200'. Had a Bridge above #3 Anode. Installed #11 Anode to Replace it.

Pitch #1 cable = 151'
extra cable = 96'
Hole Depth -200'
Stub Pole & 40V 16A Rect

All Construction Completed

J E [illegible]
(Signature)

GROUND BED LAYOUT SKETCH



Original & 1 Copy All Reports

6167

Form C-141 Rev 9-77

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet: ____ of ____
Date: ____
By: ____
File: ____

ATLANTIC B # 6A

EPS – 446W NW 33-31-10 W.O. 57325-21

MW		gals/mol
16.04	C_1	6.4
30.07	C_2	10.12
44.10	C_3	10.42
58.12	iC_4	12.38
58.12	nC_4	11.93
72.15	iC_5	13.85
72.15	nC_5	13.71
86.18	iC_6	15.50
86.18	C_6	15.57
100.21	iC_7	17.2
100.21	C_7	17.46
114.23	C_8	19.39
28.05	$C_2^=$	9.64
42.08	$C_3^=$	9.67

MISC. MW		gals/mol
32.00	O_2	3.37
28.01	CO	4.19
44.01	CO_2	6.38
64.06	SO_2	5.50
34.08	H_2S	5.17
28.01	N_2	4.16
2.02	H_2	3.38

100 –

10 –

2.0

20 – 2.0 –

1.9

30 – 1.1

2.1 – (10)

40 – 2.3

2.2 – (9)

50 – 1.7

1.5

60 – 1.3

1.0

70 – 1.0

1.0

80 – .9

1.0

90 – 2.0 – (8)

2.8

200 – 2.8 – (7)

2.7

10 – 2.5 – (6)

2.1

20 – 1.7 – (5)

1.7

30 – 1.6 – (4)

1.3

40 – 1.4

1.4 – (3)

50 – 1.3

2.0

60 – 2.0 – (2)

2.0

70 – 1.8 – (1)

1.8

80 – 1.8

1.5

90 – 1.0

.7

300 – T.D.

DRILLER SAID WATER AT 100'.
APPROX. 10-15 GAL./MIN.
DRILLED TO 300'. LOGGED 300'.
INSTALLED 300' OF 1" PVC.
VENT PIPE, PERFERATED 200'.
HAD A BRIDGE ABOVE #3
ANODE. INSTALLED #11 ANODE
TO REPLACE IT.

7/12/79

20 HRS TOTAL

1 – 270 – 1.9 – 2.3
2 – 260 – 2.4 – 2.9
3 – 245 – 1.5 – 1.4
4 – 230 – 1.6 – 1.9
5 – 220 – 2.2 – 2.5
6 – 210 – 3.4 – 4.0
7 – 200 – 4.0 – 4.2
8 – 190 – 2.5 – 3.2
9 – 145 – 2.4 – 3.5
10 – 135 – 3.0 – 3.9
11 – 120 – 2.5 – 2.6

El Paso Natural Gas Company
ENGINEERING CALCULATION

Sheet: ____ of ____
Date:
By:
File:

ATLANTIC B 6A

CPS- 1446 W | NW 33-31-10 | W.O. 57325-21

MW		gals/mol
16.04	C_1	6.4
30.07	C_2	10.12
44.10	C_3	10.42
58.12	iC_4	12.38
58.12	nC_4	11.93
72.15	iC_5	13.85
72.15	nC_5	13.71
86.18	iC_6	15.50
86.18	C_6	15.57
100.21	iC_7	17 2
100.21	C_7	17.46
114.23	C_8	19.39
28 05	$C_2^=$	9 64
42.08	$C_3^=$	9.67

MISC. MW		gals/mol
32.00	O_2	3 37
28.01	CO	4 19
44 01	CO_2	6.38
64 06	SO_2	5 50
34 08	H_2S	5 17
28.01	N_2	4 16
2.02	H_2	3 38

100 — .7
.8
10 — .6
.7
20 — .8
.8
30 — 1.0
1.3
40 — 2.1
2.0 —
50 — 1.7
1.3
60 — 1.2
1.3
70 — 1.4 —
1.3
80 — 1.1
1.1
90 — 1.7
2.6 —
200 — 2.8
2.6 —
10 — 2.6
2.5 —
20 — 1.8
1.7 —
30 — 1.6
1.7 —
40 — 1.6
1.4
50 — 1.1
1.0
60 — 1.9 —
2.0
70 — 1.9 —
1.9
80 — 1.9 —
1.7
90 — 1.2
.6
200 — — T.D.

Driller said water at 100'. Drilled to 280' and twisted off. Drilled to 300'. Logged 300'. Hole making 15-20 gal/min. Installed 300' of 1" P.V.C. vent pipe, perforated 200'. Ran 4 anodes in hole. Started coking. Hole caved in. Retrieved 2 anodes. Lost 2 anodes & vent pipe in hole.

