

Incident ID	NAPP2227230643
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>184.5</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	nAPP2227230643
District RP	
Facility ID	
Application ID	

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.

Printed Name: Risa CzarnikowTitle: Production TechSignature: Risa CzarnikowDate: 3-29-23email: rczarnikow@helmsoil.comTelephone: (432) 688-3727**OCD Only**

Received by: \_\_\_\_\_

Date: \_\_\_\_\_

Form C-141

State of New Mexico  
Oil Conservation Division

Page 5

Incident ID	nAPP2227230643
District RP	
Facility ID	
Application ID	

## Remediation Plan

**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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.

Printed Name: Risa CzarnikowTitle: Production TechSignature: Risa CzarnikowDate: 3-29-23email: rczarnikow@helmsoil.comTelephone: (432) 688-3727**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved☐ Approved with Attached Conditions of Approval☐ Denied☐ Deferral ApprovedSignature: Nelson VelezDate: 09/29/2023

OCD has accepted the groundwater determination albeit it was outside the preferential 1/2 mile radius determination.

## Amended Remediation Summary & Deferral Request

### **H.L. Brown Operating, LLC Fed Com 28 001**

Roosevelt County, New Mexico  
Unit Letter H, Section 28, Township 7 South, Range 37 East  
Latitude 33.68177 North, Longitude 103.150933 West  
**NMOCD Reference No. nAPP2227230643**

Prepared By:

**Etech Environmental & Safety Solutions, Inc.**  
3100 Plains Highway  
Lovington, New Mexico 88260



Zach Conder



Ben Arguijo



Midland • San Antonio • Lubbock • Lovington • Lafayette



## TABLE OF CONTENTS

	<i>Section</i>
PROJECT INFORMATION.....	<b>1.0</b>
SITE CHARACTERIZATION.....	<b>2.0</b>
CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE.....	<b>3.0</b>
REMEDIATION ACTIVITIES SUMMARY.....	<b>4.0</b>
RESTORATION, RECLAMATION & RE-VEGETATION PLAN.....	<b>5.0</b>
DEFERRAL REQUEST.....	<b>6.0</b>
LIMITATIONS.....	<b>7.0</b>
DISTRIBUTION.....	<b>8.0</b>

### FIGURES

Figure 1 - Topographic Map  
Figure 2 - Aerial Proximity Map  
Figure 3A - Site and Sample Location Map - Well Head  
Figure 3B - Site and Sample Location Map - Tank Battery

### TABLES

Table 1 - Concentrations of BTEX, TPH & Chloride in Soil

### APPENDICES

**Appendix A - Amended Depth to Groundwater Information**  
Appendix B - Field Data & Soil Profile Logs  
Appendix C - Laboratory Analytical Reports  
Appendix D - Photographic Log

## 1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of H.L. Brown Operating, LLC, has prepared this *Remediation Summary & Deferral Request* for the release site known as the Fed Com 28 001 (henceforth, "Site"). Details of the release are summarized below:

### Location of Release Source

Latitude: 33.68177 Longitude: -103.150933  
Provided GPS are in WGS84 format.

Site Name:	Fed Com 28 001	Site Type:	Tank Battery
Date Release Discovered:	9/7/2022	API # (if applicable):	30-041-20822

Unit Letter	Section	Township	Range	County
H	28	7S	37E	Roosevelt

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name KIZER MACK LIFE ESTATE)

### Nature and Volume of Release

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls)	5 bbls	Volume Recovered (bbls)	0 bbls
<input type="checkbox"/> Produced Water	Volume Released (bbls)		Volume Recovered (bbls)	
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Condensate	Volume Released (bbls)		Volume Recovered (bbls)	
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)		Volume Recovered (Mcf)	
<input type="checkbox"/> Other (describe)	Volume/Weight Released		Volume/Weight Recovered	

Cause of Release:  
 Historical release found during site inspection.

### Initial Response

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

Previously submitted portions of the NMOCD Form C-141 are available on the NMOCD Imaging System.

## 2.0 SITE CHARACTERIZATION

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half-mile radius of the Site. Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. Depth to groundwater information is provided as Appendix A.

What is the shallowest depth to groundwater beneath the area affected by the release?	184.5 Feet		
Did the release impact groundwater or surface water?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
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Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
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Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
Did the release impact areas not on an exploration, development, production or storage site?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) and Fish & Wildlife Services (FWS) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted in Figures 1, 2, 4, and 5.

## 3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

Based on the volume and nature of the release, inferred depth to groundwater, and NMOCD Siting Criteria, the NMOCD Closure Criteria and NMOCD Reclamation Standards for the Site are as follows:

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria*†	Reclamation Standard*‡
184.5 Feet	Chloride (Cl-)	EPA 300.0 or SM4500 Cl B	20,000	600
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	2,500	100
	Gas Range Organics + Diesel Range Organics (GRO + DRO)	EPA SW-846 Method 8015M	1,000	-
	Benzene	EPA SW-846 Methods 8021b or 8260b	10	10
	Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX)	EPA SW-846 Methods 8021b or 8260b	50	50

\* Measured in milligrams per kilogram (mg/kg)

† Table I, Section 19.15.29.12 of the New Mexico Administrative Code (NMAC).

‡ The NMOCD Reclamation Standard applies only to the top 4' of soil in non-production areas. Section 19.15.29.13 D.(1) NMAC.

## 4.0 REMEDIATION ACTIVITIES SUMMARY

On October 13, 2022, remediation activities commenced at the Site. In accordance with NMOCD regulatory guidelines, impacted soil affected above the NMOCD Closure Criteria was excavated and stockpiled on-site, pending transfer to an NMOCD-permitted surface waste facility for disposal. Olfactory/visual senses and a Hach Quantab® chloride test kit were utilized to field-screen the horizontal and vertical extent of impacted soil and to guide the excavation. The floor and sidewalls of the excavation were advanced until field tests and field observations suggested BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standards, or to the extent practicable.

Upon excavating impacted soil affected above the NMOCD Closure Criteria, Etech collected twenty-five (25) confirmation soil samples (FS 1 @ 3', FS 2 @ 3', FS 3 @ 1', FL 4 @ 8', FL 5 @ 8', FL 6 @ 4', FL 7 @ 3', EW 1, EW 2, EW 3, NW 1, NW 2, NW 3 B, NW 3 C, NW 3 - DEF @ 4', NW 4, SW 1, SW 2, SW 3, SW 4, WW 1, WW 2, WW 3 D, WW 4 and WW 5 D). The collected soil samples were submitted to a certified, commercial laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the NMOCD Closure Criteria in all of the submitted soil samples with the exceptions of NW 4 (1,910 mg/kg GRO+DRO), SW 3 (4,590 mg/kg TPH) and WW 4 (1,900 mg/kg GRO+DRO).

Etech advanced three (3) hand-augered soil bores at the sample locations NW 4, SW 3 and WW 4 to characterize the affected area adjacent to and beneath the above-ground crude oil storage tank requiring deferral of remediation. During the advancement of the hand-augered soil bores, a total of five (5) soil samples (NW 4 - DEF @ 6', SW 3 - DEF @ 4', SW 3 - DEF @ 6', SW 3 - DEF @ 8' and WW4 - DEF @ 4') were collected and field-screened utilizing olfactory/visual senses and/or a chloride test kit. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Based on laboratory analytical results, soil was not affected above the NMOCD Closure Criteria beyond six (6) feet below ground surface (bgs) in the area characterized by the auger hole at NW 4, eight (8) feet bgs in the area characterized by the auger hole at SW 3 and four (4) feet bgs in the area characterized by the auger hole at WW 4.

In addition, Etech collected seven (7) horizontal delineation soil samples (NH 1 @ 1', NH 2 @ 1', EH 1 @ 1', SH 1 @ 1', SH 2 @ 1', WH 1 @ 1' and WH 2 @ 1') in an effort to further characterize the horizontal extent of the release. The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX, TPH, and chloride concentrations were below the NMOCD Closure Criteria and NMOCD Reclamation Standards in all of the submitted soil samples.

The final dimensions of the excavated areas were approximately (length by width by height in feet) 20x20x3, 10x10x1, 26x9x4, 21x8x8 and 21x7x8. During the course of remediation activities, approximately 160 cubic yards of impacted soil was excavated and transported to an NMOCD-permitted surface waste facility for disposal.

The extent of the excavated area, the area to be deferred, and the locations of the composite confirmation soil samples and auger holes are depicted in Figure 3A "Site & Sample Location Map - Wellhead" and Figure 3B "Site and Sample Location Map - Tank Battery". Soil chemistry data is summarized in Table 1. General photographs of the Site are provided in Appendix D. Laboratory analytical reports are provided in Appendix C.

## 5.0 RESTORATION, RECLAMATION & RE-VEGETATION PLAN

The release was limited to the production pad of an active tank battery. Upon receiving laboratory analytical results from confirmation soil samples, excavated areas were backfilled with locally sourced, non-impacted, "like" material placed at or near original relative positions and compacted/contoured to fit the needs of the facility. Final remediation, reclamation, and revegetation will be conducted upon decommissioning and abandonment of the facility.



## 6.0 DEFERRAL REQUEST

Remediation activities were conducted in accordance with applicable NMOCD regulatory guidelines. Impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standards was excavated to the extent practicable and transported to an NMOCD-approved disposal facility. Laboratory analytical results from confirmation soil samples indicate concentrations of BTEX and chloride are below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards. Remediation of TPH-impacted soil affected above the NMOCD Closure Criteria remaining in-situ in the deferral area will be completed upon decommissioning and abandonment of the tank battery facility, in accordance with Sections 19.15.29.12 and 19.15.29.13 NMAC.

Based on laboratory analytical results and field activities conducted to date, Etech recommends H.L. Brown Operating, LLC, provide copies of this *Remediation Summary & Deferral Request* to the appropriate agencies and cease remediation activities at the site.

## 7.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this *Remediation Summary & Deferral Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents reference in the report and on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of H.L. Brown Operating, LLC. Use of the information contained in this report is prohibited without the consent of Etech and/or H.L. Brown Operating, LLC.

## 8.0 DISTRIBUTION

***H.L. Brown Operating, LLC***

*300 West Louisiana  
Midland, TX 79702-2237*

***New Mexico Energy, Minerals and Natural Resources Department***

*Oil Conservation Division, District 1  
1220 South St. Francis Drive  
Santa Fe, NM 87505*

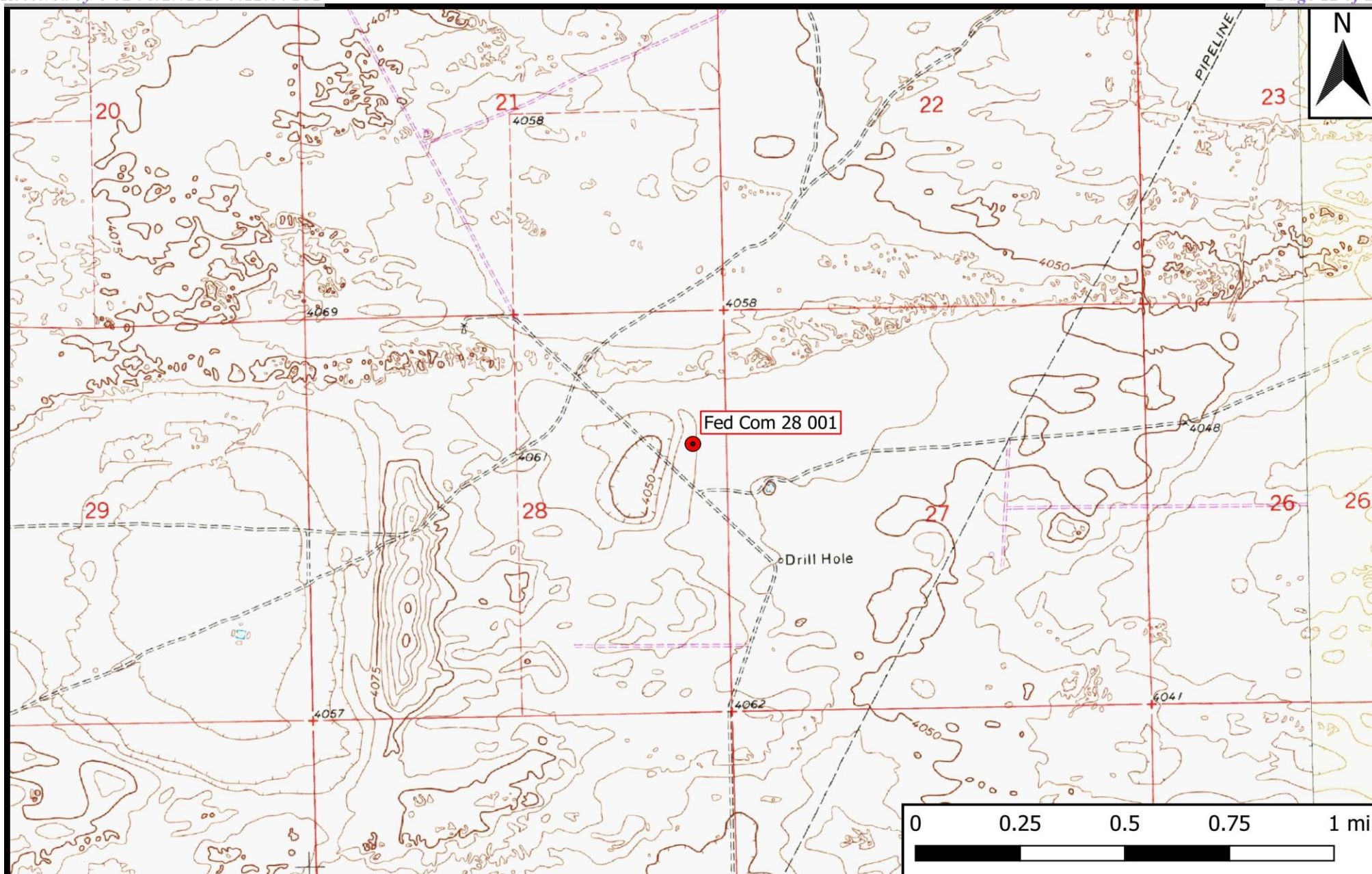
***New Mexico Energy, Minerals and Natural Resources Department***

*Oil Conservation Division, District 1  
1220 South St. Francis Drive  
Santa Fe, NM 87505*

*(Electronic Submission)*

## **Figure 1**

### **Topographic Map**



## Legend

● Site Location

## Figure 1

Topographic Map  
H. L. Brown Operating LLC  
Fed Com 28 001  
GPS: 33.68177, -103.150933  
Roosevelt County



Drafted: mag

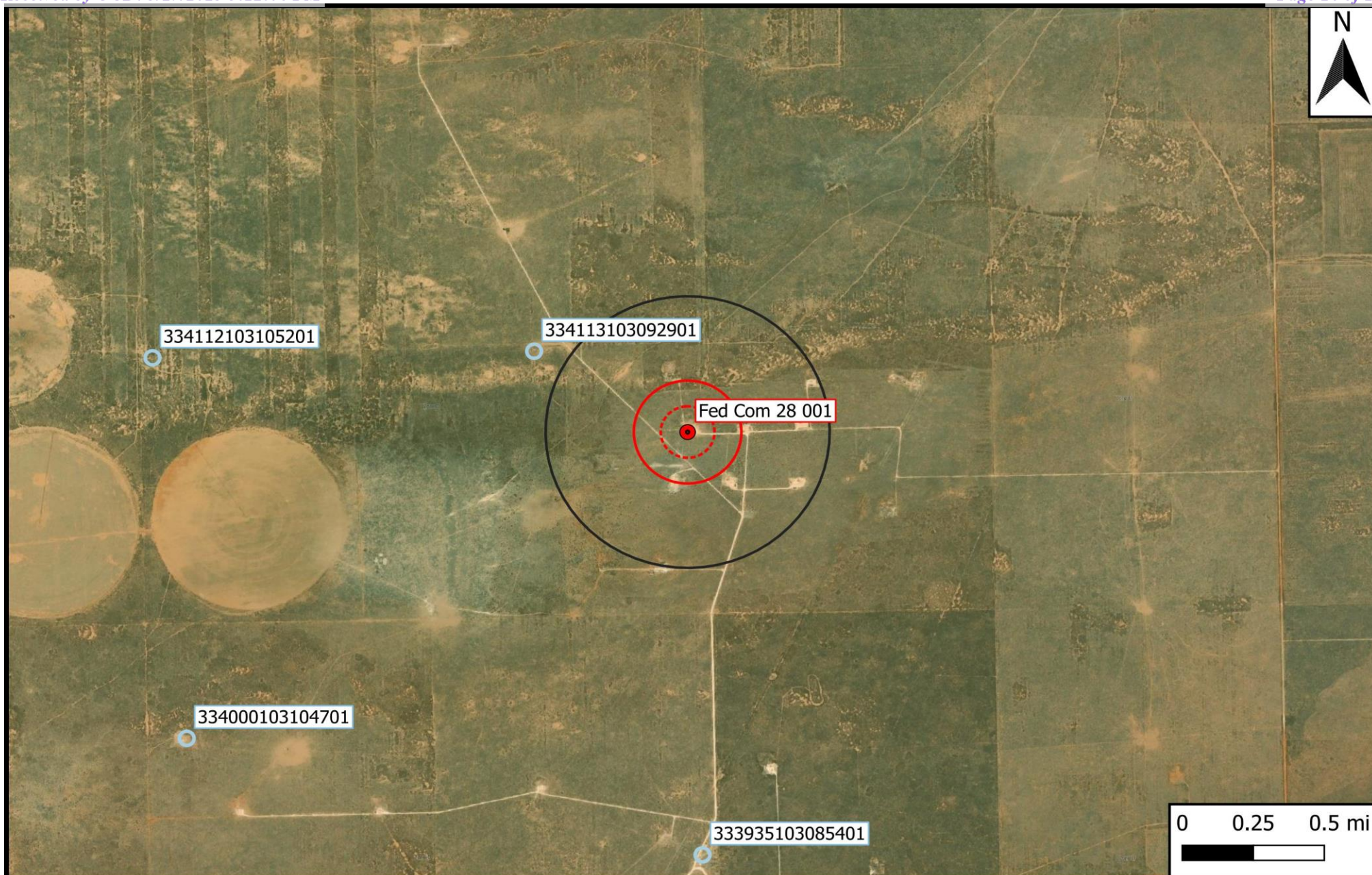
Checked: jk

Date: 10/11/22



## **Figure 2**

### **Aerial Proximity Map**



## Legend

- |   |   |
|---|---|
| <span style="color: red;">●</span> Site Location  | <span style="border: 1px dashed red; padding: 2px;"> </span> 500 Ft Radius  |
| <span style="color: blue;">○</span> Well - NMOSE  | <span style="border: 1px solid red; padding: 2px;"> </span> 1000 Ft Radius  |
| <span style="color: lightblue;">○</span> Well - USGS  | <span style="border: 1px solid black; padding: 2px;"> </span> 0.5 Mi Radius   |
| <span style="color: orange;">—</span> Potash Mine Workings  | <span style="background-color: lightblue; width: 15px; height: 10px; display: inline-block;"></span> 1% Annual Flood Chance |
| <span style="background-color: pink; width: 15px; height: 10px; display: inline-block;"></span> Medium/High Karst | <span style="background-color: blue; width: 15px; height: 10px; display: inline-block;"></span> Lake/Freshwater Pond        |
|   | <span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span> Emergent/Forested Wetlands |
|   | <span style="background-color: cyan; width: 15px; height: 10px; display: inline-block;"></span> Riverine                    |

Figure 2

Aerial Proximity Map  
 H. L. Brown Operating LLC  
 Fed Com 28 001  
 GPS: 33.68177, -103.150933  
 Roosevelt County



