

Form C-141

State of New Mexico  
Oil Conservation Division

Page 6

Incident ID	nAPP2223829555
District RP	
Facility ID	
Application ID	

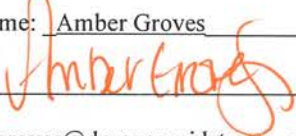
## Closure

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: Amber Groves Title: Remediation Specialist  
Signature:  Date: 11/21/2022  
email: agroves@durangomidstream.com Telephone: 575-703-7992

**OCD Only**

Received by: Robert Hamlet Date: 1/13/2023

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: 1/13/2023

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced



## **Delineation Summary and Closure Request**

**Frontier Field Services, LLC**

**Sherrell 4" Steel Pipeline**

**Eddy County, New Mexico**

**Unit Letter "N", Section 31, Township 17 South, Range 26 East**

**Latitude 32.787732 North, Longitude 104.421794 West**

**NMOCD Incident # nAPP2223829555**

---

Prepared For:

Frontier Field Services, LLC

47 Conoco Rd

Maljamar, NM 88264

Prepared By:

Hungry Horse, LLC

4024 Plains Hwy

Lovington, NM 88260

Office: (575) 393-3386

**October 2022**

*Bradley Wells*

Bradley Wells

Project Manager

bwells@hungry-horse.com

*Daniel Dominguez*

Daniel Dominguez

Environmental Manager

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Form C-141

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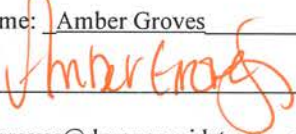
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Printed Name: Amber Groves Title: Remediation Specialist  
Signature:  Date: 11/21/2022  
email: agroves@durangomidstream.com Telephone: 575-703-7992

### 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: \_\_\_\_\_





## HUNGRY HORSE, LLC

The following *Delineation Summary and Closure Request* serves as a condensed update on field activities undertaken at the afore referenced Site.

### Background:

The site is located in Unit Letter N (SE/SW), Section 31, Township 17 South, Range 26 East, approximately 4 miles South of Artesia, in Eddy County, New Mexico. The property is privately owned. Topographic Map, OSE POD Locations Map, and USGS Well Locations Map are included as Figure 1, Figure 2, and Figure 3, respectively.

The release occurred on an active sweet gas pipeline; Latitude 32.787732 North, Longitude 104.421794 West. The Initial NMOCD Form C-141 indicated that on August 25, 2022 approximately 236.97 Mcf of natural gas were released due to internal corrosion on the pipeline. No fluid was released. A crew was dispatched to the release site and the line was repaired. Previously submitted pages of the NMOCD Form C-141 are available on the NMOCD Imaging System. NMOCD Form Initial C-141 is also included as Attachment VII.

### NMOCD Site Classification:

A search of the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) groundwater databases was completed in an effort to determine the horizontal distance to known water sources within a half mile radius of the Release Site. Approximate depth to groundwater was determined using maintained and published water well data. Karst mapping indicates the site is not located in a Karst designated area. Karst and Wetland Maps are provided as Attachment I. Depth to groundwater information is provided as Attachment IV and the results are depicted on Figures 2 & 3.

Five water wells were located within a half mile of the release area with four of the five wells water data logged at twenty-five years or older. However, the depth to water at well RA 11047 POD1 is listed at 153 feet bgs, logged in December 2006. Utilizing this information, the NMOCD Closure Criteria for the Site were determined as follows:

Depth to Groundwater	Constituent	Method	Limit
>100'	Chloride	EPA 300.0 or SM4500 CLB	20,00 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 Method 8015M Ext	2,500 mg/kg
	GRO + DRO	EPA SW-846 Method 8015M Ext	1,000 mg/kg
	BTEX	EPA SW-846 Methods 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Methods 8021B or 8260B	10 mg/kg



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**Delineation Activities:**

On September 22, 2022, Hungry Horse personnel arrived at the release location and conducted an initial site assessment and sampling event. During the initial site assessment, it was noted that no fluid had been released, and no apparent staining from a release could be located. During the sampling event, a single hand augered soil bore was advanced at the release location in an effort to determine vertical extent of contamination. During the advancement of the soil bore, soil samples were collected at one-foot intervals and field screened for the presence of chloride concentrations utilizing a Hanna instruments® DiST® 4 EC tester.

