

<b>Spill Volume(Bbls) Calculator</b>		
<i>Inputs in blue, Outputs in red</i>		
Length(Ft)	Width(Ft)	Depth(In)
<u>120.000</u>	<u>75.000</u>	<u>2.500</u>
Cubic Feet Impacted		<u>1875.000</u>
Barrels		<u>333.93</u>
Soil Type		Clay
Bbls Assuming 100% Saturation		<u>33.39</u>
Saturation	Fluid present with shovel/backhoe	
Estimated Barrels Released		33.40000

<b>Instructions</b>
1. Input spill measurements below. Length and width need to be input in feet and depth in inches.
2. Select a soil type from the drop down menu.
3. Select a saturation level from the drop down menu.
(For data gathering instructions see appendix tab)

<b>Measurements</b>	
Length (ft)	120
Width (ft)	75
Depth (in)	2.500









Incident ID	nAPP2310735633
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>180</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 checked="" type="checkbox"/> Yes <input 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.

State of New Mexico  
Oil Conservation Division

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Incident ID	nAPP2310735633
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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: Katherine Purvis Title: EHS Coordinator  
Signature: Katherine Purvis Date: 12/12/2023  
email: katherine.purvis@spurenergy.com Telephone: (575) 441-8619

**OCD Only**

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

Incident ID	nAPP2310735633
District RP	
Facility ID	
Application ID	

## Closure

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

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

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

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

Printed Name: Katherine Purvis Title: EHS Coordinator

Signature: Katherine Purvis Date: 12/12/2023

email: katherine.purvis@spurenergy.com Telephone: (575) 441-8619

### OCD Only

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

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

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

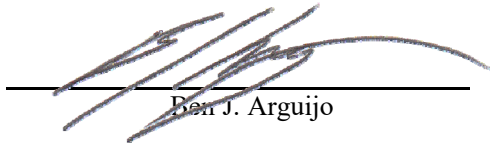
## Remediation Summary & Soil Closure Request

### Spur Energy Partners, LLC Holstun SWD #001

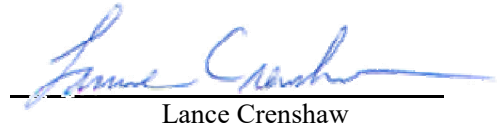
Eddy County, New Mexico  
Unit Letter "B", Section 4, Township 20 South, Range 25 East  
Latitude 32.60786° North, Longitude 104.48766° West  
NMOCD Reference No. nAPP2310735633

Prepared By:

**Etech Environmental & Safety Solutions, Inc.**  
6309 Indiana Ave, Ste. D  
Lubbock, Texas 79413



Ben J. Arguijo



Lance Crenshaw



Midland • San Antonio • Lubbock • Hobbs • Lafayette

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## 1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Spur Energy Partners, LLC (Spur Energy), has prepared this *Remediation Summary & Soil Closure Request* for the release site known as the Holstun SWD #001. Details of the release are summarized below:

### Location of Release Source

Latitude: 32.60786° Longitude: -104.48766°

Provided GPS are in WGS84 format.

Site Name: <u>Holstun SWD #001</u>	Site Type: <u>Salt Water Disposal (SWD)</u>
Date Release Discovered: <u>4/15/2023</u>	API # (if applicable): <u>30-015-21141</u>

Unit Letter	Section	Township	Range	County
"B"	4	20S	25E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name Holstun, Courtney P. Jr. & Pauline )

### Nature and Volume of Release

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) <u>17</u>	Volume Recovered (bbls) <u>16</u>
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) <u>16</u>	Volume Recovered (bbls) <u>15</u>
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input 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: Casing valves were left open causing an oil and produced water mix to release onto the location pad.		

### Initial Response

<input checked="" type="checkbox"/> The source of the release has been stopped.
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.
<input checked="" type="checkbox"/> Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.

Previously submitted portions of the New Mexico Oil Conservation Division (NMOCD) Form C-141 are available in 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 Holstun SWD #001 release 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?	180'		
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	
Are the lateral extents of the release within 300 feet of any 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 the 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 checked="" type="checkbox"/> Yes	<input 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 Holstun SWD #001 release site are as follows:

Probable Depth to Groundwater	Constituent	Laboratory Analytical Method	Closure Criteria**†	Reclamation Standard**‡
180'	Chloride (Cl-)	EPA 300.0 or SM4500 Cl B	600	600
	Total Petroleum Hydrocarbons (TPH)	EPA SW-846 Method 8015M Ext	100	100
	Gas Range Organics + Diesel Range Organics (GRO + DRO)	EPA SW-846 Method 8015M	N/A	N/A
	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, 2023, remediation activities commenced at the Holstun SWD #001 release site. In accordance with NMOCD regulatory guidelines, impacted soil affected above the NMOCD Closure Criteria and NMOCD Reclamation Standards was excavated and stockpiled on-site, pending transfer to an NMOCD-permitted surface waste facility for disposal. Olfactory/visual senses and/or a chloride test kit were utilized to field-screen the horizontal and vertical extent of impacted soil and to guide the excavation. The sidewalls and floors 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 NMOCD Reclamation Standards. Representative five-point composite confirmation soil samples were collected every 200 square feet from the sidewalls and floor of the excavated area to be submitted for laboratory analysis.

On October 16, 2023, Etech collected 12 confirmation soil samples (FL #1 @ 4 Ft through FL #4 @ 5 Ft, FL #7 @ 7 Ft through FL #9 @ 5 Ft, NW 1, NW #2, SW 1, WW 1, and WW #2) from the floor and sidewalls of the excavated area. The 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 applicable NMOCD Closure Criteria and NMOCD Reclamation Standards in each of the submitted soil samples. BTEX and TPH concentrations were also less than the applicable laboratory Method Detection Limit (MDL). Chloride concentrations ranged from 160 mg/kg in soil sample WW #2 to 464 mg/kg in soil sample FL #8 @ 5 Ft.

On October 17, 2023, Etech collected eight (8) confirmation soil samples (FL #5 @ 5 Ft, FL #6 @ 5 Ft, FL #10 @ 6 Ft, FL #11 @ 5 Ft, FL #13 @ 4 Ft, FL #14 @ 7 Ft, SW #2, and SW #3) from the floor and sidewalls of the excavated area. The soil samples were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated BTEX and TPH concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards in each of the submitted soil samples. BTEX and TPH concentrations were also less than the applicable laboratory MDL. Chloride concentrations ranged from 96.0 mg/kg in soil sample SW #3 to 720 mg/kg in soil sample FL #11 @ 5 Ft, which exceeded the NMOCD Closure Criterion.

On October 18, 2023, Etech collected 11 confirmation soil samples (FL #12 @ 6 Ft, FL #15 @ 4 Ft through FL #22 @ 6 Ft, NW-3, and EW-1) from the floor and sidewalls of the excavated area. The 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 applicable NMOCD Closure Criteria and NMOCD Reclamation Standards in each of the submitted soil samples. BTEX and TPH concentrations were also less than the laboratory MDL, with the exception of soil sample NW-3, which exhibited a TPH concentration of 14.8 mg/kg. Chloride concentrations ranged from 112 mg/kg in soil samples FL #20 @ 4 Ft and NW-3 to 544 mg/kg in soil sample FL #22 @ 6 Ft.

On October 24, 2023, based on laboratory analytical results, the excavation was further advanced in the area characterized by soil sample FL #11 @ 5 Ft. Etech collected one (1) confirmation soil sample (FL #11 @ 6 Ft) from the floor of the excavated area. The soil sample was submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated that BTEX, TPH, and chloride concentrations were below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards. BTEX and TPH concentrations were also less than the applicable laboratory MDL. The chloride concentration was 416 mg/kg.

The final dimensions of the excavated area were approximately 174 feet in length, nine (9) to 65 feet in width, and four (4) to seven (7) feet in depth. During the course of remediation activities, Etech transported approximately 1,884 cubic yards of impacted soil to an NMOCD-permitted surface waste facility for disposal and imported approximately 1,856 cubic yards of locally sourced, non-impacted material to the site for use as backfill.

Soil sample locations and the extent of the excavated area are depicted in Figure 3, "Site & Sample Location Map". Soil chemistry data is summarized in Table 1. Field data is provided in Appendix B. General photographs of the site are provided in Appendix C. Laboratory analytical reports are provided in Appendix D. Copies of all regulatory correspondence are provided in Appendix E.



## 5.0 RESTORATION, RECLAMATION & RE-VEGETATION PLAN

The release was limited to the production pad of an active SWD facility and did not impact the adjacent pasture. 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. The affected area was compacted and contoured to fit the needs of the facility. Final reclamation and revegetation will be conducted upon decommissioning and abandonment of the SWD.

## 6.0 SOIL CLOSURE REQUEST

Remediation activities were conducted in accordance with NMOCD regulatory guidelines. Impacted soil affected above the NMOCD Closure Criteria and NMOCD Reclamation Standards was excavated and transported to an NMOCD-permitted disposal facility. Laboratory analytical results from confirmation soil samples indicate in-situ concentrations of BTEX, TPH, and chloride are below the applicable NMOCD Closure Criteria and NMOCD Reclamation Standards.

Based on laboratory analytical results and field activities conducted to date, Etech recommends Spur Energy provide copies of this *Remediation Summary & Soil Closure Request* to the appropriate agencies and request closure be granted to the Holstun SWD #001 release site.

## 7.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this *Remediation Summary & Soil Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents referenced 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 Spur Energy Partners, LLC. Use of the information contained in this report is prohibited without the consent of Etech and/or Spur Energy Partners, LLC.