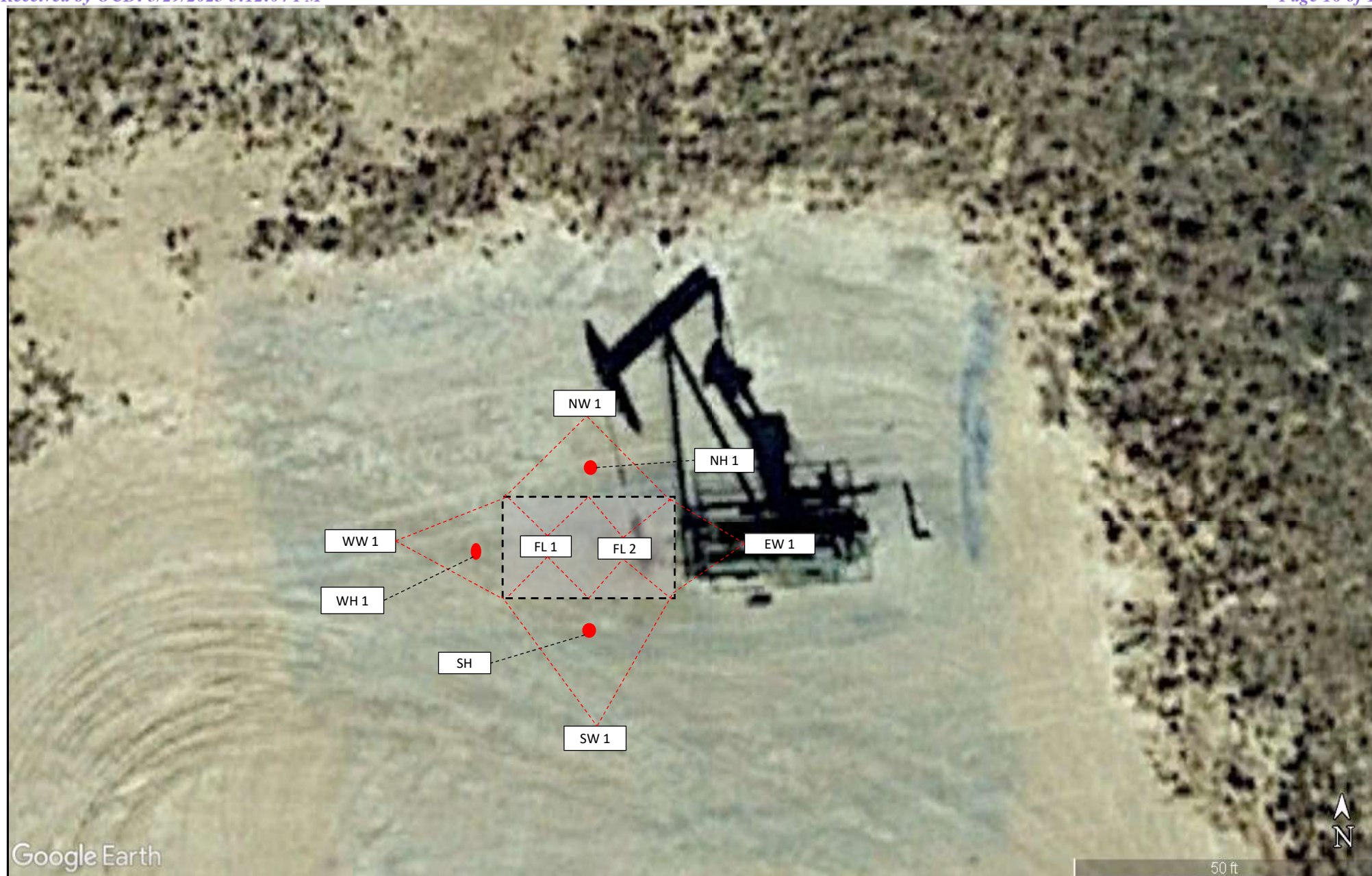
Drafted: mag

Checked: jk

Date: 10/11/22

## **Figure 3A and Figure 3B Site and Sample Location Maps**



**Legend:**

- Confirmation Sample Location
- Horizontal Delineation Sample Point
- Excavated Area

**Figure 3A**

Site and Sample Location Map - Wellhead  
 H.L. Brown Operating, LLC  
 Fed Com 28 001  
 GPS: 33.68177, -103.150933  
 Roosevelt County



Drafted: ZPC

Checked: JWL

Date: 1/20/23





## Legend:

- T Confirmation Sample Location
- Horizontal Delineation Sample Point
- - - Excavated Area
- Area to be Deferred
- Deferral Sample Point

Figure 3B

Site and Sample Location Map - Tank Battery  
 H.L. Brown Operating, LLC  
 Fed Com 28 001  
 GPS: 33.68177, -103.150933  
 Roosevelt County

**eTECH**  
 Environmental & Safety Solutions, Inc.

Drafted: ZPC

Checked: JWL

Date: 1/20/23

**Table 1**  
**Concentrations of BTEX, TPH, and Chloride in Soil**

**Table 1**  
**Concentrations of BTEX, TPH, and Chloride in Soil**  
**H.L. Brown Operating, LLC**  
**Fed Com 28 001**  
**NMOCD Ref. #: nAPP2227230643**

NMOCD Closure Criteria				10	50	-	-	1,000	-	2,500	20,000
NMOCD Reclamation Standard				10	50	-	-	-	-	100	600
Sample ID	Date	Depth (Feet)	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
WH 1 @ Surf	10/25/2022	0	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	48.0
WH 1 @ 1'	10/25/2022	1	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	64.0
NW 3 - DEF @ 4'	10/25/2022	4	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	-
NW 4 - DEF @ 6'	11/14/2022	6	In-Situ	<0.050	<0.300	<10.0	769	769	69.6	839	-
SW 3 - DEF @ 4'	10/25/2022	4	Deferred	<0.025	<0.150	125	8,230	<b>8,360</b>	868	<b>9,220</b>	-
SW 3 - DEF @ 6'	11/14/2022	6	Deferred	<0.050	<0.300	<10.0	3,010	<b>3,010</b>	430	<b>3,440</b>	-
SW 3 DEF @ 8'	12/1/2022	8	In-Situ	<0.050	<0.300	<10.0	568	568	95.9	664	-
WW 4 - DEF @ 4'	10/25/2022	4	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	-
FS 1 @ 3'	10/19/2022	3	In-Situ	<0.050	<0.300	<10.0	332	332	120	452	976
FS 2 @ 3'	10/19/2022	3	In-Situ	<0.050	<0.300	<10.0	291	291	113	404	928
FS 3 @ 1'	10/19/2022	1	In-Situ	<0.050	<0.300	<10.0	143	143	38.5	182	160
FS 4 @ 3'	10/19/2022	3	Excavated	<0.050	8.33	251	5,750	<b>6,000</b>	623	<b>6,620</b>	288
FL 4 @ 4'	10/25/2022	4	Excavated	<0.025	<0.150	<50.0	7,220	<b>7,220</b>	987	<b>8,210</b>	-
FL 4 @ 6'	11/14/2022	6	Excavated	<0.050	<0.300	<50.0	2,470	<b>2,470</b>	386	<b>2,860</b>	-
FL 4 @ 8'	12/1/2022	8	In-Situ	<0.050	<0.300	<10.0	257	257	30.3	287	-
FS 5 @ 3'	10/19/2022	3	Excavated	<0.050	2.91	822	7,550	<b>8,370</b>	737	<b>9,110</b>	912
FL 5 @ 4'	10/25/2022	4	Excavated	<0.025	<0.150	<50.0	1,840	<b>1,840</b>	461	2,300	-
FL 5 @ 6'	11/14/2022	6	Excavated	<0.050	<0.300	<10.0	2,660	<b>2,660</b>	298	<b>2,960</b>	-
FL 5 @ 8'	12/1/2022	8	In-Situ	<0.050	<0.300	<10.0	718	718	121	839	-
FS 6 @ 3'	10/19/2022	3	Excavated	<0.050	10.8	295	2,470	<b>2,770</b>	244	<b>3,010</b>	400
FL 6 @ 4'	10/25/2022	4	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	-
FS 7 @ 3'	10/19/2022	3	In-Situ	<0.050	3.72	50.8	562	613	71.9	685	608
EW 1	10/19/2022	0-	In-Situ	<0.050	<0.300	<10.0	12.6	12.6	13.7	26.3	208
EW 2	10/19/2022	0-	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
EW 3	10/19/2022	0-	In-Situ	<0.050	0.836	11.8	283	295	52.5	347	208
NW 1	10/19/2022	0-	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	752
NW 2	10/19/2022	0-	In-Situ	<0.050	<0.300	<10.0	16.2	16.2	<10.0	16.2	640
NW 3	10/19/2022	0-	Deferred	<0.050	<0.300	<50.0	1,130	<b>1,130</b>	321	1,450	80.0
NW 3 B	10/25/2022	0-	Excavated	<0.025	<0.150	<10.0	573	573	164	737	-
NW 3 C	11/14/2022	0-	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	-
NW 4	10/19/2022	0-	Deferred	<0.050	2.34	51.7	1,910	<b>1,960</b>	410	2,370	592
SW 1	10/19/2022	0-	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	752
SW 2	10/19/2022	0-	In-Situ	<0.050	<0.300	<50.0	595	595	158	753	256
SW 3	10/19/2022	0-	In-Situ	<0.050	7.30	191	3,840	<b>4,030</b>	561	<b>4,590</b>	896
SW 4	10/19/2022	0-	In-Situ	<0.050	<0.300	<10.0	244	244	49.6	294	80.0
WW 1	10/19/2022	0-	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	848
WW 2	10/19/2022	0-	In-Situ	<0.050	<0.300	<10.0	15.3	15.3	<10.0	15.3	320
WW 3	10/19/2022	0-	Excavated	<0.050	21.1	377	2,540	<b>2,920</b>	428	<b>3,350</b>	160
WW 3 B	10/25/2022	0-	Excavated	<0.025	<0.150	57.1	2,290	<b>2,350</b>	525	<b>2,870</b>	-
WW 3 C	11/14/2022	0-	Excavated	<0.050	<0.300	<10.0	1,680	<b>1,680</b>	207	1,890	-
WW 3 D	12/1/2022	0-	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	-

Dash (-): Sample not analyzed for that constituent.

Bold: NMOCD Closure Criteria exceedance.

Red: NMOCD Reclamation Standard exceedance.

<b>Table 1</b> <b>Concentrations of BTEX, TPH, and Chloride in Soil</b> <b>H.L. Brown Operating, LLC</b> <b>Fed Com 28 001</b> <b>NMOCD Ref. #: nAPP2227230643</b>											
NMOCD Closure Criteria				10	50	-	-	1,000	-	2,500	20,000
NMOCD Reclamation Standard				10	50	-	-	-	-	100	600
Sample ID	Date	Depth (Feet)	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C <sub>6</sub> -C <sub>10</sub> (mg/kg)	DRO C <sub>10</sub> -C <sub>28</sub> (mg/kg)	GRO + DRO C <sub>6</sub> -C <sub>28</sub> (mg/kg)	ORO C <sub>28</sub> -C <sub>36</sub> (mg/kg)	TPH C <sub>6</sub> -C <sub>36</sub> (mg/kg)	Chloride (mg/kg)
WW 4	10/19/2022	0-	Deferred	<0.050	4.60	121	1,780	<b>1,900</b>	281	2,180	1,540
WW 5	10/19/2022	0-	Excavated	<0.050	1.76	125	5,500	<b>5,630</b>	907	<b>6,530</b>	1,090
WW 5 B	10/25/2022	0-	In-Situ	<0.025	<0.150	<10.0	<10.0	<20.0	<10.0	<30.0	-
NH 1 @ 1'	12/15/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
NH 2 @ 1'	12/15/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128
EH 1 @ 1'	12/15/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
SH 1 @ 1'	12/15/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
SH 2 @ 1'	12/15/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
WH 1 @ 1'	12/15/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
WH 2 @ 1'	12/15/2022	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	128

Dash (-): Sample not analyzed for that constituent.

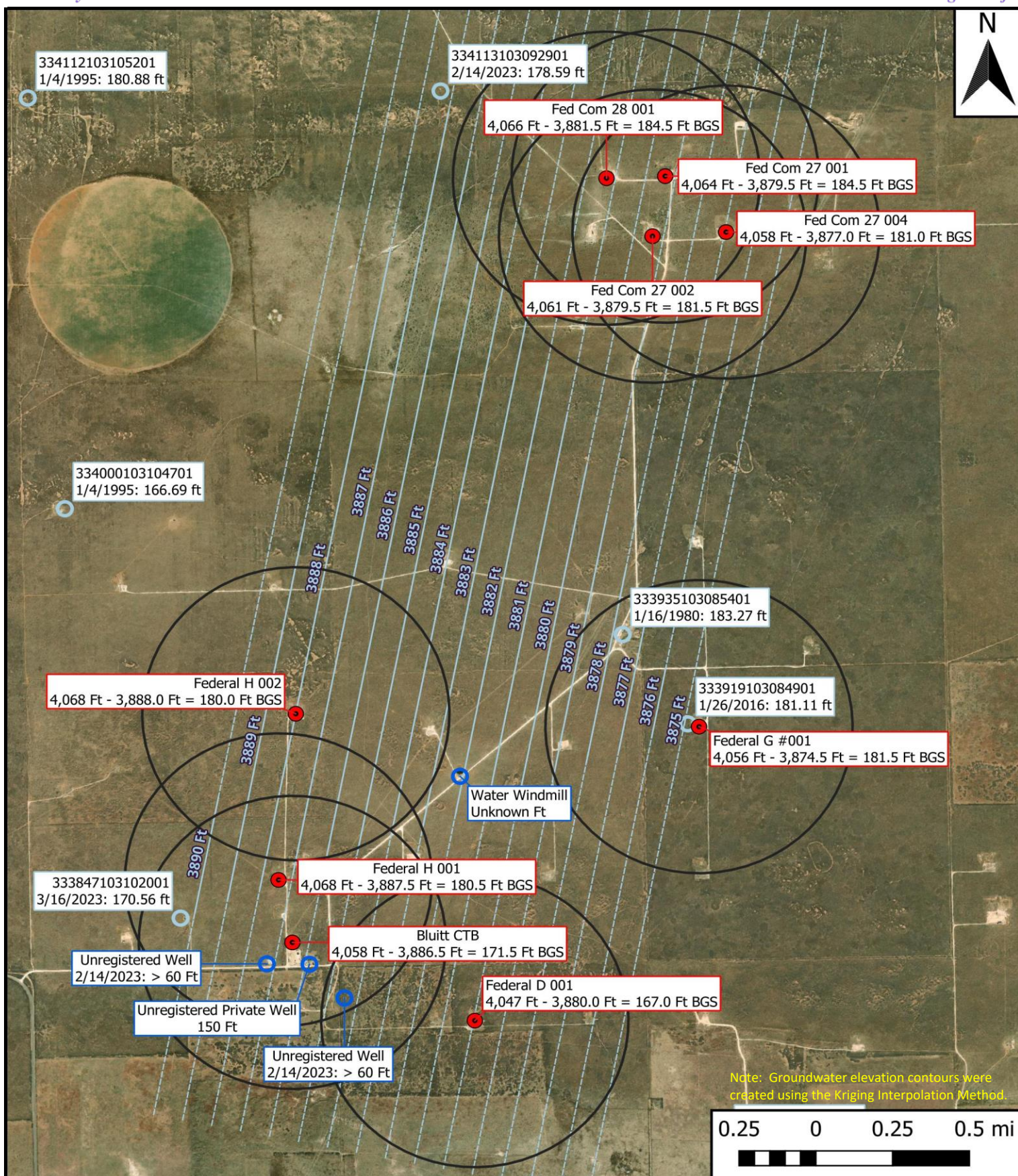
**Bold:** NMOCD Closure Criteria exceedance.**Red:** NMOCD Reclamation Standard exceedance.



## **Appendix A**

### **Depth to Groundwater Information**





- Site Location
- Half Mile Radius
- Well - USGS
- Well - Other
- Groundwater Contours (Ft MSL)
- Extended Groundwater Contours

**HL Brown Sites**  
Inferred Depth to Groundwater Map  
H.L. Brown Operating, LLC

Map GPS: 33.66350422, -103.15426221  
Roosevelt County, NM

**eTECH**  
Environmental & Safety Solutions, Inc.

Drafted: mag

Checked: jwl

Date: 3/17/23





## Ground Water Sampling Log

Well ID: Unregistered Well

Date: 2/14/2023

### Site Description/Construction Detail

Project: HL Browns Personnel:

Well Description/Location: Abandoned well SE of House Total Depth<sup>a</sup> (ft bmp): N/A

Type of Well:    Monitor    Recovery    Potable    Irrigation    Other

Casing Material: PVC (Steel) Other \_\_\_\_\_ Diameter: 2" 4" 6" Other 10" Screen (ft bmp): Stow Pipe

Condition of Seal: Good Poor Needs Repair Other Well Locked? Y N

## Gauging Data

Static Water Level<sup>b</sup> (ft bmp) 760 Time \_\_\_\_\_ Measure Point Description Top of casing .75 ft ass

Comments: Open @ 60 ft, did not go deeper, fear of equipment damage?

### Well Purge Data

Volume Factors <sup>c</sup>					
Dia (in.)	2"	3"	4"	5"	6"
Gal/ft	0.163	0.367	0.653	1.020	1.469

Well Volume ((a-b) x c) = gal

Purging Volume (3 x Well Vol) = \_\_\_\_\_ gal

Well Purging Method: submersible peristaltic bailer other \_\_\_\_\_ Depth pump set (ft bmp) \_\_\_\_\_

### Water Quality Indicator Parameters

[illegible]

**Recording Interval:** Traditional volume purge - every ½ well volume; Low flow - every 3-5 min, drawdown should not exceed 0.33ft during purging.

Total Gallons Purged

Approximate Discharge Rate (gpm): \_\_\_\_\_

### Sample Data

Sample Collection Method:    submersible    peristaltic    bailer    other\_\_\_\_\_ Sample Time \_\_\_\_\_

**Comments** \*Project name for sample labels (if abbr): \_\_\_\_\_ Duplicate Collected? Y N

Stability • pH:  $\pm 0.1$

Criteria:

- SC:  $\pm 5\%$ , for SC  $\leq 100 \mu\text{S/cm}$ ;  $\pm 3\%$ , for SC  $> 100 \mu\text{S/cm}$
- DO:  $\pm 10\%$  or 0.3 mg/L (whichever is greater)
- Temp:  $\pm 0.2^\circ\text{C}$  (USGS for thermistor)

Sample tubing left in well?    Y    N  
(circle yes or no)

If so, length (ft)?



## Ground Water Sampling Log

Well ID: C/n registered well

Date: 2/14/2023

### Site Description/Construction Detail

Project: HL Browns Personnel:

Well Description/Location: Abandoned well Total Depth<sup>a</sup> (ft bmp): N/A

Type of Well: Monitor Recovery Potable Irrigation Other Abandoned Livestock

Casing Material: PVC Steel Other \_\_\_\_\_ Diameter: 2" 4" 6" Other \_\_\_\_\_ Screen (ft bmp): Stone Pipe

Condition of Seal: Good Poor Needs Repair Other Well Locked? Y N

## Gauging Data

Static Water Level<sup>b</sup> (ft bmp) 760 ft Time \_\_\_\_\_ Measure Point Description Top of Casine 1.5 ft ass

Comments: Open @ 60 ft, did not go deeper, fear of losing equipment / damage

### Well Purge Data

Volume Factors <sup>c</sup>					
Dia (in.)	2"	3"	4"	5"	6"
Gal/ft	0.163	0.367	0.653	1.020	1.469

Well Volume ((a-b) x c) = gal

Purging Volume (3 x Well Vol) = \_\_\_\_\_ gal

Well Purging Method: submersible peristaltic bailer other \_\_\_\_\_ Depth pump set (ft bmp) \_\_\_\_\_

### Water Quality Indicator Parameters

[illegible]

**Recording Interval:** Traditional volume purge - every ½ well volume; Low flow - every 3-5 min, drawdown should not exceed 0.33ft during purging.

