

Incident ID	NAPP2231932450
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: Kathy Purvis.

Title: HSE Coordinator

Signature: Katherine Purvis

Date: 04/24/2023

email: [katherine.purvis@spurenergy.com](mailto:katherine.purvis@spurenergy.com)

Telephone: 575-441-8619

**OCD Only**

Received by: Jocelyn Harimon

Date: 04/24/2023

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: Robert Hamlet Date: 9/11/2023

Printed Name: Robert Hamlet

Title: Environmental Specialist - Advanced



April 18th, 2023

NMOCD District 2  
Mike Bratcher  
Artesia, NM 88210

Bureau of Land Management  
Crisha Morgan  
Carlsbad Field Office

**Re: Site Assessment, Remediation, and Closure  
Report Halberd Booster Pump  
API No. N/A  
GPS: Latitude 32.8167 Longitude -104.1534  
UL "L", Sec. 23, T17S, R28E  
Eddy County, NM  
NMOCD Ref. No. nAPP2231932450**

Paragon Environmental, LLC (Paragon) has been contracted by Spur Energy Partners (Spur) to perform a spill assessment, conduct remediation activities, and reclaim the old containment area for the release site known as the Halberd Booster Pump (Halberd). Details of the release are summarized below:

Release Details			
<b>Type of Release:</b>	Produced Water	<b>Volume of Release:</b>	20 bbls
		<b>Volume Recovered:</b>	1 bbls
<b>Source of Release:</b>	Booster Pump	<b>Date of Release:</b>	11/11/22
<b>Was Immediate Notice Given?</b>	No	<b>If, Yes, to Whom?</b>	N/A
<b>Was a Watercourse Reached?</b>	No	<b>If Yes, Volume Impacting Watercourse:</b>	N/A
<b>Surface Owner:</b>	State	<b>Mineral Owner:</b>	State
The south booster pump failed because of a high pressure line.			

Topographical and Aerial Maps are provided in Figures #2 and #4. A copy of the Initial Release Notification and Corrective Action (NMOCD Form C-141) can be found in Appendix C.

## REGULATORY FRAMEWORK

Surface impacts from unauthorized releases of fluids or gases are generally regulated by the New Mexico Oil Conservation Division (NMOCD) in accordance with 19.15.29 of the New Mexico Administrative Code (NMAC). 19.15.29 NMAC establishes reporting, site assessment/characterization, remediation, closure, variance, and enforcement procedures. Table I of 19.15.29.12 NMAC determines the closure criteria for soils impacted by a release based on depth to groundwater and the following characteristics:

Site Characteristics	
Approximate Depth to Groundwater	<50'
Within 330 ft. of any continuously flowing or significant watercourse?	NO
Within 200 ft. of any lakebed, sinkhole, or playa lake?	NO
Within 300 ft. of an occupied permanent residence, school, hospital, or institution?	NO
Within 500 ft. of a spring, private, or domestic freshwater well?	NO
Within 1000 ft. of any fresh water well?	NO
Within the incorporated municipal boundaries or within a municipal well field?	NO
Within 300 ft. of a wetland?	NO
Within the area overlying a subsurface mine?	NO
Within an unstable area such as Karst?	NO
Within a 100-year floodplain?	NO

A search of the groundwater database maintained by the New Mexico Office of the State Engineer (NMOSE) was conducted to determine the average groundwater depth within one (1) Mile radius of the Release Site and identify any registered water wells within ½ Mile of the Release Site. The data initially found on the State Engineers website showed there was NO water data within a ½ mile radius. With this being the case, we cleaned it up to the most stringent criteria.

Depth to groundwater information is provided in Appendix A.

Per the New Mexico Bureau of Geology and Mineral Resources, the geology is in the Quaternary Formation- and is made up of Older alluvial deposits of upland plains and piedmont areas, and calcic soils and eolian cover sediments of High Plains region (middle to lower Pleistocene)—Includes scattered lacustrine, playa, and alluvial deposits of the Tahoka, Double Tanks, Tule, Blackwater Draw, and Gatuña Formations, the latter of which may be Pliocene at base; outcrops, however, are basically of Quaternary deposits (QOA). The soil in this area is made up of Largo-Stony Land Complex, with 0 to 25 percent slopes, according to the United States Department of Agriculture Natural Resources Conservation Service. The drainage courses in this area are well-drained. There is NOT a high potential for karst geology to be present around the Foster Eddy (Figure #3).

The Soil Survey and FEMA Flood Map are provided in Appendix B. A Karst Map is provided in Figure #3.

TABLE I CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE			
	Constituent	Method	Limit
<50 Feet	Chloride	EPA 300.0	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

## INITIAL SITE ASSESSMENT

On December 27th, 2022, Paragon conducted an initial site assessment. During the initial site assessment, it was determined to gather samples in the area where the spill had came out of the booster and ran down to the nearest low spot south of the containment. Four (4) soil samples were collected in this area in an effort to determine the vertical extent of soil impact. These samples were collected in accordance with NMAC 19.15.29 and submitted to an approved laboratory for analysis. A table summarizing laboratory analytical results from soil samples collected during the above-stated activities is provided below:

12-27-22 Sample Results

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is <50')								
Sample Date 12-27-22		Closure Criteria ≤ 50 mg/kg	Closure Criteria ≤ 10 mg/kg				Closure Criteria ≤ 100 mg/kg	Closure Criteria ≤ 600 mg/kg
Sample ID	Depth (BGS)	BTEX	Benzene	GRO	DRO	MRO	Total TPH	CHLORIDES
S-1	0-6"	ND	ND	ND	ND	ND	ND	624
	1'	ND	ND	ND	ND	ND	ND	208
	2'	ND	ND	ND	ND	ND	ND	112
	3'	ND	ND	ND	ND	ND	ND	112
S-2	0-6"	ND	ND	ND	ND	ND	ND	448
	1'	ND	ND	ND	ND	16.4	16.4	9330
	2'	ND	ND	ND	ND	ND	ND	6800
	3'	ND	ND	ND	ND	ND	ND	1200
	4'	ND	ND	ND	ND	ND	ND	1010
S-3	0-6"	ND	ND	ND	ND	ND	ND	32
	1'	ND	ND	ND	ND	ND	ND	32
	2'	ND	ND	ND	ND	ND	ND	32
	3'	ND	ND	ND	ND	ND	ND	16
	4'	ND	ND	ND	ND	ND	ND	16
S-4	0-6"	ND	ND	ND	ND	ND	ND	16
	1'	ND	ND	ND	ND	ND	ND	32
	2'	ND	ND	ND	ND	ND	ND	112
	3'	ND	ND	ND	ND	ND	ND	112
	4'	ND	ND	ND	ND	ND	ND	16

(ND) - Analyte Not Detected

A Site Map & Sample Maps are provided in Figures #1 and #5.

## REMEDIATION ACTIVITIES

On February 6th, 2023, Paragon mobilized personnel and heavy equipment to conduct remedial activities. Based on the site characteristics and field observations made during the site assessment, the following details the remedial activities we conducted to advance the Release Site toward an NMOCD-approved site closure.