Moved rig & started new hole

7/11/79
JL

1 — 280 — 2.1
2 — 270 —
3 — 260 —
4 — 235 —
5 — 225 —
6 — 215 —
7 — 205 —
8 — 195 —
9 — 170 —
10 — 145 —

EL PASO NATURAL GAS COMPANY
SAN JUAN DIVISION
FARMINGTON, NEW MEXICO
PRODUCTION DEPARTMENT WATER ANALYSIS

Analysis No. 1-9660 Date 8-3-79

Operator EPNG Well Name ATLANTIC B6A

Location NW 33-31-10 County SAN JUAN State NM

Field Formation

Sampled From CPS 1446-W

Date Sampled By

Tbg. Press. Csg. Press. Surface Csg. Press

	ppm	epm		ppm	epm
Sodium	138	6	Chloride	28	1
Calcium	568	28	Bicarbonate	73	1
Magnesium	12	1	Sulfate	1600	33
Iron	PRESENT		Carbonate	0	0
H_2S	ABSENT		Hydroxide	0	0

Total Solids Dissolved 2898

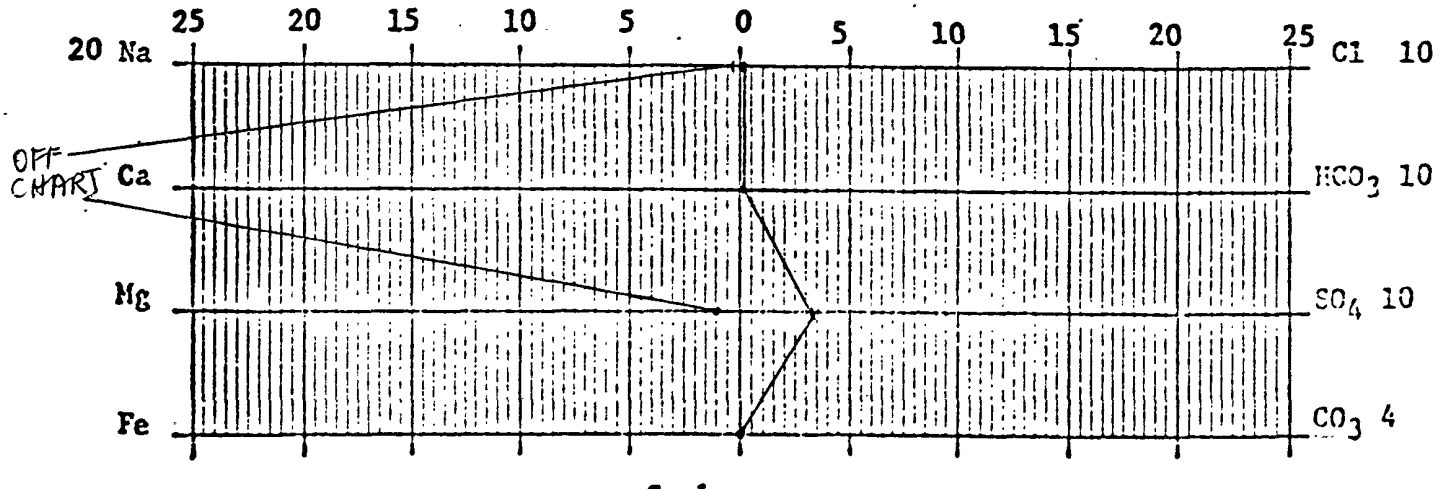
pH 7.2

Sp. Gr. 1.0035 at 60°F

Resistivity 330 ohm-cm at 75 °F

cc: D.C.Adams
R.A.Ullrich
E.R.Paulek
J.W.McCarthy
A.M.Smith
W.B.Shropshire
File
C. B. O'Nan

Cheryl Tenwilleger
Chemist



Scale: epm

Form 22-2 (Rev. 1-61)

EL PASO NATURAL GAS COMPANY

DRILLING DEPARTMENT

DAILY DRILLING REPORT

LEASE WELL NO. #1446W ReDrill CONTRACTOR Posey RIG NO. REPORT NO. DATE 7-12- 1979

MORNING					DAYLIGHT					EVENING				
Driller		Total Men In Crew			Driller		Total Men In Crew			Driller		Total Men In Crew		
FROM	TO	FORMATION	WT-BIT	R.P.M.	FROM	TO	FORMATION	WT-BIT	R.P.M.	FROM	TO	FORMATION	WT-BIT	R.P.M.
									T.D. 300' LOGGED 300'					

	NO. DC SIZE LENG.					NO. DC SIZE LENG.					NO. DC SIZE LENG.			
BIT NO.	NO. DC SIZE LENG.				BIT NO.	NO. DC SIZE LENG.				BIT NO.	NO. DC SIZE LENG.			
SE. NO.	STANDS				SERIAL NO.	STANDS				SERIAL NO.	STANDS			
SIZE	SINGLES				SIZE 6 3/4"	SINGLES				SIZE	SINGLES			
TYPE	DOWN ON KELLY				TYPE	DOWN ON KELLY				TYPE	DOWN ON KELLY			
MAKE	TOTAL DEPTH				MAKE	TOTAL DEPTH				MAKE	TOTAL DEPTH			

MUD RECORD			MUD, ADDITIVES USED AND RECEIVED	MUD RECORD			MUD, ADDITIVES USED AND RECEIVED	MUD RECORD			MUD, ADDITIVES USED AND RECEIVED
Time	Wt.	Vis.		Time	Wt.	Vis.		Time	Wt.	Vis.	