Total Gallons Purged

Approximate Discharge Rate (gpm): \_\_\_\_\_

### Sample Data

Sample Collection Method:    submersible    peristaltic    bailer    other\_\_\_\_\_    Sample Time\_\_\_\_\_

**Comments** \*Project name for sample labels (if abbr): \_\_\_\_\_ Duplicate Collected? Y N

Stability • pH:  $\pm 0.1$

Criteria:

- SC:  $\pm 5\%$ , for SC  $\leq 100 \mu\text{S/cm}$ ;  $\pm 3\%$ , for SC  $> 100 \mu\text{S/cm}$
- DO:  $\pm 10\%$  or  $0.3 \text{ mg/L}$  (whichever is greater)
- Temp:  $\pm 0.2^\circ\text{C}$  (USGS for thermistor)

Sample tubing left in well?    Y    N  
(circle yes or no)

If so, **length** (ft)?





## Ground Water Sampling Log

Well ID: 333647103102001

Date: 2/14/2016

### Site Description/Construction Detail

Project: HL Browns Personnel: \_\_\_\_\_

Well Description/Location: Abandoned well Total Depth<sup>a</sup> (ft bmp): NA

Type of Well: Monitor Recovery Potable Irrigation Other

Casing Material: PVC Steel Other \_\_\_\_\_ Diameter: 2" 4" 6" Other \_\_\_\_\_ Screen (ft bmp): Stone Pipe

Condition of Seal:	Good	Poor	Needs Repair	Other	Well Locked?	Y	N
--------------------	------	------	--------------	-------	--------------	---	---

## Gauging Data

Static Water Level<sup>b</sup> (ft bmp) 760 Time            Measure Point Description           

Comments: Did not go deeper, fear of equipment damage

## Well Purge Data

Volume Factors <sup>c</sup>					
Dia (in.)	2"	3"	4"	5"	6"
Gal/ft	0.163	0.367	0.653	1.020	1.469

Well Volume ((a-b) x c) = \_\_\_\_\_ gal

Purging Volume (3 x Well Vol) = gal

Well Purging Method: ☒ submersible ☐ peristaltic ☐ bailer ☐ other \_\_\_\_\_ Depth pump set (ft bmp) \_\_\_\_\_

### Water Quality Indicator Parameters

[illegible]

**Recording Interval:** Traditional volume purge - every ½ well volume; Low flow - every 3-5 min, drawdown should not exceed 0.33ft during purging.

Total Gallons Purged

Approximate Discharge Rate (gpm): \_\_\_\_\_

### Sample Data

Sample Collection Method:    submersible    peristaltic    bailer    other\_\_\_\_\_    Sample Time\_\_\_\_\_

**Comments** \*Project name for sample labels (if abbr): \_\_\_\_\_ Duplicate Collected? Y N

Stability • pH:  $\pm 0.1$

Criteria:

- SC:  $\pm 5\%$ , for SC  $\leq 100 \mu\text{S/cm}$ ;  $\pm 3\%$ , for SC  $> 100 \mu\text{S/cm}$
- DO:  $\pm 10\%$  or  $0.3 \text{ mg/L}$  (whichever is greater)
- Temp:  $\pm 0.2^\circ\text{C}$  (USGS for thermistor)

Sample tubing left in well?    Y    N  
(circle yes or no)

If so, **length** (ft)? \_\_\_\_\_



## Ground Water Sampling Log

Well ID: 334113103092901

Date: 2/14/2023

### Site Description/Construction Detail

Project: HL Browns Personnel: \_\_\_\_\_

Well Description/Location: NW of Fed Corner Total Depth<sup>a</sup> (ft bmp): N/A

Type of Well: Monitor ☒ Recovery ☐ Potable ☐ Irrigation ☐ Other Abandoned Livestock

Casing Material: PVC Steel Other \_\_\_\_\_ Diameter: 2" 4" 6" Other \_\_\_\_\_ Screen (ft bmp): \_\_\_\_\_

Condition of Seal:	Good	Poor	Needs Repair	Other	Well Locked?	Y	N

## Gauging Data

Static Water Level<sup>b</sup> (ft bmp) 178.59 Time \_\_\_\_\_ Measure Point Description Top of Casine

Comments:

## Well Purge Data

Volume Factors <sup>c</sup>					
Dia (in.)	2"	3"	4"	5"	6"
Gal/ft	0.163	0.367	0.653	1.020	1.469

Well Volume ((a-b) x c) = \_\_\_\_\_ gal

Purging Volume (3 x Well Vol) = \_\_\_\_\_ gal

Well Purging Method: ☒ submersible ☐ peristaltic ☐ bailer ☐ other \_\_\_\_\_ Depth pump set (ft bmp) \_\_\_\_\_

### Water Quality Indicator Parameters

[illegible]

**Recording Interval:** Traditional volume purge - every ½ well volume; Low flow - every 3-5 min, drawdown should not exceed 0.33ft during purging.

Total Gallons Purged \_\_\_\_\_

Approximate Discharge Rate (gpm): \_\_\_\_\_

### Sample Data

Sample Collection Method: submersible peristaltic bailer other \_\_\_\_\_ Sample Time \_\_\_\_\_

**Comments** \*Project name for sample labels (if abbr): \_\_\_\_\_ Duplicate Collected? Y N

- |           |   |
|-----------|---|
| Stability | • pH: $\pm 0.1$   |
| Criteria: | <ul style="list-style-type: none"> <li>• SC: <math>\pm 5\%</math>, for SC <math>\leq 100 \mu\text{S/cm}</math>; <math>\pm 3\%</math>, for SC <math>&gt; 100 \mu\text{S/cm}</math></li> <li>• DO: <math>\pm 10\%</math> or <math>0.3 \text{ mg/L}</math> (whichever is greater)</li> <li>• Temp: <math>\pm 0.2^\circ\text{C}</math> (USGS for thermistor)</li> </ul> |

Sample tubing left in well?    Y    N  
(circle yes or no)

If so, length (ft)?



## Ground Water Sampling Log

Well ID: 333847103102001

Date: 3/16/2023

### Site Description/Construction Detail

Project: HL Browns Personnel: \_\_\_\_\_

Well Description/Location: Abandoned Well Total Depth<sup>a</sup> (ft bmp): N/A

Type of Well: Monitor Recovery Potable Irrigation Other Abandoned Well, Livestock

Casing Material: PVC Steel Other \_\_\_\_\_ Diameter: 2" 4" 6" Other \_\_\_\_\_ Screen (ft bmp): Stone Pipe

Condition of Seal: Good Poor Needs Repair Other N/A Well Locked? Y (N)

## Gauging Data

Static Water Level<sup>b</sup> (ft bmp) 176.56 Time \_\_\_\_\_ Measure Point Description Top of Casing ~ 2 ft sgs

Comments:

## Well Purge Data

Volume Factors <sup>c</sup>					
Dia (in.)	2"	3"	4"	5"	6"
Gal/ft	0.163	0.367	0.653	1.020	1.469

Well Volume ((a-b) x c) = gal

Purging Volume (3 x Well Vol) = \_\_\_\_\_ gal

Well Purging Method: ☒ submersible ☐ peristaltic ☐ bailer ☐ other \_\_\_\_\_ Depth pump set (ft bmp) \_\_\_\_\_

### Water Quality Indicator Parameters

[illegible]

**Recording Interval:** Traditional volume purge - every ½ well volume; Low flow - every 3-5 min, drawdown should not exceed 0.33ft during purging.

Total Gallons Purged \_\_\_\_\_

Approximate Discharge Rate (gpm): \_\_\_\_\_

### Sample Data

Sample Collection Method:    submersible    peristaltic    bailer    other \_\_\_\_\_    Sample Time \_\_\_\_\_

**Comments** \*Project name for sample labels (if abbr): \_\_\_\_\_ Duplicate Collected? Y N

Stability • pH:  $\pm 0.1$

Criteria:

- SC:  $\pm 5\%$ , for SC  $\leq 100 \mu\text{S/cm}$ ;  $\pm 3\%$ , for SC  $> 100 \mu\text{S/cm}$
- DO:  $\pm 10\%$  or  $0.3 \text{ mg/L}$  (whichever is greater)
- Temp:  $\pm 0.2^\circ\text{C}$  (USGS for thermistor)

Sample tubing left in well?    Y    N  
(circle yes or no)

If so, length (ft)?



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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

No records found.

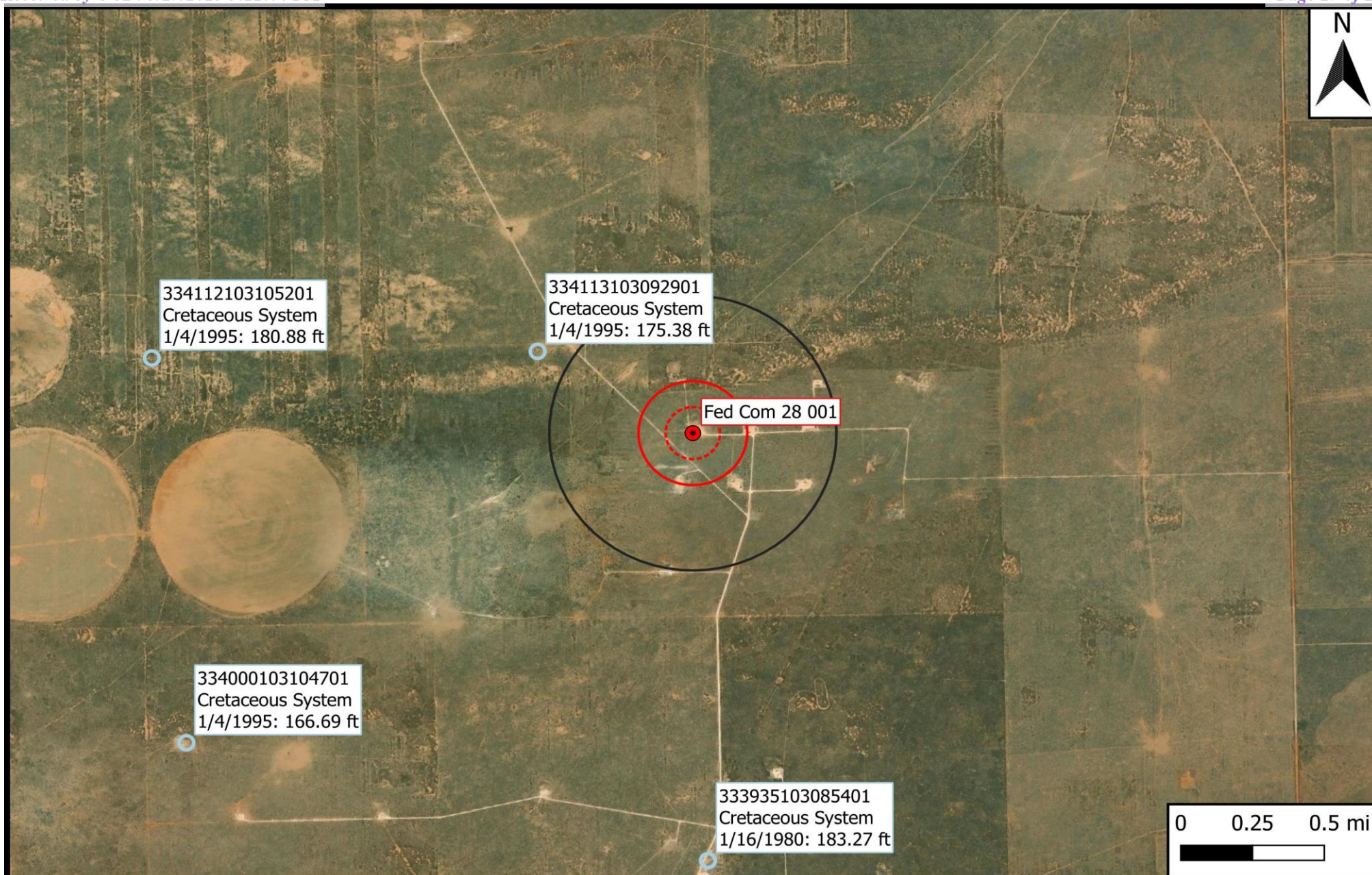
**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 671403      **Northing (Y):** 3728406.35      **Radius:** 3220

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

10/11/22 11:46 AM      WATER COLUMN/ AVERAGE  
DEPTH TO WATER



**Legend**

- Site Location
- Well - USGS
- ⋯ 500 Ft Radius
- ⬜ 1000 Ft Radius
- ⬜ 0.5 Mi Radius

**Figure 4**

USGS Well Proximity Map  
H. L. Brown Operating LLC  
Fed Com 28 001  
GPS: 33.68177, -103.150933  
Roosevelt County



Drafted: mag

Checked: jk

Date: 10/11/22



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Agency code = usgs

site\_no list =

- 333935103085401

Minimum number of levels = 1

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### USGS 333935103085401 07S.37E.33.444213

Available data for this site

Groundwater: Field measurements

GO

Roosevelt County, New Mexico

Hydrologic Unit Code 12050001

Latitude 33°39'33", Longitude 103°09'00" NAD27

Land-surface elevation 4,049.00 feet above NGVD29

The depth of the well is 208 feet below land surface.

This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.

This well is completed in the Cretaceous System (210CRCS) local aquifer.

#### Output formats

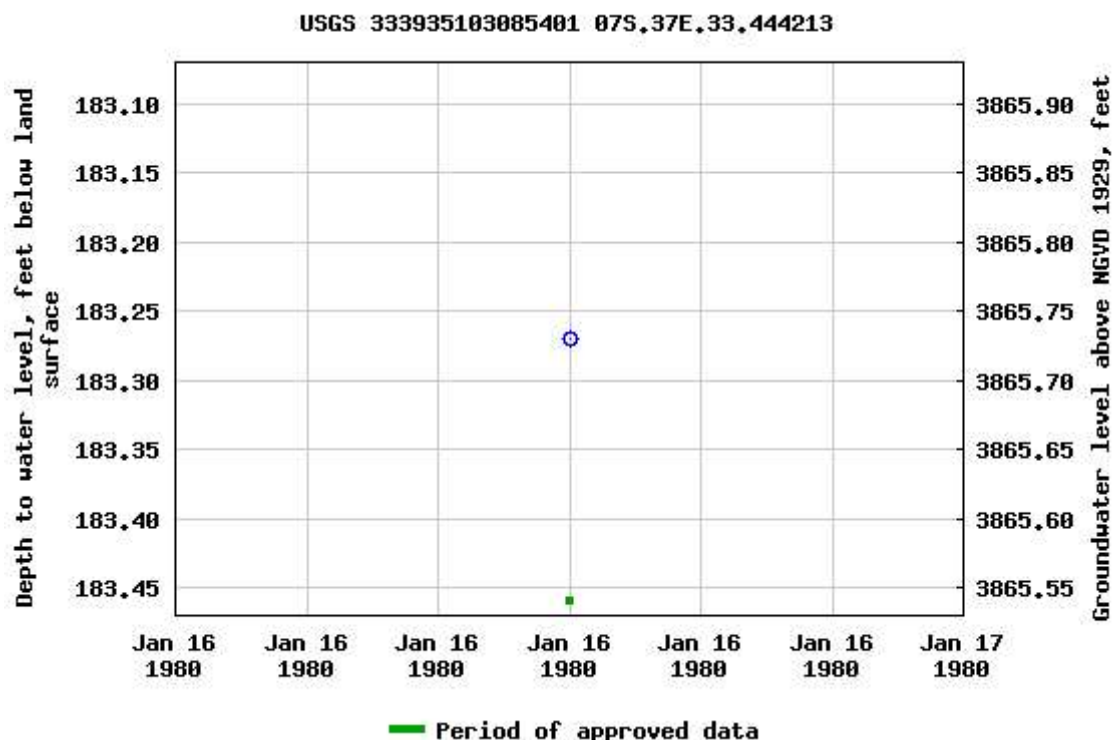
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0.58 0.49 nadww01





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site\_no list =

- 334000103104701

Minimum number of levels = 1

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### USGS 334000103104701 07S.37E.32.134131

Available data for this site

Groundwater: Field measurements

GO

Roosevelt County, New Mexico

Hydrologic Unit Code 12050001

Latitude 33°39'57", Longitude 103°10'53" NAD27

Land-surface elevation 4,074.00 feet above NGVD29

This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.

This well is completed in the Cretaceous System (210CRCS) local aquifer.

#### Output formats

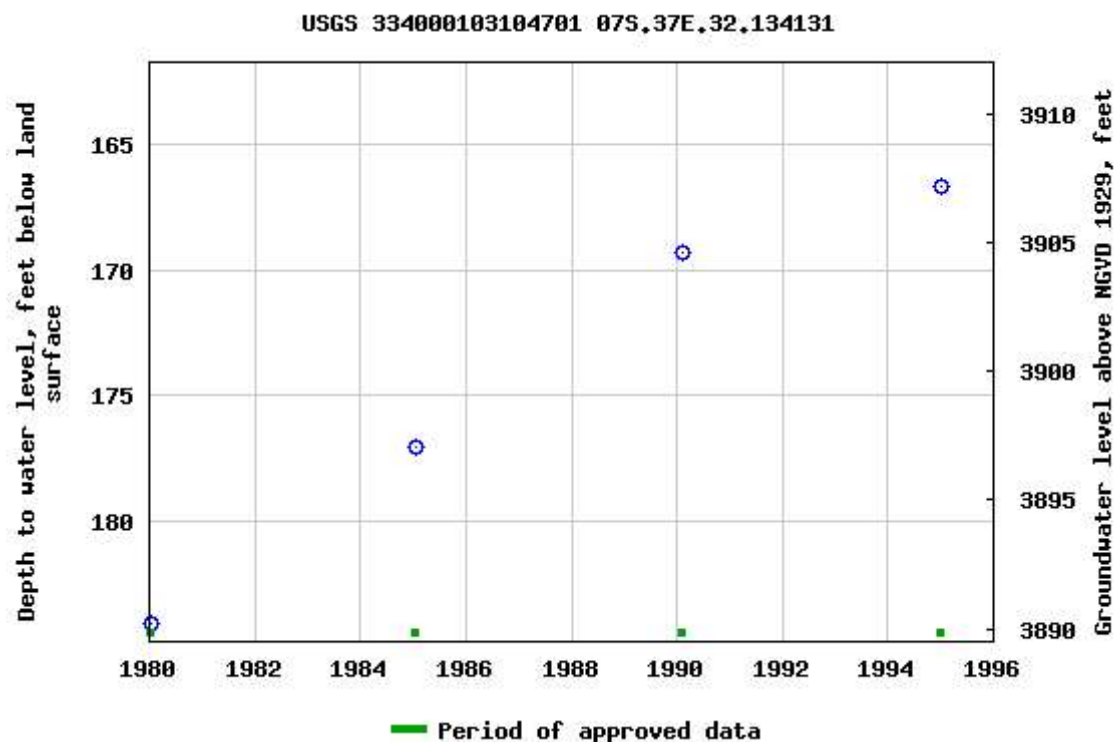
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0.63 0.56 nadww01





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Agency code = usgs

site\_no list =

- 334112103105201

Minimum number of levels = 1

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### USGS 334112103105201 07S.37E.29.11110

Available data for this site

Groundwater: Field measurements

GO

Roosevelt County, New Mexico

Hydrologic Unit Code 12050001

Latitude 33°41'10", Longitude 103°10'59" NAD27

Land-surface elevation 4,082.00 feet above NGVD29

This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.

This well is completed in the Cretaceous System (210CRCS) local aquifer.