Our remediation began on the north side of the containment and travelled around the west side and all the way down to the south side of the containment to where the spill had ended. The area of S-1 was excavated to a depth of 1.5 feet BGS. The area of S-2 was excavated to a depth of 5 feet BGS. Email notification was sent to the NMOCD. We utilized 5-point bottom composite sampling and sidewall composite sampling, where each sample was representative of no more than 200 sq/ft. The results of this sampling event are in the following data table.

3-10-23 Confirmation Samples

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is <50')								
Sample Date 3-10-23		Closure Criteria ≤ 50 mg/kg	Closure Criteria ≤ 10 mg/kg				Closure Criteria ≤ 100 mg/kg	Closure Criteria ≤ 600 mg/kg
Sample ID	Depth (BGS)	BTEX	Benzene	GRO	DRO	MRO	Total TPH	CHLORIDES
BC - 1	1.5'	--	--	--	--	--	0	400
BC - 2	1.5'	--	--	--	--	--	0	480
BC - 3	5'	--	--	--	--	--	0	80
BC - 4	5'	--	--	--	--	--	0	96
E. SW	1.5'	ND	ND	ND	ND	ND	0	64
N. SW 1	1.5'	ND	ND	ND	ND	ND	0	1060
N. SW 2	5'	ND	ND	ND	ND	ND	0	64
S. SW	5'	ND	ND	ND	ND	ND	0	80
W. SW	5'	ND	ND	ND	ND	ND	0	896

(ND) Analyte Not Detected / (--) Analyte Not Tested

Upon receiving these sample results, an additional foot was removed from the walls of N.SW 1 and W.SW. We then emailed the NMOCD, giving them a 48-hour notification that we would obtain confirmation samples. We utilized 5-point bottom composite sampling and sidewall composite sampling, where each sample was representative of no more than 200 sq/ft. The results of this event are in the following data table.

4-10-23 Confirmation Samples (On-Pad Area)

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is <50')								
Sample Date 4-10-23		Closure Criteria ≤ 50 mg/kg	Closure Criteria ≤ 10 mg/kg				Closure Criteria ≤ 100 mg/kg	Closure Criteria ≤ 600 mg/kg
Sample ID	Depth (BGS)	BTEX	Benzene	GRO	DRO	MRO	Total TPH	CHLORIDES
NSW - 1 Comp	5'	--	--	--	--	--	0	48
WSW Comp	5'	--	--	--	--	--	0	144

(ND) Analyte Not Detected / (--) Analyte Not Tested

These laboratory analytical results showed that the confirmation soil samples indicated concentrations below NMOCD Closure Criteria. The excavated soils were loaded into trucks and transported to Lea Land, an NMOCD-approved waste disposal facility. After receiving laboratory analytical results below the closure criteria, the excavated areas were backfilled with “like” material obtained from Lea Land. The affected area was then contoured and machine compacted to match the surrounding grade.

## CLOSURE REQUEST

After careful review, Paragon requests that the incident, nAPP2231932450, be closed. Spur has complied with the applicable closure requirements outlined in rule 19.15.19.12 NMAC.

If you have any questions or need additional information, please get in touch with Tristan Jones by phone at (575)318-6841 or email at [tristan@paragonenvironmental.net](mailto:tristan@paragonenvironmental.net).

Respectfully,



Tristan Jones  
Project Coordinator  
Paragon Environmental, LLC



Chris Jones  
Environmental Professional  
Paragon Environmental, LLC



### Attachments

#### **Figures:**

- 1- Site Map
- 2- Topographic Map
- 3- Karst Map
- 4- Aerial Map
- 5- Confirmation Sample Map

#### **Appendices:**

- Appendix A – Referenced Water Surveys
- Appendix B – Soil Survey and FEMA Flood Map
- Appendix C – C-141
- Appendix D – Email Notification & Photographic Documentation
- Appendix E – Laboratory Reports



Figures:

- 1-Site Map
- 2- Topo Map
- 3- Karst Map
- 4- Aerial Map
- 5- Confirmation Sample Map