Based on field observations and field test data noted above and provided in Attachment V, two representative soil samples were selected for laboratory analysis. Delineation soil sample SP1 Surface and SP1 3', were submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated contaminant concentrations were below the NMOCD Closure Criteria in each of the submitted samples.

On October 6, 2022, Hungry Horse personnel returned to the release location to collect additional samples from the initial sample location. Soil samples SP1 1', SP1 2', and SP1 4', were collected and submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated contaminant concentrations were below the NMOCD Closure Criteria in each of the submitted samples.

On October 25, 2022, in an effort to more fully delineate the release area, Hungry Horse personnel returned to the release location to collect samples from a second sample location. Soil samples SP2 Surf through SP2 4', were collected and submitted to the laboratory for analysis of BTEX, TPH, and chloride. Laboratory analytical results indicated contaminant concentrations were below the NMOCD Closure Criteria in each of the submitted samples.

As laboratory analytical results indicated contaminant concentrations were below the NMOCD Closure Criteria, and no fluid was released during the release event, it was determined that no remediation of the area was required. A Delineation Sample Map is provided as Figure 4. A Summary of Soil Sample Laboratory Analytical Results is provided as Table 1 and Laboratory Analytical Reports are provided as Attachment VI.

**Restoration, Reclamation, and Re-Vegetation:**

Based upon laboratory analytical results from confirmation soil samples, the release area was not excavated. As the area was not affected by fluid release or remediation activities, no seeding of the location will be needed.



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**Closure Request:**

Delineation activities were conducted in accordance with applicable NMOCD Regulations. Laboratory analytical results from confirmation samples indicate concentrations of BTEX, TPH, and chloride are below the NMOCD Closure Criteria.

Based on laboratory analytical results, Frontier Field Services, LLC respectfully requests closure of the Sherrell 4" Steel Pipeline location, nAPP2223829555.

**Limitations:**

Hungry Horse, LLC, has prepared this *Delineation Summary and Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Hungry Horse has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Hungry Horse has not conducted an independent examination of the facts contained in referenced materials and statements. Hungry Horse has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Hungry Horse 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.