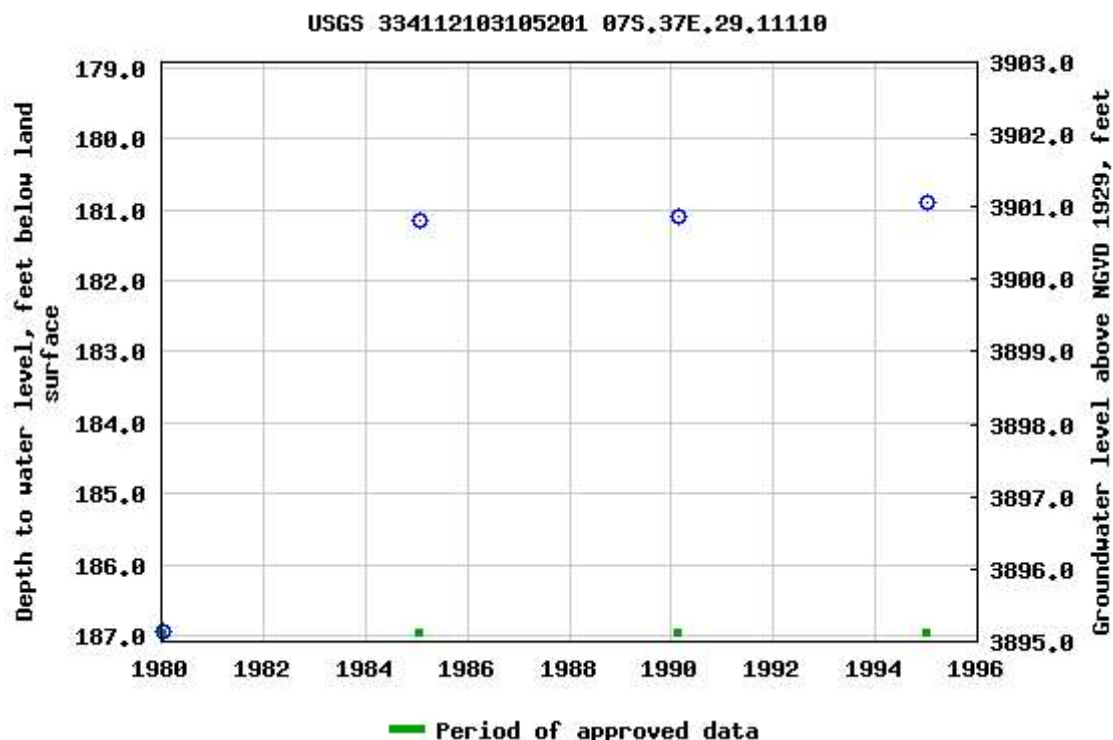
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0.6 0.52 nadww01





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Groundwater levels for the Nation

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### Search Results -- 1 sites found

Agency code = usgs

site\_no list =

- 334113103092901

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

### USGS 334113103092901 07S.37E.28.122113

Available data for this site

Groundwater: Field measurements

GO

Roosevelt County, New Mexico

Hydrologic Unit Code 12050001

Latitude 33°41'10", Longitude 103°09'35" NAD27

Land-surface elevation 4,064.00 feet above NGVD29

This well is completed in the High Plains aquifer (N100HGHPLN) national aquifer.

This well is completed in the Cretaceous System (210CRCS) local aquifer.

#### Output formats

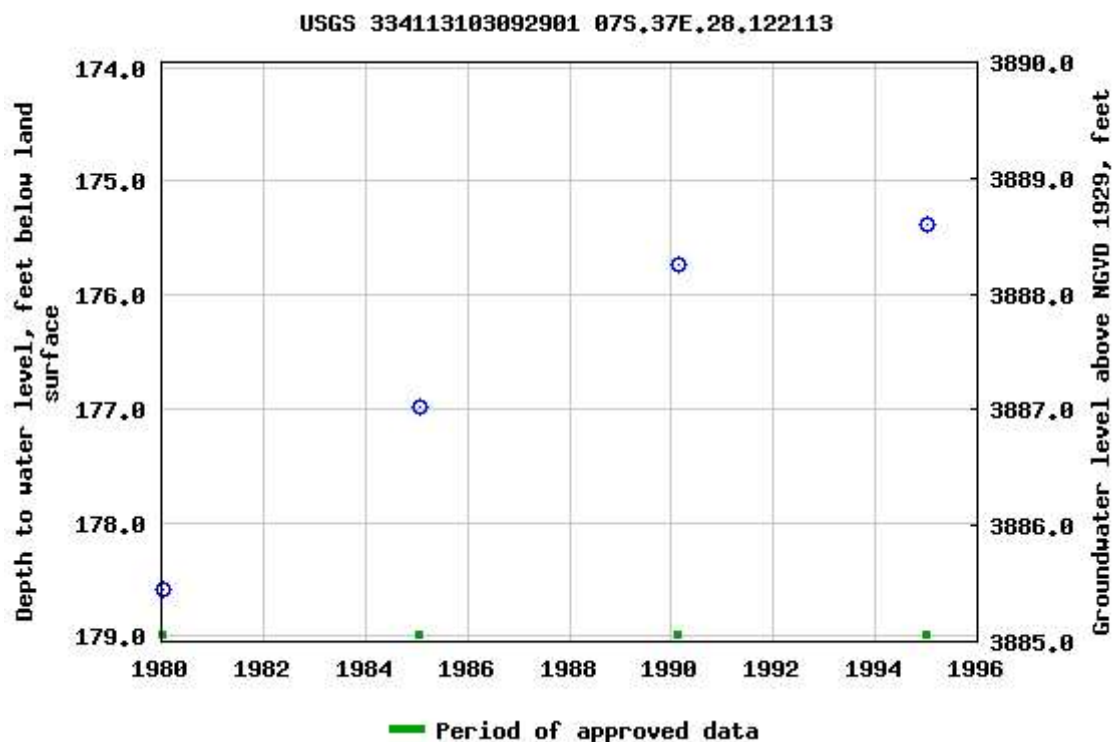
[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)





Breaks in the plot represent a gap of at least one year between field measurements.

[Download a presentation-quality graph](#)

[Questions about sites/data?](#)

[Feedback on this web site](#)

[Automated retrievals](#)

[Help](#)

[Data Tips](#)

[Explanation of terms](#)

[Subscribe for system changes](#)

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[FOIA](#)

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[Policies and Notices](#)

[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**

Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2022-10-11 13:44:03 EDT

0.62 0.55 nadww01



## **Appendix B**

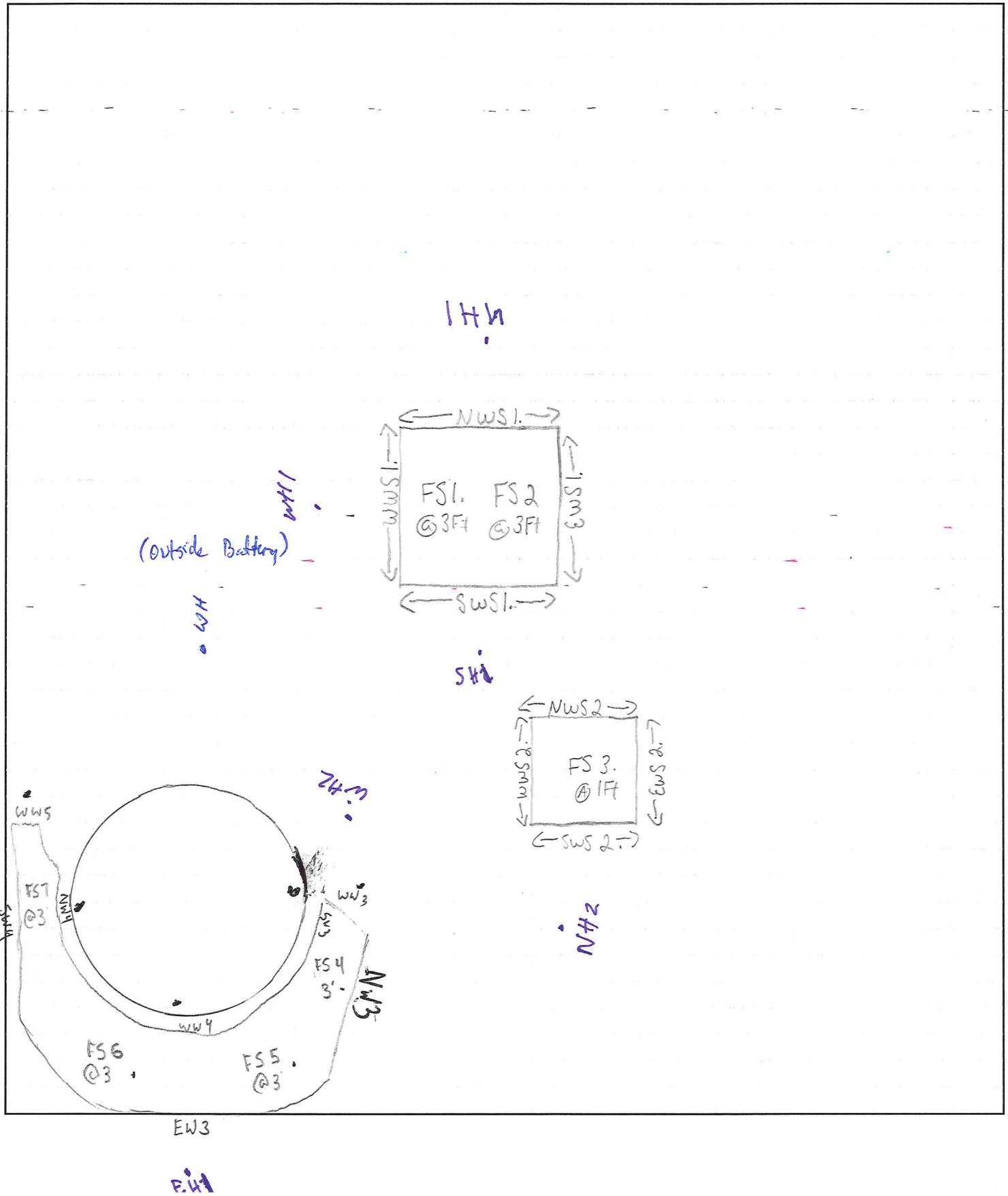
### **Field Data and Soil Profile Logs**

## Field Map

Project Number: 16848

Project: Fed Com 28 001

Date:



## Date:

Longitude: -103.150933

### GPS Sample Points, Center of Comp Areas





Soil Profile

Date: 12-1-22

Project: Fed Com 28 001  
Project Number: 16848 Latitude: 33.68177 Longitude: -103.150933

Depth (ft. bgs)	6"	Caliche/Pad Material	Description
1		Red Sand	
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
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## **Appendix C**

### **Laboratory Analytical Reports**



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

December 16, 2022

JOEL LOWRY

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: FED COM #28 001

Enclosed are the results of analyses for samples received by the laboratory on 12/15/22 15:12.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/15/2022	Sampling Date:	12/15/2022
Reported:	12/16/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Shalyn Rodriguez
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: NH 1 @ 1' (H225931-01)**

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/15/2022	ND	2.10	105	2.00	0.959	
Toluene*	<0.050	0.050	12/15/2022	ND	2.12	106	2.00	0.0563	
Ethylbenzene*	<0.050	0.050	12/15/2022	ND	2.07	104	2.00	1.52	
Total Xylenes*	<0.150	0.150	12/15/2022	ND	6.37	106	6.00	2.40	
Total BTX	<0.300	0.300	12/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	12/16/2022	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/16/2022	ND	181	90.4	200	1.80	
DRO >C10-C28*	<10.0	10.0	12/16/2022	ND	177	88.7	200	0.294	
EXT DRO >C28-C36	<10.0	10.0	12/16/2022	ND					

Surrogate: 1-Chlorooctane 89.2 % 45.3-161

Surrogate: 1-Chlorooctadecane 101 % 46.3-178

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/15/2022	Sampling Date:	12/15/2022
Reported:	12/16/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Shalyn Rodriguez
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: NH 2 @ 1' (H225931-02)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/15/2022	ND	2.10	105	2.00	0.959		
Toluene*	<0.050	0.050	12/15/2022	ND	2.12	106	2.00	0.0563		
Ethylbenzene*	<0.050	0.050	12/15/2022	ND	2.07	104	2.00	1.52		
Total Xylenes*	<0.150	0.150	12/15/2022	ND	6.37	106	6.00	2.40		
Total BTEx	<0.300	0.300	12/15/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	12/16/2022	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/16/2022	ND	181	90.4	200	1.80	
DRO >C10-C28*	<10.0	10.0	12/16/2022	ND	177	88.7	200	0.294	
EXT DRO >C28-C36	<10.0	10.0	12/16/2022	ND					

Surrogate: 1-Chlorooctane 95.5 % 45.3-161

Surrogate: 1-Chlorooctadecane 107 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/15/2022	Sampling Date:	12/15/2022
Reported:	12/16/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Shalyn Rodriguez
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: EH 1 @ 1' (H225931-03)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/15/2022	ND	2.10	105	2.00	0.959		
Toluene*	<0.050	0.050	12/15/2022	ND	2.12	106	2.00	0.0563		
Ethylbenzene*	<0.050	0.050	12/15/2022	ND	2.07	104	2.00	1.52		
Total Xylenes*	<0.150	0.150	12/15/2022	ND	6.37	106	6.00	2.40		
Total BTEx	<0.300	0.300	12/15/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	12/16/2022	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/16/2022	ND	181	90.4	200	1.80	
DRO >C10-C28*	<10.0	10.0	12/16/2022	ND	177	88.7	200	0.294	
EXT DRO >C28-C36	<10.0	10.0	12/16/2022	ND					

Surrogate: 1-Chlorooctane 87.7 % 45.3-161

Surrogate: 1-Chlorooctadecane 96.8 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/15/2022	Sampling Date:	12/15/2022
Reported:	12/16/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Shalyn Rodriguez
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SH 1 @ 1' (H225931-04)**

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/15/2022	ND	2.10	105	2.00	0.959	
Toluene*	<0.050	0.050	12/15/2022	ND	2.12	106	2.00	0.0563	
Ethylbenzene*	<0.050	0.050	12/15/2022	ND	2.07	104	2.00	1.52	
Total Xylenes*	<0.150	0.150	12/15/2022	ND	6.37	106	6.00	2.40	
Total BTX	<0.300	0.300	12/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	12/16/2022	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/16/2022	ND	181	90.4	200	1.80	
DRO >C10-C28*	<10.0	10.0	12/16/2022	ND	177	88.7	200	0.294	
EXT DRO >C28-C36	<10.0	10.0	12/16/2022	ND					

Surrogate: 1-Chlorooctane 78.2 % 45.3-161

Surrogate: 1-Chlorooctadecane 87.8 % 46.3-178

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/15/2022	Sampling Date:	12/15/2022
Reported:	12/16/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Shalyn Rodriguez
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SH 2 @ 1' (H225931-05)**

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/15/2022	ND	2.10	105	2.00	0.959	
Toluene*	<0.050	0.050	12/15/2022	ND	2.12	106	2.00	0.0563	
Ethylbenzene*	<0.050	0.050	12/15/2022	ND	2.07	104	2.00	1.52	
Total Xylenes*	<0.150	0.150	12/15/2022	ND	6.37	106	6.00	2.40	
Total BTX	<0.300	0.300	12/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	12/16/2022	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/16/2022	ND	181	90.4	200	1.80	
DRO >C10-C28*	<10.0	10.0	12/16/2022	ND	177	88.7	200	0.294	
EXT DRO >C28-C36	<10.0	10.0	12/16/2022	ND					

Surrogate: 1-Chlorooctane 82.7 % 45.3-161

Surrogate: 1-Chlorooctadecane 91.8 % 46.3-178

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/15/2022	Sampling Date:	12/15/2022
Reported:	12/16/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Shalyn Rodriguez
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: WH 1 @ 1' (H225931-06)**

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/15/2022	ND	2.10	105	2.00	0.959	
Toluene*	<0.050	0.050	12/15/2022	ND	2.12	106	2.00	0.0563	
Ethylbenzene*	<0.050	0.050	12/15/2022	ND	2.07	104	2.00	1.52	
Total Xylenes*	<0.150	0.150	12/15/2022	ND	6.37	106	6.00	2.40	
Total BTX	<0.300	0.300	12/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	12/16/2022	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/16/2022	ND	181	90.4	200	1.80	
DRO >C10-C28*	<10.0	10.0	12/16/2022	ND	177	88.7	200	0.294	
EXT DRO >C28-C36	<10.0	10.0	12/16/2022	ND					

Surrogate: 1-Chlorooctane 90.1 % 45.3-161

Surrogate: 1-Chlorooctadecane 99.0 % 46.3-178

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/15/2022	Sampling Date:	12/15/2022
Reported:	12/16/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Shalyn Rodriguez
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: WH 2 @ 1' (H225931-07)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/15/2022	ND	2.10	105	2.00	0.959	
Toluene*	<0.050	0.050	12/15/2022	ND	2.12	106	2.00	0.0563	
Ethylbenzene*	<0.050	0.050	12/15/2022	ND	2.07	104	2.00	1.52	
Total Xylenes*	<0.150	0.150	12/15/2022	ND	6.37	106	6.00	2.40	
Total BTEx	<0.300	0.300	12/15/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	12/16/2022	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/16/2022	ND	181	90.4	200	1.80	
DRO >C10-C28*	<10.0	10.0	12/16/2022	ND	177	88.7	200	0.294	
EXT DRO >C28-C36	<10.0	10.0	12/16/2022	ND					

Surrogate: 1-Chlorooctane 94.5 % 45.3-161

Surrogate: 1-Chlorooctadecane 105 % 46.3-178

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

---

Celey D. Keene, Lab Director/Quality Manager



**• CARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

**(575) 393-2326 FAX (575) 393-2476**

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>(575) 393-2326 FAX (575) 393-2476</b>					
<b>Company Name:</b> Etech Environmental & Safety Solutions, Inc.					
<b>Project Manager:</b> Joel Lowry			<b>BILL TO</b>		
<b>Address:</b> 2617 W Marland			<b>P.O. #:</b>		
<b>City:</b> Hobbs	<b>State:</b> NM	<b>Zip:</b> 88240	<b>Company:</b> H.L Brown		
<b>Phone #:</b> (575) 264-9884	<b>Fax #:</b>		<b>Attn:</b>		
<b>Project #:</b> 16848	<b>Project Owner:</b> H.L Brown		<b>Address:</b>		
<b>Project Name:</b> Fed com #28 cool			<b>City:</b>		
<b>Project Location:</b> Rural Roosevelt co., NM			<b>State:</b> Zip:		
<b>Sampler Name:</b> Miguel Ramirez			<b>Phone #:</b>		
<b>FOR LAB USE ONLY</b>			<b>Fax #:</b>		

Lab I.D.	Sample I.D.	(G/RAB OR C)/OMP. # CONTAINERS	MATRIX					PRESERV.  ACID/BASE: ICE / COOL OTHER :	SAMPLING  DATE TIME	ANALYSIS REQUEST								
			GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE			OTHER :	Chloride	TPH (8015M)	BTEX (8021B)					
H225931					X				12/15/12									
1 NH1 @ 1'											X	X	X					
2 NH2 @ 1'																		
3 EH1 @ 1'																		
4 SH1 @ 1'																		
5 SH2 @ 1'																		
6 WH1 @ 1'																		
7 WH2 @ 1'																		

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

<b>Relinquished By:</b> 	<b>Date:</b> 12/15/12	<b>Received By:</b> 	<b>Phone Result:</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>Add'l Phone #:</b>
<b>Time:</b> 1512			<b>Fax Result:</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>Add'l Fax #:</b>
<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other: 32JC@Vc	<b>Date:</b>	<b>Received By:</b>	<b>REMARKS:</b> Push please	
<b>Time:</b>			Please email results and copy of CoC to pm@etechenv.com.	
<b>Sample Condition:</b> Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>CHECKED BY:</b> (Initials) 			

FORM-006 Revision 1.0      † Cardinal cannot accept verbal changes. Please fax written changes to 575 393 2476





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

December 09, 2022

JOEL LOWRY

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: FED COM 28 001

Enclosed are the results of analyses for samples received by the laboratory on 12/02/22 15:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Snyder".