## **8.0 DISTRIBUTION**

***Spur Energy Partners, LLC***

*9655 Katy Freeway*

*Suite 500*

*Houston, TX 77024*

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

*Oil Conservation Division, District 2*

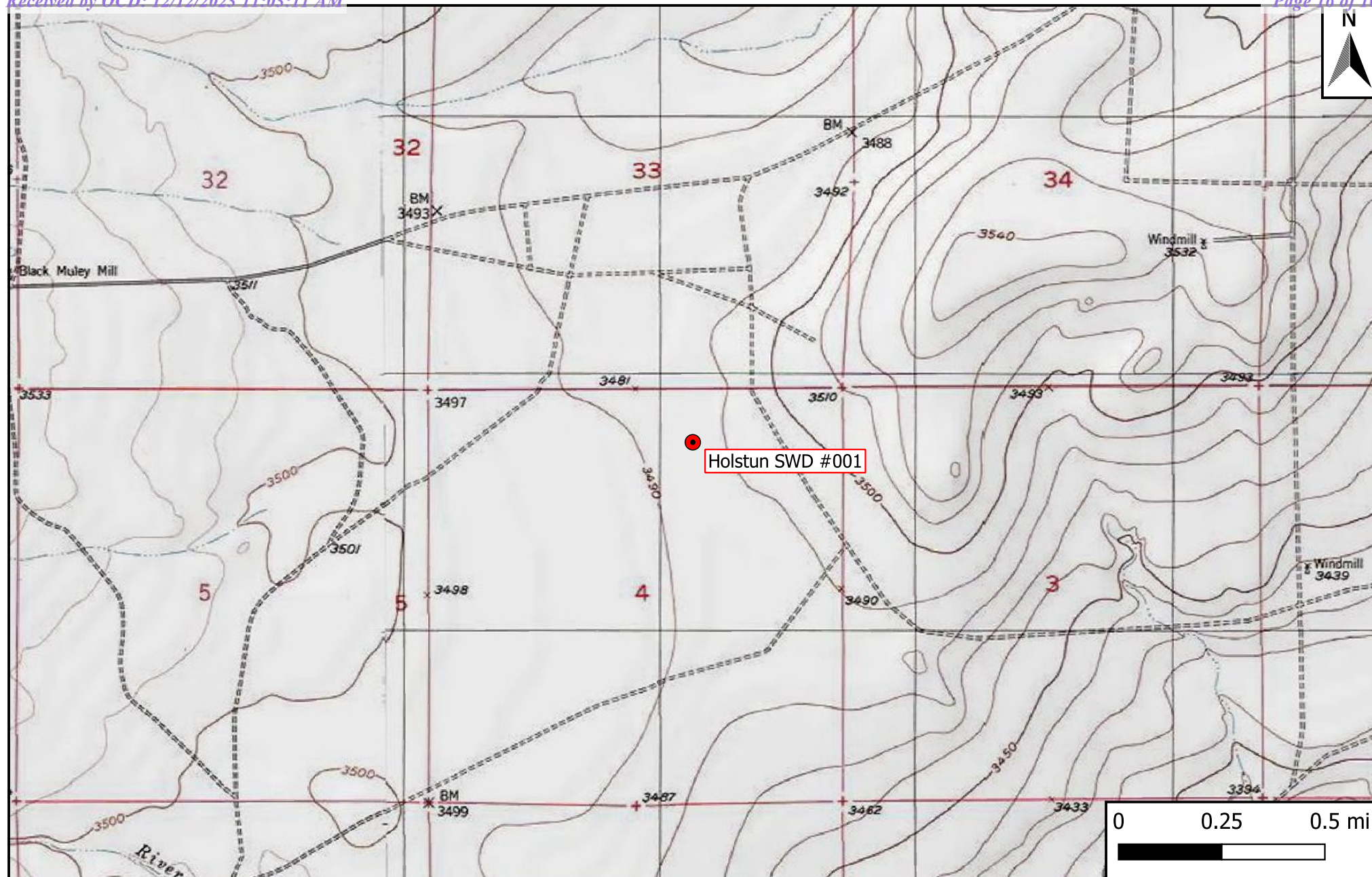
*811 S. First Street*

*Artesia, NM 88210*

*(Electronic Submission)*

## **Figure 1**

### **Topographic Map**



## Legend

- Site Location

**Figure 1**  
 Topographic Map  
 Spur Energy Partners, LLC  
 Holstun SWD #001  
 GPS: 32.60786, -104.48766  
 Eddy County



Drafted: bja

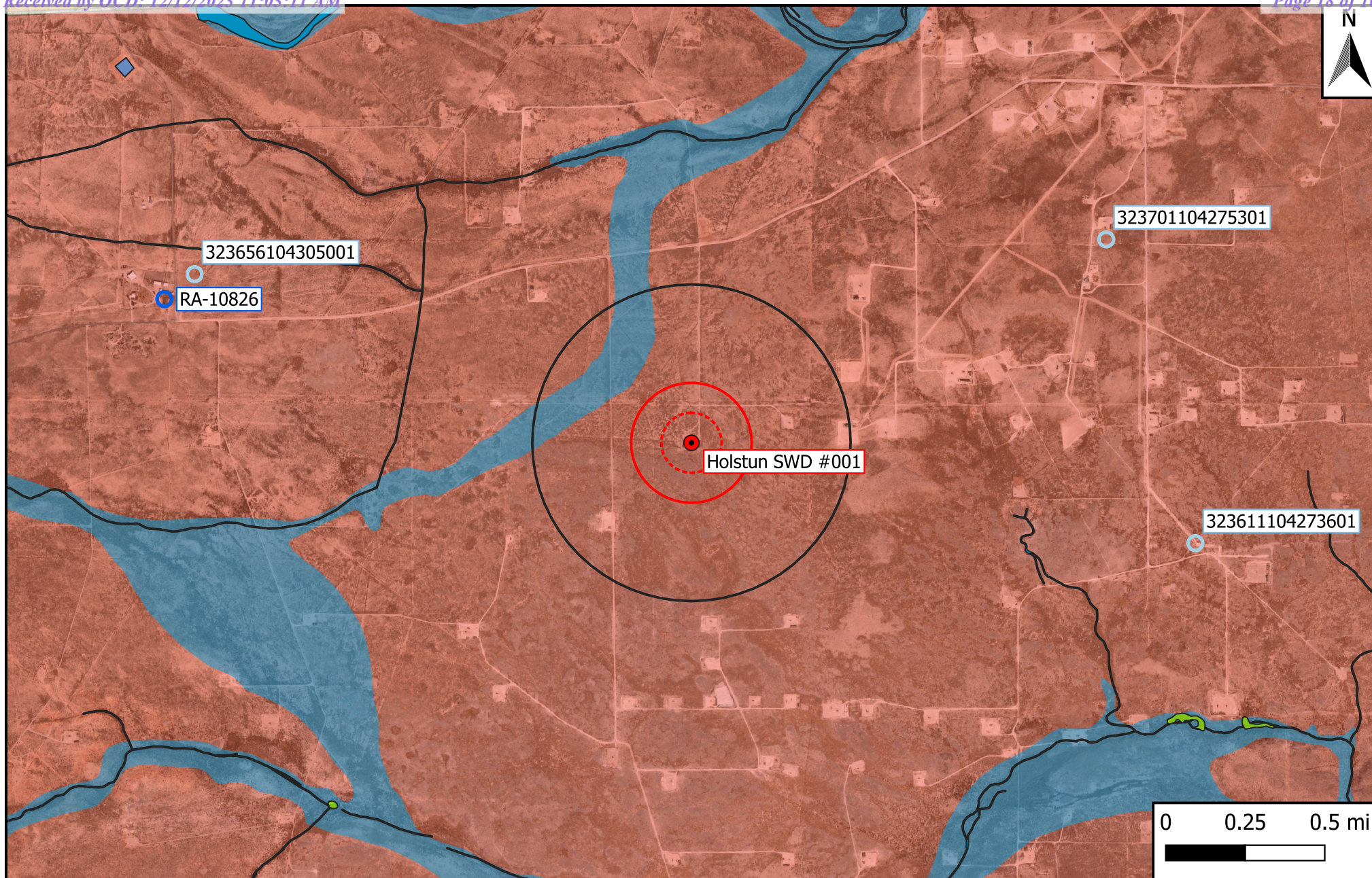
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Date: 10/17/23

## **Figure 2**

### **Site Characterization Map**





## Legend

- |                              |                                 |                    |
|------------------------------|---------------------------------|--------------------|
| ● Site Location              | 1% Annual Flood Chance          | --- 500-Ft Radius  |
| ○ Well - NMOSE               | Emergent/Forested Wetlands      | 1,000-Ft Radius    |
| ○ Well - USGS                | Freshwater Pond/Lake            | 0.5-Mi Radius      |
| ○ Well - Exploratory/Monitor | Karst Potential (Low/Med./High) | Municipal Boundary |
| — Potash Mine Workings       | Riverine                        |                    |

Figure 2

Site Characterization Map  
 Spur Energy Partners, LLC  
 Holstun SWD #001  
 GPS: 32.60786, -104.48766  
 Eddy County



Drafted: bja

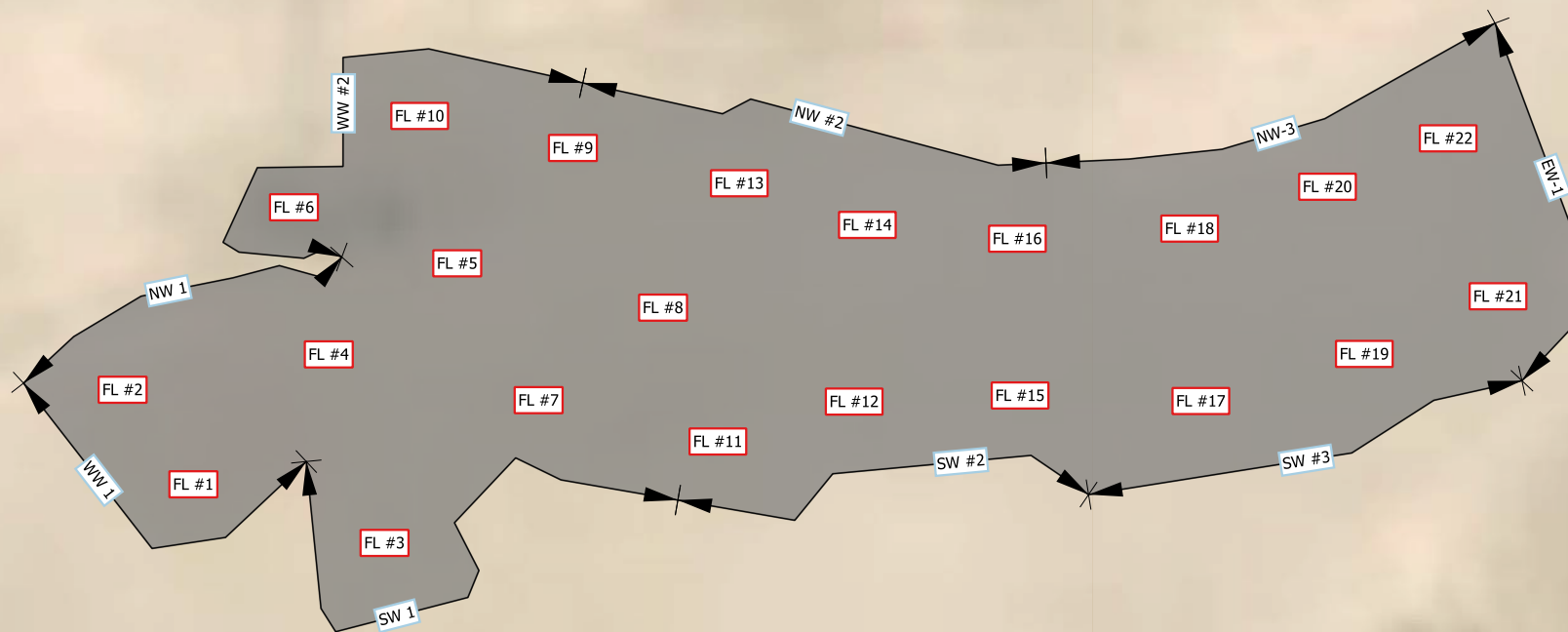
Checked: lc

Date: 10/17/23



## **Figure 3**

### **Site & Sample Location Map**



10 0 10 20 ft

## Legend

- Excavation Extent
- Composite Floor Sample
- Composite Wall Sample

## Figure 3

Site & Sample Location Map  
 Spur Energy Partners, LLC  
 Holstun SWD #001  
 GPS: 32.60786, -104.48766  
 Eddy County