# Spur Energy Partners

Halberd Booster Pump  
Eddy County, NM  
Site Map

- Legend**
- Booster Pump
  - Samples
  - Spill Area

s-2

s-4

s-4

s-3

Halberd Booster Pump 32.81670,-104.15340



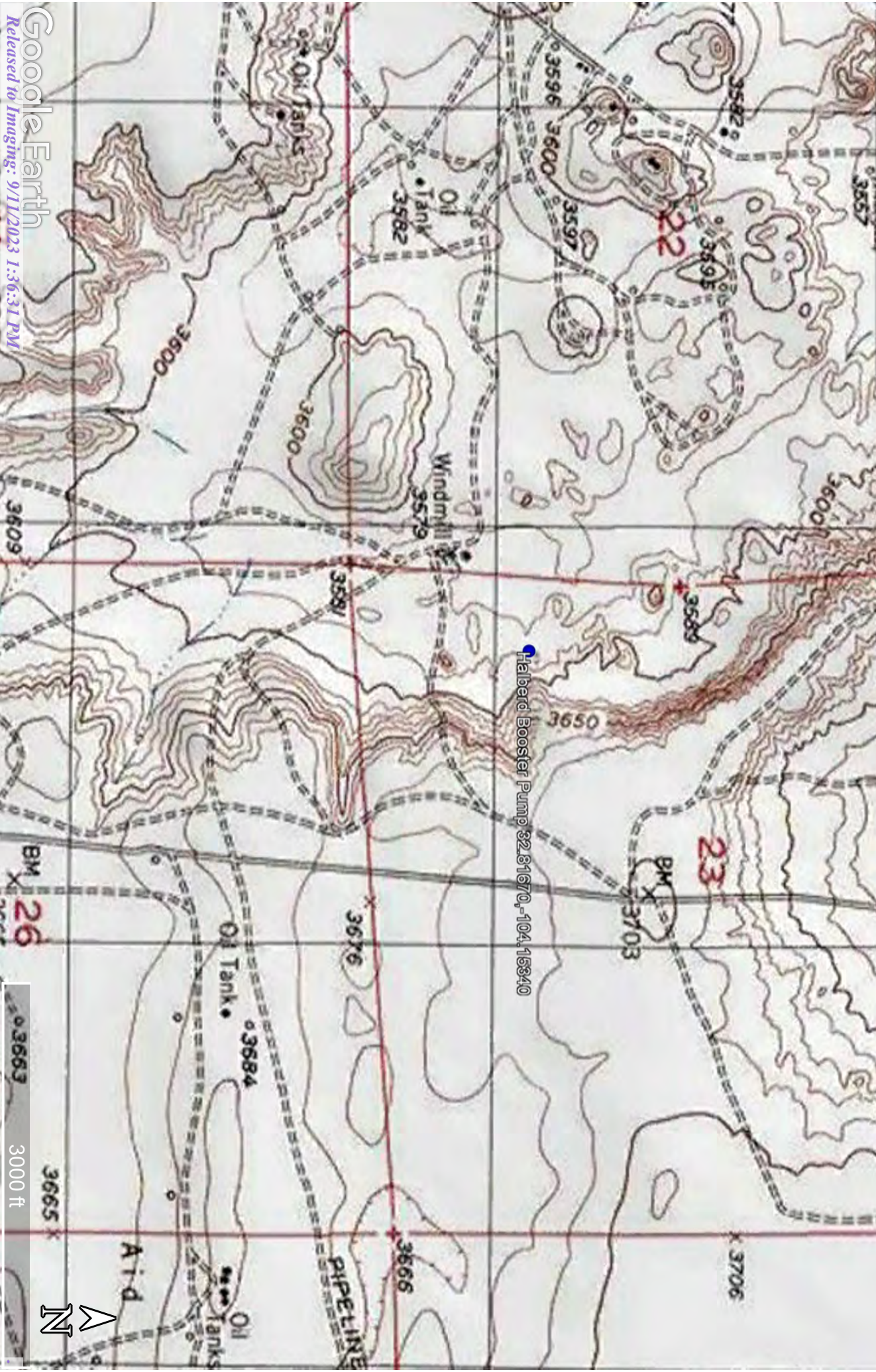


# Spur Energy Partners

Halberd Booster Pump  
API # N/A  
Eddy County, NM  
TOPO Map

## Legend

- Halberd Booster Pump 32.81670, -104.15340








# Spur Energy Partners


Halberd Booster Pump  
API # N/A  
Eddy County, NM  
Karst Map


**Legend**

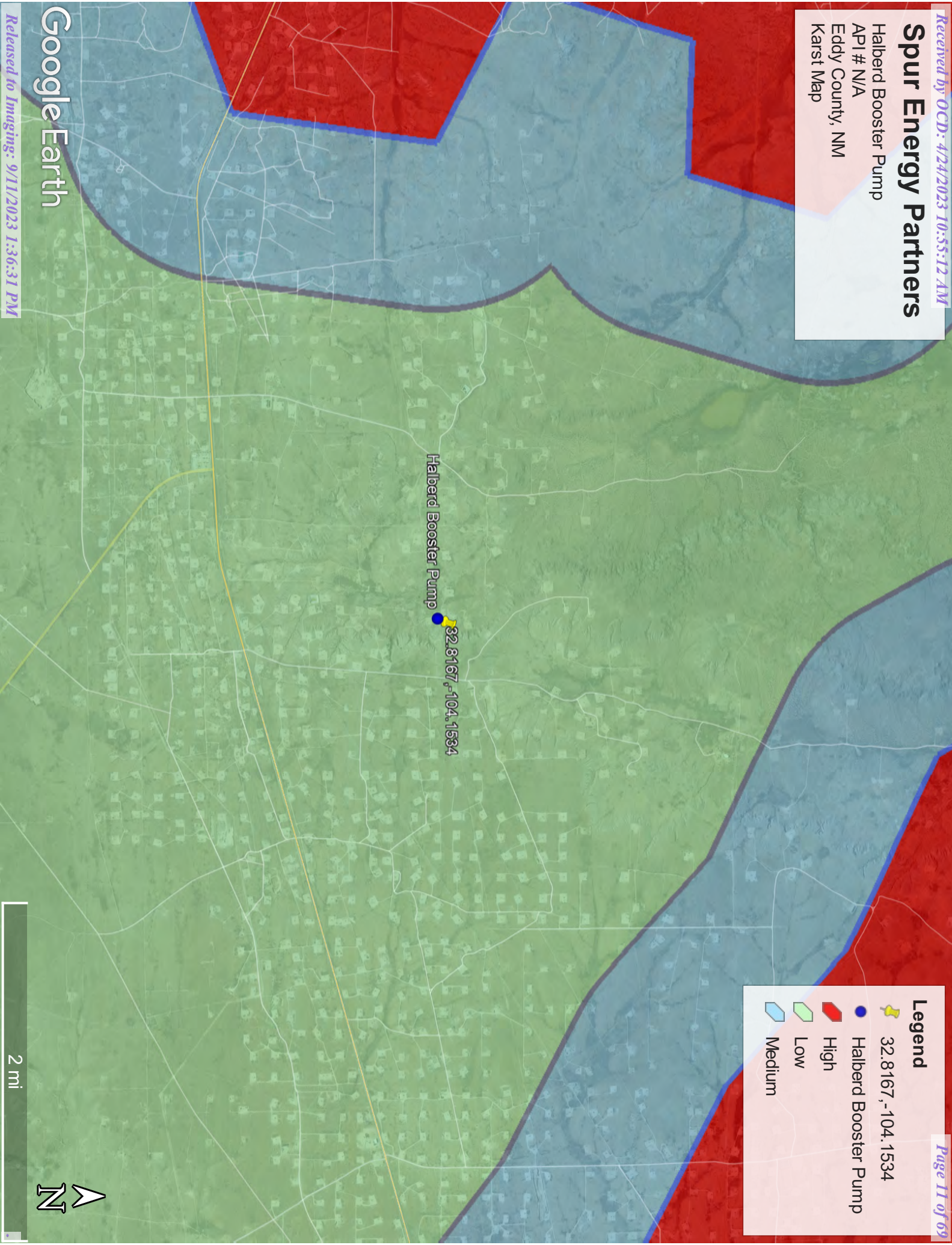
 32.8167, -104.1534

 Halberd Booster Pump

 High

 Low

 Medium





Google Earth



# Spur Energy Partners

Halberd Booster Pump  
API # N/A  
Eddy County, NM  
Aerial Map

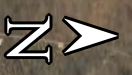
## Legend

-  32.8167, -104.1534
-  Halberd Booster Pump

Halberd Booster Pump  
32.8167, -104.1534

Google Earth

6 mi








# Spur Energy Partners


Halberd Booster Pump  
API # N/A  
Eddy County, NM  
Confirmation Sample Map

**Legend**

 1 ft. excavation

 5 ft. excavation

 Containment Area

 Halberd Booster Pump 32.81670,-104.15340







Appendix A  
Referenced Water Data:

New Mexico State of Engineers Office



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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

Average Depth to Water: **58 feet**  
Minimum Depth: **58 feet**  
Maximum Depth: **58 feet**

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

**Radius:** 3200

1/9/23 10:47 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



Appendix B  
Soil Survey:

U.S.D.A.  
FEMA Flood Map



Map Unit Description: Largo-Stony land complex, 0 to 25 percent slopes---Eddy Area, New Mexico

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## Eddy Area, New Mexico

### LN—Largo-Stony land complex, 0 to 25 percent slopes

#### Map Unit Setting

*National map unit symbol:* 1w50

*Elevation:* 2,000 to 5,700 feet

*Mean annual precipitation:* 6 to 14 inches

*Mean annual air temperature:* 57 to 70 degrees F

*Frost-free period:* 180 to 260 days

*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Largo and similar soils:* 41 percent

*Stony land:* 40 percent

*Minor components:* 19 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Largo

##### Setting

*Landform:* Plains, alluvial fans

*Landform position (three-dimensional):* Talf, rise

*Down-slope shape:* Convex, linear

*Across-slope shape:* Linear

*Parent material:* Calcareous alluvium

##### Typical profile

*H1 - 0 to 4 inches:* loam

*H2 - 4 to 47 inches:* silt loam

*H3 - 47 to 65 inches:* loam

##### Properties and qualities

*Slope:* 1 to 5 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained

*Runoff class:* Low

*Capacity of the most limiting layer to transmit water*

*(Ksat):* Moderately high (0.20 to 0.60 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum content:* 15 percent