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/02/2022	Sampling Date:	12/01/2022
Reported:	12/09/2022	Sampling Type:	Soil
Project Name:	FED COM 28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	RURAL ROOSEVELT CO., NM		

**Sample ID: FL 4 @ 8' (H225679-01)**

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/09/2022	ND	2.06	103	2.00	3.71		
Toluene*	<0.050	0.050	12/09/2022	ND	2.07	103	2.00	3.98		
Ethylbenzene*	<0.050	0.050	12/09/2022	ND	2.02	101	2.00	4.62		
Total Xylenes*	<0.150	0.150	12/09/2022	ND	6.24	104	6.00	4.62		
Total BTX	<0.300	0.300	12/09/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/07/2022	ND	217	108	200	0.808	
DRO >C10-C28*	257	10.0	12/07/2022	ND	202	101	200	2.41	
EXT DRO >C28-C36	30.3	10.0	12/07/2022	ND					

Surrogate: 1-Chlorooctane 86.7 % 45.3-161

Surrogate: 1-Chlorooctadecane 95.7 % 46.3-178

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/02/2022	Sampling Date:	12/01/2022
Reported:	12/09/2022	Sampling Type:	Soil
Project Name:	FED COM 28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	RURAL ROOSEVELT CO., NM		

**Sample ID: FL 5 @ 8' (H225679-02)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/09/2022	ND	2.06	103	2.00	3.71		
Toluene*	<0.050	0.050	12/09/2022	ND	2.07	103	2.00	3.98		
Ethylbenzene*	<0.050	0.050	12/09/2022	ND	2.02	101	2.00	4.62		
Total Xylenes*	<0.150	0.150	12/09/2022	ND	6.24	104	6.00	4.62		
Total BTEx	<0.300	0.300	12/09/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/07/2022	ND	217	108	200	0.808	
DRO >C10-C28*	718	10.0	12/07/2022	ND	202	101	200	2.41	
EXT DRO >C28-C36	121	10.0	12/07/2022	ND					

Surrogate: 1-Chlorooctane 81.8 % 45.3-161

Surrogate: 1-Chlorooctadecane 117 % 46.3-178

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/02/2022	Sampling Date:	12/01/2022
Reported:	12/09/2022	Sampling Type:	Soil
Project Name:	FED COM 28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	RURAL ROOSEVELT CO., NM		

**Sample ID: SW 3 DEF @ 8' (H225679-03)**

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/09/2022	ND	2.06	103	2.00	3.71	
Toluene*	<0.050	0.050	12/09/2022	ND	2.07	103	2.00	3.98	
Ethylbenzene*	<0.050	0.050	12/09/2022	ND	2.02	101	2.00	4.62	
Total Xylenes*	<0.150	0.150	12/09/2022	ND	6.24	104	6.00	4.62	
Total BTX	<0.300	0.300	12/09/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/07/2022	ND	217	108	200	0.808	
DRO >C10-C28*	568	10.0	12/07/2022	ND	202	101	200	2.41	
EXT DRO >C28-C36	95.9	10.0	12/07/2022	ND					

Surrogate: 1-Chlorooctane 80.4 % 45.3-161

Surrogate: 1-Chlorooctadecane 86.4 % 46.3-178

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	12/02/2022	Sampling Date:	12/01/2022
Reported:	12/09/2022	Sampling Type:	Soil
Project Name:	FED COM 28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	RURAL ROOSEVELT CO., NM		

**Sample ID: WW 3 D (H225679-04)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/09/2022	ND	2.06	103	2.00	3.71	
Toluene*	<0.050	0.050	12/09/2022	ND	2.07	103	2.00	3.98	
Ethylbenzene*	<0.050	0.050	12/09/2022	ND	2.02	101	2.00	4.62	
Total Xylenes*	<0.150	0.150	12/09/2022	ND	6.24	104	6.00	4.62	
Total BTEX	<0.300	0.300	12/09/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/07/2022	ND	181	90.6	200	5.51	
DRO >C10-C28*	<10.0	10.0	12/07/2022	ND	178	89.2	200	6.64	
EXT DRO >C28-C36	<10.0	10.0	12/07/2022	ND					

Surrogate: 1-Chlorooctane 81.9 % 45.3-161

Surrogate: 1-Chlorooctadecane 90.3 % 46.3-178

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

### Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Mike Snyder", is written over a horizontal line.

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

**ARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

**(575) 393-2326 FAX (575) 393-2476**

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

November 22, 2022

JOEL LOWRY

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: FED COM #28 001

Enclosed are the results of analyses for samples received by the laboratory on 11/16/22 15:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/16/2022	Sampling Date:	11/14/2022
Reported:	11/22/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FL 4 @ 6' (H225427-01)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/18/2022	ND	1.84	92.2	2.00	12.6		
Toluene*	<0.050	0.050	11/18/2022	ND	1.96	97.9	2.00	15.5		
Ethylbenzene*	<0.050	0.050	11/18/2022	ND	1.73	86.7	2.00	17.5		
Total Xylenes*	<0.150	0.150	11/18/2022	ND	5.13	85.5	6.00	19.2		
Total BTEX	<0.300	0.300	11/18/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS		S-06				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<50.0	50.0	11/17/2022	ND	215	108	200	11.0		
<b>DRO &gt;C10-C28*</b>	<b>2470</b>	50.0	11/17/2022	ND	214	107	200	7.51		
<b>EXT DRO &gt;C28-C36</b>	<b>386</b>	50.0	11/17/2022	ND						

Surrogate: 1-Chlorooctane 91.5 % 45.3-161

Surrogate: 1-Chlorooctadecane 201 % 46.3-178

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/16/2022	Sampling Date:	11/14/2022
Reported:	11/22/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FL 5 @ 6' (H225427-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/18/2022	ND	1.84	92.2	2.00	12.6		
Toluene*	<0.050	0.050	11/18/2022	ND	1.96	97.9	2.00	15.5		
Ethylbenzene*	<0.050	0.050	11/18/2022	ND	1.73	86.7	2.00	17.5		
Total Xylenes*	<0.150	0.150	11/18/2022	ND	5.13	85.5	6.00	19.2		
Total BTEX	<0.300	0.300	11/18/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2022	ND	215	108	200	11.0	
DRO >C10-C28*	2660	10.0	11/17/2022	ND	214	107	200	7.51	
EXT DRO >C28-C36	298	10.0	11/17/2022	ND					

Surrogate: 1-Chlorooctane 90.1 % 45.3-161

Surrogate: 1-Chlorooctadecane 177 % 46.3-178

Cardinal Laboratories

\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/16/2022	Sampling Date:	11/14/2022
Reported:	11/22/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: NW 3 C (H225427-03)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/18/2022	ND	1.84	92.2	2.00	12.6		
Toluene*	<0.050	0.050	11/18/2022	ND	1.96	97.9	2.00	15.5		
Ethylbenzene*	<0.050	0.050	11/18/2022	ND	1.73	86.7	2.00	17.5		
Total Xylenes*	<0.150	0.150	11/18/2022	ND	5.13	85.5	6.00	19.2		
Total BTEX	<0.300	0.300	11/18/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2022	ND	215	108	200	11.0	
DRO >C10-C28*	<10.0	10.0	11/17/2022	ND	214	107	200	7.51	
EXT DRO >C28-C36	<10.0	10.0	11/17/2022	ND					

Surrogate: 1-Chlorooctane 87.5 % 45.3-161

Surrogate: 1-Chlorooctadecane 98.3 % 46.3-178

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\*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/16/2022	Sampling Date:	11/14/2022
Reported:	11/22/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: NW 4 - DEF @ 6' (H225427-04)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/18/2022	ND	1.84	92.2	2.00	12.6		
Toluene*	<0.050	0.050	11/18/2022	ND	1.96	97.9	2.00	15.5		
Ethylbenzene*	<0.050	0.050	11/18/2022	ND	1.73	86.7	2.00	17.5		
Total Xylenes*	<0.150	0.150	11/18/2022	ND	5.13	85.5	6.00	19.2		
Total BTX	<0.300	0.300	11/18/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2022	ND	215	108	200	11.0	
DRO >C10-C28*	769	10.0	11/17/2022	ND	214	107	200	7.51	
EXT DRO >C28-C36	69.6	10.0	11/17/2022	ND					

Surrogate: 1-Chlorooctane 92.2 % 45.3-161

Surrogate: 1-Chlorooctadecane 132 % 46.3-178

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/16/2022	Sampling Date:	11/14/2022
Reported:	11/22/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SW 3 - DEF @ 6' (H225427-05)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/18/2022	ND	1.84	92.2	2.00	12.6		
Toluene*	<0.050	0.050	11/18/2022	ND	1.96	97.9	2.00	15.5		
Ethylbenzene*	<0.050	0.050	11/18/2022	ND	1.73	86.7	2.00	17.5		
Total Xylenes*	<0.150	0.150	11/18/2022	ND	5.13	85.5	6.00	19.2		
Total BTX	<0.300	0.300	11/18/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2022	ND	215	108	200	11.0	
DRO >C10-C28*	3010	10.0	11/17/2022	ND	214	107	200	7.51	
EXT DRO >C28-C36	430	10.0	11/17/2022	ND					

Surrogate: 1-Chlorooctane 87.6 % 45.3-161

Surrogate: 1-Chlorooctadecane 145 % 46.3-178

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	11/16/2022	Sampling Date:	11/14/2022
Reported:	11/22/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: WW 3 C (H225427-06)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/18/2022	ND	1.84	92.2	2.00	12.6		
Toluene*	<0.050	0.050	11/18/2022	ND	1.96	97.9	2.00	15.5		
Ethylbenzene*	<0.050	0.050	11/18/2022	ND	1.73	86.7	2.00	17.5		
Total Xylenes*	<0.150	0.150	11/18/2022	ND	5.13	85.5	6.00	19.2		
Total BTEX	<0.300	0.300	11/18/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.1 % 69.9-140

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2022	ND	215	108	200	11.0	
DRO >C10-C28*	1680	10.0	11/17/2022	ND	214	107	200	7.51	
EXT DRO >C28-C36	207	10.0	11/17/2022	ND					

Surrogate: 1-Chlorooctane 83.9 % 45.3-161

Surrogate: 1-Chlorooctadecane 221 % 46.3-178

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-04	The RPD for the BS/BSD was outside of historical limits.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Mike Snyder".

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



# **CARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

## **CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

<b>Company Name:</b> Etech Environmental & Safety Solutions, Inc.				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>													
<b>Project Manager:</b> Joel Lowry				<b>P.O. #:</b>				<div style="display: flex; justify-content: space-around;"> <div>Chloride</div> <div>TPH (8015M)</div> <div>BTEX (8021B)</div> </div>													
<b>Address:</b> 2617 W Marland				<b>Company:</b> H.L. Brown																	
<b>City:</b> Hobbs		<b>State:</b> NM		<b>Zip:</b> 88240		<b>Attn:</b>															
<b>Phone #:</b> (575) 264-9884		<b>Fax #:</b>		<b>Address:</b>																	
<b>Project #:</b> 16848		<b>Project Owner:</b> H.L. Brown		<b>City:</b>																	
<b>Project Name:</b> Fed con # 28 001		<b>State:</b>		<b>Zip:</b>		<b>Phone #:</b>															
<b>Project Location:</b> Rural Roosevelt Co., NM				<b>Fax #:</b>																	
<b>Sampler Name:</b> Miguel Ramirez																					

FOR LAB USE ONLY		Lab I.D.	Sample I.D.	(GRAB OR (C)OMP. # CONTAINERS	MATRIX						PRESERV.		SAMPLING		DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:						
1	FL 4 @ 6'	H225427		1										11/19/22					
2	FL 5 @ 6'			1															
3	NW 3 C			1															
4	NW 4 - DEF @ 6'			1															
5	SW 3 - DEF @ 6'			1															
6	NW 3 C			1															

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<b>Relinquished By:</b>  <b>Date:</b> 11-16-22 <b>Time:</b> 1:55	<b>Received By:</b>  <b>Date:</b> <b>Time:</b>	<b>Phone Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Fax Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>REMARKS:</b>
<b>Relinquished By:</b> <b>Date:</b> <b>Time:</b>	<b>Received By:</b> <b>Date:</b> <b>Time:</b>	<b>Add'l Phone #:</b> <b>Add'l Fax #:</b>

Delivered By: (Circle One) **UPS** **Bus** **Other:** 3.6 c / 3.0 c

Sample Condition: Cool ☒ Yes ☐ No Intact ☒ Yes ☐ No

CHECKED BY: (Initials) **TO**

Please email results and copy of CoC to pm@etechenv.com.

FORM-006  
Revision 1.0

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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November 03, 2022

JOEL LOWRY

Etech Environmental &amp; Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: FED COM #28 001

Enclosed are the results of analyses for samples received by the laboratory on 10/25/22 16:08.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at

[www.tceq.texas.gov/field/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:12

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FL 4 @ 4'	H225026-01	Soil	25-Oct-22 00:00	25-Oct-22 16:08
FL 5 @ 4'	H225026-02	Soil	25-Oct-22 00:00	25-Oct-22 16:08
FL 6 @ 4'	H225026-03	Soil	25-Oct-22 00:00	25-Oct-22 16:08
NW 3 B	H225026-04	Soil	25-Oct-22 00:00	25-Oct-22 16:08
WW 5 B	H225026-05	Soil	25-Oct-22 00:00	25-Oct-22 16:08
WW 3 B	H225026-06	Soil	25-Oct-22 00:00	25-Oct-22 16:08

11/03/22 - Client added TPH to sample -04 (See COC). This is the revised report and will replace the one sent on 10/31/22.

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:12

**FL 4 @ 4'**  
**H225026-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Petroleum Hydrocarbons by GC FID****S-06**

GRO C6-C10*	<50.0		50.0	mg/kg	5	2102740	MS	29-Oct-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>7220</b>		50.0	mg/kg	5	2102740	MS	29-Oct-22	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>987</b>		50.0	mg/kg	5	2102740	MS	29-Oct-22	8015B	
Surrogate: 1-Chlorooctane			87.6 %	45.3-161		2102740	MS	29-Oct-22	8015B	
Surrogate: 1-Chlorooctadecane			266 %	46.3-178		2102740	MS	29-Oct-22	8015B	

**Volatile Organic Compounds by EPA Method 8260B**

Benzene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Toluene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Ethylbenzene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Total Xylenes*	<0.075		0.075	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Total BTEX	<0.150		0.150	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Surrogate: Dibromofluoromethane			97.9 %	83.7-114		2102753	MS	31-Oct-22	8260B	
Surrogate: Toluene-d8			101 %	95.3-107		2102753	MS	31-Oct-22	8260B	
Surrogate: 4-Bromofluorobenzene			89.9 %	50.9-150		2102753	MS	31-Oct-22	8260B	

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:12

**FL 5 @ 4'**  
**H225026-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<50.0		50.0	mg/kg	5	2102742	MS	29-Oct-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>1840</b>		50.0	mg/kg	5	2102742	MS	29-Oct-22	8015B	QM-07
<b>EXT DRO &gt;C28-C36</b>	<b>461</b>		50.0	mg/kg	5	2102742	MS	29-Oct-22	8015B	
Surrogate: 1-Chlorooctane			68.4 %	45.3-161		2102742	MS	29-Oct-22	8015B	
Surrogate: 1-Chlorooctadecane			172 %	46.3-178		2102742	MS	29-Oct-22	8015B	

**Volatile Organic Compounds by EPA Method 8260B**

Benzene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Toluene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Ethylbenzene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Total Xylenes*	<0.075		0.075	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Total BTEX	<0.150		0.150	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Surrogate: Dibromofluoromethane			99.0 %	83.7-114		2102753	MS	31-Oct-22	8260B	
Surrogate: Toluene-d8			101 %	95.3-107		2102753	MS	31-Oct-22	8260B	
Surrogate: 4-Bromofluorobenzene			95.1 %	50.9-150		2102753	MS	31-Oct-22	8260B	

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:12

**FL 6 @ 4'**  
**H225026-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2102742	MS	31-Oct-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2102742	MS	31-Oct-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2102742	MS	31-Oct-22	8015B	
Surrogate: 1-Chlorooctane			86.1 %	45.3-161		2102742	MS	31-Oct-22	8015B	
Surrogate: 1-Chlorooctadecane			99.3 %	46.3-178		2102742	MS	31-Oct-22	8015B	

**Volatile Organic Compounds by EPA Method 8260B**

Benzene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Toluene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Ethylbenzene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Total Xylenes*	<0.075		0.075	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Total BTEX	<0.150		0.150	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Surrogate: Dibromofluoromethane			97.7 %	83.7-114		2102753	MS	31-Oct-22	8260B	
Surrogate: Toluene-d8			99.0 %	95.3-107		2102753	MS	31-Oct-22	8260B	
Surrogate: 4-Bromofluorobenzene			94.8 %	50.9-150		2102753	MS	31-Oct-22	8260B	

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:12

**NW 3 B**  
**H225026-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2110223	MS	03-Nov-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>573</b>		10.0	mg/kg	1	2110223	MS	03-Nov-22	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>164</b>		10.0	mg/kg	1	2110223	MS	03-Nov-22	8015B	
Surrogate: 1-Chlorooctane			93.5 %	45.3-161		2110223	MS	03-Nov-22	8015B	
Surrogate: 1-Chlorooctadecane			111 %	46.3-178		2110223	MS	03-Nov-22	8015B	

**Volatile Organic Compounds by EPA Method 8260B**

Benzene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Toluene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Ethylbenzene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Total Xylenes*	<0.075		0.075	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Total BTEX	<0.150		0.150	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Surrogate: Dibromofluoromethane			96.4 %	83.7-114		2102753	MS	31-Oct-22	8260B	
Surrogate: Toluene-d8			95.5 %	95.3-107		2102753	MS	31-Oct-22	8260B	
Surrogate: 4-Bromofluorobenzene			95.8 %	50.9-150		2102753	MS	31-Oct-22	8260B	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:12

**WW 5 B**  
**H225026-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2102742	MS	29-Oct-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2102742	MS	29-Oct-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2102742	MS	29-Oct-22	8015B	
Surrogate: 1-Chlorooctane			97.7 %	45.3-161		2102742	MS	29-Oct-22	8015B	
Surrogate: 1-Chlorooctadecane			102 %	46.3-178		2102742	MS	29-Oct-22	8015B	

**Volatile Organic Compounds by EPA Method 8260B**

Benzene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Toluene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Ethylbenzene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Total Xylenes*	<0.075		0.075	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Total BTEX	<0.150		0.150	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Surrogate: Dibromofluoromethane			101 %	83.7-114		2102753	MS	31-Oct-22	8260B	
Surrogate: Toluene-d8			101 %	95.3-107		2102753	MS	31-Oct-22	8260B	
Surrogate: 4-Bromofluorobenzene			141 %	50.9-150		2102753	MS	31-Oct-22	8260B	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:12

**WW 3 B**  
**H225026-06 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Petroleum Hydrocarbons by GC FID****S-06**

<b>GRO C6-C10*</b>	<b>57.1</b>		50.0	mg/kg	5	2102735	MS	29-Oct-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>2290</b>		50.0	mg/kg	5	2102735	MS	29-Oct-22	8015B	QM-07
<b>EXT DRO &gt;C28-C36</b>	<b>525</b>		50.0	mg/kg	5	2102735	MS	29-Oct-22	8015B	
Surrogate: 1-Chlorooctane			116 %	45.3-161		2102735	MS	29-Oct-22	8015B	
Surrogate: 1-Chlorooctadecane			259 %	46.3-178		2102735	MS	29-Oct-22	8015B	