Drafted: bja

Checked: lc

Date: 11/3/2023



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

<b>Table 1</b> <b>Concentrations of BTEX, TPH &amp; Chloride in Soil</b> <b>Spur Energy Partners, LLC</b> <b>Holstun SWD #001</b> <b>NMOCD Ref. #: nAPP2310735633</b>											
NMOCD Closure Criteria				10	50	N/A	N/A	N/A	N/A	100	600
NMOCD Reclamation Standard				10	50	N/A	N/A	N/A	N/A	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)
FL #1 @ 4 Ft	10/16/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	224
FL #2 @ 5 Ft	10/16/2023	5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	176
FL #3 @ 4 Ft	10/16/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	320
FL #4 @ 5 Ft	10/16/2023	5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	208
FL #5 @ 5 Ft	10/17/2023	5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
FL #6 @ 5 Ft	10/17/2023	5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	192
FL #7 @ 7 Ft	10/16/2023	7	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	336
FL #8 @ 5 Ft	10/16/2023	5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	464
FL #9 @ 5 Ft	10/16/2023	5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	320
FL #10 @ 6 Ft	10/17/2023	6	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
FL #11 @ 5 Ft	10/17/2023	5	Excavated	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	720
FL #11 @ 6 Ft	10/24/2023	6	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	416
FL #12 @ 6 Ft	10/18/2023	6	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	352
FL #13 @ 4 Ft	10/17/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	336
FL #14 @ 7 Ft	10/17/2023	7	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	304
FL #15 @ 4 Ft	10/18/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	304
FL #16 @ 4 Ft	10/18/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	320
FL #17 @ 4 Ft	10/18/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	288
FL #18 @ 4 Ft	10/18/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	352
FL #19 @ 4 Ft	10/18/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
FL #20 @ 4 Ft	10/18/2023	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
FL #21 @ 6 Ft	10/18/2023	6	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	512
FL #22 @ 6 Ft	10/18/2023	6	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	544
NW 1	10/16/2023	0-5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	336
NW #2	10/16/2023	0-7	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	336
NW-3	10/18/2023	0-6	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	14.8	14.8	112
EW-1	10/18/2023	0-6	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	288
SW 1	10/16/2023	0-7	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	416
SW #2	10/17/2023	0-7	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	544
SW #3	10/17/2023	0-4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96.0
WW 1	10/16/2023	0-5	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	320
WW #2	10/16/2023	0-6	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160

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

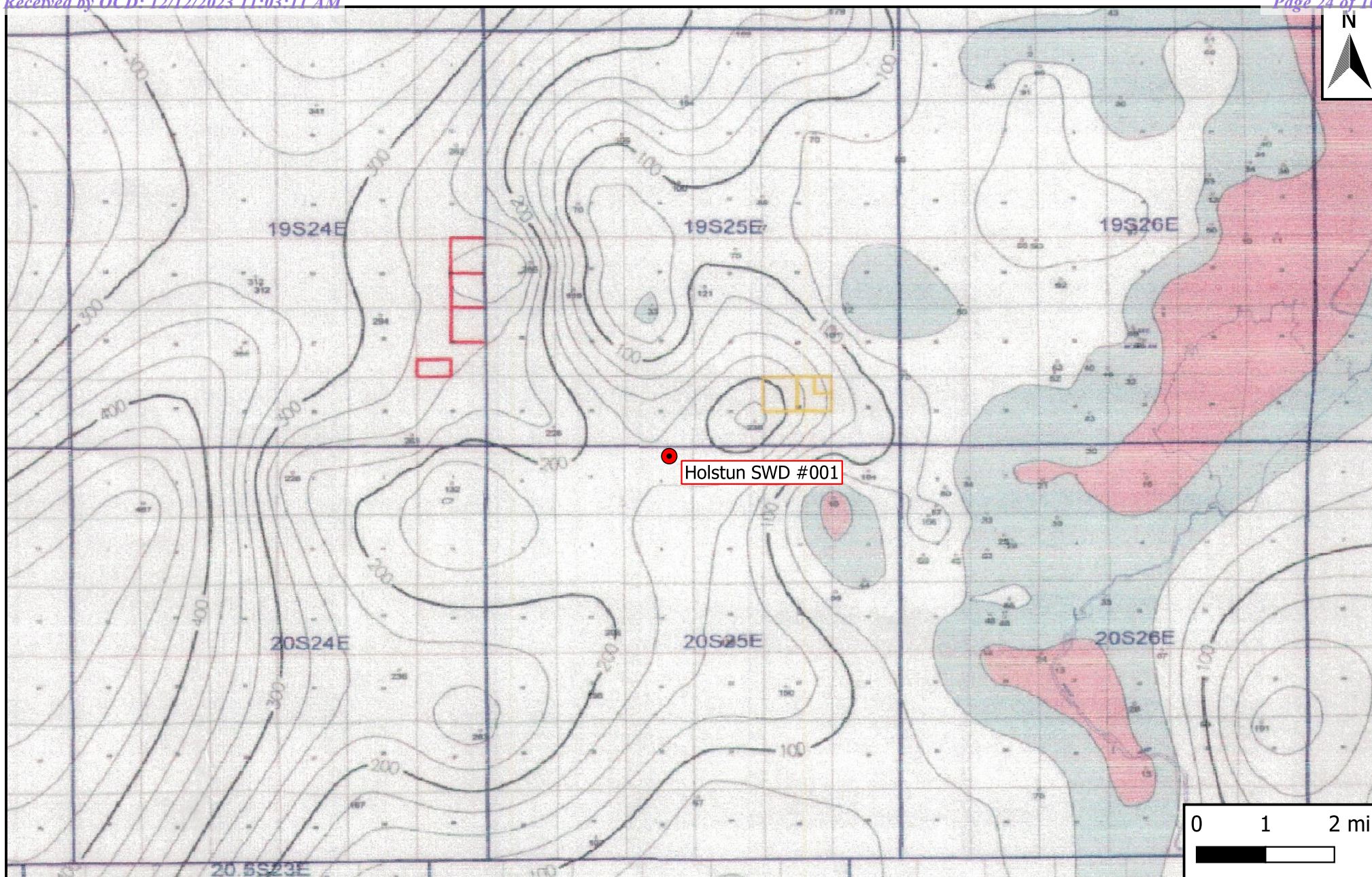
Bold: NMOCD Closure Criteria exceedance.

Red: NMOCD Reclamation Standard exceedance.

## **Appendix A**

### **Depth to Groundwater Information**





## Legend

- Site Location

## Figure 4

Inferred Depth to Groundwater Trend Map  
 Spur Energy Partners, LLC  
 Holstun SWD #001  
 GPS: 32.60786, -104.48766  
 Eddy County



Drafted: bja

Checked: lc

Date: 10/17/23





# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth	Well	Depth	Water Column
<a href="#">RA 02958</a>		RA	ED	1	4	34	19S	25E		549681	3608740*	1801		450		
<a href="#">RA 03018</a>		RA	ED	3	2	4	34	19S	25E	549987	3608639*	2041		530		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

**Record Count:**2

### UTMNAD83 Radius Search (in meters):

**Easting (X):** 548071.53

**Northing (Y):** 3607931.45

**Radius:** 2414

\*UTM location was derived from PLSS - see Help

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.


11/16/23 6:44 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)				(NAD83 UTM in meters)			
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
	RA 02958	1	4	34	19S	25E	549681	3608740*	

**Driller License:** 46**Driller Company:** ABBOTT BROTHERS COMPANY**Driller Name:****Drill Start Date:****Drill Finish Date:****Plug Date:****Log File Date:****PCW Rcv Date:****Source:****Pump Type:****Pipe Discharge Size:****Estimated Yield:****Casing Size:** 7.00**Depth Well:** 450 feet**Depth Water:**

\*UTM location was derived from PLSS - see Help

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.

11/16/23 6:45 PM

POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE)				(quarters are smallest to largest)		(NAD83 UTM in meters)	
		Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	RA 03018	3	2	4	34	19S	25E	549987	3608639*

**Driller License:** 46**Driller Company:** ABBOTT BROTHERS COMPANY**Driller Name:** ABBOTT BROS.**Drill Start Date:****Drill Finish Date:** 02/01/1953**Plug Date:****Log File Date:** 08/26/1953**PCW Rcv Date:****Source:****Pump Type:****Pipe Discharge Size:****Estimated Yield:****Casing Size:** 7.00**Depth Well:** 530 feet**Depth Water:**