*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Available water supply, 0 to 60 inches:* High (about 10.0 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 3e

*Land capability classification (nonirrigated):* 7e

*Hydrologic Soil Group:* B

Map Unit Description: Largo-Stony land complex, 0 to 25 percent slopes---Eddy Area, New Mexico

---

*Ecological site:* R070BC007NM - Loamy  
*Hydric soil rating:* No

#### **Minor Components**

##### **Simona**

*Percent of map unit:* 7 percent  
*Ecological site:* R070BD002NM - Shallow Sandy  
*Hydric soil rating:* No

##### **Pajarito**

*Percent of map unit:* 6 percent  
*Ecological site:* R070BD003NM - Loamy Sand  
*Hydric soil rating:* No

##### **Largo**

*Percent of map unit:* 6 percent  
*Ecological site:* R070BC017NM - Bottomland  
*Hydric soil rating:* No

## **Data Source Information**

Soil Survey Area: Eddy Area, New Mexico  
Survey Area Data: Version 18, Sep 8, 2022


# National Flood Hazard Layer FIRMette





104°31'W 32°49'15"N















## Legend




SEE THIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT


<b>SPECIAL FLOOD HAZARD AREAS</b>	 Without Base Flood Elevation (BFE) Zone A, V, A99 With BFE or Depth Zone AE, AO, AH, VE, AR Regulatory Floodway
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<b>OTHER AREAS OF FLOOD HAZARD</b>	 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X  Future Conditions 1% Annual Chance Flood Hazard Zone X  Area with Reduced Flood Risk due to Levee. See Notes. Zone X  Area with Flood Risk due to Levee Zone D
------------------------------------	---

<b>OTHER AREAS</b>	 NO SCREEN Area of Minimal Flood Hazard Zone X  Effective LOMRs Area of Undetermined Flood Hazard Zone D
<b>GENERAL STRUCTURES</b>	 Channel, Culvert, or Storm Sewer  Levee, Dike, or Floodwall

<b>OTHER FEATURES</b>	 20.2 Cross Sections with 1% Annual Chance Water Surface Elevation  17.5 Coastal Transect  Base Flood Elevation Line (BFE)  Limit of Study  Jurisdiction Boundary  Coastal Transect Baseline  Profile Baseline  Hydrographic Feature
-----------------------	---

<b>MAP PANELS</b>	 Digital Data Available  No Digital Data Available  Unmapped
-------------------	--

 The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **1/9/2023 at 12:49 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmoderized areas cannot be used for regulatory purposes.



104°8'54"W 32°48'45"N

1:6,000

1,500

2,000

Released to Imaging: 9/11/2023 4:36:31 PM

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020



Appendix C:

C-141

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

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

### Location of Release Source

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input 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 (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

## Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

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

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
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: _____	Title: _____
Signature: <u>Katherine Purvis</u>	Date: _____
email: _____	Telephone: _____
<b><u>OCD Only</u></b>	
Received by: <u>Jocelyn Harimon</u>	Date: <u>11/15/2022</u>



State of New Mexico  
Oil Conservation Division

Form C-141

Incident ID	NAPP2231932450
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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?	≤50 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan

## Oil Conservation Division

Incident ID	NAPP2231932450
District RP	
Facility ID	
Application ID	

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.

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: Kathy Purvis.

Title: HSE Coordinator

Signature: Katherine Purvis

Date: 04/24/2023

email: [katherine.purvis@spurenergy.com](mailto:katherine.purvis@spurenergy.com)

Telephone: 575-441-8619

**OCD Only**

Received by: Jocelyn Harimon

Date: 04/24/2023



Incident ID	NAPP2231932450
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: Kathy Purvis.

Title: HSE Coordinator

Signature: Katherine Purvis

Date: 04/24/2023

email: [katherine.purvis@spurenergy.com](mailto:katherine.purvis@spurenergy.com)

Telephone: 575-441-8619

**OCD Only**

Received by: Jocelyn Harimon

Date: 04/24/2023

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: \_\_\_\_\_



Appendix D:

Email Notification

Photographic Documentation

Wednesday, April 19, 2023 at 12:47:43 Central Daylight Time

---

**Subject:** Re: [EXTERNAL] nAPP2231932450  
**Date:** Tuesday, March 7, 2023 at 5:00:22 PM Central Standard Time  
**From:** Chris Jones  
**To:** Bratcher, Michael, EMNRD, Hamlet, Robert, EMNRD, Nobui, Jennifer, EMNRD, ocdonline, emnrd, EMNRD, Enviro, OCD, EMNRD  
**CC:** Katherine Purvis, Braidly Moulder, Tristan Jones (Tristan@paragonenvironmental.net), Jeremy Maner  
**Attachments:** image001.jpg, image002.jpg, image003.jpg

Mike,

We will be obtaining confirmation samples at the Halberd Booster Pump for the above-referenced incident on 3-10-23 at approximately 8 am

Thank You,

Chris Jones  
Environmental Professional  
1601 N. Turner Ste. 500  
Hobbs, NM 88240  
chris@paragonenvironmental.net  
575-631-6977 cell



"We do not inherit the Earth  
from our ancestors; we borrow  
it from our children."  
Chief Seattle

---

**From:** "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>  
**Date:** Tuesday, March 7, 2023 at 3:52 PM  
**To:** Chris Jones <chris@paragonenvironmental.net>, "Hamlet, Robert, EMNRD" <Robert.Hamlet@emnrd.nm.gov>, "Nobui, Jennifer, EMNRD" <Jennifer.Nobui@emnrd.nm.gov>, "ocdonline, emnrd, EMNRD" <emnrd.ocdonline@emnrd.nm.gov>, "Enviro, OCD, EMNRD" <OCD.Enviro@emnrd.nm.gov>  
**Cc:** Katherine Purvis <katherine.purvis@spurenergy.com>, Braidly Moulder <bmoulder@spurenergy.com>, "Tristan Jones (Tristan@paragonenvironmental.net)" <tristan@paragonenvironmental.net>, Jeremy Maner <jeremy@paragonenvironmental.net>  
**Subject:** RE: [EXTERNAL] nAPP2231932450

Chris,

I attempted to call, but went to voicemail, so I will just lay it out here in black and white. The rule requires two business days notification. I had hoped to not make too big a deal out of this but you seem insist on pushing things in that direction. Samples collected at the Halberd Booster Pump on 3/9/23 will not be

Wednesday, April 19, 2023 at 12:49:39 Central Daylight Time

---

**Subject:** Confirmation Sample Notification

**Date:** Wednesday, April 5, 2023 at 4:28:59 PM Central Daylight Time

**From:** Tristan Jones

**To:** mike.bratcher@state.nm.us, Robert.Hamlet@state.nm.us, Jennifer.Nobui@state.nm.us, Chris Jones, katherine.purvis@spurenergy.com, bmoulder@spurenergy.com, Angel Pena, Jeremy Maner

All,

Good morning! This is to inform you all that we will be collecting confirmation samples at the Halberd Booster Pump on 04-10-23 at 12:00 PM. If you have any questions or concerns, please let me know.