**Volatile Organic Compounds by EPA Method 8260B**

Benzene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Toluene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Ethylbenzene*	<0.025		0.025	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Total Xylenes*	<0.075		0.075	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Total BTEX	<0.150		0.150	mg/kg	50	2102753	MS	31-Oct-22	8260B	
Surrogate: Dibromofluoromethane			95.7 %	83.7-114		2102753	MS	31-Oct-22	8260B	
Surrogate: Toluene-d8			101 %	95.3-107		2102753	MS	31-Oct-22	8260B	
Surrogate: 4-Bromofluorobenzene			93.4 %	50.9-150		2102753	MS	31-Oct-22	8260B	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:12

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2102735 - General Prep - Organics****Blank (2102735-BLK1)**

Prepared: 27-Oct-22 Analyzed: 29-Oct-22

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	50.1		mg/kg	50.0		100	45.3-161			
Surrogate: 1-Chlorooctadecane	57.5		mg/kg	50.0		115	46.3-178			

**LCS (2102735-BS1)**

Prepared: 27-Oct-22 Analyzed: 29-Oct-22

GRO C6-C10	204	10.0	mg/kg	200		102	76.8-124			
DRO >C10-C28	200	10.0	mg/kg	200		100	74.9-127			
Total TPH C6-C28	404	10.0	mg/kg	400		101	77.5-124			
Surrogate: 1-Chlorooctane	61.9		mg/kg	50.0		124	45.3-161			
Surrogate: 1-Chlorooctadecane	70.6		mg/kg	50.0		141	46.3-178			

**LCS Dup (2102735-BS1)**

Prepared: 27-Oct-22 Analyzed: 29-Oct-22

GRO C6-C10	200	10.0	mg/kg	200		100	76.8-124	1.70	17.2	
DRO >C10-C28	203	10.0	mg/kg	200		102	74.9-127	1.40	18.6	
Total TPH C6-C28	403	10.0	mg/kg	400		101	77.5-124	0.151	17.6	
Surrogate: 1-Chlorooctane	57.5		mg/kg	50.0		115	45.3-161			
Surrogate: 1-Chlorooctadecane	71.8		mg/kg	50.0		144	46.3-178			

**Batch 2102740 - General Prep - Organics****Blank (2102740-BLK1)**

Prepared: 27-Oct-22 Analyzed: 29-Oct-22

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	40.6		mg/kg	50.0		81.2	45.3-161			
Surrogate: 1-Chlorooctadecane	46.6		mg/kg	50.0		93.2	46.3-178			

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:12

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2102740 - General Prep - Organics****LCS (2102740-BS1)**

Prepared: 27-Oct-22 Analyzed: 29-Oct-22

GRO C6-C10	197	10.0	mg/kg	200		98.5	76.8-124		
DRO >C10-C28	209	10.0	mg/kg	200		105	74.9-127		
Total TPH C6-C28	406	10.0	mg/kg	400		102	77.5-124		
Surrogate: 1-Chlorooctane	51.4		mg/kg	50.0		103	45.3-161		
Surrogate: 1-Chlorooctadecane	59.6		mg/kg	50.0		119	46.3-178		

**LCS Dup (2102740-BS1)**

Prepared: 27-Oct-22 Analyzed: 29-Oct-22

GRO C6-C10	207	10.0	mg/kg	200		104	76.8-124	5.20	17.2
DRO >C10-C28	235	10.0	mg/kg	200		117	74.9-127	11.5	18.6
Total TPH C6-C28	442	10.0	mg/kg	400		111	77.5-124	8.52	17.6
Surrogate: 1-Chlorooctane	51.5		mg/kg	50.0		103	45.3-161		
Surrogate: 1-Chlorooctadecane	61.1		mg/kg	50.0		122	46.3-178		

**Batch 2102742 - General Prep - Organics****Blank (2102742-BLK1)**

Prepared: 27-Oct-22 Analyzed: 29-Oct-22

GRO C6-C10	ND	10.0	mg/kg						
DRO >C10-C28	ND	10.0	mg/kg						
EXT DRO >C28-C36	ND	10.0	mg/kg						
Surrogate: 1-Chlorooctane	45.8		mg/kg	50.0		91.5	45.3-161		
Surrogate: 1-Chlorooctadecane	47.0		mg/kg	50.0		94.1	46.3-178		

**LCS (2102742-BS1)**

Prepared: 27-Oct-22 Analyzed: 29-Oct-22

GRO C6-C10	208	10.0	mg/kg	200		104	76.8-124		
DRO >C10-C28	209	10.0	mg/kg	200		104	74.9-127		
Total TPH C6-C28	416	10.0	mg/kg	400		104	77.5-124		
Surrogate: 1-Chlorooctane	53.9		mg/kg	50.0		108	45.3-161		
Surrogate: 1-Chlorooctadecane	55.5		mg/kg	50.0		111	46.3-178		

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:12

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2102742 - General Prep - Organics****LCS Dup (2102742-BSD1)**

Prepared: 27-Oct-22 Analyzed: 29-Oct-22

GRO C6-C10	199	10.0	mg/kg	200		99.5	76.8-124	4.24	17.2	
DRO >C10-C28	199	10.0	mg/kg	200		99.4	74.9-127	4.78	18.6	
Total TPH C6-C28	398	10.0	mg/kg	400		99.4	77.5-124	4.51	17.6	
Surrogate: 1-Chlorooctane	52.4		mg/kg	50.0		105	45.3-161			
Surrogate: 1-Chlorooctadecane	53.8		mg/kg	50.0		108	46.3-178			

**Batch 2110223 - General Prep - Organics****Blank (2110223-BLK1)**

Prepared &amp; Analyzed: 02-Nov-22

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	45.6		mg/kg	50.0		91.1	45.3-161			
Surrogate: 1-Chlorooctadecane	47.8		mg/kg	50.0		95.7	46.3-178			

**LCS (2110223-BS1)**

Prepared &amp; Analyzed: 02-Nov-22

GRO C6-C10	185	10.0	mg/kg	200		92.3	76.8-124			
DRO >C10-C28	187	10.0	mg/kg	200		93.4	74.9-127			
Total TPH C6-C28	371	10.0	mg/kg	400		92.8	77.5-124			
Surrogate: 1-Chlorooctane	48.9		mg/kg	50.0		97.9	45.3-161			
Surrogate: 1-Chlorooctadecane	54.4		mg/kg	50.0		109	46.3-178			

**LCS Dup (2110223-BSD1)**

Prepared &amp; Analyzed: 02-Nov-22

GRO C6-C10	189	10.0	mg/kg	200		94.7	76.8-124	2.55	17.2	
DRO >C10-C28	192	10.0	mg/kg	200		96.0	74.9-127	2.74	18.6	
Total TPH C6-C28	381	10.0	mg/kg	400		95.3	77.5-124	2.64	17.6	
Surrogate: 1-Chlorooctane	49.6		mg/kg	50.0		99.3	45.3-161			
Surrogate: 1-Chlorooctadecane	52.5		mg/kg	50.0		105	46.3-178			

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:12

**Volatile Organic Compounds by EPA Method 8260B - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2102753 - Volatiles****Blank (2102753-BLK1)**

Prepared: 27-Oct-22 Analyzed: 31-Oct-22

Benzene	ND	0.025	mg/kg							
Toluene	ND	0.025	mg/kg							
Ethylbenzene	ND	0.025	mg/kg							
Total Xylenes	ND	0.075	mg/kg							
Total BTEX	ND	0.150	mg/kg							
Surrogate: Dibromofluoromethane	1.20		mg/kg	1.25		96.3	83.7-114			
Surrogate: Toluene-d8	1.15		mg/kg	1.25		92.0	95.3-107			S-05
Surrogate: 4-Bromofluorobenzene	1.37		mg/kg	1.25		110	50.9-150			

**LCS (2102753-BS1)**

Prepared: 27-Oct-22 Analyzed: 31-Oct-22

Benzene	1.86	0.025	mg/kg	2.00		92.8	70.2-121			
Toluene	1.80	0.025	mg/kg	2.00		89.8	76.9-126			
Ethylbenzene	1.90	0.025	mg/kg	2.00		94.9	79.1-124			
m+p - Xylene	3.94	0.050	mg/kg	4.00		98.6	80.8-134			
o-Xylene	1.95	0.025	mg/kg	2.00		97.4	79-130			
Total Xylenes	5.89	0.075	mg/kg	6.00		98.2	80.5-132			
Surrogate: Dibromofluoromethane	1.19		mg/kg	1.25		95.4	83.7-114			
Surrogate: Toluene-d8	1.16		mg/kg	1.25		92.8	95.3-107			S-05
Surrogate: 4-Bromofluorobenzene	1.21		mg/kg	1.25		96.4	50.9-150			

**LCS Dup (2102753-BSD1)**

Prepared: 27-Oct-22 Analyzed: 31-Oct-22

Benzene	1.82	0.025	mg/kg	2.00		90.9	70.2-121	2.07	9.42	
Toluene	1.80	0.025	mg/kg	2.00		89.8	76.9-126	0.00	10	
Ethylbenzene	1.82	0.025	mg/kg	2.00		91.2	79.1-124	3.92	10	
m+p - Xylene	3.75	0.050	mg/kg	4.00		93.8	80.8-134	4.99	9.6	
Total Xylenes	5.89	0.075	mg/kg	6.00		98.2	80.5-132	0.00	9.26	
o-Xylene	1.87	0.025	mg/kg	2.00		93.5	79-130	4.10	8.93	
Surrogate: Dibromofluoromethane	1.19		mg/kg	1.25		95.4	83.7-114			
Surrogate: Toluene-d8	1.16		mg/kg	1.25		92.8	95.3-107			S-05
Surrogate: 4-Bromofluorobenzene	1.21		mg/kg	1.25		96.4	50.9-150			

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:12

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-05	The surrogate recovery is outside of lab established statistical control limits but still within method limits. Data is not adversely affected.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]





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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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November 03, 2022

JOEL LOWRY

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: FED COM #28 001

Enclosed are the results of analyses for samples received by the laboratory on 10/25/22 16:08.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at

[www.tceq.texas.gov/field/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:05

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH 1 @ SURFACE	H225025-01	Soil	25-Oct-22 00:00	25-Oct-22 16:08
WH 1 @ 1'	H225025-02	Soil	25-Oct-22 00:00	25-Oct-22 16:08
WW 4 - DEF @ 4'	H225025-03	Soil	25-Oct-22 00:00	25-Oct-22 16:08
SW 3 - DEF @ 4'	H225025-04	Soil	25-Oct-22 00:00	25-Oct-22 16:08
NW 3 - DEF @ 4'	H225025-05	Soil	25-Oct-22 00:00	25-Oct-22 16:08

11/03/22 - Client added TPH to samples -03 and -05 (see COC). This is the revised report and will replace the one sent on 11/01/22.

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:05

**WH 1 @ SURFACE**  
**H225025-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>48.0</b>		16.0	mg/kg	4	2102813	AC	28-Oct-22	4500-Cl-B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2102740	MS	29-Oct-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2102740	MS	29-Oct-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2102740	MS	29-Oct-22	8015B	
Surrogate: 1-Chlorooctane			88.8 %	45.3-161		2102740	MS	29-Oct-22	8015B	
Surrogate: 1-Chlorooctadecane			105 %	46.3-178		2102740	MS	29-Oct-22	8015B	

**Volatile Organic Compounds by EPA Method 8260B**

Benzene*	<0.025		0.025	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Toluene*	<0.025		0.025	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Ethylbenzene*	<0.025		0.025	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Total Xylenes*	<0.075		0.075	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Total BTEX	<0.150		0.150	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Surrogate: Dibromofluoromethane			95.1 %	86.7-111		2102732	MS	31-Oct-22	8260B	
Surrogate: Toluene-d8			93.9 %	89.3-110		2102732	MS	31-Oct-22	8260B	
Surrogate: 4-Bromofluorobenzene			99.2 %	88.2-108		2102732	MS	31-Oct-22	8260B	

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:05

**WH 1 @ 1'**  
**H225025-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>64.0</b>		16.0	mg/kg	4	2102813	AC	28-Oct-22	4500-Cl-B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2102740	MS	29-Oct-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2102740	MS	29-Oct-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2102740	MS	29-Oct-22	8015B	
Surrogate: 1-Chlorooctane			67.2 %	45.3-161		2102740	MS	29-Oct-22	8015B	
Surrogate: 1-Chlorooctadecane			79.2 %	46.3-178		2102740	MS	29-Oct-22	8015B	

**Volatile Organic Compounds by EPA Method 8260B**

Benzene*	<0.025		0.025	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Toluene*	<0.025		0.025	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Ethylbenzene*	<0.025		0.025	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Total Xylenes*	<0.075		0.075	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Total BTEX	<0.150		0.150	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Surrogate: Dibromofluoromethane			97.5 %	86.7-111		2102732	MS	31-Oct-22	8260B	
Surrogate: Toluene-d8			91.6 %	89.3-110		2102732	MS	31-Oct-22	8260B	
Surrogate: 4-Bromofluorobenzene			96.7 %	88.2-108		2102732	MS	31-Oct-22	8260B	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:05

**WW 4 - DEF @ 4'****H225025-03 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2110223	MS	02-Nov-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2110223	MS	02-Nov-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2110223	MS	02-Nov-22	8015B	
Surrogate: 1-Chlorooctane			89.7 %	45.3-161		2110223	MS	02-Nov-22	8015B	
Surrogate: 1-Chlorooctadecane			95.3 %	46.3-178		2110223	MS	02-Nov-22	8015B	

**Volatile Organic Compounds by EPA Method 8260B**

Benzene*	<0.025		0.025	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Toluene*	<0.025		0.025	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Ethylbenzene*	<0.025		0.025	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Total Xylenes*	<0.075		0.075	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Total BTEX	<0.150		0.150	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Surrogate: Dibromofluoromethane			99.4 %	86.7-111		2102732	MS	31-Oct-22	8260B	
Surrogate: Toluene-d8			93.3 %	89.3-110		2102732	MS	31-Oct-22	8260B	
Surrogate: 4-Bromofluorobenzene			98.6 %	88.2-108		2102732	MS	31-Oct-22	8260B	

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Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:05

**SW 3 - DEF @ 4'**  
**H225025-04 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Petroleum Hydrocarbons by GC FID****S-06**

<b>GRO C6-C10*</b>	<b>125</b>		50.0	mg/kg	5	2102740	MS	29-Oct-22	8015B	
<b>DRO &gt;C10-C28*</b>	<b>8230</b>		50.0	mg/kg	5	2102740	MS	29-Oct-22	8015B	
<b>EXT DRO &gt;C28-C36</b>	<b>868</b>		50.0	mg/kg	5	2102740	MS	29-Oct-22	8015B	
Surrogate: 1-Chlorooctane			126 %	45.3-161		2102740	MS	29-Oct-22	8015B	
Surrogate: 1-Chlorooctadecane			430 %	46.3-178		2102740	MS	29-Oct-22	8015B	

**Volatile Organic Compounds by EPA Method 8260B****S-04**

Benzene*	<0.025		0.025	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Toluene*	<0.025		0.025	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Ethylbenzene*	<0.025		0.025	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Total Xylenes*	<0.075		0.075	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Total BTEX	<0.150		0.150	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Surrogate: Dibromofluoromethane			97.4 %	86.7-111		2102732	MS	31-Oct-22	8260B	
Surrogate: Toluene-d8			92.0 %	89.3-110		2102732	MS	31-Oct-22	8260B	
Surrogate: 4-Bromofluorobenzene			119 %	88.2-108		2102732	MS	31-Oct-22	8260B	

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:05

**NW 3 - DEF @ 4'****H225025-05 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2110223	MS	02-Nov-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2110223	MS	02-Nov-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2110223	MS	02-Nov-22	8015B	
Surrogate: 1-Chlorooctane			88.0 %	45.3-161		2110223	MS	02-Nov-22	8015B	
Surrogate: 1-Chlorooctadecane			95.3 %	46.3-178		2110223	MS	02-Nov-22	8015B	

**Volatile Organic Compounds by EPA Method 8260B**

Benzene*	<0.025		0.025	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Toluene*	<0.025		0.025	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Ethylbenzene*	<0.025		0.025	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Total Xylenes*	<0.075		0.075	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Total BTEX	<0.150		0.150	mg/kg	50	2102732	MS	31-Oct-22	8260B	
Surrogate: Dibromofluoromethane			96.0 %	86.7-111		2102732	MS	31-Oct-22	8260B	
Surrogate: Toluene-d8			93.9 %	89.3-110		2102732	MS	31-Oct-22	8260B	
Surrogate: 4-Bromofluorobenzene			98.0 %	88.2-108		2102732	MS	31-Oct-22	8260B	

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:05

**Inorganic Compounds - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 2102813 - 1:4 DI Water</b>									
<b>Blank (2102813-BLK1)</b>				Prepared & Analyzed: 28-Oct-22					
Chloride	ND	16.0	mg/kg						
<b>LCS (2102813-BS1)</b>				Prepared & Analyzed: 28-Oct-22					
Chloride	416	16.0	mg/kg	400		104	80-120		
<b>LCS Dup (2102813-BSD1)</b>				Prepared & Analyzed: 28-Oct-22					
Chloride	448	16.0	mg/kg	400		112	80-120	7.41	20

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:05

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	----------------	-----	--------------	-------

**Batch 2102740 - General Prep - Organics****Blank (2102740-BLK1)**

Prepared: 27-Oct-22 Analyzed: 29-Oct-22

GRO C6-C10	ND	10.0	mg/kg						
DRO >C10-C28	ND	10.0	mg/kg						
EXT DRO >C28-C36	ND	10.0	mg/kg						
Surrogate: 1-Chlorooctane	40.6		mg/kg	50.0		81.2	45.3-161		
Surrogate: 1-Chlorooctadecane	46.6		mg/kg	50.0		93.2	46.3-178		

**LCS (2102740-BS1)**

Prepared: 27-Oct-22 Analyzed: 29-Oct-22

GRO C6-C10	197	10.0	mg/kg	200		98.5	76.8-124		
DRO >C10-C28	209	10.0	mg/kg	200		105	74.9-127		
Total TPH C6-C28	406	10.0	mg/kg	400		102	77.5-124		
Surrogate: 1-Chlorooctane	51.4		mg/kg	50.0		103	45.3-161		
Surrogate: 1-Chlorooctadecane	59.6		mg/kg	50.0		119	46.3-178		

**LCS Dup (2102740-BS1)**

Prepared: 27-Oct-22 Analyzed: 29-Oct-22

GRO C6-C10	207	10.0	mg/kg	200		104	76.8-124	5.20	17.2
DRO >C10-C28	235	10.0	mg/kg	200		117	74.9-127	11.5	18.6
Total TPH C6-C28	442	10.0	mg/kg	400		111	77.5-124	8.52	17.6
Surrogate: 1-Chlorooctane	51.5		mg/kg	50.0		103	45.3-161		
Surrogate: 1-Chlorooctadecane	61.1		mg/kg	50.0		122	46.3-178		

**Batch 2110223 - General Prep - Organics****Blank (2110223-BLK1)**

Prepared &amp; Analyzed: 02-Nov-22

GRO C6-C10	ND	10.0	mg/kg						
DRO >C10-C28	ND	10.0	mg/kg						
EXT DRO >C28-C36	ND	10.0	mg/kg						
Surrogate: 1-Chlorooctane	45.6		mg/kg	50.0		91.1	45.3-161		
Surrogate: 1-Chlorooctadecane	47.8		mg/kg	50.0		95.7	46.3-178		

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:05

**Petroleum Hydrocarbons by GC FID - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

**Batch 2110223 - General Prep - Organics****LCS (2110223-BS1)**

Prepared &amp; Analyzed: 02-Nov-22

GRO C6-C10	185	10.0	mg/kg	200		92.3	76.8-124			
DRO >C10-C28	187	10.0	mg/kg	200		93.4	74.9-127			
Total TPH C6-C28	371	10.0	mg/kg	400		92.8	77.5-124			
Surrogate: 1-Chlorooctane	48.9		mg/kg	50.0		97.9	45.3-161			
Surrogate: 1-Chlorooctadecane	54.4		mg/kg	50.0		109	46.3-178			