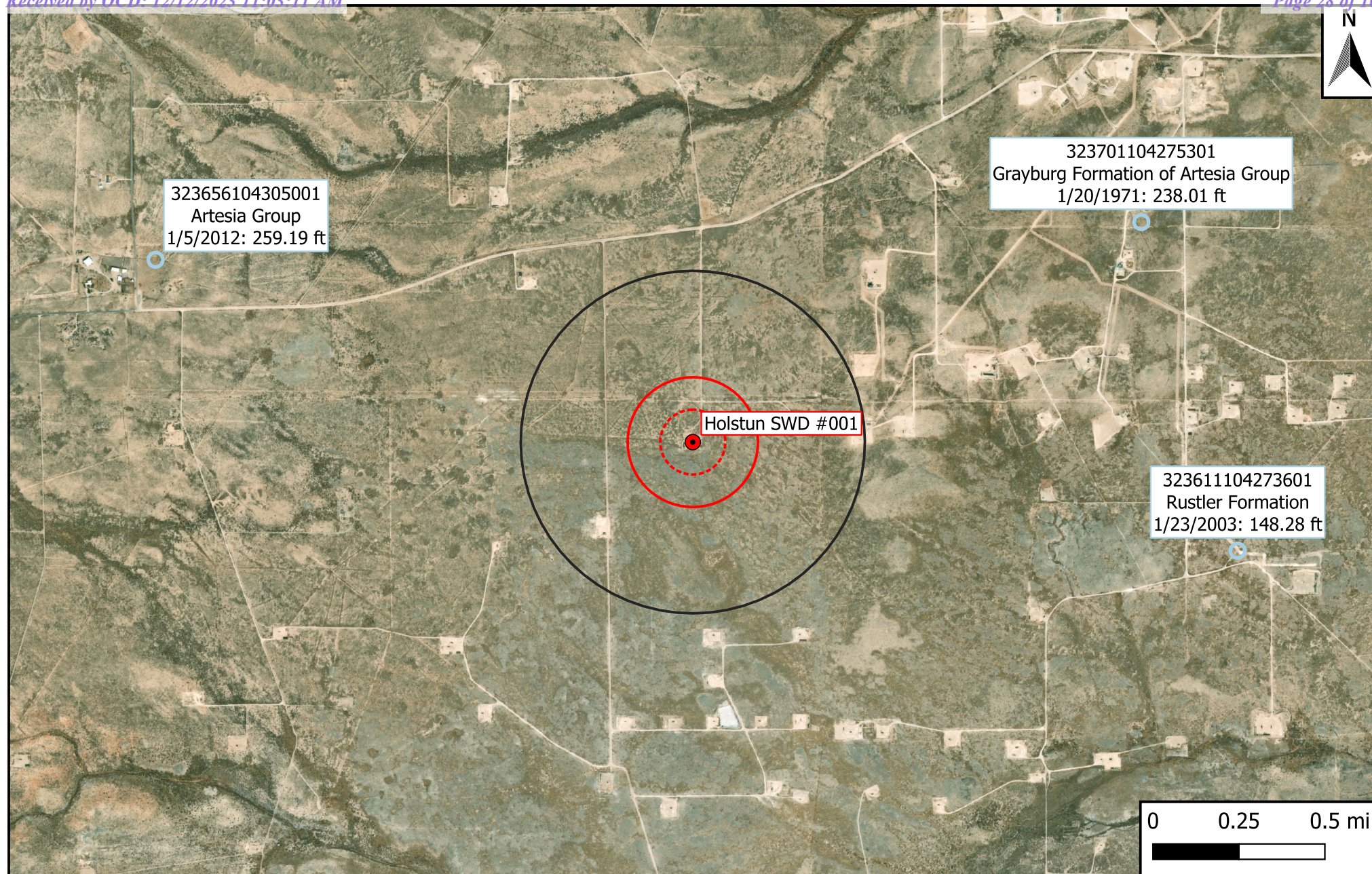
\*UTM location was derived from PLSS - see Help

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.

11/16/23 6:45 PM

POINT OF DIVERSION SUMMARY





## Legend

- Site Location
- Well - USGS
- ⊞ 500-Ft Radius
- ⊞ 1,000-Ft Radius
- ⊞ 0.5-Mi Radius

## Figure 5

USGS Well Proximity Map  
 Spur Energy Partners, LLC  
 Holstun SWD #001  
 GPS: 32.60786, -104.48766  
 Eddy County



Drafted: bja

Checked: lc

Date: 10/17/23





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## Search Results -- 1 sites found

Agency code = usgs

site\_no list =  
• 323611104273601

Minimum number of levels = 1

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## USGS 323611104273601 20S.25E.02.133244

Eddy County, New Mexico

Latitude 32°36'11", Longitude 104°27'36" NAD27

Land-surface elevation 3,438 feet above NAVD88

The depth of the well is 150.0 feet below land surface.

This well is completed in the Roswell Basin aquifer system (S400RSWLBS) national aquifer.

This well is completed in the Rustler Formation (312RSLR) local aquifer.

### Output formats

Table of data
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1963-01-18			D	72019	116.36		1	Z			A
1963-07-23			D	72019	145.19		1	Z			A
1963-09-04			D	72019	147.90		1	Z			A
1979-03-16			D	72019	142.46		1	Z			A
1984-02-02			D	72019	145.67		1	Z			A
1988-10-06			D	72019	138.03		1	Z			A
1990-02-27			D	72019	129.09		1	S			A
1990-03-27			D	72019	129.32		1	S			A

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1990-04-27		D	72019	135.99			1	S			A
1990-05-31		D	72019	139.12			1	S			A
1990-06-28		D	72019	143.82			1	S			A
1990-07-31		D	72019	146.47			1	S			A
1990-08-30		D	72019	148.69			1	Z			A
1990-09-27		D	72019	148.84			1	Z			A
1990-10-26		D	72019	144.62			1	Z			A
1990-12-05		D	72019	143.33			1	Z			A
1991-01-08		D	72019	134.45			1	Z			A
1991-02-01		D	72019	132.32			1	Z			A
1991-03-06		D	72019	129.93			1	Z			A
1991-04-05		D	72019	133.81			1	Z			A
1991-04-30		D	72019	139.89			1	Z			A
1991-06-04		D	72019	141.99			1	Z			A
1991-07-16		D	72019	146.77			1	Z			A
1991-08-12		D	72019	147.88			1	Z			A
1991-09-06		D	72019	149.91			1	Z			A
1991-10-08		D	72019	146.87			1	Z			A
1991-11-04		D	72019	141.05			1	Z			A
1991-12-04		D	72019	136.57			1	Z			A
1992-01-08		D	72019	132.41			1	Z			A
1992-02-04		D	72019	129.73			1	Z			A
1992-03-03		D	72019	127.07			1	Z			A
1992-04-01		D	72019	129.41			1	S			A
1992-05-05		D	72019	132.54			1	Z			A
1992-06-03		D	72019	131.09			1	Z			A
1992-07-01		D	72019	133.22			1	Z			A
1992-08-04		D	72019	137.87			1	Z			A
1992-08-28		D	72019	140.50			1	Z			A
1992-10-02		D	72019	143.81			1	Z			A
1992-11-03		D	72019	138.95			1	Z			A
1992-12-04		D	72019	133.72			1	Z			A
1992-12-31		D	72019	130.84			1	Z			A
1993-02-04		D	72019	127.46			1	Z			A
1993-03-02		D	72019	125.24			1	Z			A
1993-03-31		D	72019	126.49			1	Z			A
1993-04-30		D	72019	133.73			1	Z			A
1993-06-02		D	72019	136.23			1	Z			A

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1993-07-02		D	72019	140.09			1	Z			A
1993-08-03		D	72019	145.14			1	Z			A
1993-09-02		D	72019	148.85			1	Z			A
1993-10-01		D	72019	150.33			1	Z			A
1994-02-01		D	72019	131.76			1	Z			A
1999-01-27		D	72019	135.87			1	S	USGS	S	A
2003-01-23		D	72019	148.28			1	S	USGS	S	A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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### Search Results -- 1 sites found

Agency code = usgs

site\_no list =

- 323656104305001

Minimum number of levels = 1

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### USGS 323656104305001 19S.25E.31.424441

Eddy County, New Mexico

Latitude 32°36'56", Longitude 104°30'50" NAD27

Land-surface elevation 3,529 feet above NAVD88

The depth of the well is 300 feet below land surface.

This well is completed in the Roswell Basin aquifer system (S400RSWLBS) national aquifer.

This well is completed in the Artesia Group (313ARTS) local aquifer.

#### Output formats

[Table of data](#)

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Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1963-01-18			D	72019	228.00		1	Z			A
1963-07-24			D	72019	242.86		1	Z			A
1963-08-13			D	72019	245.79		1	Z			A
1963-09-04			D	72019	248.10		1	Z			A
1963-10-20			D	72019	253.91		P	Z			A
1963-11-20			D	72019	249.06		P	Z			A

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1964-01-14		D	72019	242.59			P	Z			A
1965-01-13		D	72019	254.27			1	Z			A
1966-01-27		D	72019	257.32			1	Z			A
1968-11-13		D	72019	267.54			1	Z			A
1968-12-12		D	72019	251.08			1	Z			A
1969-01-13		D	72019	246.68			1	Z			A
1969-01-30		D	72019	251.08			1	Z			A
1969-04-10		D	72019	243.36			1	Z			A
1969-08-05		D	72019	260.64			1	Z			A
1970-01-12		D	72019	244.68			1	Z			A
1971-01-20		D	72019	243.83			1	Z			A
1990-02-06		D	72019	227.03			1	S			A
1990-02-23		D	72019	224.89			1	S			A
1994-02-22		D	72019	227.78			1	S			A
1999-02-15		D	72019	235.45			1	S	USGS	S	A
2004-02-03		D	72019	231.65			1	S	USGS	S	A
2006-02-07	20:30 UTC	m	72019	235.81			1	S	NM001	A	A
2007-02-13	17:45 UTC	m	72019	238.02			1	S	NM001	A	A
2008-01-08	18:45 UTC	m	72019	240.75			1	S	NM001	A	P
2009-01-06	17:30 UTC	m	72019	252.04			1	S	NM001	A	A
2011-01-20	17:55 UTC	m	72019	246.80			1	S	NM001	A	A
2012-01-05	20:25 UTC	m	72019	259.20			1	S	NM001	A	P

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Status	P	Pumping
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.

Section	Code	Description
Measuring agency		Not determined
Measuring agency	NM001	New Mexico State Engineers Office
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	A	Reported by another government agency (do not use "A" if reported by owner, use "O").
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.
Water-level approval status	P	Provisional data subject to revision.

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Agency code = usgs

site\_no list =

- 323701104275301

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload**USGS 323701104275301 19S.25E.34.423224**

Eddy County, New Mexico

Latitude 32°37'01", Longitude 104°27'53" NAD27

Land-surface elevation 3,528 feet above NAVD88

The depth of the well is 530 feet below land surface.

This well is completed in the Roswell Basin aquifer system (S400RSWLBS) national aquifer.

This well is completed in the Grayburg Formation of Artesia Group (313GRBG) local aquifer.