FROM	TO	TIME BREAKDOWN	FROM	TO	TIME BREAKDOWN	FROM	TO	TIME BREAKDOWN
0	10	Sandstone Surface	78	82	Sandstone	172	217	Shale
10	30	Sandstone	82	100	Sand (wet)	217	250	Sandy Shale
30	35	Sand Damp	100	110	Shale	250	300	Shale
35	65	Sandstone	110	140	Sandy Shale			
65	70	Shale	140	165	Shale			
70	78	Sand (wet)	165	172	Sandy Shale			

REMARKS –

REMARKS –

REMARKS –

Approximately 15 gal per min @ 100'

SIGNED: Toolpusher Posey Company Supervisor Jeff Murphy

ENSOLUM

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: RB21200
PM: Maron O'Brien
AFE: N54736

2. Originating Site:
Atlantic BL S#22

3. Location of Material (Street Address, City, State or ULSTR):
UL C Section 3 T30N R10W; 36.845735, -107.872680

Aug/Sep 2021

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 (yd^3) / bbls Known Volume (to be entered by the operator at the end of the haul) 1622/55 yd^3 / 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 8-18-2021, 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: Halo and Subcontractors

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Envirotech Inc. Soil Remediation Facility * Permit #: NM 01-0011**
Address of Facility: **Hilltop, NM**
Method of Treatment and/or Disposal:
☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

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

PRINT NAME: Greg Crabtree TITLE: Enviro Manager DATE: 8/19/21
SIGNATURE: _____ TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

ENSOLUM

APPENDIX D

Photographic Documentation

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Atlantic BLS #22 (9/1/21)
Ensolum Project No. 05A1226154

ENSOLUM

Photograph 1 Photograph Description: View of in-process excavation activities.	
Photograph 2 Photograph Description: View of the final excavation.	
Photograph 3 Photograph Description: View of the final excavation.	

SITE PHOTOGRAPHS

Closure Report
Enterprise Field Services, LLC
Atlantic BLS #22 (9/1/21)
Ensolum Project No. 05A1226154

ENSOLUM

Photograph 4 Photograph Description: View of the site after initial restoration.	
Photograph 5 Photograph Description: View of the site after initial restoration.	

ENSOLUM

APPENDIX E

Regulatory Correspondence

From: Smith, Cory, EMNRD
To: Long, Thomas
Cc: Stone, Brian
Subject: [EXTERNAL] RE: Atlantic BLS #22 - UL C Section 3 T30N R 10W; 36.845013, -107.870609 - Incident # NAPP2124533703
Date: Wednesday, September 8, 2021 11:26:24 AM

[Use caution with links/attachments]

Tom,

Thanks for the update.

Cory Smith • Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
5200 Oakland Avenue N.E Suite 100 | Albuquerque, NM 87113
505.419.2687 | Cory.Smith@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Long, Thomas <tjlong@eprod.com>
Sent: Wednesday, September 8, 2021 7:24 AM
To: Smith, Cory, EMNRD <Cory.Smith@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: Atlantic BLS #22 - UL C Section 3 T30N R 10W; 36.845013, -107.870609 - Incident # NAPP2124533703

Cory,

Please find the attached site sketch and lab report for the Atlantic BLS #22 excavation. All sample results are below the NMOCS Tier I remediation standard. Enterprise will backfill the excavation with clean imported fill material. If you have any questions, please call or email.

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

Enterprise Products

From: Long, Thomas
Sent: Thursday, September 2, 2021 9:36 AM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>

Cc: Stone, Brian <bmstone@eprod.com>
Subject: FW: Atlantic BLS #22 - UL C Section 3 T30N R 10W; 36.845013, -107.870609 - Incident # NAPP2124533703

Cory,

This email is a notification that Entperise will be collecting soil samples for laboratory analysis at the Atlantic BLS #22 excavation tomorrow, September 3, 2021 at 10:00 a.m. weather permitting. If you have any questions, please call or email.

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

Enterprise Products

From: Long, Thomas
Sent: Wednesday, September 1, 2021 8:53 AM
To: 'Smith, Cory, EMNRD (Cory.Smith@state.nm.us)' <Cory.Smith@state.nm.us>; Hernandez, Emily, EMNRD <Emily.Hernandez@state.nm.us>
Cc: Stone, Brian <bmstone@eprod.com>
Subject: Atlantic BLS #22 - UL C Section 3 T30N R 10W; 36.845013, -107.870609

Cory,

This email is a notification that Entperise confirmed a release of natural gas and natural gas liquids on the Atlantic BLS #22. This is a different release from the previous one. During repairs and remediation of the first release, we located this one. It is located at UL C Section 3 T30N R 10W; 36.845013, -107.870609. It is located in a small ephemeral wash approximately 650 feet east of the first one. No liquids were observed on the ground surface. There was no fire nor did emergency services respond. The pipeline has been out of service since the first release was discovered. I will keep you informed as to when remediation activities will begin and when we will be and collecting soil samples. If you have any questions, please call or email.

Thomas J. Long
Senior Environmental Scientist
Enterprise Products Company
614 Reilly Ave.