Incident number - nAPP2231932450

Thank you,

Tristan Jones  
Project Coordinator  
1601 N. Turner Ste. 500  
Hobbs, NM 88240  
[tristan@paragonenvironmental.net](mailto:tristan@paragonenvironmental.net)  
575-318-6841







**Photographic Documentation**

**Before Remediation**







**Photographic Documentation**

**During Remediation**





**Photographic Documentation**

**Post Remediation**





Appendix E:  
Laboratory Results





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

January 03, 2023

CASON SPURLOCK

PARAGON ENVIROMENTAL

5002 CARRAIGE RD

HOBBS, NM 88242

RE: HALBERD

Enclosed are the results of analyses for samples received by the laboratory on 12/27/22 15:36.

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:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 1 0-6" (H226080-01)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/30/2022	ND	2.11	106	2.00	1.09	
Toluene*	<0.050	0.050	12/30/2022	ND	2.21	111	2.00	0.780	
Ethylbenzene*	<0.050	0.050	12/30/2022	ND	2.14	107	2.00	0.957	
Total Xylenes*	<0.150	0.150	12/30/2022	ND	6.59	110	6.00	1.05	
Total BTX	<0.300	0.300	12/30/2022	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	12/28/2022	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	12/28/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/28/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	12/28/2022	ND					

Surrogate: 1-Chlorooctane 90.0 % 45.3-161

Surrogate: 1-Chlorooctadecane 99.2 % 46.3-178

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 1 1' (H226080-02)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/28/2022	ND	2.11	106	2.00	1.09	
Toluene*	<0.050	0.050	12/28/2022	ND	2.21	111	2.00	0.780	
Ethylbenzene*	<0.050	0.050	12/28/2022	ND	2.14	107	2.00	0.957	
Total Xylenes*	<0.150	0.150	12/28/2022	ND	6.59	110	6.00	1.05	
Total BTEx	<0.300	0.300	12/28/2022	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	12/28/2022	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	12/28/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/28/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	12/28/2022	ND					

Surrogate: 1-Chlorooctane 91.2 % 45.3-161

Surrogate: 1-Chlorooctadecane 101 % 46.3-178

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 1 2' (H226080-03)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/30/2022	ND	2.11	106	2.00	1.09		
Toluene*	<0.050	0.050	12/30/2022	ND	2.21	111	2.00	0.780		
Ethylbenzene*	<0.050	0.050	12/30/2022	ND	2.14	107	2.00	0.957		
Total Xylenes*	<0.150	0.150	12/30/2022	ND	6.59	110	6.00	1.05		
Total BTEx	<0.300	0.300	12/30/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/28/2022	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	12/28/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/28/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	12/28/2022	ND					

Surrogate: 1-Chlorooctane 83.0 % 45.3-161

Surrogate: 1-Chlorooctadecane 91.4 % 46.3-178

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 1 3' (H226080-04)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/30/2022	ND	2.11	106	2.00	1.09	
Toluene*	<0.050	0.050	12/30/2022	ND	2.21	111	2.00	0.780	
Ethylbenzene*	<0.050	0.050	12/30/2022	ND	2.14	107	2.00	0.957	
Total Xylenes*	<0.150	0.150	12/30/2022	ND	6.59	110	6.00	1.05	
Total BTX	<0.300	0.300	12/30/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/28/2022	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	12/28/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/28/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	12/28/2022	ND					

Surrogate: 1-Chlorooctane 71.5 % 45.3-161

Surrogate: 1-Chlorooctadecane 79.2 % 46.3-178

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 2 1' (H226080-05)**

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	12/30/2022	ND	2.11	106	2.00	1.09		
Toluene*	<0.050	0.050	12/30/2022	ND	2.21	111	2.00	0.780		
Ethylbenzene*	<0.050	0.050	12/30/2022	ND	2.14	107	2.00	0.957		
Total Xylenes*	<0.150	0.150	12/30/2022	ND	6.59	110	6.00	1.05		
Total BTEx	<0.300	0.300	12/30/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	9330	16.0	12/28/2022	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	12/29/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/29/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	16.4	10.0	12/29/2022	ND					

Surrogate: 1-Chlorooctane 98.7 % 45.3-161

Surrogate: 1-Chlorooctadecane 107 % 46.3-178

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 2 2' (H226080-06)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/31/2022	ND	2.11	106	2.00	1.09	
Toluene*	<0.050	0.050	12/31/2022	ND	2.21	111	2.00	0.780	
Ethylbenzene*	<0.050	0.050	12/31/2022	ND	2.14	107	2.00	0.957	
Total Xylenes*	<0.150	0.150	12/31/2022	ND	6.59	110	6.00	1.05	
Total BTX	<0.300	0.300	12/31/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6800	16.0	12/28/2022	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	12/28/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/28/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	12/28/2022	ND					

Surrogate: 1-Chlorooctane 84.7 % 45.3-161

Surrogate: 1-Chlorooctadecane 95.0 % 46.3-178

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 2 3' (H226080-07)**

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	12/31/2022	ND	2.11	106	2.00	1.09	
Toluene*	<0.050	0.050	12/31/2022	ND	2.21	111	2.00	0.780	
Ethylbenzene*	<0.050	0.050	12/31/2022	ND	2.14	107	2.00	0.957	
Total Xylenes*	<0.150	0.150	12/31/2022	ND	6.59	110	6.00	1.05	
Total BTX	<0.300	0.300	12/31/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1200	16.0	12/28/2022	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	12/28/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/28/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	12/28/2022	ND					

Surrogate: 1-Chlorooctane 109 % 45.3-161

Surrogate: 1-Chlorooctadecane 121 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 2 4' (H226080-08)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/31/2022	ND	2.11	106	2.00	1.09	
Toluene*	<0.050	0.050	12/31/2022	ND	2.21	111	2.00	0.780	
Ethylbenzene*	<0.050	0.050	12/31/2022	ND	2.14	107	2.00	0.957	
Total Xylenes*	<0.150	0.150	12/31/2022	ND	6.59	110	6.00	1.05	
Total BTX	<0.300	0.300	12/31/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1010	16.0	12/28/2022	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	12/28/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/28/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	12/28/2022	ND					

Surrogate: 1-Chlorooctane 93.4 % 45.3-161

Surrogate: 1-Chlorooctadecane 103 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 2 0-6" (H226080-09)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/31/2022	ND	2.11	106	2.00	1.09	
Toluene*	<0.050	0.050	12/31/2022	ND	2.21	111	2.00	0.780	
Ethylbenzene*	<0.050	0.050	12/31/2022	ND	2.14	107	2.00	0.957	
Total Xylenes*	<0.150	0.150	12/31/2022	ND	6.59	110	6.00	1.05	
Total BTX	<0.300	0.300	12/31/2022	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	12/28/2022	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	12/28/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/28/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	12/28/2022	ND					

Surrogate: 1-Chlorooctane 106 % 45.3-161

Surrogate: 1-Chlorooctadecane 117 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 3 0-6" (H226080-10)**

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	12/31/2022	ND	2.11	106	2.00	1.09	
Toluene*	<0.050	0.050	12/31/2022	ND	2.21	111	2.00	0.780	
Ethylbenzene*	<0.050	0.050	12/31/2022	ND	2.14	107	2.00	0.957	
Total Xylenes*	<0.150	0.150	12/31/2022	ND	6.59	110	6.00	1.05	
Total BTEX	<0.300	0.300	12/31/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/28/2022	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	12/28/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/28/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	12/28/2022	ND					