**Output formats**[Table of data](#)[Tab-separated data](#)[Graph of data](#)[Reselect period](#)

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1955-01-04		D	72019	197.13			1	Z			A
1957-01-15		D	72019	208.76			1	Z			A
1958-01-29		D	72019	209.50			1	Z			A

Date	Time	Water-level date-time accuracy	Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	Status	Method of measurement	Measuring agency	Source of measurement	Water-level approval status
1959-01-27		D	72019	205.88			1	Z			A
1960-01-27		D	72019	214.65			1	Z			A
1961-01-30		D	72019	210.93			1	Z			A
1962-01-25		D	72019	213.30			P	Z			A
1963-01-07		D	72019	228.06			P	Z			A
1963-07-24		D	72019	263.00			1	Z			A
1963-08-13		D	72019	267.12			1	Z			A
1963-09-04		D	72019	266.87			1	Z			A
1963-10-02		D	72019	267.97			1	Z			A
1963-11-20		D	72019	253.90			P	Z			A
1964-01-06		D	72019	239.65			P	Z			A
1965-01-13		D	72019	250.00			1	Z			A
1966-01-27		D	72019	247.85			1	Z			A
1969-01-13		D	72019	241.52			1	Z			A
1969-01-30		D	72019	240.12			1	Z			A
1969-04-10		D	72019	245.70			1	Z			A
1969-08-05		D	72019	263.80			1	Z			A
1970-01-12		D	72019	239.68			1	Z			A
1971-01-20		D	72019	238.01			1	Z			A

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Status	P	Pumping
Method of measurement	Z	Other.
Measuring agency		Not determined



Section	Code	Description
Source of measurement		Not determined
Water-level approval status	A	Approved for publication -- Processing and review completed.

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

Page Last Modified: 2023-11-16 19:37:53 EST

0.31 0.26 nadww02

## **Appendix B**

### **Field Data**



## Sample Log

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

Project: Holstun SWD #001

Project Number: 18074 Latitude: 32.6078644 Longitude: -104.4876633

Sample ID	PID/Odor	Chloride Conc.	GPS
WW1	None	912	
WW1	None	356	
NW1	None	320	
SW1	—	912	
SW1	—	488	
FL #1 @ 4 ft	—	552	
FL #2 @ 4 ft	None	912	
FL #3 @ 4 ft	None	<del>356</del> 356	
FL #4 @ 4 ft	—	1284	
FL #5 @ 4 ft	—	760	
FL #6 @ 4 ft	None	1,036	
FL #2 @ 5 ft	—	289	
FL #4 @ 5 ft	—	396	
FL #5 @ 5 ft	—	536	
FL #6 @ 5 ft	—	536	
FL #7 @ 4 ft	—	912	
FL #7 @ 5 ft	—	912	
FL #8 @ 4 ft	—	702	
FL #9 @ 4 ft	—	1,196	
FL #7 @ 6 ft	None	1,124	
FL #8 @ 5 ft	None	536	
FL #9 @ 5 ft	—	488	
FL #7 @ 7 ft	—	488	
WW #2	—	252	
NW #2	—	488	
FL #10 @ 4 ft	—	1,124	
SW2	—	1,224	
FL #10 @ 5 ft	—	2,588	
SW-2	—	584	
FL #10 @ 6 ft	—	272	
FL #11 @ 4 ft	—	964	
FL #12 @ 4 ft	—	760	
FL #13 @ 4 ft	—	352	
FL #14 @ 4 ft	—	824	
FL #11 @ 5 ft	—	584	
FL #12 @ 5 ft	—	964	

Sample Point = SP #1 @ ## etc

Test Trench = TT #1 @ ##

Resamples = SP #1 @ 5b or SW #1b

Floor = FL #1 etc

Refusal = SP #1 @ 4'-R

Stockpile = Stockpile #1

Sidewall = SW #1 etc

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

GPS Sample Points, Center of Comp Areas



Longitude: -104.4876633


### GPS Sample Points, Center of Comp Areas


## **Appendix C**

### **Photographic Log**




## Photographic Log


<b>Photo Number:</b> 1	 <p>Apr 17, 2023 at 12:26:08 PM +32.607875,-104.487660 ±10.00m 341° N</p>
<b>Photo Direction:</b> North-Northwest	
<b>Coordinates:</b> 32.607875,-104.487660	
<b>Photo Description:</b>  View of the affected area.	

<b>Photo Number:</b> 2	 <p>Apr 17, 2023 at 12:08:39 PM +32.607766,-104.487637 ±5.00m 319° NW</p>
<b>Photo Direction:</b> Northwest	
<b>Coordinates:</b> 32.607766,-104.487637	
<b>Photo Description:</b>  View of the affected area.	



## Photographic Log


<b>Photo Number:</b> 3	<div>Apr 17, 2023 at 12:10:06 PM +32.607997,-104.487275 ±5.00m 239° SW</div>  A wide-angle photograph of an industrial site. In the background, there are several large, cylindrical storage tanks. A white pickup truck is parked on a dirt road in the middle ground. The foreground is a flat, sandy area with some sparse vegetation. The sky is clear and blue.
<b>Photo Direction:</b> West-Southwest	
<b>Coordinates:</b> 32.607997,-104.487275	
<b>Photo Description:</b>  View of the affected area.	

<b>Photo Number:</b> 4	<div>Apr 17, 2023 at 12:09:04 PM +32.607851,-104.487838 ±5.00m 75° E</div>  A photograph of an industrial site. A large, dark-colored pipe runs diagonally across the foreground. In the background, a white pickup truck is parked on a dirt road. The ground is sandy and sparsely vegetated. The sky is clear and blue.
<b>Photo Direction:</b> East-Northeast	
<b>Coordinates:</b> 32.607851,-104.487838	
<b>Photo Description:</b>  View of the affected area.	



## Photographic Log


<b>Photo Number:</b> 5	<div>Oct 18, 2023 at 2:42:53 PM Artesia NM 88210 United States</div> 
<b>Photo Direction:</b> East	
<b>Coordinates:</b> 32.607830,-104.487839	
<b>Photo Description:</b>  View of the excavated area.	

<b>Photo Number:</b> 6	<div>Oct 18, 2023 at 2:43:05 PM Artesia NM 88210 United States</div> 
<b>Photo Direction:</b> Southeast	
<b>Coordinates:</b> 32.607857,-104.487847	
<b>Photo Description:</b>  View of the excavated area.	



## Photographic Log

<b>Photo Number:</b> 7	
<b>Photo Direction:</b> Southeast	
<b>Coordinates:</b> 32.607899,-104.487773	
<b>Photo Description:</b>  View of the excavated area.	

<b>Photo Number:</b> 8	
<b>Photo Direction:</b> Southwest	
<b>Coordinates:</b> 32.607973,-104.487298	
<b>Photo Description:</b>  View of the excavated area.	



## Photographic Log

<b>Photo Number:</b> 9	 <p>Oct 18, 2023 at 2:44:18 PM Artesia NM 88210 United States</p>
<b>Photo Direction:</b> Southwest	
<b>Coordinates:</b> 32.607973,-104.487298	
<b>Photo Description:</b>  View of the excavated area.	

<b>Photo Number:</b> 10	 <p>Oct 26, 2023 at 6:12:42 PM +32.607810,-104.487294 Artesia NM 88210 United States</p>
<b>Photo Direction:</b> West	
<b>Coordinates:</b> 32.607973,-104.487298	
<b>Photo Description:</b>  View of the remediated area after backfill and regrading.	

## **Appendix D**

### **Laboratory Analytical Reports**



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

October 20, 2023

JOEL LOWRY

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: HALSTUN

Enclosed are the results of analyses for samples received by the laboratory on 10/17/23 14:42.

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: 10/17/2023  
 Reported: 10/20/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WW 1 (H235671-01)**

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	10/19/2023	ND	2.08	104	2.00	1.13		
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79		
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30		
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51		
Total BTEx	<0.300	0.300	10/19/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	10/18/2023	ND	416	104	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	10/18/2023	ND	172	86.0	200	3.60	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	191	95.4	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 97.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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: 10/17/2023  
 Reported: 10/20/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: NW 1 (H235671-02)**

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	10/19/2023	ND	2.08	104	2.00	1.13	
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79	
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30	
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51	
Total BTEx	<0.300	0.300	10/19/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	10/18/2023	ND	416	104	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	10/18/2023	ND	172	86.0	200	3.60	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	191	95.4	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 92.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 103 % 49.1-148

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: 10/17/2023  
 Reported: 10/20/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: SW 1 (H235671-03)**

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	10/19/2023	ND	2.08	104	2.00	1.13	
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79	
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30	
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51	
Total BTEx	<0.300	0.300	10/19/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	10/18/2023	ND	416	104	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	10/18/2023	ND	172	86.0	200	3.60	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	191	95.4	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 94.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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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: 10/17/2023  
 Reported: 10/20/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL #1 @ 4FT (H235671-04)**

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	10/19/2023	ND	2.08	104	2.00	1.13		
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79		
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30		
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51		
Total BTEx	<0.300	0.300	10/19/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	10/18/2023	ND	416	104	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	10/18/2023	ND	172	86.0	200	3.60	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	191	95.4	200	4.82	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 95.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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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: 10/17/2023  
 Reported: 10/20/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL #2 @ 5FT (H235671-05)**

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	10/19/2023	ND	2.08	104	2.00	1.13		
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79		
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30		
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51		
Total BTEx	<0.300	0.300	10/19/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	10/18/2023	ND	416	104	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	10/18/2023	ND	180	90.0	200	0.0128	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	186	92.8	200	2.13	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 84.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.5 % 49.1-148

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: 10/17/2023  
 Reported: 10/20/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL #3 @ 4FT (H235671-06)**

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	10/19/2023	ND	2.08	104	2.00	1.13		
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79		
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30		
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51		
Total BTEX	<0.300	0.300	10/19/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

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	10/18/2023	ND	416	104	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	10/18/2023	ND	180	90.0	200	0.0128	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	186	92.8	200	2.13	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 87.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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.