Farmington, New Mexico 87401
505-599-2286 (office)
505-215-4727 (Cell)
tjlong@eprod.com

Enterprise Products

ENSOLUM

APPENDIX F

Table 1 – Soil Analytical Summary

ENSOLUM

TABLE 1
Atlantic BLS #22 (9/1/21)
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (Feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX[1] (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total Combined TPH (GRO/DRO/MRO)[1] (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria (Tier I)				**10**	**NE**	**NE**	**NE**	**50**				**100**	**600**
Excavation Composite Soil Samples													
S-1	9.3.21	C	0 to 11	<0.025	<0.049	<0.049	<0.099	ND	<4.9	<9.7	<49	ND	<60
S-2	9.3.21	C	0 to 11	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<9.6	<48	ND	69
S-3	9.3.21	C	0 to 11	<0.024	<0.048	<0.048	<0.097	ND	<4.8	<9.7	<49	ND	<61
S-4	9.3.21	C	0 to 13	<0.024	<0.048	<0.048	<0.096	ND	<4.8	<9.6	<48	ND	<60
S-5	9.3.21	C	0 to 20	<0.025	<0.049	<0.049	<0.098	ND	<4.9	<8.7	<43	ND	<60
S-6	9.3.21	C	20	<0.025	<0.049	<0.049	0.16	0.16	<4.9	<10	<50	ND	<60
S-7	9.3.21	C	13 to 20	<0.024	<0.049	<0.049	0.10	0.10	<4.9	<9.4	<47	ND	<60
S-8	9.3.21	C	0 to 20	<0.024	<0.049	<0.049	<0.097	ND	<4.9	<9.8	<49	ND	<60
S-9	9.3.21	C	0 to 13	<0.025	<0.050	<0.050	<0.099	ND	<5.0	<9.7	<49	ND	<60
S-10	9.3.21	C	0 to 11	<0.025	<0.050	<0.050	<0.10	ND	<5.0	<9.6	<48	ND	<60
S-11	9.3.21	C	11 to 13	<0.025	<0.049	<0.049	<0.099	ND	<4.9	<8.8	<44	ND	<59
S-12	9.3.21	C	0 to 11	<0.025	<0.050	<0.050	<0.099	ND	<5.0	<8.8	<44	ND	<60
S-13	9.3.21	C	11 to 20	<0.024	<0.049	<0.049	<0.097	ND	<4.9	<9.5	<47	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 or Reporting Limits

NE = Not established

mg/kg = milligram per kilogram

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

TPH = Total Petroleum Hydrocarbon

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics

ENSOLUM

APPENDIX G

Laboratory Data Sheets & Chain of Custody Documentation

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

September 20, 2021

Kyle Summers

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

RE: Atlantic BLS 22 September 2021 OrderNo.: 2109217

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 13 sample(s) on 9/4/2021 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued September 08, 2021.

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.

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2109217**
Date Reported: **9/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-1
Project: Atlantic BLS 22 September 2021 **Collection Date:** 9/3/2021 10:00:00 AM
Lab ID: 2109217-001 **Matrix:** SOIL **Received Date:** 9/4/2021 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/7/2021 6:54:43 AM	62404
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/4/2021 4:05:30 PM	62401
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/4/2021 4:05:30 PM	62401
Surr: DNOP	101	70-130		%Rec	1	9/4/2021 4:05:30 PM	62401
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/7/2021 9:39:00 AM	62400
Surr: BFB	110	70-130		%Rec	1	9/7/2021 9:39:00 AM	62400
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/7/2021 9:39:00 AM	62400
Toluene	ND	0.049		mg/Kg	1	9/7/2021 9:39:00 AM	62400
Ethylbenzene	ND	0.049		mg/Kg	1	9/7/2021 9:39:00 AM	62400
Xylenes, Total	ND	0.099		mg/Kg	1	9/7/2021 9:39:00 AM	62400
Surr: 4-Bromofluorobenzene	99.7	70-130		%Rec	1	9/7/2021 9:39:00 AM	62400

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

Qualifiers:

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

Analytical Report
Lab Order **2109217**
Date Reported: **9/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-2
Project: Atlantic BLS 22 September 2021 **Collection Date:** 9/3/2021 10:15:00 AM
Lab ID: 2109217-002 **Matrix:** SOIL **Received Date:** 9/4/2021 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	69	60		mg/Kg	20	9/7/2021 7:07:07 AM	62404
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/4/2021 4:43:51 PM	62401
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/4/2021 4:43:51 PM	62401
Surr: DNOP	106	70-130		%Rec	1	9/4/2021 4:43:51 PM	62401
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/7/2021 10:02:45 AM	62400
Surr: BFB	108	70-130		%Rec	1	9/7/2021 10:02:45 AM	62400
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/7/2021 10:02:45 AM	62400
Toluene	ND	0.050		mg/Kg	1	9/7/2021 10:02:45 AM	62400
Ethylbenzene	ND	0.050		mg/Kg	1	9/7/2021 10:02:45 AM	62400
Xylenes, Total	ND	0.10		mg/Kg	1	9/7/2021 10:02:45 AM	62400
Surr: 4-Bromofluorobenzene	98.9	70-130		%Rec	1	9/7/2021 10:02:45 AM	62400

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

Qualifiers:

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

Analytical Report
Lab Order **2109217**
Date Reported: **9/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-3
Project: Atlantic BLS 22 September 2021 **Collection Date:** 9/3/2021 10:30:00 AM
Lab ID: 2109217-003 **Matrix:** SOIL **Received Date:** 9/4/2021 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	61		mg/Kg	20	9/7/2021 7:19:31 AM	62404
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/4/2021 4:56:36 PM	62401
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/4/2021 4:56:36 PM	62401
Surr: DNOP	109	70-130		%Rec	1	9/4/2021 4:56:36 PM	62401
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/7/2021 10:26:20 AM	62400
Surr: BFB	107	70-130		%Rec	1	9/7/2021 10:26:20 AM	62400
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/7/2021 10:26:20 AM	62400
Toluene	ND	0.048		mg/Kg	1	9/7/2021 10:26:20 AM	62400
Ethylbenzene	ND	0.048		mg/Kg	1	9/7/2021 10:26:20 AM	62400
Xylenes, Total	ND	0.097		mg/Kg	1	9/7/2021 10:26:20 AM	62400
Surr: 4-Bromofluorobenzene	98.8	70-130		%Rec	1	9/7/2021 10:26:20 AM	62400

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

Qualifiers:

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

Analytical Report
Lab Order **2109217**
Date Reported: **9/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-4
Project: Atlantic BLS 22 September 2021 **Collection Date:** 9/3/2021 10:45:00 AM
Lab ID: 2109217-004 **Matrix:** SOIL **Received Date:** 9/4/2021 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/7/2021 7:31:56 AM	62404
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/4/2021 5:09:10 PM	62401
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/4/2021 5:09:10 PM	62401
Surr: DNOP	108	70-130		%Rec	1	9/4/2021 5:09:10 PM	62401
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/7/2021 10:49:54 AM	62400
Surr: BFB	111	70-130		%Rec	1	9/7/2021 10:49:54 AM	62400
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/7/2021 10:49:54 AM	62400
Toluene	ND	0.048		mg/Kg	1	9/7/2021 10:49:54 AM	62400
Ethylbenzene	ND	0.048		mg/Kg	1	9/7/2021 10:49:54 AM	62400
Xylenes, Total	ND	0.096		mg/Kg	1	9/7/2021 10:49:54 AM	62400
Surr: 4-Bromofluorobenzene	99.3	70-130		%Rec	1	9/7/2021 10:49:54 AM	62400

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

Qualifiers:

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

Analytical Report
Lab Order **2109217**
Date Reported: **9/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-5
Project: Atlantic BLS 22 September 2021 **Collection Date:** 9/3/2021 11:00:00 AM
Lab ID: 2109217-005 **Matrix:** SOIL **Received Date:** 9/4/2021 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/7/2021 7:44:20 AM	62404
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	9/4/2021 5:21:46 PM	62401
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	9/4/2021 5:21:46 PM	62401
Surr: DNOP	108	70-130		%Rec	1	9/4/2021 5:21:46 PM	62401
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/7/2021 11:13:46 AM	62400
Surr: BFB	107	70-130		%Rec	1	9/7/2021 11:13:46 AM	62400
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/7/2021 11:13:46 AM	62400
Toluene	ND	0.049		mg/Kg	1	9/7/2021 11:13:46 AM	62400
Ethylbenzene	ND	0.049		mg/Kg	1	9/7/2021 11:13:46 AM	62400
Xylenes, Total	ND	0.098		mg/Kg	1	9/7/2021 11:13:46 AM	62400
Surr: 4-Bromofluorobenzene	98.0	70-130		%Rec	1	9/7/2021 11:13:46 AM	62400

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

Qualifiers:

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

Analytical Report
Lab Order **2109217**
Date Reported: **9/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-6
Project: Atlantic BLS 22 September 2021 **Collection Date:** 9/3/2021 11:15:00 AM
Lab ID: 2109217-006 **Matrix:** SOIL **Received Date:** 9/4/2021 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/7/2021 7:56:45 AM	62404
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/4/2021 5:34:24 PM	62401
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/4/2021 5:34:24 PM	62401
Surr: DNOP	110	70-130		%Rec	1	9/4/2021 5:34:24 PM	62401
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/7/2021 11:37:13 AM	62400
Surr: BFB	113	70-130		%Rec	1	9/7/2021 11:37:13 AM	62400
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/7/2021 11:37:13 AM	62400
Toluene	ND	0.049		mg/Kg	1	9/7/2021 11:37:13 AM	62400
Ethylbenzene	ND	0.049		mg/Kg	1	9/7/2021 11:37:13 AM	62400
Xylenes, Total	0.16	0.099		mg/Kg	1	9/7/2021 11:37:13 AM	62400
Surr: 4-Bromofluorobenzene	97.4	70-130		%Rec	1	9/7/2021 11:37:13 AM	62400

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

Qualifiers:

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

Analytical Report
Lab Order **2109217**
Date Reported: **9/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-7
Project: Atlantic BLS 22 September 2021 **Collection Date:** 9/3/2021 11:30:00 AM
Lab ID: 2109217-007 **Matrix:** SOIL **Received Date:** 9/4/2021 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/7/2021 8:09:09 AM	62404
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/4/2021 5:46:54 PM	62401
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/4/2021 5:46:54 PM	62401
Surr: DNOP	111	70-130		%Rec	1	9/4/2021 5:46:54 PM	62401
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/7/2021 12:00:42 PM	62400
Surr: BFB	112	70-130		%Rec	1	9/7/2021 12:00:42 PM	62400
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/7/2021 12:00:42 PM	62400
Toluene	ND	0.049		mg/Kg	1	9/7/2021 12:00:42 PM	62400
Ethylbenzene	ND	0.049		mg/Kg	1	9/7/2021 12:00:42 PM	62400
Xylenes, Total	0.10	0.097		mg/Kg	1	9/7/2021 12:00:42 PM	62400
Surr: 4-Bromofluorobenzene	99.5	70-130		%Rec	1	9/7/2021 12:00:42 PM	62400

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

Qualifiers:

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

Analytical Report
Lab Order **2109217**
Date Reported: **9/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-8
Project: Atlantic BLS 22 September 2021 **Collection Date:** 9/3/2021 11:45:00 AM
Lab ID: 2109217-008 **Matrix:** SOIL **Received Date:** 9/4/2021 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/7/2021 8:46:21 AM	62404
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/4/2021 5:59:26 PM	62401
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/4/2021 5:59:26 PM	62401
Surr: DNOP	110	70-130		%Rec	1	9/4/2021 5:59:26 PM	62401
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/7/2021 12:24:11 PM	62400
Surr: BFB	106	70-130		%Rec	1	9/7/2021 12:24:11 PM	62400
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/7/2021 12:24:11 PM	62400
Toluene	ND	0.049		mg/Kg	1	9/7/2021 12:24:11 PM	62400
Ethylbenzene	ND	0.049		mg/Kg	1	9/7/2021 12:24:11 PM	62400
Xylenes, Total	ND	0.097		mg/Kg	1	9/7/2021 12:24:11 PM	62400
Surr: 4-Bromofluorobenzene	96.3	70-130		%Rec	1	9/7/2021 12:24:11 PM	62400

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

Qualifiers:

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

Analytical Report
Lab Order **2109217**
Date Reported: **9/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-9
Project: Atlantic BLS 22 September 2021 **Collection Date:** 9/3/2021 12:00:00 PM
Lab ID: 2109217-009 **Matrix:** SOIL **Received Date:** 9/4/2021 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/7/2021 8:58:46 AM	62404
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/4/2021 6:11:57 PM	62401
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/4/2021 6:11:57 PM	62401
Surr: DNOP	104	70-130		%Rec	1	9/4/2021 6:11:57 PM	62401
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/7/2021 12:47:42 PM	62400
Surr: BFB	108	70-130		%Rec	1	9/7/2021 12:47:42 PM	62400
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/7/2021 12:47:42 PM	62400
Toluene	ND	0.050		mg/Kg	1	9/7/2021 12:47:42 PM	62400
Ethylbenzene	ND	0.050		mg/Kg	1	9/7/2021 12:47:42 PM	62400
Xylenes, Total	ND	0.099		mg/Kg	1	9/7/2021 12:47:42 PM	62400
Surr: 4-Bromofluorobenzene	97.3	70-130		%Rec	1	9/7/2021 12:47:42 PM	62400

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

Qualifiers:

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

Analytical Report
Lab Order **2109217**
Date Reported: **9/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-10
Project: Atlantic BLS 22 September 2021 **Collection Date:** 9/3/2021 12:15:00 PM
Lab ID: 2109217-010 **Matrix:** SOIL **Received Date:** 9/4/2021 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/7/2021 9:11:10 AM	62404
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/4/2021 6:24:27 PM	62401
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/4/2021 6:24:27 PM	62401
Surr: DNOP	110	70-130		%Rec	1	9/4/2021 6:24:27 PM	62401
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/7/2021 1:11:17 PM	62400
Surr: BFB	105	70-130		%Rec	1	9/7/2021 1:11:17 PM	62400
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/7/2021 1:11:17 PM	62400
Toluene	ND	0.050		mg/Kg	1	9/7/2021 1:11:17 PM	62400
Ethylbenzene	ND	0.050		mg/Kg	1	9/7/2021 1:11:17 PM	62400
Xylenes, Total	ND	0.10		mg/Kg	1	9/7/2021 1:11:17 PM	62400
Surr: 4-Bromofluorobenzene	97.0	70-130		%Rec	1	9/7/2021 1:11:17 PM	62400

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

Qualifiers:

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

Analytical Report
Lab Order **2109217**
Date Reported: **9/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-11
Project: Atlantic BLS 22 September 2021 **Collection Date:** 9/3/2021 12:30:00 PM
Lab ID: 2109217-011 **Matrix:** SOIL **Received Date:** 9/4/2021 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	59		mg/Kg	20	9/7/2021 9:23:35 AM	62404
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	9/4/2021 6:36:29 PM	62401
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	9/4/2021 6:36:29 PM	62401
Surr: DNOP	107	70-130		%Rec	1	9/4/2021 6:36:29 PM	62401
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/7/2021 1:58:35 PM	62400
Surr: BFB	109	70-130		%Rec	1	9/7/2021 1:58:35 PM	62400
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/7/2021 1:58:35 PM	62400
Toluene	ND	0.049		mg/Kg	1	9/7/2021 1:58:35 PM	62400
Ethylbenzene	ND	0.049		mg/Kg	1	9/7/2021 1:58:35 PM	62400
Xylenes, Total	ND	0.099		mg/Kg	1	9/7/2021 1:58:35 PM	62400
Surr: 4-Bromofluorobenzene	98.8	70-130		%Rec	1	9/7/2021 1:58:35 PM	62400