Surrogate: 1-Chlorooctane 93.8 % 45.3-161

Surrogate: 1-Chlorooctadecane 104 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 3 1' (H226080-11)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/31/2022	ND	2.06	103	2.00	2.05	
Toluene*	<0.050	0.050	12/31/2022	ND	2.18	109	2.00	1.60	
Ethylbenzene*	<0.050	0.050	12/31/2022	ND	2.12	106	2.00	0.240	
Total Xylenes*	<0.150	0.150	12/31/2022	ND	6.52	109	6.00	0.0225	
Total BTX	<0.300	0.300	12/31/2022	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/28/2022	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	12/28/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/28/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	12/28/2022	ND					

Surrogate: 1-Chlorooctane 88.9 % 45.3-161

Surrogate: 1-Chlorooctadecane 98.8 % 46.3-178

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**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 3 2' (H226080-12)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/31/2022	ND	2.06	103	2.00	2.05	
Toluene*	<0.050	0.050	12/31/2022	ND	2.18	109	2.00	1.60	
Ethylbenzene*	<0.050	0.050	12/31/2022	ND	2.12	106	2.00	0.240	
Total Xylenes*	<0.150	0.150	12/31/2022	ND	6.52	109	6.00	0.0225	
Total BTX	<0.300	0.300	12/31/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	12/28/2022	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	12/28/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/28/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	12/28/2022	ND					

Surrogate: 1-Chlorooctane 94.9 % 45.3-161

Surrogate: 1-Chlorooctadecane 106 % 46.3-178

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**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 3 3' (H226080-13)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/30/2022	ND	2.15	108	2.00	5.91	
Toluene*	<0.050	0.050	12/30/2022	ND	2.15	107	2.00	7.30	
Ethylbenzene*	<0.050	0.050	12/30/2022	ND	2.13	106	2.00	8.17	
Total Xylenes*	<0.150	0.150	12/30/2022	ND	6.39	107	6.00	8.47	
Total BTEx	<0.300	0.300	12/30/2022	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	12/28/2022	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	12/28/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/28/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	12/28/2022	ND					

Surrogate: 1-Chlorooctane 89.6 % 45.3-161

Surrogate: 1-Chlorooctadecane 98.9 % 46.3-178

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**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 3 4' (H226080-14)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/30/2022	ND	2.15	108	2.00	5.91	
Toluene*	<0.050	0.050	12/30/2022	ND	2.15	107	2.00	7.30	
Ethylbenzene*	<0.050	0.050	12/30/2022	ND	2.13	106	2.00	8.17	
Total Xylenes*	<0.150	0.150	12/30/2022	ND	6.39	107	6.00	8.47	
Total BTEx	<0.300	0.300	12/30/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	12/28/2022	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	12/28/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/28/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	12/28/2022	ND					

Surrogate: 1-Chlorooctane 60.0 % 45.3-161

Surrogate: 1-Chlorooctadecane 63.9 % 46.3-178

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**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 4 0-6" (H226080-15)**

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/30/2022	ND	2.15	108	2.00	5.91	
Toluene*	<0.050	0.050	12/30/2022	ND	2.15	107	2.00	7.30	
Ethylbenzene*	<0.050	0.050	12/30/2022	ND	2.13	106	2.00	8.17	
Total Xylenes*	<0.150	0.150	12/30/2022	ND	6.39	107	6.00	8.47	
Total BTX	<0.300	0.300	12/30/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	12/28/2022	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	12/28/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/28/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	12/28/2022	ND					

Surrogate: 1-Chlorooctane 86.6 % 45.3-161

Surrogate: 1-Chlorooctadecane 95.2 % 46.3-178

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 4 1' (H226080-16)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/30/2022	ND	2.15	108	2.00	5.91	
Toluene*	<0.050	0.050	12/30/2022	ND	2.15	107	2.00	7.30	
Ethylbenzene*	<0.050	0.050	12/30/2022	ND	2.13	106	2.00	8.17	
Total Xylenes*	<0.150	0.150	12/30/2022	ND	6.39	107	6.00	8.47	
Total BTEx	<0.300	0.300	12/30/2022	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/28/2022	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	12/28/2022	ND	189	94.7	200	2.61	
DRO >C10-C28*	<10.0	10.0	12/28/2022	ND	175	87.7	200	9.50	
EXT DRO >C28-C36	<10.0	10.0	12/28/2022	ND					

Surrogate: 1-Chlorooctane 91.2 % 45.3-161

Surrogate: 1-Chlorooctadecane 101 % 46.3-178

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 4 2' (H226080-17)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/30/2022	ND	2.15	108	2.00	5.91	
Toluene*	<0.050	0.050	12/30/2022	ND	2.15	107	2.00	7.30	
Ethylbenzene*	<0.050	0.050	12/30/2022	ND	2.13	106	2.00	8.17	
Total Xylenes*	<0.150	0.150	12/30/2022	ND	6.39	107	6.00	8.47	
Total BTEx	<0.300	0.300	12/30/2022	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	12/28/2022	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	12/29/2022	ND	212	106	200	1.55	
DRO >C10-C28*	<10.0	10.0	12/29/2022	ND	190	94.8	200	2.72	
EXT DRO >C28-C36	<10.0	10.0	12/29/2022	ND					

Surrogate: 1-Chlorooctane 83.2 % 45.3-161

Surrogate: 1-Chlorooctadecane 90.3 % 46.3-178

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 4 3' (H226080-18)**

BTX 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/30/2022	ND	2.15	108	2.00	5.91	
Toluene*	<0.050	0.050	12/30/2022	ND	2.15	107	2.00	7.30	
Ethylbenzene*	<0.050	0.050	12/30/2022	ND	2.13	106	2.00	8.17	
Total Xylenes*	<0.150	0.150	12/30/2022	ND	6.39	107	6.00	8.47	
Total BTX	<0.300	0.300	12/30/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	12/28/2022	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	12/29/2022	ND	212	106	200	1.55	
DRO >C10-C28*	<10.0	10.0	12/29/2022	ND	190	94.8	200	2.72	
EXT DRO >C28-C36	<10.0	10.0	12/29/2022	ND					

Surrogate: 1-Chlorooctane 103 % 45.3-161

Surrogate: 1-Chlorooctadecane 113 % 46.3-178

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

PARAGON ENVIROMENTAL  
 CASON SPURLOCK  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 12/27/2022  
 Reported: 01/03/2023  
 Project Name: HALBERD  
 Project Number: NOT GIVEN  
 Project Location: SPUR - EDDY COUNTY

Sampling Date: 12/27/2022  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Shalyn Rodriguez

**Sample ID: S - 4 4' (H226080-19)**

BTEx 8021B		mg/kg		Analyzed By: JH/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/30/2022	ND	2.15	108	2.00	5.91	
Toluene*	<0.050	0.050	12/30/2022	ND	2.15	107	2.00	7.30	
Ethylbenzene*	<0.050	0.050	12/30/2022	ND	2.13	106	2.00	8.17	
Total Xylenes*	<0.150	0.150	12/30/2022	ND	6.39	107	6.00	8.47	
Total BTEx	<0.300	0.300	12/30/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	12/28/2022	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	12/29/2022	ND	212	106	200	1.55	
DRO >C10-C28*	<10.0	10.0	12/29/2022	ND	190	94.8	200	2.72	
EXT DRO >C28-C36	<10.0	10.0	12/29/2022	ND					