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: 10/17/2023  
 Reported: 10/20/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL #4 @ 5FT (H235671-07)**

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	10/19/2023	ND	2.08	104	2.00	1.13		
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79		
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30		
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51		
Total BTEx	<0.300	0.300	10/19/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

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	10/18/2023	ND	416	104	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	10/18/2023	ND	180	90.0	200	0.0128	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	186	92.8	200	2.13	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 84.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.4 % 49.1-148

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: 10/17/2023  
 Reported: 10/20/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL #7 @ 7FT (H235671-08)**

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	10/19/2023	ND	2.08	104	2.00	1.13	
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79	
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30	
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51	
Total BTEX	<0.300	0.300	10/19/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	10/18/2023	ND	416	104	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	10/18/2023	ND	180	90.0	200	0.0128	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	186	92.8	200	2.13	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 87.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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: 10/17/2023  
 Reported: 10/20/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL #8 @ 5FT (H235671-09)**

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	10/19/2023	ND	2.08	104	2.00	1.13		
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79		
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30		
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51		
Total BTEx	<0.300	0.300	10/19/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	10/18/2023	ND	416	104	400	3.77	

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	10/18/2023	ND	180	90.0	200	0.0128	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	186	92.8	200	2.13	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 88.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 101 % 49.1-148

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: 10/17/2023  
 Reported: 10/20/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL #9 @ 5FT (H235671-10)**

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	10/19/2023	ND	2.08	104	2.00	1.13	
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79	
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30	
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51	
Total BTEX	<0.300	0.300	10/19/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

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	10/18/2023	ND	416	104	400	3.77		

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	10/18/2023	ND	180	90.0	200	0.0128	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	186	92.8	200	2.13	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 86.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.0 % 49.1-148

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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: 10/17/2023  
 Reported: 10/20/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WW # 2 (H235671-11)**

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	10/19/2023	ND	2.08	104	2.00	1.13	
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79	
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30	
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51	
Total BTEX	<0.300	0.300	10/19/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

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	10/18/2023	ND	416	104	400	3.77	

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	10/18/2023	ND	180	90.0	200	0.0128	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	186	92.8	200	2.13	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 86.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.6 % 49.1-148

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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: 10/17/2023  
 Reported: 10/20/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 10/16/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: NW # 2 (H235671-12)**

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	10/19/2023	ND	2.08	104	2.00	1.13		
Toluene*	<0.050	0.050	10/19/2023	ND	2.14	107	2.00	1.79		
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.29	115	2.00	2.30		
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.92	115	6.00	2.51		
Total BTEx	<0.300	0.300	10/19/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	10/18/2023	ND	416	104	400	3.77		

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	10/18/2023	ND	180	90.0	200	0.0128	
DRO >C10-C28*	<10.0	10.0	10/18/2023	ND	186	92.8	200	2.13	
EXT DRO >C28-C36	<10.0	10.0	10/18/2023	ND					

Surrogate: 1-Chlorooctane 84.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.0 % 49.1-148

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

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

Page 15 of 16

Company Name: Etech Environmental & Safety Solutions, Inc.				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																		
Project Manager: Joel Lowry				P.O. #:				<div style="display: flex; justify-content: space-around;"> <div>Chloride</div> <div>TPH (8015M)</div> <div>BTEX (8021B)</div> </div>																		
Address: P.O. Box 301				Company:																						
City: Lovington State: NM Zip: 88260				Attn:																						
Phone #: (575) 396-2378 Fax #: (575) 396-1429				Address:																						
Project #: Project Owner:				City:																						
Project Name: Halston				State: Zip:																						
Project Location:				Phone #:																						
Sampler Name: Martin Sepulveda				Fax #:																						
FOR LAB USE ONLY						MATRIX		PRESERV		SAMPLING																
Lab I.D.	Sample I.D.	(GRAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER	DATE	TIME												
H235671																										
1	WW 1					/				/			10-16-23	12:00	/	/	/									
2	NW 1					/				/					/	/	/									
3	SW 1					/				/					/	/	/									
4	FL# 1 @ 4 Ft					/				/					/	/	/									
5	FL# 2 @ 5 Ft					/				/					/	/	/									
6	FL# 3 @ 4 Ft					/				/					/	/	/									
7	FL# 4 @ 5 Ft					/				/					/	/	/									
	FL# 5 @ 5 Ft					/				/					/	/	/									
	FL# 6 @ 5 Ft					/				/					/	/	/									
8	FL# 7 @ 7 Ft					/				/					/	/	/									
<p>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.</p>																										
Relinquished By:				Date: 10-16-23		Received By:				Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No				Add'l Phone #:												
Relinquished By:				Time: 1:00 PM		Received By:				Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No				Add'l Fax #:												
Delivered By: (Circle One) <u>UPS</u> - Bus - Other: <u>#140</u>				Sample Condition				CHECKED BY:				REMARKS:														
				Cool Intact								Please email results to pm@etechenv.com.														
				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																						
				<input type="checkbox"/> No <input type="checkbox"/> No																						

FORM-006  
Revision 1.0

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



**ARDINAL LABORATORIES**

**101 East Marland, Hobbs, NM 88240**

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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 16 of 16

[illegible]

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

October 24, 2023

JOEL LOWRY

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: HALSTUN

Enclosed are the results of analyses for samples received by the laboratory on 10/18/23 15:11.

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: 10/18/2023  
 Reported: 10/24/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: SPUR

Sampling Date: 10/17/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FL #5 @ 5FT (H235705-01)**

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	10/19/2023	ND	1.99	99.6	2.00	3.39	
Toluene*	<0.050	0.050	10/19/2023	ND	1.98	99.0	2.00	1.90	
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	2.10	105	2.00	3.85	
Total Xylenes*	<0.150	0.150	10/19/2023	ND	6.30	105	6.00	3.54	
Total BTX	<0.300	0.300	10/19/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

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	10/19/2023	ND	416	104	400	3.77		

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	10/19/2023	ND	182	90.9	200	3.80	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	191	95.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 90.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 97.2 % 49.1-148

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: 10/18/2023  
 Reported: 10/24/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: SPUR

Sampling Date: 10/17/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FL #6 @ 5FT (H235705-02)**

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	10/20/2023	ND	1.99	99.6	2.00	3.39		
Toluene*	<0.050	0.050	10/20/2023	ND	1.98	99.0	2.00	1.90		
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.10	105	2.00	3.85		
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.30	105	6.00	3.54		
Total BTEx	<0.300	0.300	10/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	10/19/2023	ND	416	104	400	3.77		

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	10/19/2023	ND	182	90.9	200	3.80	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	191	95.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 90.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 98.7 % 49.1-148

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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: 10/18/2023  
 Reported: 10/24/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: SPUR

Sampling Date: 10/17/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: SW # 2 (H235705-03)**

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	10/20/2023	ND	1.99	99.6	2.00	3.39		
Toluene*	<0.050	0.050	10/20/2023	ND	1.98	99.0	2.00	1.90		
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.10	105	2.00	3.85		
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.30	105	6.00	3.54		
Total BTEx	<0.300	0.300	10/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	544	16.0	10/19/2023	ND	416	104	400	3.77		

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	10/19/2023	ND	182	90.9	200	3.80	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	191	95.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 89.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 100 % 49.1-148

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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: 10/18/2023  
 Reported: 10/24/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: SPUR

Sampling Date: 10/17/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FL #10 @ 6FT (H235705-04)**

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	10/19/2023	ND	1.96	97.9	2.00	6.06		
Toluene*	<0.050	0.050	10/19/2023	ND	1.86	93.2	2.00	5.59		
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	1.87	93.7	2.00	7.54		
Total Xylenes*	<0.150	0.150	10/19/2023	ND	5.56	92.7	6.00	8.78		
Total BTX	<0.300	0.300	10/19/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	10/19/2023	ND	416	104	400	3.77	

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	10/19/2023	ND	182	90.9	200	3.80	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	191	95.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 90.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.8 % 49.1-148

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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: 10/18/2023  
 Reported: 10/24/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: SPUR

Sampling Date: 10/17/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FL #11 @ 5FT (H235705-05)**

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	10/19/2023	ND	1.96	97.9	2.00	6.06		
Toluene*	<0.050	0.050	10/19/2023	ND	1.86	93.2	2.00	5.59		
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	1.87	93.7	2.00	7.54		
Total Xylenes*	<0.150	0.150	10/19/2023	ND	5.56	92.7	6.00	8.78		
Total BTX	<0.300	0.300	10/19/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	10/19/2023	ND	416	104	400	3.77	

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	10/19/2023	ND	182	90.9	200	3.80	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	191	95.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 79.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.6 % 49.1-148

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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: 10/18/2023  
 Reported: 10/24/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: SPUR

Sampling Date: 10/17/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FL #13 @ 4FT (H235705-06)**

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	10/19/2023	ND	1.96	97.9	2.00	6.06		
Toluene*	<0.050	0.050	10/19/2023	ND	1.86	93.2	2.00	5.59		
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	1.87	93.7	2.00	7.54		
Total Xylenes*	<0.150	0.150	10/19/2023	ND	5.56	92.7	6.00	8.78		
Total BTEX	<0.300	0.300	10/19/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	10/19/2023	ND	416	104	400	3.77		

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	10/19/2023	ND	182	90.9	200	3.80	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	191	95.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 90.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.6 % 49.1-148

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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: 10/18/2023  
 Reported: 10/24/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: SPUR

Sampling Date: 10/17/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: FL #14 @ 7FT (H235705-07)**

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	10/19/2023	ND	1.96	97.9	2.00	6.06		
Toluene*	<0.050	0.050	10/19/2023	ND	1.86	93.2	2.00	5.59		
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	1.87	93.7	2.00	7.54		
Total Xylenes*	<0.150	0.150	10/19/2023	ND	5.56	92.7	6.00	8.78		
Total BTX	<0.300	0.300	10/19/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	10/19/2023	ND	416	104	400	3.77	

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	10/19/2023	ND	182	90.9	200	3.80	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	191	95.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 108 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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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: 10/18/2023  
 Reported: 10/24/2023  
 Project Name: HALSTUN  
 Project Number: NONE GIVEN  
 Project Location: SPUR

Sampling Date: 10/17/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Dionica Hinojos

**Sample ID: SW # 3 (H235705-08)**

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	10/19/2023	ND	1.96	97.9	2.00	6.06		
Toluene*	<0.050	0.050	10/19/2023	ND	1.86	93.2	2.00	5.59		
Ethylbenzene*	<0.050	0.050	10/19/2023	ND	1.87	93.7	2.00	7.54		
Total Xylenes*	<0.150	0.150	10/19/2023	ND	5.56	92.7	6.00	8.78		
Total BTEx	<0.300	0.300	10/19/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	10/19/2023	ND	416	104	400	3.77		

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	10/19/2023	ND	182	90.9	200	3.80	
DRO >C10-C28*	<10.0	10.0	10/19/2023	ND	191	95.4	200	5.38	
EXT DRO >C28-C36	<10.0	10.0	10/19/2023	ND					

Surrogate: 1-Chlorooctane 95.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 104 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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---

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

---

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

Page 11 of 11

Company Name: Etech Environmental & Safety Solutions, Inc.						BILL TO							ANALYSIS REQUEST												
Project Manager: Joel Lawry						P.O. #:						Chloride TPH (8015M) BTEX (8021B)													
Address: P.O. Box 301						Company: SPUR																			
City: Lovington State: NM Zip: 88260						Attn: Kathy Purvis																			
Phone #: (575) 396-2378 Fax #: (575) 396-1429						Address:																			
Project #: Project Owner:						City:																			
Project Name: Halstun						State: Zip:																			
Project Location:						Phone #:																			
Sampler Name: Martin Sepulveda						Fax #:																			
FOR LAB USE ONLY				(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX		PRESERV.	SAMPLING																
Lab I.D.		Sample I.D.		GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME											
1 FL#5 @ 5 Ft						/				/			10-17-23	12:00	/	/	/								
2 FL#6 @ 5 Ft						/				/					/	/	/								
3 SW#2						/				/					/	/	/								
4 FL#10 @ 6 Ft						/				/					/	/	/								
5 FL#11 @ 5 Ft						/				/					/	/	/								
6 FL#13 @ 4 Ft						/				/					/	/	/								
7 FL#14 @ 7 Ft						/				/					/	/	/								
8 SW#3						/				/					/	/	/								
<p>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.</p>																									
Relinquished By: [Signature]				Date: 10-18-23 Time: 15:11		Received By: [Signature]				Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Add'l Phone #:											
Relinquished By:				Date:		Received By:				Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Add'l Fax #:											
				Time:						REMARKS:															
Delivered By: (Circle One) Sampler - UPS - Bus - Other:										-7.5° #140		Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: (Initials) [Signature]		Please email results to pm@etechenv.com.									