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**Distribution:**

**Frontier Field Services, LLC**

47 Conoco Rd.  
Maljamar, NM 88264

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

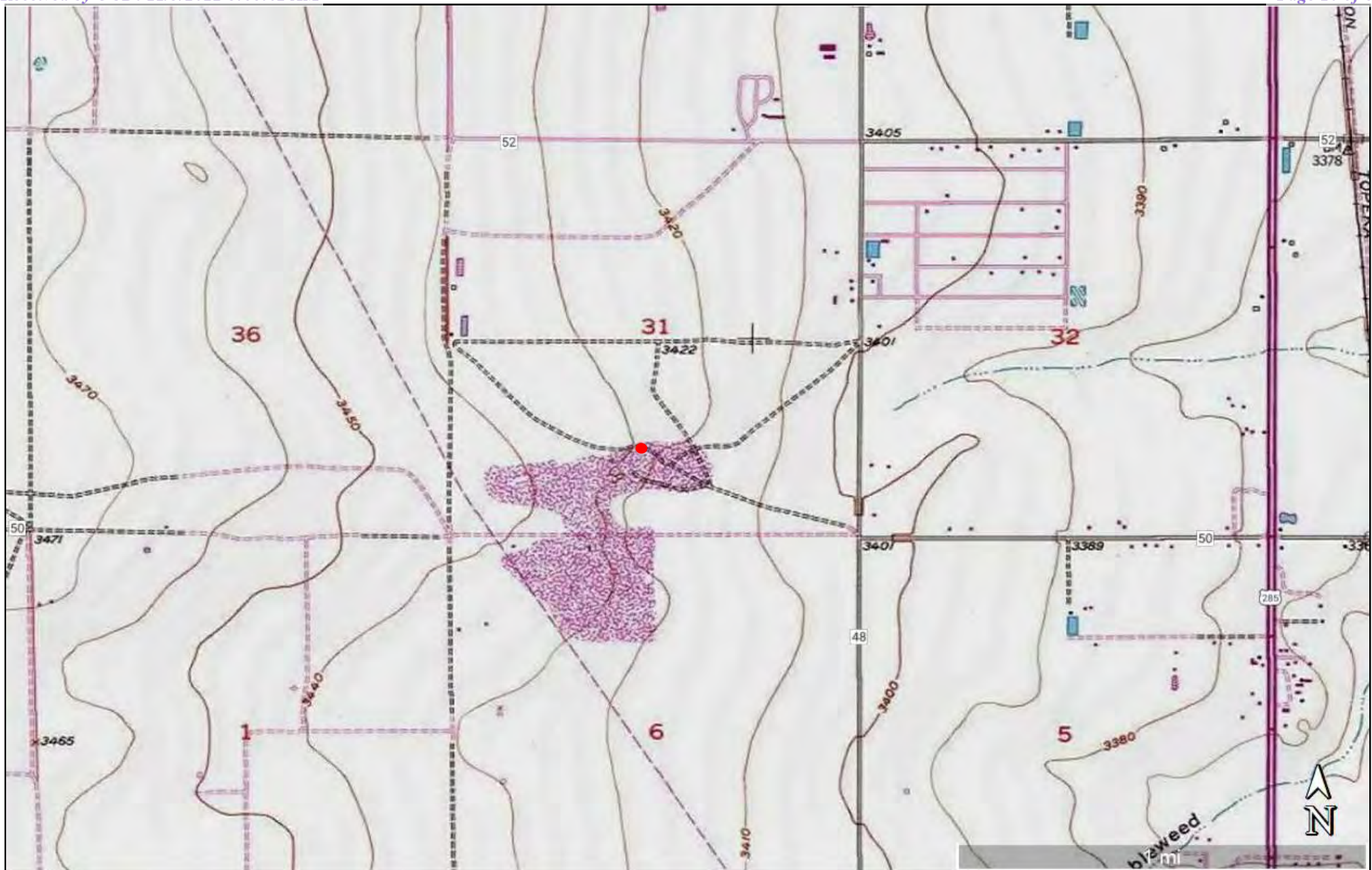
Oil Conservation Division, District 2  
811 S. First St.  
Artesia, NM 88210

**John Palomo**

1595 Ardenwood Dr  
San Jose, CA 95129



## **Figures**

**Figure 1**

Topographic Map  
 Frontier Field Services, LLC  
 Sherrell 4"  
 GPS: 32.787732, -104.421794  
 Eddy County

**Legend:**

● Sherrell 4" Location

Drafted: dd  
 Checked: bw  
 Date: 9/21/22





**Figure 2**

OSE POD Locations Map  
 Frontier Field Services, LLC  
 Sherrell 4"  
 GPS: 32.787732, -104.421794  
 Eddy County

**Legend:**

- Sherrell 4" Location
- Active OSE Water Well
- Pending OSE Water Well



Drafted: dd  
 Checked: bw  
 Date: 9/21/22



**Figure 3**

USGS Well Locations Map  
Frontier Field Services, LLC  
Sherrell 4"  
GPS: 32.787732, -104.421794  
Eddy County

**Legend:**

● Sherrell 4" Location



Drafted: dd  
Checked: bw  
Date: 9/21/22



**Figure 4**

Delineation Sample Map  
Frontier Field Services, LLC  
Sherrell 4"  
GPS: 32.787732, -104.421794  
Eddy County

**Legend:**

- Sherrell 4" Location
- SP1 Delineation Sample Location

Drafted: dd  
Checked: bw  
Date: 10/25/22



## **Table**



**TABLE 1**  
**Summary of Soil Sample Laboratory Analytical Results**  
**Frontier Field Services, LLC**  
**Sherrell 4"**  
**NMOCD Ref. #: nAPP2223829555**