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

Qualifiers:

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

Analytical Report
Lab Order **2109217**
Date Reported: **9/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-12
Project: Atlantic BLS 22 September 2021 **Collection Date:** 9/3/2021 12:45:00 PM
Lab ID: 2109217-012 **Matrix:** SOIL **Received Date:** 9/4/2021 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/7/2021 9:35:59 AM	62404
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	9/4/2021 6:48:56 PM	62401
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	9/4/2021 6:48:56 PM	62401
Surr: DNOP	114	70-130		%Rec	1	9/4/2021 6:48:56 PM	62401
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/7/2021 2:22:18 PM	62400
Surr: BFB	111	70-130		%Rec	1	9/7/2021 2:22:18 PM	62400
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/7/2021 2:22:18 PM	62400
Toluene	ND	0.050		mg/Kg	1	9/7/2021 2:22:18 PM	62400
Ethylbenzene	ND	0.050		mg/Kg	1	9/7/2021 2:22:18 PM	62400
Xylenes, Total	ND	0.099		mg/Kg	1	9/7/2021 2:22:18 PM	62400
Surr: 4-Bromofluorobenzene	99.6	70-130		%Rec	1	9/7/2021 2:22:18 PM	62400

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

Qualifiers:

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

Analytical Report
Lab Order **2109217**
Date Reported: **9/20/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: ENSOLUM **Client Sample ID:** S-13
Project: Atlantic BLS 22 September 2021 **Collection Date:** 9/3/2021 1:00:00 PM
Lab ID: 2109217-013 **Matrix:** SOIL **Received Date:** 9/4/2021 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/7/2021 9:48:24 AM	62404
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/4/2021 7:01:36 PM	62401
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/4/2021 7:01:36 PM	62401
Surr: DNOP	114	70-130		%Rec	1	9/4/2021 7:01:36 PM	62401
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/7/2021 2:46:01 PM	62400
Surr: BFB	111	70-130		%Rec	1	9/7/2021 2:46:01 PM	62400
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/7/2021 2:46:01 PM	62400
Toluene	ND	0.049		mg/Kg	1	9/7/2021 2:46:01 PM	62400
Ethylbenzene	ND	0.049		mg/Kg	1	9/7/2021 2:46:01 PM	62400
Xylenes, Total	ND	0.097		mg/Kg	1	9/7/2021 2:46:01 PM	62400
Surr: 4-Bromofluorobenzene	99.8	70-130		%Rec	1	9/7/2021 2:46:01 PM	62400

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109217**

20-Sep-21

Client: ENSOLUM

Project: Atlantic BLS 22 September 2021

Sample ID: **MB-62404**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **62404**	RunNo: **81061**							
Prep Date: **9/7/2021**	Analysis Date: **9/7/2021**	SeqNo: **2862328**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-62404**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **62404**	RunNo: **81061**							
Prep Date: **9/7/2021**	Analysis Date: **9/7/2021**	SeqNo: **2862330**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.0	90	110			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2109217**
20-Sep-21

Client: ENSOLUM
Project: Atlantic BLS 22 September 2021

Sample ID: **2109217-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-1** Batch ID: **62401** RunNo: **81065**
Prep Date: **9/4/2021** Analysis Date: **9/4/2021** SeqNo: **2861483** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.5	47.62	0	92.1	39.3	155			
Surr: DNOP	5.0		4.762		106	70	130			

Sample ID: **2109217-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-1** Batch ID: **62401** RunNo: **81065**
Prep Date: **9/4/2021** Analysis Date: **9/4/2021** SeqNo: **2861484** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.6	48.08	0	94.0	39.3	155	3.01	23.4	
Surr: DNOP	5.2		4.808		109	70	130	0	0	

Sample ID: **MB-62401** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **62401** RunNo: **81065**
Prep Date: **9/4/2021** Analysis Date: **9/4/2021** SeqNo: **2861505** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.0		10.00		90.0	70	130			

Sample ID: **LCS-62401** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **62401** RunNo: **81065**
Prep Date: **9/4/2021** Analysis Date: **9/4/2021** SeqNo: **2861506** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.6	68.9	135			
Surr: DNOP	4.5		5.000		90.8	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2109217**
20-Sep-21

Client: ENSOLUM
Project: Atlantic BLS 22 September 2021

Sample ID: **mb-62400** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **62400** RunNo: **81085**
Prep Date: **9/4/2021** Analysis Date: **9/7/2021** SeqNo: **2862286** 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		104	70	130			

Sample ID: **lcs-62400** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **62400** RunNo: **81085**
Prep Date: **9/4/2021** Analysis Date: **9/7/2021** SeqNo: **2862287** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	106	78.6	131			
Surr: BFB	1200		1000		119	70	130			