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

October 24, 2023

JOEL LOWRY

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: HOLSTON SWD # 001

Enclosed are the results of analyses for samples received by the laboratory on 10/19/23 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: 10/19/2023  
 Reported: 10/24/2023  
 Project Name: HOLSTON SWD # 001  
 Project Number: 18074  
 Project Location: SPUR - EDDY CO., NM

Sampling Date: 10/18/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL # 12 @ 6 FT (H235731-01)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/21/2023	ND	2.07	103	2.00	5.17		
Toluene*	<0.050	0.050	10/21/2023	ND	2.10	105	2.00	6.12		
Ethylbenzene*	<0.050	0.050	10/21/2023	ND	2.11	105	2.00	4.99		
Total Xylenes*	<0.150	0.150	10/21/2023	ND	6.30	105	6.00	5.05		
Total BTEX	<0.300	0.300	10/21/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	10/20/2023	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	10/23/2023	ND	177	88.3	200	2.78	
DRO >C10-C28*	<10.0	10.0	10/23/2023	ND	165	82.5	200	2.15	
EXT DRO >C28-C36	<10.0	10.0	10/23/2023	ND					

Surrogate: 1-Chlorooctane 89.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.5 % 49.1-148

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\*=Accredited Analyte

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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: 10/19/2023  
 Reported: 10/24/2023  
 Project Name: HOLSTON SWD # 001  
 Project Number: 18074  
 Project Location: SPUR - EDDY CO., NM

Sampling Date: 10/18/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL # 15 @ 4 FT (H235731-02)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2023	ND	2.07	103	2.00	5.17	
Toluene*	<0.050	0.050	10/21/2023	ND	2.10	105	2.00	6.12	
Ethylbenzene*	<0.050	0.050	10/21/2023	ND	2.11	105	2.00	4.99	
Total Xylenes*	<0.150	0.150	10/21/2023	ND	6.30	105	6.00	5.05	
Total BTEX	<0.300	0.300	10/21/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	10/20/2023	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	10/23/2023	ND	177	88.3	200	2.78	
DRO >C10-C28*	<10.0	10.0	10/23/2023	ND	165	82.5	200	2.15	
EXT DRO >C28-C36	<10.0	10.0	10/23/2023	ND					

Surrogate: 1-Chlorooctane 92.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 88.1 % 49.1-148

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\*=Accredited Analyte

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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: 10/19/2023  
 Reported: 10/24/2023  
 Project Name: HOLSTON SWD # 001  
 Project Number: 18074  
 Project Location: SPUR - EDDY CO., NM

Sampling Date: 10/18/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL # 16 @ 4 FT (H235731-03)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2023	ND	2.07	103	2.00	5.17	
Toluene*	<0.050	0.050	10/21/2023	ND	2.10	105	2.00	6.12	
Ethylbenzene*	<0.050	0.050	10/21/2023	ND	2.11	105	2.00	4.99	
Total Xylenes*	<0.150	0.150	10/21/2023	ND	6.30	105	6.00	5.05	
Total BTEX	<0.300	0.300	10/21/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	10/20/2023	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	10/23/2023	ND	177	88.3	200	2.78	
DRO >C10-C28*	<10.0	10.0	10/23/2023	ND	165	82.5	200	2.15	
EXT DRO >C28-C36	<10.0	10.0	10/23/2023	ND					

Surrogate: 1-Chlorooctane 99.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.9 % 49.1-148

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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: 10/19/2023  
 Reported: 10/24/2023  
 Project Name: HOLSTON SWD # 001  
 Project Number: 18074  
 Project Location: SPUR - EDDY CO., NM

Sampling Date: 10/18/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL # 17 @ 4 FT (H235731-04)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2023	ND	2.07	103	2.00	5.17	
Toluene*	<0.050	0.050	10/21/2023	ND	2.10	105	2.00	6.12	
Ethylbenzene*	<0.050	0.050	10/21/2023	ND	2.11	105	2.00	4.99	
Total Xylenes*	<0.150	0.150	10/21/2023	ND	6.30	105	6.00	5.05	
Total BTEX	<0.300	0.300	10/21/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	10/20/2023	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	10/23/2023	ND	177	88.3	200	2.78	
DRO >C10-C28*	<10.0	10.0	10/23/2023	ND	165	82.5	200	2.15	
EXT DRO >C28-C36	<10.0	10.0	10/23/2023	ND					

Surrogate: 1-Chlorooctane 89.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.4 % 49.1-148

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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: 10/19/2023  
 Reported: 10/24/2023  
 Project Name: HOLSTON SWD # 001  
 Project Number: 18074  
 Project Location: SPUR - EDDY CO., NM

Sampling Date: 10/18/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL # 18 @ 4 FT (H235731-05)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/21/2023	ND	2.07	103	2.00	5.17	
Toluene*	<0.050	0.050	10/21/2023	ND	2.10	105	2.00	6.12	
Ethylbenzene*	<0.050	0.050	10/21/2023	ND	2.11	105	2.00	4.99	
Total Xylenes*	<0.150	0.150	10/21/2023	ND	6.30	105	6.00	5.05	
Total BTEX	<0.300	0.300	10/21/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	10/20/2023	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	10/23/2023	ND	177	88.3	200	2.78	
DRO >C10-C28*	<10.0	10.0	10/23/2023	ND	165	82.5	200	2.15	
EXT DRO >C28-C36	<10.0	10.0	10/23/2023	ND					

Surrogate: 1-Chlorooctane 90.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 87.5 % 49.1-148

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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: 10/19/2023  
 Reported: 10/24/2023  
 Project Name: HOLSTON SWD # 001  
 Project Number: 18074  
 Project Location: SPUR - EDDY CO., NM

Sampling Date: 10/18/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL # 19 @ 4 FT (H235731-06)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/21/2023	ND	2.07	103	2.00	5.17		
Toluene*	<0.050	0.050	10/21/2023	ND	2.10	105	2.00	6.12		
Ethylbenzene*	<0.050	0.050	10/21/2023	ND	2.11	105	2.00	4.99		
Total Xylenes*	<0.150	0.150	10/21/2023	ND	6.30	105	6.00	5.05		
Total BTX	<0.300	0.300	10/21/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	10/20/2023	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	10/23/2023	ND	177	88.3	200	2.78	
DRO >C10-C28*	<10.0	10.0	10/23/2023	ND	165	82.5	200	2.15	
EXT DRO >C28-C36	<10.0	10.0	10/23/2023	ND					

Surrogate: 1-Chlorooctane 85.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.8 % 49.1-148

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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: 10/19/2023  
 Reported: 10/24/2023  
 Project Name: HOLSTON SWD # 001  
 Project Number: 18074  
 Project Location: SPUR - EDDY CO., NM

Sampling Date: 10/18/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL # 20 @ 4 FT (H235731-07)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2023	ND	2.07	103	2.00	5.17		
Toluene*	<0.050	0.050	10/20/2023	ND	2.10	105	2.00	6.12		
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.11	105	2.00	4.99		
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.30	105	6.00	5.05		
Total BTEX	<0.300	0.300	10/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	10/20/2023	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	10/23/2023	ND	177	88.3	200	2.78	
DRO >C10-C28*	<10.0	10.0	10/23/2023	ND	165	82.5	200	2.15	
EXT DRO >C28-C36	<10.0	10.0	10/23/2023	ND					

Surrogate: 1-Chlorooctane 95.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.2 % 49.1-148

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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: 10/19/2023  
 Reported: 10/24/2023  
 Project Name: HOLSTON SWD # 001  
 Project Number: 18074  
 Project Location: SPUR - EDDY CO., NM

Sampling Date: 10/18/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL # 21 @ 6 FT (H235731-08)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/20/2023	ND	2.07	103	2.00	5.17		
Toluene*	<0.050	0.050	10/20/2023	ND	2.10	105	2.00	6.12		
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.11	105	2.00	4.99		
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.30	105	6.00	5.05		
Total BTEx	<0.300	0.300	10/20/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	512	16.0	10/20/2023	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	10/20/2023	ND	178	88.9	200	2.72	
DRO >C10-C28*	<10.0	10.0	10/20/2023	ND	196	97.9	200	2.86	
EXT DRO >C28-C36	<10.0	10.0	10/20/2023	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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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: 10/19/2023  
 Reported: 10/24/2023  
 Project Name: HOLSTON SWD # 001  
 Project Number: 18074  
 Project Location: SPUR - EDDY CO., NM

Sampling Date: 10/18/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL # 22 @ 6 FT (H235731-09)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2023	ND	2.07	103	2.00	5.17	
Toluene*	<0.050	0.050	10/20/2023	ND	2.10	105	2.00	6.12	
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.11	105	2.00	4.99	
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.30	105	6.00	5.05	
Total BTX	<0.300	0.300	10/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	544	16.0	10/20/2023	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	10/20/2023	ND	178	88.9	200	2.72	
DRO >C10-C28*	<10.0	10.0	10/20/2023	ND	196	97.9	200	2.86	
EXT DRO >C28-C36	<10.0	10.0	10/20/2023	ND					

Surrogate: 1-Chlorooctane 110 % 48.2-134

Surrogate: 1-Chlorooctadecane 129 % 49.1-148

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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: 10/19/2023  
 Reported: 10/24/2023  
 Project Name: HOLSTON SWD # 001  
 Project Number: 18074  
 Project Location: SPUR - EDDY CO., NM