Sample ID	Date	Depth (ft)	Soil Status	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)
SP1	9/22/22	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
	10/6/22	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
	10/6/22	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
	9/22/22	3	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
	10/6/22	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
SP2	10/25/22	Surf	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
	10/25/22	1	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
	10/25/22	2	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	<16.0
	10/25/22	3	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	16.0
	10/25/22	4	In-Situ	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32.0
<b>NMOCD Closure Criteria</b>				<b>10</b>	<b>50</b>	<b>-</b>	<b>-</b>	<b>N/A</b>	<b>-</b>	<b>100</b>	<b>600</b>

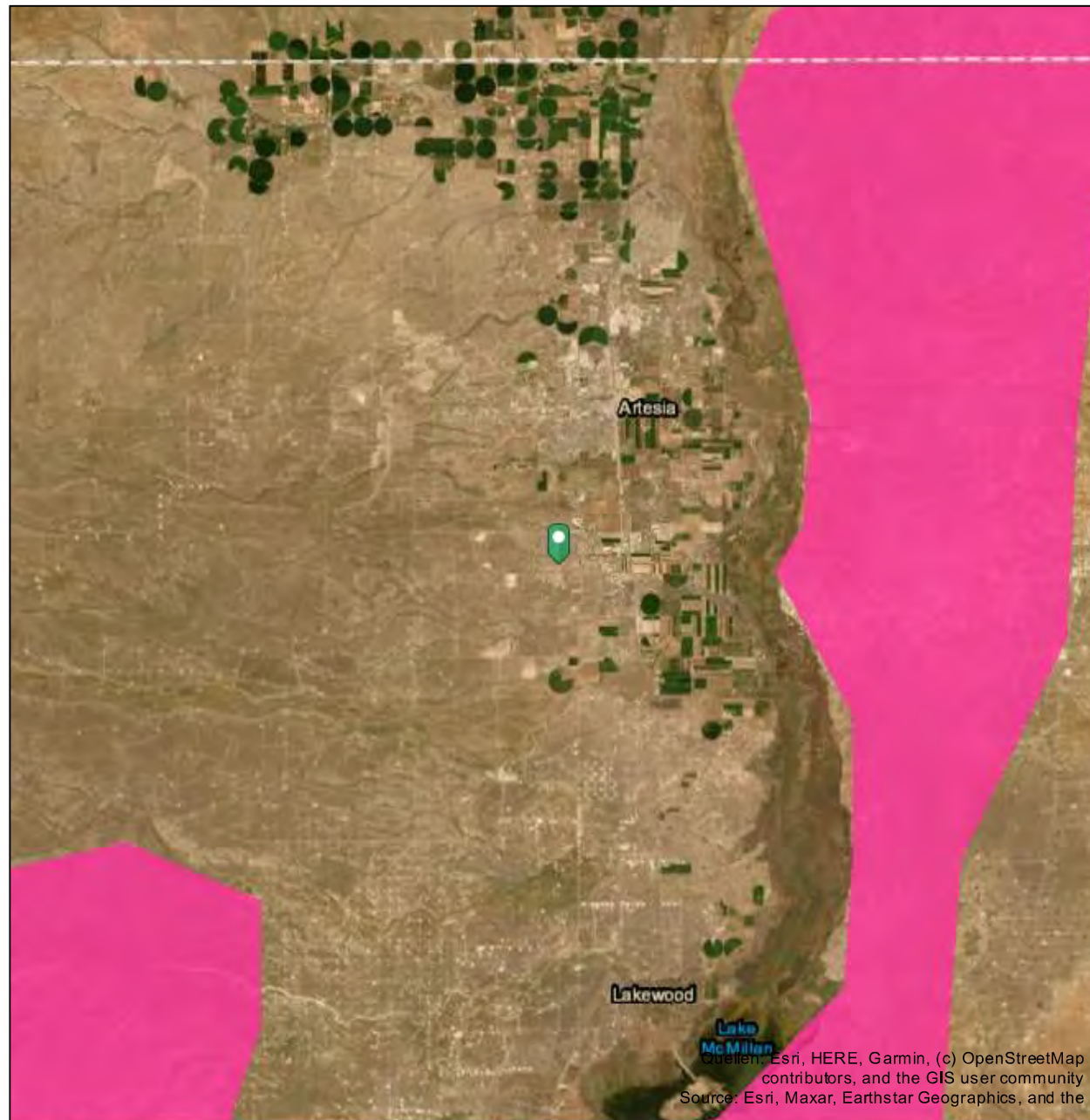
**NOTES:**

- = Sample not analyzed for that constituent.