Surrogate: 1-Chlorooctane 92.8 % 45.3-161

Surrogate: 1-Chlorooctadecane 102 % 46.3-178

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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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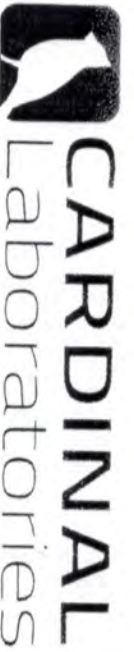
\*=Accredited Analyte

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

---

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Paragon Environmental				BILL TO				ANALYSIS REQUEST											
Project Manager: Cason Spurlock				P.O. #:															
Address: 5002 Carriage Rd				Company: SPUD															
City: Hobbs				Attn: Brady Molder															
Phone #: 575-631-6977				State: NM Zip: 88242															
Fax #: 575-631-6977				Address:															
Project #:				City:															
Project Name: Halberd				State: Zip:															
Project Location: Eddy County				Phone #:															
Sample Name: Jeremy Warden				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP		# CONTAINERS		MATRIX		PRESERV		SAMPLING		DATE		TIME			
H3310080		0-4						GROUNDWATER						12.24					
S-1		2						WASTEWATER											
S-1		3						SOIL											
S-1		1						OIL											
S-2		2						SLUDGE											
S-2		3						OTHER											
S-2		4						ACID/BASE											
S-2		0.6						ICE / COOL											
S-3		D.L.						OTHER											
PLEASE NOTE: Chain of Custody and Sample Integrity are the responsibility of the client. All samples must be properly labeled and sealed. Samples must be delivered to the laboratory within 30 days of collection. Samples must be stored at 4°C or below. Samples must be handled in accordance with the laboratory's Chain of Custody and Sample Integrity procedures.																			
Requisitioned By: [Signature]				Date: 12.24				Received By: [Signature]											
Delivered By: (Circle One) 9.5.1 C.O.U.				Time: 1:30				Sample Condition: Cool Intact				CHECKED BY: [Signature]							
Sampler - UPS - Bus - Other: 8.9.1 #13																			
Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326																			



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

<b>Company Name:</b> Paragon Environmental <b>Project Manager:</b> Cason Spurlock <b>Address:</b> 5002 Carriage Rd <b>City:</b> Hobbs <b>Phone #:</b> 575-631-6977 <b>State:</b> NM <b>Zip:</b> 88242 <b>Fax #:</b> <b>Project #:</b> <b>Project Name:</b> Halberd <b>Project Location:</b> Eddy County <b>Sampler Name:</b> Beverly Palmer				<b>P.O. #:</b> <b>Company:</b> SPWZ <b>Attn:</b> Brock Wolder <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>	
<b>Lab I.D.</b> HB00080 <b>Sample I.D.</b>		<b>FOR LAB USE ONLY</b>		<b>DATE</b> 12-29 <b>TIME</b>	
11-13-14-15-16-17-18-19 S-3 S-3 S-3 S-3 S-3 S-3 S-3 S-3 1 2 3 4 0.6 1 2 3 4		(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER ACID/BASE ICE / COOL OTHER		MATRIX PRESERV SAMPLING	
		12-29		TPH Ext BTEX Chlorides	
<b>Relinquished By:</b> [Signature] <b>Date:</b> 12-29 <b>Time:</b> 10:00 <b>Received By:</b> [Signature] <b>Date:</b> 12-29 <b>Time:</b> 1530 <b>Sample Condition:</b> Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <b>CHECKED BY:</b> [Signature] <b>REMARKS:</b>		<b>Phone Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> <b>Fax Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Fax #:</b> <b>Enviro results to Chris Jones</b>			





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

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March 17, 2023

TRISTAN JONES

PARAGON ENVIROMENTAL

5002 CARRAIGE RD

HOBBS, NM 88242

RE: HALBERD BOOSTER PUMP

Enclosed are the results of analyses for samples received by the laboratory on 03/14/23 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, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

PARAGON ENVIROMENTAL  
 TRISTAN JONES  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 03/14/2023  
 Reported: 03/17/2023  
 Project Name: HALBERD BOOSTER PUMP  
 Project Number: NOT GIVEN  
 Project Location: EDDY, NM

Sampling Date: 03/10/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BC - 1 (H231165-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	400	16.0	03/15/2023	ND	432	108	400	0.00		

**Sample ID: BC - 2 (H231165-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	03/15/2023	ND	432	108	400	0.00	

**Sample ID: BC - 3 (H231165-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/15/2023	ND	400	100	400	3.92	

**Sample ID: BC - 4 (H231165-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	03/15/2023	ND	400	100	400	3.92	

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

PARAGON ENVIROMENTAL  
 TRISTAN JONES  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 03/14/2023  
 Reported: 03/17/2023  
 Project Name: HALBERD BOOSTER PUMP  
 Project Number: NOT GIVEN  
 Project Location: EDDY, NM

Sampling Date: 03/10/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: N. SW 1 (H231165-05)**

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	03/16/2023	ND	2.04	102	2.00	1.08	
Toluene*	<0.050	0.050	03/16/2023	ND	2.05	103	2.00	1.01	
Ethylbenzene*	<0.050	0.050	03/16/2023	ND	2.02	101	2.00	0.571	
Total Xylenes*	<0.150	0.150	03/16/2023	ND	6.16	103	6.00	1.44	
Total BTX	<0.300	0.300	03/16/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1060	16.0	03/15/2023	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/15/2023	ND	166	82.8	200	1.78	
DRO >C10-C28*	<10.0	10.0	03/15/2023	ND	165	82.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/15/2023	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 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:**

PARAGON ENVIROMENTAL  
 TRISTAN JONES  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 03/14/2023  
 Reported: 03/17/2023  
 Project Name: HALBERD BOOSTER PUMP  
 Project Number: NOT GIVEN  
 Project Location: EDDY, NM

Sampling Date: 03/10/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: N. SW 2 (H231165-06)**

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	03/16/2023	ND	2.04	102	2.00	1.08		
Toluene*	<0.050	0.050	03/16/2023	ND	2.05	103	2.00	1.01		
Ethylbenzene*	<0.050	0.050	03/16/2023	ND	2.02	101	2.00	0.571		
Total Xylenes*	<0.150	0.150	03/16/2023	ND	6.16	103	6.00	1.44		
Total BTEx	<0.300	0.300	03/16/2023	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	03/15/2023	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/15/2023	ND	166	82.8	200	1.78	
DRO >C10-C28*	<10.0	10.0	03/15/2023	ND	165	82.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/15/2023	ND					

Surrogate: 1-Chlorooctane 83.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 90.6 % 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:**

PARAGON ENVIROMENTAL  
 TRISTAN JONES  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 03/14/2023  
 Reported: 03/17/2023  
 Project Name: HALBERD BOOSTER PUMP  
 Project Number: NOT GIVEN  
 Project Location: EDDY, NM

Sampling Date: 03/10/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: E. SW (H231165-07)**