Sampling Date: 10/18/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: NW - 3 (H235731-10)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2023	ND	2.07	103	2.00	5.17	
Toluene*	<0.050	0.050	10/20/2023	ND	2.10	105	2.00	6.12	
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.11	105	2.00	4.99	
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.30	105	6.00	5.05	
Total BTEX	<0.300	0.300	10/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	10/20/2023	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	10/23/2023	ND	178	88.9	200	2.72	
DRO >C10-C28*	<10.0	10.0	10/23/2023	ND	196	97.9	200	2.86	
EXT DRO >C28-C36	14.8	10.0	10/23/2023	ND					

Surrogate: 1-Chlorooctane 94.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.3 % 49.1-148

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\*=Accredited Analyte

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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: 10/19/2023  
 Reported: 10/24/2023  
 Project Name: HOLSTON SWD # 001  
 Project Number: 18074  
 Project Location: SPUR - EDDY CO., NM

Sampling Date: 10/18/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: EW - 1 (H235731-11)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/20/2023	ND	2.07	103	2.00	5.17	
Toluene*	<0.050	0.050	10/20/2023	ND	2.10	105	2.00	6.12	
Ethylbenzene*	<0.050	0.050	10/20/2023	ND	2.11	105	2.00	4.99	
Total Xylenes*	<0.150	0.150	10/20/2023	ND	6.30	105	6.00	5.05	
Total BTEx	<0.300	0.300	10/20/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	10/20/2023	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	10/20/2023	ND	178	88.9	200	2.72	
DRO >C10-C28*	<10.0	10.0	10/20/2023	ND	196	97.9	200	2.86	
EXT DRO >C28-C36	<10.0	10.0	10/20/2023	ND					

Surrogate: 1-Chlorooctane 90.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager

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---

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

---

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]



† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476  
FORM-006 R 2.0



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

---

October 25, 2023

JOEL LOWRY

Etech Environmental & Safety Solutions

2617 W MARLAND

HOBBS, NM 88240

RE: HOLSTON SWD # 001

Enclosed are the results of analyses for samples received by the laboratory on 10/25/23 14:10.

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: 10/25/2023  
 Reported: 10/25/2023  
 Project Name: HOLSTON SWD # 001  
 Project Number: 18074  
 Project Location: SPUR - EDDY CO., NM

Sampling Date: 10/24/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: FL # 11 @ 6' (H235853-01)**

BTEX 8021B		mg/kg		Analyzed By: AW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2023	ND	2.09	105	2.00	7.22	
Toluene*	<0.050	0.050	10/25/2023	ND	2.16	108	2.00	7.57	
Ethylbenzene*	<0.050	0.050	10/25/2023	ND	2.17	109	2.00	9.06	
Total Xylenes*	<0.150	0.150	10/25/2023	ND	6.57	110	6.00	9.58	
Total BTEX	<0.300	0.300	10/25/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	10/25/2023	ND	432	108	400	7.69		

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	10/25/2023	ND	164	82.2	200	0.791	
DRO >C10-C28*	<10.0	10.0	10/25/2023	ND	169	84.5	200	0.00650	
EXT DRO >C28-C36	<10.0	10.0	10/25/2023	ND					

Surrogate: 1-Chlorooctane 92.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 95.1 % 49.1-148

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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---

### Notes and Definitions

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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





## ARDINAL LABORATORIES

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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

## **Appendix E**

### **Regulatory Correspondence**

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**From:** Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>  
**Sent:** Tuesday, October 10, 2023 11:21 AM  
**To:** Tamarah Kendrick; Hamlet, Robert, EMNRD; Bratcher, Michael, EMNRD  
**Cc:** Lance Crenshaw; Ben Arguijo; Joel Lowry; katherine.purvis@spurenergy.com  
**Subject:** RE: [EXTERNAL] nAPP2310735633 - Sampling Notification - Spur Energy Partners - Holstun SWD #001

**Categories:** NMOCD

Some people who received this message don't often get email from shelly.wells@emnrd.nm.gov. [Learn why this is important](#)

Good morning Tamarah,

The OCD has received your notification. Please include the anticipated time sampling will commence in future emails. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

**Shelly Wells** \* Environmental Specialist-Advanced  
Environmental Bureau  
EMNRD-Oil Conservation Division  
1220 S. St. Francis Drive | Santa Fe, NM 87505  
(505)469-7520 | [Shelly.Wells@emnrd.nm.gov](mailto:Shelly.Wells@emnrd.nm.gov)  
<http://www.emnrd.state.nm.us/OCD/>

---

**From:** Tamarah Kendrick <tamarah@etechenv.com>  
**Sent:** Tuesday, October 10, 2023 7:49 AM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Cc:** Lance Crenshaw <lance@etechenv.com>; Ben Arguijo <bena@etechenv.com>; Joel Lowry <joel@etechenv.com>; katherine.purvis@spurenergy.com  
**Subject:** [EXTERNAL] nAPP2310735633 - Sampling Notification - Spur Energy Partners - Holstun SWD #001

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

This email serves as notice Etech intends to begin confirmation sampling for the following reportable release site beginning 10/13/2023.

nAPP2310735633 – Holstun SWD #001

Confirmation sampling will continue throughout the remediation process as required and/or necessary.

If you have any questions or need any additional information, please feel free to contact Joel Lowry by phone or email:

Joel Lowry  
Etech Environmental  
Phone: 432-466-4450  
[joel@etechenv.com](mailto:joel@etechenv.com)

*Tamarah Kendrick*

**Project Coordinator**

**ETech - Environmental and Safety Solutions**

**2617 W. Marland Blvd**

**Hobbs, NM 88240**



**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

QUESTIONS

Action 293501

QUESTIONS

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID:	328947
	Action Number:	293501
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2310735633
Incident Name	NAPP2310735633 HOLSTUN SWD #001 @ 30-015-21141
Incident Type	Release Other
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-21141] HOLSTUN SWD #001

Location of Release Source	
Please answer all the questions in this group.	
Site Name	HOLSTUN SWD #001
Date Release Discovered	04/15/2023
Surface Owner	Private

Incident Details	
Please answer all the questions in this group.	
Incident Type	Release Other
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Human Error   Valve   Crude Oil   Released: 17 BBL   Recovered: 16 BBL   Lost: 1 BBL.
Produced Water Released (bbls) Details	Cause: Human Error   Valve   Produced Water   Released: 16 BBL   Recovered: 15 BBL   Lost: 1 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	CASING VALVES WERE LEFT OPEN RELEASING AN OIL & PRODUCED WATER MIX ONTO THE LOCATION PAD



**District I**

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**District II**

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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**

QUESTIONS, Page 2

Action 293501

**QUESTIONS (continued)**

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID:	328947
	Action Number:	293501
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

**Initial Response**

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	N/A

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Katherine Purvis Title: EHS Coordinator Email: katherine.purvis@spurenergy.com Date: 12/12/2023
--	--

**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  
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**

QUESTIONS, Page 3

Action 293501

**QUESTIONS (continued)**

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID:
	328947
	Action Number: 293501
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS****Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between ½ and 1 (mi.)
Categorize the risk of this well / site being in a karst geology	High
A 100-year floodplain	Between ½ and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

**Remediation Plan**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

**Soil Contamination Sampling:** (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride (EPA 300.0 or SM4500 Cl B)	720
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	14.8
GRO+DRO (EPA SW-846 Method 8015M)	0
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	10/13/2023
On what date will (or did) the final sampling or liner inspection occur	10/16/2023
On what date will (or was) the remediation complete(d)	10/31/2023
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	4000
What is the estimated volume (in cubic yards) that will be remediated	1884

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 293501

**QUESTIONS (continued)**

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID:	328947
	Action Number:	293501
	Action Type:	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

**QUESTIONS****Remediation Plan (continued)**

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

**This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:**

(Select all answers below that apply.)

(Ex Situ) Excavation and <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	LEA LAND LANDFILL [fEEM0112342028]
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

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.

I hereby agree and sign off to the above statement	Name: Katherine Purvis Title: EHS Coordinator Email: katherine.purvis@spurenergy.com Date: 12/12/2023
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The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 5  
  
Action 293501

QUESTIONS (continued)

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID: 328947
	Action Number: 293501
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

<b>Deferral Requests Only</b>	
<i>Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 293501

**QUESTIONS (continued)**

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID:
	328947
	Action Number:
	293501
Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

**QUESTIONS**

Sampling Event Information	
Last sampling notification (C-141N) recorded	293493
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	10/13/2023
What was the (estimated) number of samples that were to be gathered	25
What was the sampling surface area in square feet	4000

**Remediation Closure Request**

*Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.*

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	4000
What was the total volume (cubic yards) remediated	1884
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	0
What was the total volume (in cubic yards) reclaimed	0
Summarize any additional remediation activities not included by answers (above)	N/A

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

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

I hereby agree and sign off to the above statement	Name: Katherine Purvis Title: EHS Coordinator Email: katherine.purvis@spurenergy.com Date: 12/12/2023
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QUESTIONS, Page 7  
  
Action 293501

QUESTIONS (continued)

Operator:  Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID:  328947
	Action Number:  293501
	Action Type:  [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 293501

**CONDITIONS**

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID:
	328947
	Action Number:
	293501
Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

**CONDITIONS**

Created By	Condition	Condition Date
rhamlet	We have received your Remediation Closure Report for Incident #NAPP2310735633 HOLSTUN SWD #001, thank you. This Remediation Closure Report is approved. The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical.	3/20/2024
rhamlet	Pictures of the top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater; and a revegetation plan. A revegetation report will not be accepted until the release area, including areas reasonably needed for production or drilling activities, are complete. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable. All revegetation activities will need to be documented and included in the revegetation report. The revegetation report will need to include: An executive summary of the revegetation activities including Seed mix, Method of seeding, dates of when the release area was reseeded, information pertinent to inspections, information about any amendments added to the soil.	3/20/2024
rhamlet	Information on how the vegetative cover established meets the life-form ratio of plus or minus fifty percent of pre-disturbance levels and a total percent plant cover of at least seventy percent of pre-disturbance levels, excluding noxious weeds per 19.15.29.13 D.(3) NMAC, and any additional information; a scaled Site Map including area that was revegetated in square feet; and pictures of the revegetated areas during reseeding activities, inspections, and final pictures when revegetation is achieved. OR Per 19.15.29.13 E. NMAC, if a reclamation and revegetation report has been submitted to the surface owner, it may be used if the requirements of the surface owner provide equal or better protection of freshwater, human health, and the environment. A copy of the approval of the reclamation and revegetation report from the surface owner and a copy of the approved reclamation and revegetation report will need to be submitted to the OCD via the Permitting website.	3/20/2024