**Bold** text denotes a concentration that exceeds the NMOCD Closure Criteria

## **Attachment I**

### **Karst and Wetland Maps**

**Karst springs**

Spring with low flow discharge  $\geq 2 \text{ m}^3/\text{s}$

Spring with low flow discharge  $< 2 \text{ m}^3/\text{s}$

Submarine spring

Thermal spring

Water abstraction structure in karst aquifer

Cave systems

Border between exposed and non-exposed karstifiable rocks

Selected city, partly dependent on groundwater

Boundary of continuous permafrost

Continuous ice sheet

Discontinuous carbonate rocks

Continuous evaporite rocks

Discontinuous evaporite rocks

Mixed carbonate and evaporite rocks

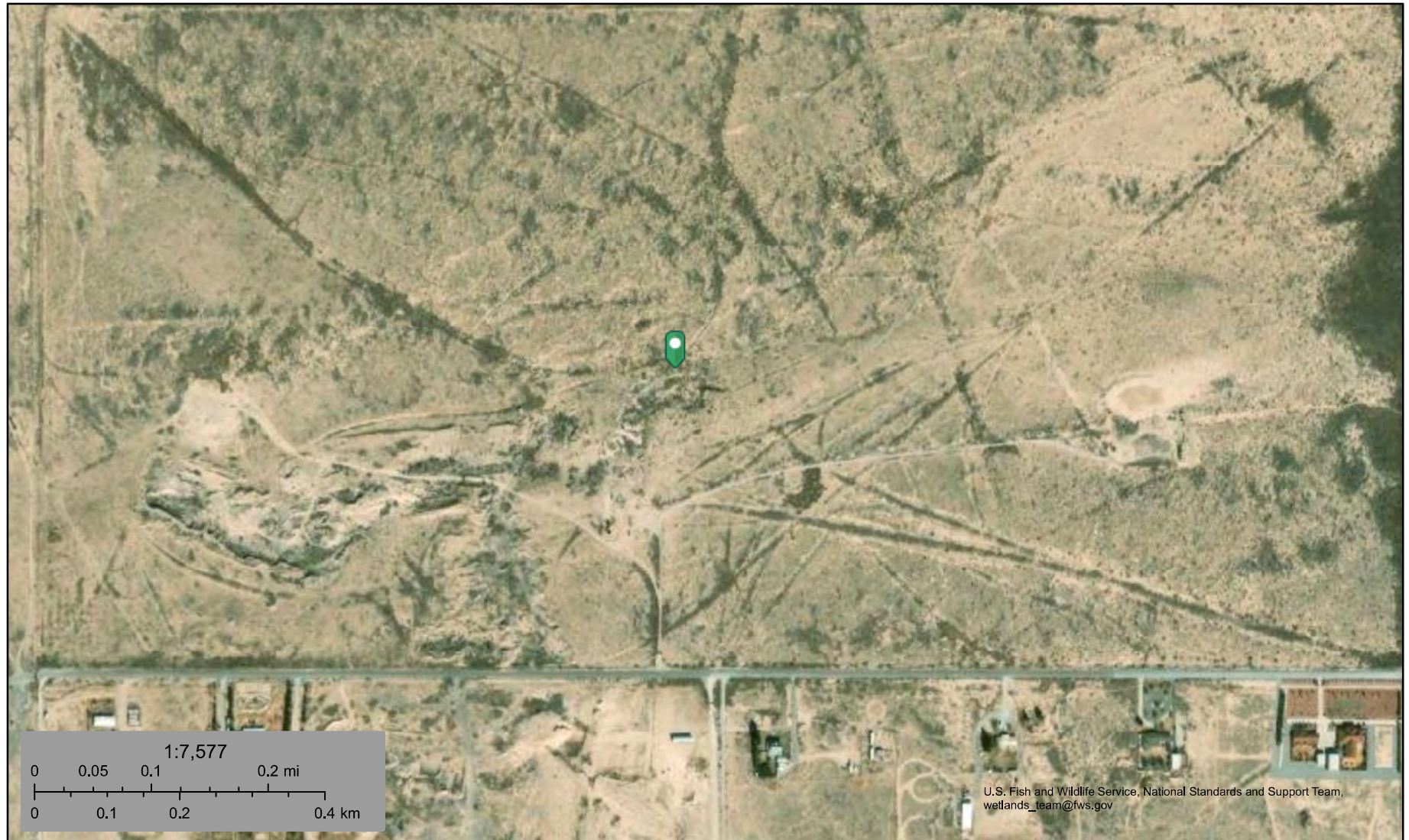
**Karstifiable rocks (potential karst aquifer)**