**LCS Dup (2110223-BS1)**

Prepared &amp; Analyzed: 02-Nov-22

GRO C6-C10	189	10.0	mg/kg	200		94.7	76.8-124	2.55	17.2	
DRO >C10-C28	192	10.0	mg/kg	200		96.0	74.9-127	2.74	18.6	
Total TPH C6-C28	381	10.0	mg/kg	400		95.3	77.5-124	2.64	17.6	
Surrogate: 1-Chlorooctane	49.6		mg/kg	50.0		99.3	45.3-161			
Surrogate: 1-Chlorooctadecane	52.5		mg/kg	50.0		105	46.3-178			

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:05

**Volatile Organic Compounds by EPA Method 8260B - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2102732 - Volatiles****Blank (2102732-BLK1)**

Prepared: 27-Oct-22 Analyzed: 31-Oct-22

Benzene	ND	0.025	mg/kg							
Toluene	ND	0.025	mg/kg							
Ethylbenzene	ND	0.025	mg/kg							
Total Xylenes	ND	0.075	mg/kg							
Total BTEX	ND	0.150	mg/kg							
Surrogate: Dibromofluoromethane	1.19		mg/kg	1.25		94.9	83.7-114			
Surrogate: Toluene-d8	1.17		mg/kg	1.25		93.6	95.3-107			S-05
Surrogate: 4-Bromofluorobenzene	1.26		mg/kg	1.25		100	50.9-150			

**LCS (2102732-BS1)**

Prepared: 27-Oct-22 Analyzed: 31-Oct-22

Benzene	1.81	0.025	mg/kg	2.00		90.7	70.2-121			
Toluene	1.75	0.025	mg/kg	2.00		87.7	76.9-126			
Ethylbenzene	1.83	0.025	mg/kg	2.00		91.5	79.1-124			
m+p - Xylene	3.75	0.050	mg/kg	4.00		93.7	80.8-134			
Total Xylenes	5.62	0.075	mg/kg	6.00		93.7	80.5-132			
o-Xylene	1.87	0.025	mg/kg	2.00		93.6	79-130			
Surrogate: Dibromofluoromethane	1.20		mg/kg	1.25		96.0	83.7-114			
Surrogate: Toluene-d8	1.16		mg/kg	1.25		93.0	95.3-107			S-05
Surrogate: 4-Bromofluorobenzene	1.24		mg/kg	1.25		99.4	50.9-150			

**LCS Dup (2102732-BS1)**

Prepared: 27-Oct-22 Analyzed: 31-Oct-22

Benzene	1.93	0.025	mg/kg	2.00		96.7	70.2-121	6.41	9.42	
Toluene	1.84	0.025	mg/kg	2.00		92.1	76.9-126	4.90	10	
Ethylbenzene	1.94	0.025	mg/kg	2.00		96.8	79.1-124	5.64	10	
m+p - Xylene	3.99	0.050	mg/kg	4.00		99.7	80.8-134	6.21	9.6	
o-Xylene	2.00	0.025	mg/kg	2.00		100	79-130	6.66	8.93	
Total Xylenes	5.99	0.075	mg/kg	6.00		99.8	80.5-132	6.36	9.26	
Surrogate: Dibromofluoromethane	1.20		mg/kg	1.25		95.7	83.7-114			
Surrogate: Toluene-d8	1.15		mg/kg	1.25		91.9	95.3-107			S-05
Surrogate: 4-Bromofluorobenzene	1.24		mg/kg	1.25		99.3	50.9-150			

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
2617 W MARLAND  
HOBBS NM, 88240

Project: FED COM #28 001  
Project Number: 16848  
Project Manager: JOEL LOWRY  
Fax To:

Reported:  
03-Nov-22 09:05

Cardinal Laboratories

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A handwritten signature in black ink, appearing to read "C. D. Keene".

Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-05	The surrogate recovery is outside of lab established statistical control limits but still within method limits. Data is not adversely affected.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>ETech Environmental &amp; Safety Solutions</u>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>												
Project Manager: <u>Joel Lowry</u>				P.O. #:																
Address: <u>2617 W. Marland</u>				Company: <u>H.L. Brown</u>																
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>				Attn:																
Phone #: <u>575-264-9884</u> Fax #: <u>✓</u>				Address:																
Project #: <u>16840</u> Project Owner: <u>H.L. Brown</u>				City:																
Project Name: <u>Red com 28 001</u>				State: Zip:																
Project Location: <u>Rural Boeschelt Co., NM</u>				Phone #:																
Sampler Name: <u>Miguel Ramirez</u>				Fax #:																
FOR LAB USE ONLY																				
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX			PRESERV.		SAMPLING		<u>Chlorides</u> <u>BTEX</u> <u>TPH</u>							
						GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:					ICE / COOL	OTHER:	DATE	TIME
<u>H225025</u>																				
<u>1 WH1 @ Surface</u>				<u>C</u>	<u>1</u>			<u>X</u>									<u>X</u>	<u>X</u>	<u>X</u>	
<u>2 WH1 @ 1'</u>				<u>1</u>	<u>1</u>												<u>X</u>	<u>X</u>	<u>X</u>	
<u>3 WW4-DEF@4'</u>				<u>1</u>	<u>1</u>												<u>X</u>	<u>X</u>	<u>X</u>	
<u>4 SW3-DEF@4'</u>				<u>1</u>	<u>1</u>												<u>X</u>	<u>X</u>	<u>X</u>	
<u>5 NW4-DEF@4'</u>				<u>1</u>	<u>1</u>								<u>X</u>	<u>X</u>	<u>X</u>					

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Relinquished By: <u>[Signature]</u>		Date: <u>9-25-22</u>		Received By: <u>[Signature]</u>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Time: <u>1608</u>		Time: <u>1608</u>		Time: <u>1608</u>		All Results are emailed. Please provide Email address:	
Relinquished By:		Date:		Received By:		REMARKS: <u>pm@etechenv.com</u>	
Time:		Time:		Time:			
Delivered By: (Circle One)		Observed Temp. °C <u>39.2</u>		Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Turnaround Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	
Sampler - UPS - Bus - Other:		Corrected Temp. °C <u>3.30</u>		CHECKED BY: (Initials) <u>TO</u>		Bacteria (only) Sample Condition Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	
						Thermometer ID #113 Correction Factor -0.6°C	
						Corrected Temp. °C	

FORM-006 R 3.3 07/10/22

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

---

October 24, 2022

JOEL LOWRY

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: FED COM #28 001

Enclosed are the results of analyses for samples received by the laboratory on 10/19/22 15:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FS 1 @ 3' (H224926-01)**

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61	
Toluene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	9.01	
Ethylbenzene*	<0.050	0.050	10/21/2022	ND	2.14	107	2.00	8.78	
Total Xylenes*	<0.150	0.150	10/21/2022	ND	6.52	109	6.00	9.42	
Total BTX	<0.300	0.300	10/21/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	976	16.0	10/20/2022	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	332	10.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	120	10.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 95.9 % 45.3-161

Surrogate: 1-Chlorooctadecane 165 % 46.3-178

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FS 2 @ 3' (H224926-02)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61		
Toluene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	9.01		
Ethylbenzene*	<0.050	0.050	10/21/2022	ND	2.14	107	2.00	8.78		
Total Xylenes*	<0.150	0.150	10/21/2022	ND	6.52	109	6.00	9.42		
Total BTEx	<0.300	0.300	10/21/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	928	16.0	10/20/2022	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	291	10.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	113	10.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 104 % 45.3-161

Surrogate: 1-Chlorooctadecane 166 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FS 3 @ 1' (H224926-03)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61		
Toluene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	9.01		
Ethylbenzene*	<0.050	0.050	10/21/2022	ND	2.14	107	2.00	8.78		
Total Xylenes*	<0.150	0.150	10/21/2022	ND	6.52	109	6.00	9.42		
Total BTEx	<0.300	0.300	10/21/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	10/20/2022	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	143	10.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	38.5	10.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 116 % 45.3-161

Surrogate: 1-Chlorooctadecane 140 % 46.3-178

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FS 4 @ 3' (H224926-04)**

BTX 8021B		mg/kg		Analyzed By: JH/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61	
Toluene*	<b>0.223</b>	0.050	10/21/2022	ND	2.18	109	2.00	9.01	GC-NC1
Ethylbenzene*	<b>0.717</b>	0.050	10/21/2022	ND	2.14	107	2.00	8.78	GC-NC1
Total Xylenes*	<b>7.39</b>	0.150	10/21/2022	ND	6.52	109	6.00	9.42	GC-NC1
Total BTX	<b>8.33</b>	0.300	10/21/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 147 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>288</b>	16.0	10/20/2022	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>251</b>	50.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	<b>5750</b>	50.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	<b>623</b>	50.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 235 % 45.3-161

Surrogate: 1-Chlorooctadecane 242 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FS 5 @ 3' (H224926-05)**

BTX 8021B		mg/kg		Analyzed By: JH/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61	
Toluene*	0.085	0.050	10/21/2022	ND	2.18	109	2.00	9.01	GC-NC1
Ethylbenzene*	0.223	0.050	10/21/2022	ND	2.14	107	2.00	8.78	GC-NC1
Total Xylenes*	2.61	0.150	10/21/2022	ND	6.52	109	6.00	9.42	GC-NC1
Total BTX	2.91	0.300	10/21/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 172 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	912	16.0	10/20/2022	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	822	50.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	7550	50.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	737	50.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 363 % 45.3-161

Surrogate: 1-Chlorooctadecane 273 % 46.3-178

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FS 6 @ 3' (H224926-06)**

BTX 8021B		mg/kg		Analyzed By: JH/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61	
Toluene*	<b>0.545</b>	0.050	10/21/2022	ND	2.18	109	2.00	9.01	GC-NC1
Ethylbenzene*	<b>0.638</b>	0.050	10/21/2022	ND	2.14	107	2.00	8.78	GC-NC1
Total Xylenes*	<b>9.59</b>	0.150	10/21/2022	ND	6.52	109	6.00	9.42	GC-NC1
Total BTX	<b>10.8</b>	0.300	10/21/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 421 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>400</b>	16.0	10/20/2022	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>295</b>	50.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	<b>2470</b>	50.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	<b>244</b>	50.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 169 % 45.3-161

Surrogate: 1-Chlorooctadecane 131 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: FS 7 @ 3' (H224926-07)**

BTX 8021B		mg/kg		Analyzed By: JH/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61	
Toluene*	<b>0.183</b>	0.050	10/21/2022	ND	2.18	109	2.00	9.01	GC-NC1
Ethylbenzene*	<b>0.351</b>	0.050	10/21/2022	ND	2.14	107	2.00	8.78	GC-NC1
Total Xylenes*	<b>3.18</b>	0.150	10/21/2022	ND	6.52	109	6.00	9.42	GC-NC1
Total BTX	<b>3.72</b>	0.300	10/21/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 142 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>608</b>	16.0	10/20/2022	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>50.8</b>	10.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	<b>562</b>	10.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	<b>71.9</b>	10.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 126 % 45.3-161

Surrogate: 1-Chlorooctadecane 164 % 46.3-178

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: NW 1 (H224926-08)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61		
Toluene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	9.01		
Ethylbenzene*	<0.050	0.050	10/21/2022	ND	2.14	107	2.00	8.78		
Total Xylenes*	<0.150	0.150	10/21/2022	ND	6.52	109	6.00	9.42		
Total BTEx	<0.300	0.300	10/21/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	752	16.0	10/20/2022	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	<10.0	10.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 97.0 % 45.3-161

Surrogate: 1-Chlorooctadecane 105 % 46.3-178

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: NW 2 (H224926-09)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61		
Toluene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	9.01		
Ethylbenzene*	<0.050	0.050	10/21/2022	ND	2.14	107	2.00	8.78		
Total Xylenes*	<0.150	0.150	10/21/2022	ND	6.52	109	6.00	9.42		
Total BTEx	<0.300	0.300	10/21/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	640	16.0	10/20/2022	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	16.2	10.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 107 % 45.3-161

Surrogate: 1-Chlorooctadecane 117 % 46.3-178

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: NW 3 (H224926-10)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61		
Toluene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	9.01		
Ethylbenzene*	<0.050	0.050	10/21/2022	ND	2.14	107	2.00	8.78		
Total Xylenes*	<0.150	0.150	10/21/2022	ND	6.52	109	6.00	9.42		
Total BTEx	<0.300	0.300	10/21/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	10/20/2022	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	1130	50.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	321	50.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 93.2 % 45.3-161

Surrogate: 1-Chlorooctadecane 211 % 46.3-178

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**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: NW 4 (H224926-11)**

BTX 8021B		mg/kg		Analyzed By: JH/				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61	
<b>Toluene*</b>	<b>0.079</b>	0.050	10/21/2022	ND	2.18	109	2.00	9.01	GC-NC1
Ethylbenzene*	<0.050	0.050	10/21/2022	ND	2.14	107	2.00	8.78	GC-NC
<b>Total Xylenes*</b>	<b>2.26</b>	0.150	10/21/2022	ND	6.52	109	6.00	9.42	GC-NC1
<b>Total BTX</b>	<b>2.34</b>	0.300	10/21/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 324 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>592</b>	16.0	10/20/2022	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>51.7</b>	50.0	10/20/2022	ND	204	102	200	4.85	
<b>DRO &gt;C10-C28*</b>	<b>1910</b>	50.0	10/20/2022	ND	205	102	200	5.60	
<b>EXT DRO &gt;C28-C36</b>	<b>410</b>	50.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 102 % 45.3-161

Surrogate: 1-Chlorooctadecane 165 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: EW 1 (H224926-12)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61		
Toluene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	9.01		
Ethylbenzene*	<0.050	0.050	10/21/2022	ND	2.14	107	2.00	8.78		
Total Xylenes*	<0.150	0.150	10/21/2022	ND	6.52	109	6.00	9.42		
Total BTEx	<0.300	0.300	10/21/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	10/20/2022	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	12.6	10.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	13.7	10.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 95.5 % 45.3-161

Surrogate: 1-Chlorooctadecane 105 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: EW 2 (H224926-13)**

BTX 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61		
Toluene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	9.01		
Ethylbenzene*	<0.050	0.050	10/21/2022	ND	2.14	107	2.00	8.78		
Total Xylenes*	<0.150	0.150	10/21/2022	ND	6.52	109	6.00	9.42		
Total BTX	<0.300	0.300	10/21/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	10/20/2022	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	<10.0	10.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 99.2 % 45.3-161

Surrogate: 1-Chlorooctadecane 108 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: EW 3 (H224926-14)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61	
Toluene*	0.065	0.050	10/21/2022	ND	2.18	109	2.00	9.01	GC-NC1
Ethylbenzene*	0.074	0.050	10/21/2022	ND	2.14	107	2.00	8.78	GC-NC1
Total Xylenes*	0.697	0.150	10/21/2022	ND	6.52	109	6.00	9.42	GC-NC1
Total BTEx	0.836	0.300	10/21/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 131 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	10/20/2022	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	11.8	10.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	283	10.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	52.5	10.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 103 % 45.3-161

Surrogate: 1-Chlorooctadecane 132 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SW 1 (H224926-15)**

BTEx 8021B		mg/kg		Analyzed By: JH/						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61		
Toluene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	9.01		
Ethylbenzene*	<0.050	0.050	10/21/2022	ND	2.14	107	2.00	8.78		
Total Xylenes*	<0.150	0.150	10/21/2022	ND	6.52	109	6.00	9.42		
Total BTEx	<0.300	0.300	10/21/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	752	16.0	10/20/2022	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	<10.0	10.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 89.0 % 45.3-161

Surrogate: 1-Chlorooctadecane 97.3 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SW 2 (H224926-16)**

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	8.61	
Toluene*	<0.050	0.050	10/21/2022	ND	2.18	109	2.00	9.01	
Ethylbenzene*	<0.050	0.050	10/21/2022	ND	2.14	107	2.00	8.78	
Total Xylenes*	<0.150	0.150	10/21/2022	ND	6.52	109	6.00	9.42	
Total BTX	<0.300	0.300	10/21/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	10/20/2022	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	595	50.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	158	50.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 90.0 % 45.3-161

Surrogate: 1-Chlorooctadecane 120 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SW 3 (H224926-17)**

BTX 8021B		mg/kg	Analyzed By: JH					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2022	ND	2.26	113	2.00	3.76	
Toluene*	<b>0.754</b>	0.050	10/21/2022	ND	2.17	109	2.00	4.45	GC-NC1
Ethylbenzene*	<b>1.65</b>	0.050	10/21/2022	ND	2.10	105	2.00	4.70	GC-NC1
Total Xylenes*	<b>4.89</b>	0.150	10/21/2022	ND	6.35	106	6.00	5.06	GC-NC1
Total BTX	<b>7.30</b>	0.300	10/21/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 406 % 69.9-140

Chloride, SM4500CI-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>896</b>	16.0	10/20/2022	ND	400	100	400	3.92	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>191</b>	50.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	<b>3840</b>	50.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	<b>561</b>	50.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 113 % 45.3-161

Surrogate: 1-Chlorooctadecane 139 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: SW 4 (H224926-18)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2022	ND	2.26	113	2.00	3.76	
Toluene*	<0.050	0.050	10/20/2022	ND	2.17	109	2.00	4.45	
Ethylbenzene*	<0.050	0.050	10/20/2022	ND	2.10	105	2.00	4.70	
Total Xylenes*	<0.150	0.150	10/20/2022	ND	6.35	106	6.00	5.06	
Total BTEX	<0.300	0.300	10/20/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 120 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/20/2022	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	244	10.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	49.6	10.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 99.8 % 45.3-161

Surrogate: 1-Chlorooctadecane 126 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager





PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: WW 1 (H224926-19)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2022	ND	2.26	113	2.00	3.76		
Toluene*	<0.050	0.050	10/20/2022	ND	2.17	109	2.00	4.45		
Ethylbenzene*	<0.050	0.050	10/20/2022	ND	2.10	105	2.00	4.70		
Total Xylenes*	<0.150	0.150	10/20/2022	ND	6.35	106	6.00	5.06		
Total BTX	<0.300	0.300	10/20/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 90.3 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	848	16.0	10/20/2022	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	<10.0	10.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 91.2 % 45.3-161

Surrogate: 1-Chlorooctadecane 97.7 % 46.3-178

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: WW 2 (H224926-20)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2022	ND	2.26	113	2.00	3.76		
Toluene*	<0.050	0.050	10/20/2022	ND	2.17	109	2.00	4.45		
Ethylbenzene*	<0.050	0.050	10/20/2022	ND	2.10	105	2.00	4.70		
Total Xylenes*	<0.150	0.150	10/20/2022	ND	6.35	106	6.00	5.06		
Total BTEx	<0.300	0.300	10/20/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 89.9 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	10/20/2022	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/20/2022	ND	204	102	200	4.85	
DRO >C10-C28*	15.3	10.0	10/20/2022	ND	205	102	200	5.60	
EXT DRO >C28-C36	<10.0	10.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 84.8 % 45.3-161

Surrogate: 1-Chlorooctadecane 93.0 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: WW 3 (H224926-21)**

BTX 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2022	ND	2.26	113	2.00	3.76	
Toluene*	1.63	0.050	10/21/2022	ND	2.17	109	2.00	4.45	GC-NC1
Ethylbenzene*	1.20	0.050	10/21/2022	ND	2.10	105	2.00	4.70	GC-NC1
Total Xylenes*	18.2	0.150	10/21/2022	ND	6.35	106	6.00	5.06	GC-NC1
Total BTX	21.1	0.300	10/21/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 376 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	10/20/2022	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	377	50.0	10/20/2022	ND	219	110	200	6.82	
DRO >C10-C28*	2540	50.0	10/20/2022	ND	206	103	200	6.50	QM-07
EXT DRO >C28-C36	428	50.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 118 % 45.3-161