Sample ID: **2109217-001ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-1** Batch ID: **62400** RunNo: **81085**
Prep Date: **9/4/2021** Analysis Date: **9/7/2021** SeqNo: **2862289** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.9	24.70	0	111	61.3	114			
Surr: BFB	1300		988.1		136	70	130			S

Sample ID: **2109217-001amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-1** Batch ID: **62400** RunNo: **81085**
Prep Date: **9/4/2021** Analysis Date: **9/7/2021** SeqNo: **2862290** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.44	0	107	61.3	114	4.82	20	
Surr: BFB	1300		977.5		128	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109217**

20-Sep-21

Client: ENSOLUM

Project: Atlantic BLS 22 September 2021

Sample ID: **mb-62400** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **62400** RunNo: **81085**

Prep Date: **9/4/2021** Analysis Date: **9/7/2021** SeqNo: **2862418** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.96		1.000		96.0	70	130			

Sample ID: **LCS-62400** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **62400** RunNo: **81085**

Prep Date: **9/4/2021** Analysis Date: **9/7/2021** SeqNo: **2862419** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.7	80	120			
Toluene	0.93	0.050	1.000	0	93.1	80	120			
Ethylbenzene	0.92	0.050	1.000	0	92.3	80	120			
Xylenes, Total	2.8	0.10	3.000	0	91.9	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	70	130			

Sample ID: **2109217-002ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-2** Batch ID: **62400** RunNo: **81085**

Prep Date: **9/4/2021** Analysis Date: **9/7/2021** SeqNo: **2862422** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	0.9891	0	92.4	80	120			
Toluene	0.94	0.049	0.9891	0	94.6	80	120			
Ethylbenzene	0.93	0.049	0.9891	0	94.0	80	120			
Xylenes, Total	2.8	0.099	2.967	0	94.1	80	120			
Surr: 4-Bromofluorobenzene	1.0		0.9891		105	70	130			

Sample ID: **2109217-002amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-2** Batch ID: **62400** RunNo: **81085**

Prep Date: **9/4/2021** Analysis Date: **9/7/2021** SeqNo: **2862423** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	0.9930	0	90.8	80	120	1.39	20	
Toluene	0.91	0.050	0.9930	0	91.4	80	120	3.02	20	
Ethylbenzene	0.91	0.050	0.9930	0	91.7	80	120	2.13	20	
Xylenes, Total	2.7	0.099	2.979	0	91.5	80	120	2.38	20	
Surr: 4-Bromofluorobenzene	1.0		0.9930		103	70	130	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: ENSOLUM | Work Order Number: 2109217 | RcptNo: 1

Received By: Juan Rojas 9/4/2021 8:30:00 AM

Completed By: Juan Rojas 9/4/2021 9:11:23 AM

Reviewed By: CMe 9/4/21

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: JR 9/4/21

Special Handling (if applicable)

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

Person Notified: _____ Date _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good				

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: Ensolum, LLC

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

Phone #:

email or Fax#: ksummers@ensolum.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☒ Rush 100% Same Day

Project Name: Atlantic BLS #22 (~~October~~ 30 September 2021)

Project #: See notes

Project Manager: K. Summers

Sampler: L. Daniell

On Ice: ☐ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.4-0.2=1.2 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2109217	BTEX / ~~MTBE~~ / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9/3/21	10:00	S	S-1	1 4oz jar	Cool	-001	X	X					X			
9/3/21	10:15	S	S-2			-002	X	X					X			
9/3/21	10:30	S	S-3			-003	X	X					X			
9/3/21	10:45	S	S-4			-004	X	X					X			
9/3/21	11:00	S	S-5			-005	X	X					X			
9/3/21	11:15	S	S-6			-006	X	X					X			
9/3/21	11:30	S	S-7			-007	X	X					X			
9/3/21	11:45	S	S-8			-008	X	X					X			
9/3/21	12:00	S	S-9			-009	X	X					X			
9/3/21	12:15	S	S-10			-010	X	X					X			
9/3/21	12:30	S	S-11			-011	X	X					X			
9/3/21	12:45	S	S-12			-012	X	X					X			

Date: ~~9/3/21~~ 9/3/21 Time: 13:06 Relinquished by:

Received by: Via: Date: 9/3/21 Time: 1306

Date: 9/3/21 Time: 14:00 Relinquished by:

Received by: Via: Date: 9/4/21 Time: 8:30

Remarks: PM Tom Long
Non AFE: N54736
Pay key: RB21200
Same Day

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

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: Ensolum, LLC

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

Phone #:

email or Fax#: KSummers@ensolum.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 100% ☐ Standard ☑ Rush Same Day

Project Name: 40 September Atlantic B LS-22 (~~October~~ 2021)

Project #: See note

Project Manager: K. Summers

Sampler: L. Daniel

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.4-0.2=1.2 (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2109217	BTEX / ~~MTBE~~ / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9/3/21	13:00	S	S-13	1402 jar	Cool	-013	X	X					X			

Analysis Request

Relinquished by:	Received by:	Via:	Date	Time
			9/3/21	1306
		courier	9/4/21	8:30

Remarks: PM Tom Long NonAFE: N54736 Pay key: RB21200 Same Day

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

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

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

CONDITIONS

Action 73740

CONDITIONS

Operator:	OGRID:
Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	241602
	Action Number: 73740
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	2/23/2022