Continuous carbonate rocks





Sherrell 4"



September 28, 2022

**Wetlands**

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

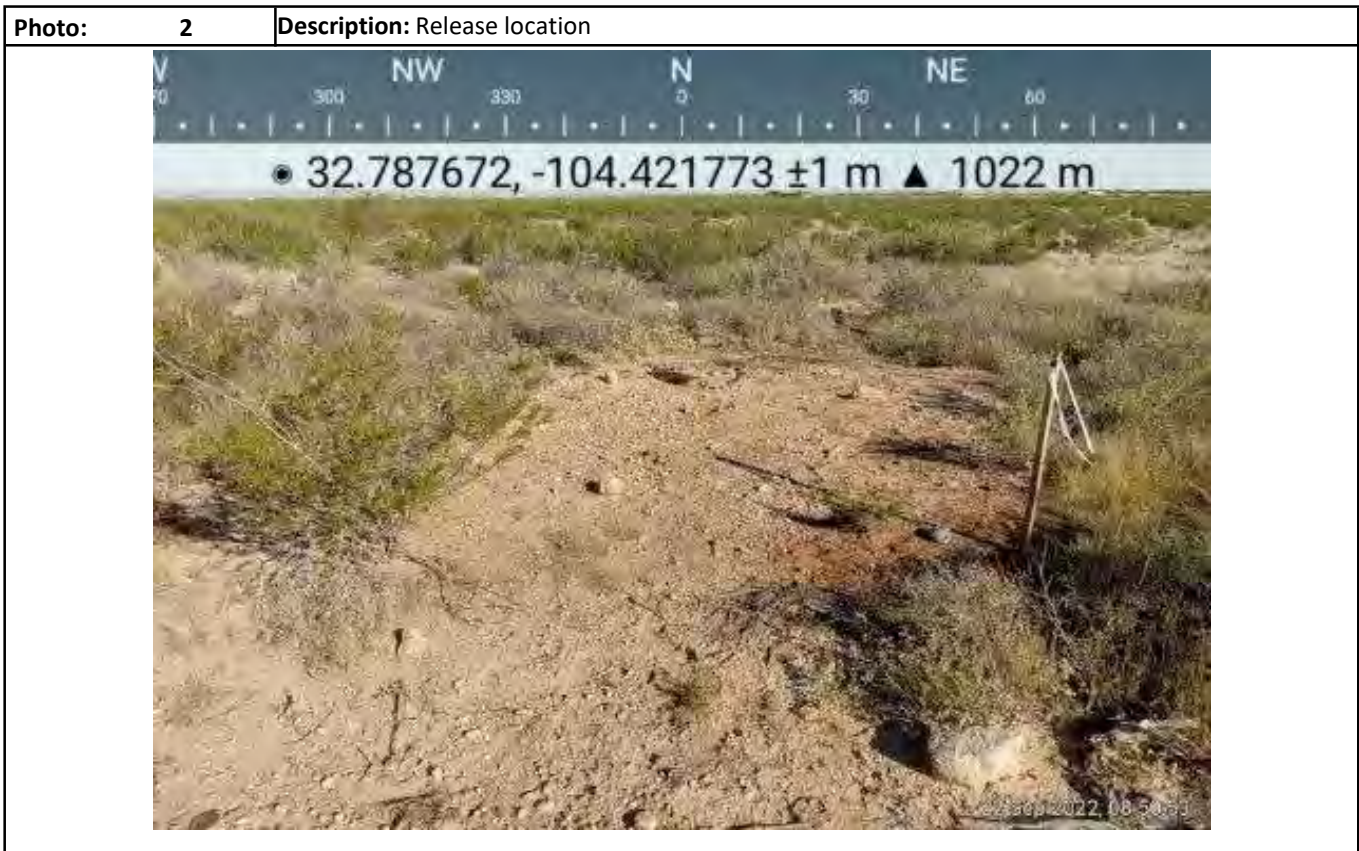
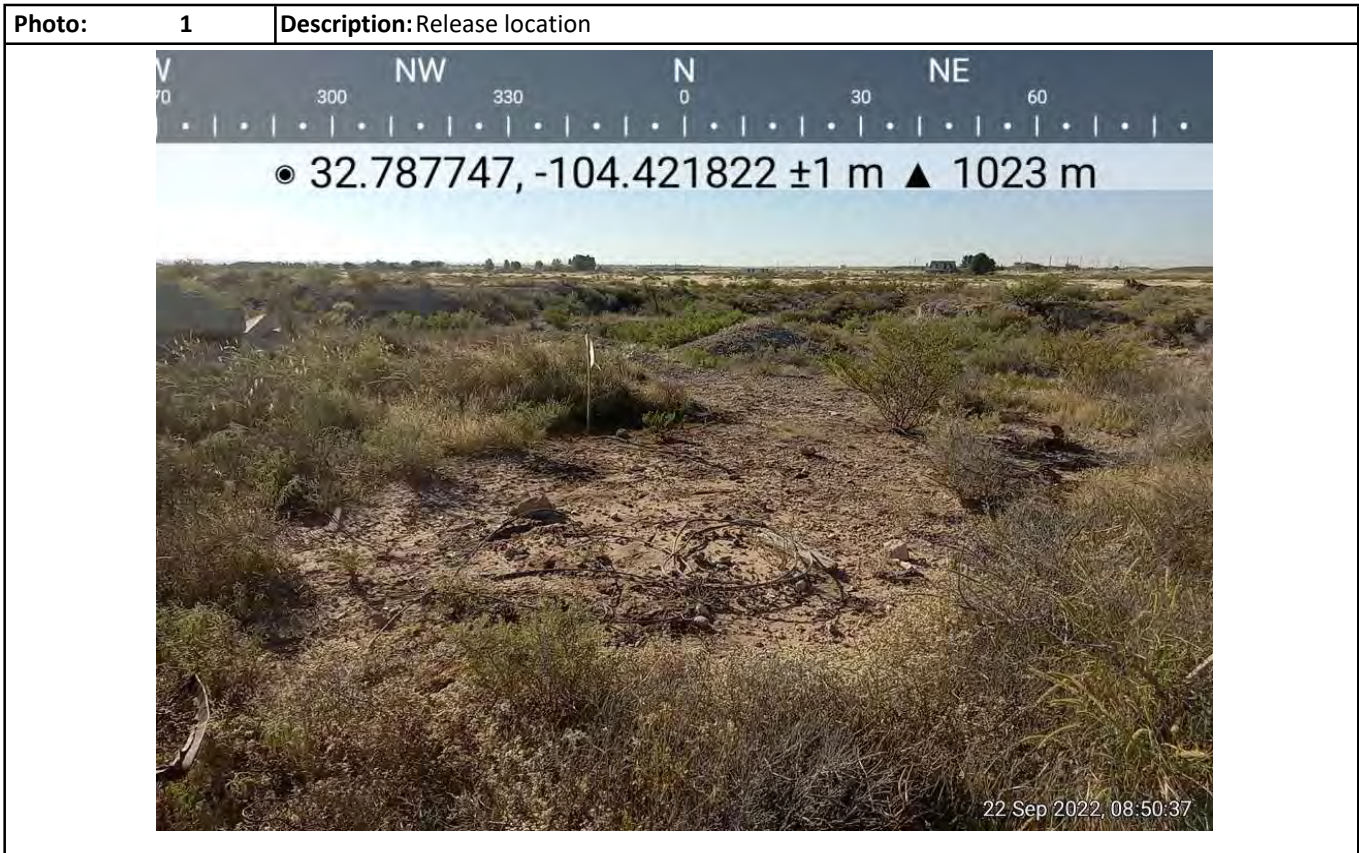
## **Attachment II NMOCD Correspondence**

No documented correspondence.