Surrogate: 1-Chlorooctadecane 202 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: WW 4 (H224926-22)**

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2022	ND	2.26	113	2.00	3.76	
<b>Toluene*</b>	<b>0.237</b>	0.050	10/21/2022	ND	2.17	109	2.00	4.45	GC-NC1
Ethylbenzene*	<0.050	0.050	10/21/2022	ND	2.10	105	2.00	4.70	GC-NC
<b>Total Xylenes*</b>	<b>4.36</b>	0.150	10/21/2022	ND	6.35	106	6.00	5.06	GC-NC1
<b>Total BTEX</b>	<b>4.60</b>	0.300	10/21/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 420 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1540</b>	16.0	10/20/2022	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>121</b>	10.0	10/20/2022	ND	219	110	200	6.82	
<b>DRO &gt;C10-C28*</b>	<b>1780</b>	10.0	10/20/2022	ND	206	103	200	6.50	
<b>EXT DRO &gt;C28-C36</b>	<b>281</b>	10.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 101 % 45.3-161

Surrogate: 1-Chlorooctadecane 167 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

Etech Environmental & Safety Solutions  
 JOEL LOWRY  
 2617 W MARLAND  
 HOBBS NM, 88240  
 Fax To:

Received:	10/19/2022	Sampling Date:	10/19/2022
Reported:	10/24/2022	Sampling Type:	Soil
Project Name:	FED COM #28 001	Sampling Condition:	Cool & Intact
Project Number:	16848	Sample Received By:	Tamara Oldaker
Project Location:	HL BROWN - RURAL ROOSEVELT CO., NI		

**Sample ID: WW 5 (H224926-23)**

BTEx 8021B		mg/kg		Analyzed By: JH				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2022	ND	2.26	113	2.00	3.76	
Toluene*	<0.050	0.050	10/21/2022	ND	2.17	109	2.00	4.45	
Ethylbenzene*	<0.050	0.050	10/21/2022	ND	2.10	105	2.00	4.70	GC-NC
<b>Total Xylenes*</b>	<b>1.76</b>	0.150	10/21/2022	ND	6.35	106	6.00	5.06	GC-NC1
<b>Total BTEX</b>	<b>1.76</b>	0.300	10/21/2022	ND					GC-NC1

Surrogate: 4-Bromofluorobenzene (PID) 362 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1090</b>	16.0	10/20/2022	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>125</b>	50.0	10/20/2022	ND	219	110	200	6.82	
<b>DRO &gt;C10-C28*</b>	<b>5500</b>	50.0	10/20/2022	ND	206	103	200	6.50	
<b>EXT DRO &gt;C28-C36</b>	<b>907</b>	50.0	10/20/2022	ND					

Surrogate: 1-Chlorooctane 110 % 45.3-161

Surrogate: 1-Chlorooctadecane 252 % 46.3-178

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### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
GC-NC	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are reported as ND.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1/3

Company Name: <u>Etech Environmental &amp; safety solutions</u>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																				
Project Manager: <u>Joel Lowry</u>				P.O. #:																								
Address: <u>2617 W. Marland</u>				Company: <u>H.L. Brown</u>																								
City: <u>Hobbs</u> State: <u>Nm</u> Zip: <u>88246</u>				Attn:																								
Phone #: <u>575-264-9884</u> Fax #:				Address:																								
Project #: <u>16848</u> Project Owner: <u>H.L. Brown</u>				City:																								
Project Name: <u>Fed com #28 001</u>				State: Zip:																								
Project Location: <u>Bural Roosevelt co., NM</u>				Phone #:																								
Sampler Name: <u>Miguel Ramirez</u>				Fax #:																								
FOR LAB USE ONLY																												
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX				PRESERV.	SAMPLING																			
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME														
<u>H224926</u>																												
	1 FS 1 @ 3'					X					X		10/19/22			chlorides	BTEX	TPH										
	2 FS 2 @ 3'																											
	3 FS 3 @ 1'																											
	4 FS 4 @ 3'																											
	5 FS 5 @ 3'																											
	6 FS 6 @ 3'																											
	7 FS 7 @ 3'																											
	8 NW1																											
	9 NW2																											
	10 NW3																											

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Relinquished By: <u>[Signature]</u>	Date: <u>10-19-22</u>	Received By: <u>[Signature]</u>	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
	Time: <u>1550</u>		All Results are emailed. Please provide Email address:
Relinquished By:	Date:	Received By:	REMARKS: <u>pm@etechenv.com</u>
	Time:		
Delivered By: (Circle One)	Observed Temp. °C <u>3.1</u>	Sample Condition	CHECKED BY: (Initials) <u>Y.O.</u>
Sampler - UPS - Bus - Other:	Corrected Temp. °C <u>2.5</u>	Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>	Turnaround Time: <b>Standard</b> <input checked="" type="checkbox"/> <b>Rush</b> <input type="checkbox"/>
		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID #113 Correction Factor -0.6°C
			Bacteria (only) Sample Condition Cool Intact Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No Corrected Temp. °C

FORM-006 R 3.3 07/18/22

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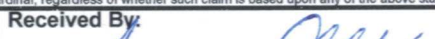
## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2/3

Page 27 of 28

[illegible]

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Relinquished By: 		Date: 10-19-22 Time: 1:50		Received By: 		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Add'l Phone #: All Results are emailed. Please provide Email address:	
Relinquished By:		Date:		Received By:		REMARKS: pm @ etechenv.com	
Delivered By: (Circle One)		Observed Temp. °C 3.1		Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No		CHECKED BY: (Initials) T.O.	
Sampler - UPS - Bus - Other:		Corrected Temp. °C 2.5		Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Bacteria (only) Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/> Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Corrected Temp. °C	
				Thermometer ID #113 Correction Factor -0.6°C			





101 East Marland, Hobbs, NM 88240  
(575) 393-2326 FAX (575) 393-2476

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

3/3

Company Name: <u>E-Tech Environmental &amp; Safety Solutions</u>				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>											
Project Manager: <u>Joel Lowry</u>				P.O. #:															
Address: <u>2617 W. Marland</u>				Company: <u>H.L. Brown</u>															
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>				Attn:															
Phone #: <u>575-264-9884</u> Fax #: <u>✓</u>				Address:															
Project #: <u>16848</u> Project Owner: <u>H.L. Brown</u>				City:															
Project Name: <u>Fed Com #28 001</u>				State: Zip:															
Project Location: <u>Rural Roosevelt Co., NM</u>				Phone #:															
Sampler Name: <u>Miguel Ramirez</u>				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.		Sample I.D.		(GRAB OR (C)OMP. # CONTAINERS	MATRIX				PRESERV.		SAMPLING		<u>Chlorides</u> <u>BTEX</u> <u>TPH</u>						
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL					OTHER:	DATE	TIME
<u>H224926</u>																			
<u>21 WW3</u>				<u>C</u>			<u>X</u>				<u>X</u>		<u>10/19/22</u>						
<u>22 WW4</u>				<u>✓</u>			<u>✓</u>				<u>✓</u>		<u>✓</u>						
<u>23 WWS</u>				<u>✓</u>			<u>✓</u>				<u>✓</u>		<u>✓</u>						

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Relinquished By: <u>[Signature]</u>		Date: <u>10/19/22</u>	Received By: <u>[Signature]</u>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
		Time: <u>1550</u>			All Results are emailed. Please provide Email address:	
Relinquished By:		Date:	Received By:		REMARKS: <u>pm@etechenv.com</u>	
		Time:				
Delivered By: (Circle One)		Observed Temp. °C <u>3.1</u>	Sample Condition		Turnaround Time: <u>Standard</u> <input checked="" type="checkbox"/> <u>Rush</u> <input type="checkbox"/>	
Sampler - UPS - Bus - Other:		Corrected Temp. °C <u>2.5</u>	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No		Bacteria (only) Sample Condition	
					Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	
					Observed Temp. °C	
					Corrected Temp. °C	
					Thermometer ID #113	
					Correction Factor -0.6°C	

FORM-006 R 3.3 07/16/22

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## **Appendix D**

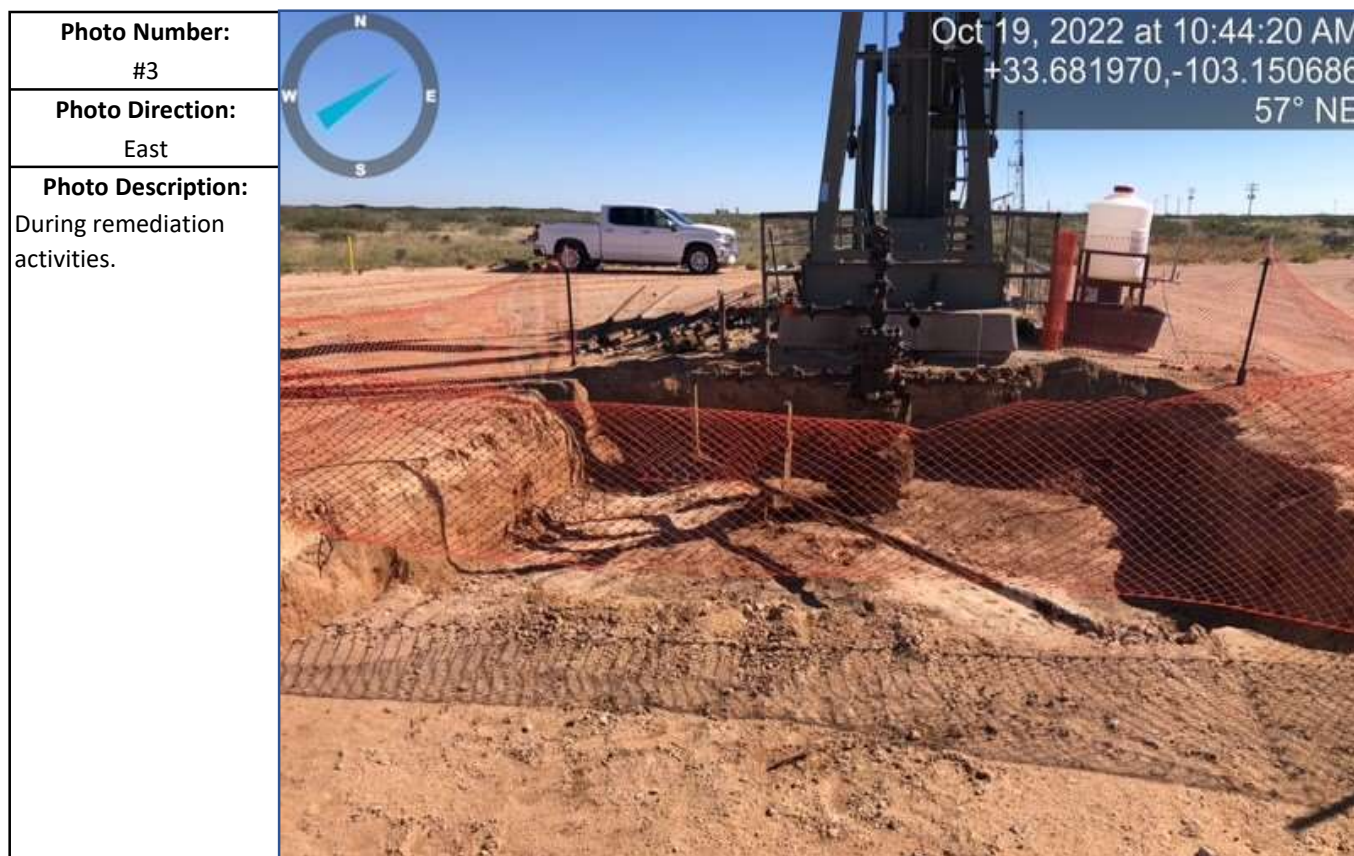
### **Photographic Log**

## Photographic Log



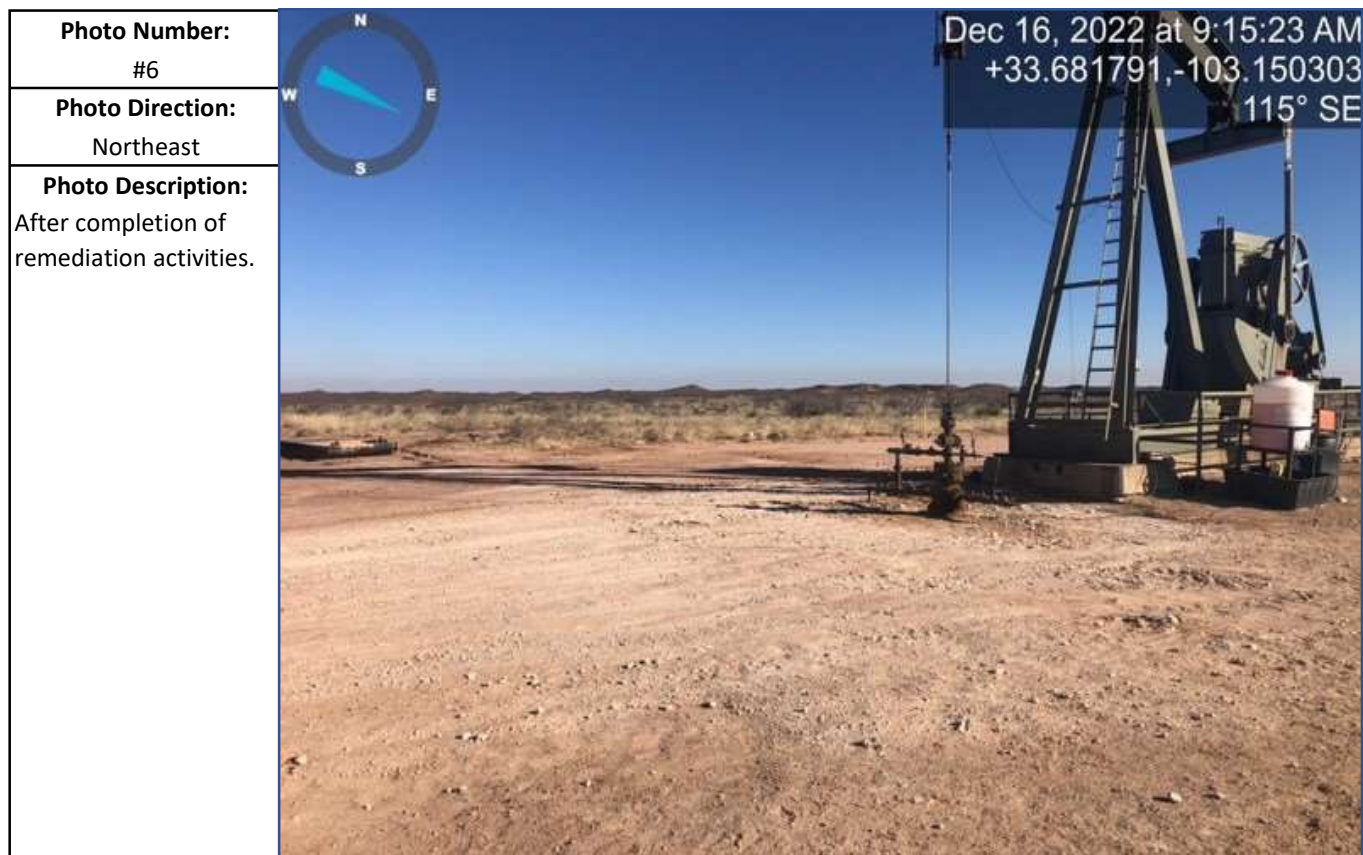
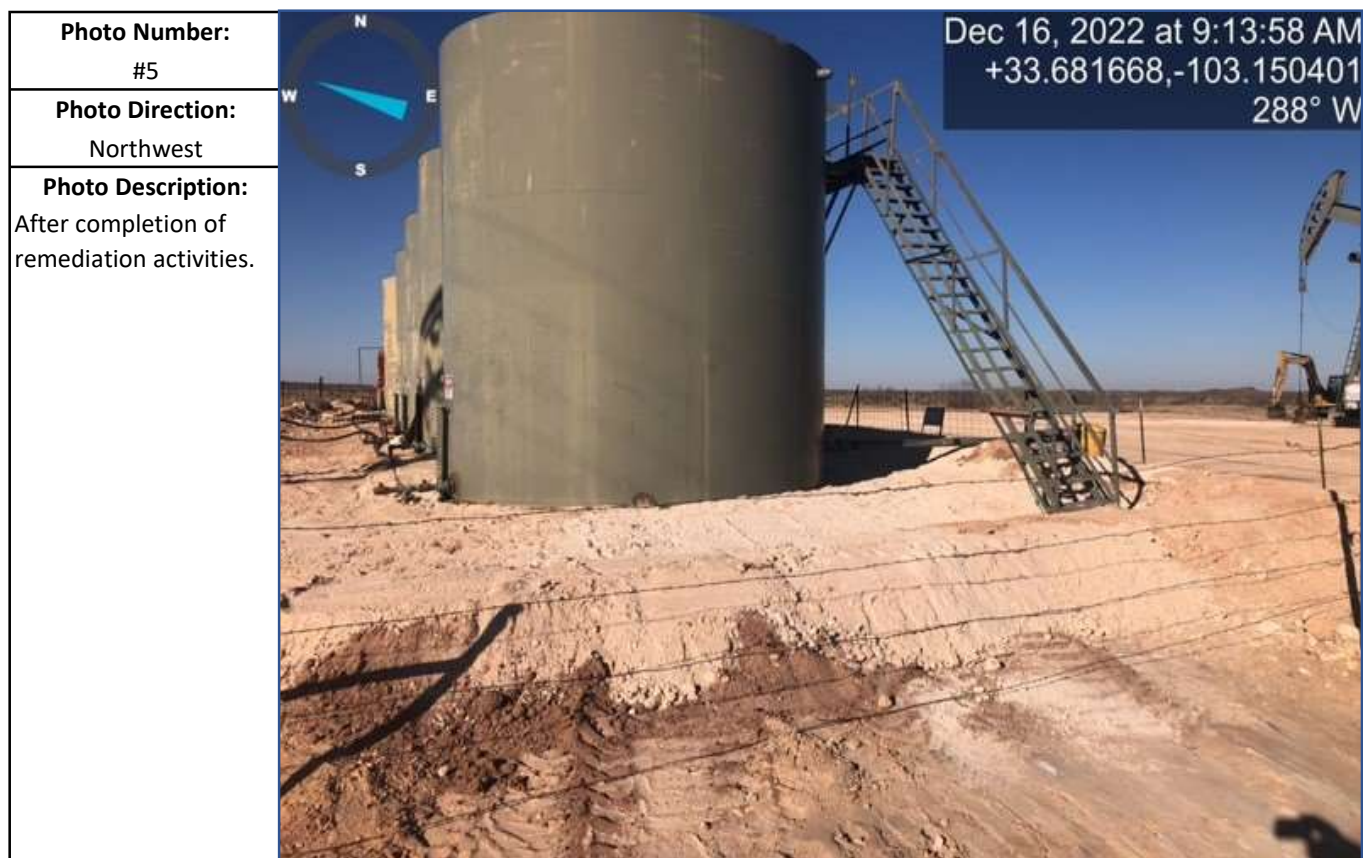


## Photographic Log





## Photographic Log



**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

COMMENTS

Action 202009

COMMENTS

Operator: H L BROWN OPERATING, LLC P.O. Box 2237 Midland, TX 79702	OGRID: 213179
	Action Number: 202009
	Action Type: [C-141] Release Corrective Action (C-141)

COMMENTS

Created By	Comment	Comment Date
csmith	7/17/23 Returned to OCD Review, to reevaluate Depth to Water information.	7/17/2023

**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  
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CONDITIONS

Action 202009

CONDITIONS

Operator: H L BROWN OPERATING, LLC P.O. Box 2237 Midland, TX 79702	OGRID: 213179
	Action Number: 202009
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Deferral request is approved. OCD has accepted the groundwater determination albeit it was outside the preferential 1/2 mile radius determination.	9/29/2023