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	03/16/2023	ND	2.04	102	2.00	1.08	
Toluene*	<0.050	0.050	03/16/2023	ND	2.05	103	2.00	1.01	
Ethylbenzene*	<0.050	0.050	03/16/2023	ND	2.02	101	2.00	0.571	
Total Xylenes*	<0.150	0.150	03/16/2023	ND	6.16	103	6.00	1.44	
Total BTEx	<0.300	0.300	03/16/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/15/2023	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/15/2023	ND	166	82.8	200	1.78	
DRO >C10-C28*	<10.0	10.0	03/15/2023	ND	165	82.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/15/2023	ND					

Surrogate: 1-Chlorooctane 94.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

PARAGON ENVIROMENTAL  
 TRISTAN JONES  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 03/14/2023  
 Reported: 03/17/2023  
 Project Name: HALBERD BOOSTER PUMP  
 Project Number: NOT GIVEN  
 Project Location: EDDY, NM

Sampling Date: 03/10/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: S. SW (H231165-08)**

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	03/16/2023	ND	2.04	102	2.00	1.08	
Toluene*	<0.050	0.050	03/16/2023	ND	2.05	103	2.00	1.01	
Ethylbenzene*	<0.050	0.050	03/16/2023	ND	2.02	101	2.00	0.571	
Total Xylenes*	<0.150	0.150	03/16/2023	ND	6.16	103	6.00	1.44	
Total BTX	<0.300	0.300	03/16/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	03/15/2023	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/15/2023	ND	166	82.8	200	1.78	
DRO >C10-C28*	<10.0	10.0	03/15/2023	ND	165	82.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/15/2023	ND					

Surrogate: 1-Chlorooctane 80.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

PARAGON ENVIROMENTAL  
 TRISTAN JONES  
 5002 CARRAIGE RD  
 HOBBS NM, 88242  
 Fax To:

Received: 03/14/2023  
 Reported: 03/17/2023  
 Project Name: HALBERD BOOSTER PUMP  
 Project Number: NOT GIVEN  
 Project Location: EDDY, NM

Sampling Date: 03/10/2023  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W. SW (H231165-09)**

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	03/16/2023	ND	2.04	102	2.00	1.08	
Toluene*	<0.050	0.050	03/16/2023	ND	2.05	103	2.00	1.01	
Ethylbenzene*	<0.050	0.050	03/16/2023	ND	2.02	101	2.00	0.571	
Total Xylenes*	<0.150	0.150	03/16/2023	ND	6.16	103	6.00	1.44	
Total BTX	<0.300	0.300	03/16/2023	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	896	16.0	03/15/2023	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/15/2023	ND	166	82.8	200	1.78	
DRO >C10-C28*	<10.0	10.0	03/15/2023	ND	165	82.7	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	03/15/2023	ND					

Surrogate: 1-Chlorooctane 95.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 108 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



---

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---

### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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

---

Celey D. Keene, Lab Director/Quality Manager





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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> <u>Paragon</u> <b>Project Manager:</b> <u>Tristan Jones</u> <b>Address:</b> <u>601 N Turner Ste 500</u> <b>City:</b> <u>Hobbs</u> <b>State:</b> <u>NM</u> <b>Zip:</b> <u>88240</u> <b>Phone #:</b> <u>575-631-6177</u> <b>Fax #:</b> _____ <b>Project #:</b> _____ <b>Project Name:</b> <u>Halberd Booster Pump</u> <b>Project Location:</b> <u>Eddy, NM</u> <b>Sampler Name:</b> <u>Armen, ID Ferro</u>		<b>P.O. #:</b> _____ <b>Company:</b> <u>SPUR</u> <b>Attn:</b> <u>Kathy Purvis</u> <b>Address:</b> _____ <b>City:</b> _____ <b>State:</b> _____ <b>Zip:</b> _____ <b>Phone #:</b> _____ <b>Fax #:</b> _____	
<b>FOR LAB USE ONLY</b>		<b>BILL TO</b>	
<b>Lab I.D.</b> <u>H231165</u>	<b>Sample I.D.</b> <u>BC -1</u> <u>BC -2</u> <u>BC -3</u> <u>BC -4</u> <u>N.S.W. 1</u> <u>E.S.W. 2</u> <u>S.S.W.</u> <u>W.S.W.</u>	<b>MATRIX</b> (G)RAB OR (C)OMP. _____ # CONTAINERS _____ GROUNDWATER _____ WASTEWATER _____ SOIL _____ OIL _____ SLUDGE _____ OTHER: _____ ACID/BASE: _____ ICE / COOL _____ OTHER: _____	<b>PRESERV.</b> _____ <b>SAMPLING</b> _____ <b>DATE</b> <u>3/10</u> <b>TIME</b> _____
<b>PLEASE NOTE:</b> Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.		<b>ANALYSIS REQUEST</b>	
<b>Relinquished By:</b> <u>[Signature]</u> <b>Relinquished By:</b> <u>[Signature]</u> <b>Date:</b> <u>3/14</u> <b>Received By:</b> <u>[Signature]</u> <b>Time:</b> <u>3:12pm</u> <b>Date:</b> _____ <b>Date:</b> _____ <b>Received By:</b> _____ <b>Time:</b> _____		<b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> _____ <b>All Results are emailed. Please provide Email address:</b> _____ <b>REMARKS:</b> _____	
<b>Delivered By: (Circle One)</b> <b>Sampler - UPS - Bus - Other:</b> _____ <b>Observed Temp. °C</b> <u>1.6</u> <b>Corrected Temp. °C</b> <u>1.0</u> <b>Sample Condition</b> Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> <b>CHECKED BY:</b> <u>[Signature]</u> (Initials) <b>Turnaround Time:</b> _____ <b>Thermometer ID #113</b> <b>Standard</b> <input checked="" type="checkbox"/> <b>Rush</b> <input type="checkbox"/> <b>Correction Factor -0.6°C</b> <b>Bacteria (only)</b> <input type="checkbox"/> <b>Sample Condition</b> <input type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Observed Temp. °C</b> _____ <b>Corrected Temp. °C</b> _____			

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



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

April 14, 2023

CHRIS JONES

PARAGON ENVIROMENTAL

5002 CARRAIGE RD

HOBBS, NM 88242

RE: HALBERD BOOSTER PUMP

Enclosed are the results of analyses for samples received by the laboratory on 04/10/23 15:03.

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:**

PARAGON ENVIROMENTAL  
CHRIS JONES  
5002 CARRAIGE RD  
HOBBS NM, 88242  
Fax To:

Received: 04/10/2023  
Reported: 04/14/2023  
Project Name: HALBERD BOOSTER PUMP  
Project Number: NOT GIVEN  
Project Location: SPUR - EDDY, NM

Sampling Date: 04/10/2023  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Shalyn Rodriguez

**Sample ID: NSW - 1 COMP (H231675-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	04/13/2023	ND	416	104	400	0.00	

**Sample ID: WSW COMP (H231675-02)**

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	04/13/2023	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

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---

### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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

---

Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

[illegible]

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

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

CONDITIONS  
  
Action 210097

CONDITIONS

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID: 328947
	Action Number: 210097
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2231932450 HALBERD BOOSTER PUMP, thank you. This closure is approved.	9/11/2023