## **Attachment III Site Photographs**

## Photographs



## **Attachment IV**

### **Depth to Groundwater**



## New Mexico Office of the State Engineer

# Wells with Well Log Information

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

(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	Subbasin	County	Source	64	16	4	Sec	Tw	Rng	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number
<a href="#">RA 08991 POD1</a>		RA	ED	Shallow	1	1	2	06	18S	26E	554293	3627438	488	05/25/1995	05/28/1995	06/02/1995	210	150	OSBOURN DRILLING & PUMP CO	353
<a href="#">RA 11047 POD1</a>		RA	ED	Shallow	1	1	2	06	18S	26E	554293	3627437*	489	12/09/2006	12/15/2006	12/27/2006	218	153	HAMMOND, MARK	1400
<a href="#">RA 09303</a>		RA	ED	Shallow	2	1	2	06	18S	26E	554493	3627437*	583	01/12/1997	01/15/1997	01/22/1997	230	150	MARTIN WATER WELL DRILLING	1064
<a href="#">RA 10135</a>		RA	ED	Shallow	4	1	2	06	18S	26E	554493	3627237*	752	11/24/2001	12/20/2001	12/20/2001	250	75	MARTIN, DELFORD	1064
<a href="#">RA 04145</a>		RA	ED	Shallow	1	1	1	06	18S	26E	553492	3627435*	801	01/19/1960	02/10/1960	02/25/1960	201	119		

**Record Count:** 5

### UTMNAD83 Radius Search (in meters):

**Easting (X):** 554142.95

**Northing (Y):** 3627903.24

**Radius:** 805

\*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.


9/30/22 12:46 PM

WELLS WITH WELL LOG INFORMATION



# 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>Tw</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
RA	08991 POD1	1	1	2	06	18S	26E	554293	3627438 

---

**Driller License:** 353      **Driller Company:** OSBOURN DRILLING & PUMP CO.

**Driller Name:** OSBOURN DRILLING & PUMP CO

**Drill Start Date:** 05/25/1995      **Drill Finish Date:** 05/28/1995      **Plug Date:**

**Log File Date:** 06/02/1995      **PCW Rev Date:**      **Source:** Shallow

**Pump Type:**      **Pipe Discharge Size:**      **Estimated Yield:**

**Casing Size:**      **Depth Well:** 210 feet      **Depth Water:** 150 feet

---

**Water Bearing Stratifications:**

<b>Top</b>	<b>Bottom</b>	<b>Description</b>
189	200	Sandstone/Gravel/Conglomerate

---

**Casing Perforations:**

<b>Top</b>	<b>Bottom</b>
165	205

---

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9/30/22 12:42 PM

POINT OF DIVERSION SUMMARY



# 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)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tw	Rng	X	Y
	RA 11047 POD1	1	1	2	06	18S	26E	554293	3627437* 
<hr/>									
Driller License:		1400		Driller Company:			SOUTHEAST DRILLING COMPANY		
Driller Name:		HAMMOND, MARK							
Drill Start Date:		12/09/2006		Drill Finish Date:			12/15/2006		Plug Date:
Log File Date:		12/27/2006		PCW Rev Date:			Source:		Shallow
Pump Type:		Pipe Discharge Size:			Estimated Yield:		15 GPM		
Casing Size:		6.63		Depth Well:			218 feet		Depth Water:
									153 feet
<hr/>									
Water Bearing Stratifications:				Top	Bottom	Description			
				173	200	Sandstone/Gravel/Conglomerate			
<hr/>									
Casing Perforations:				Top	Bottom				
				159	218				

\*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.

9/30/22 12:43 PM


POINT OF DIVERSION SUMMARY





# 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	09303	2	1	2	06	18S	26E	554493	3627437* 

---

**Driller License:** 1064      **Driller Company:** DELFORD W. MARTIN

**Driller Name:** MARTIN WATER WELL DRILLING

**Drill Start Date:** 01/12/1997      **Drill Finish Date:** 01/15/1997      **Plug Date:**

**Log File Date:** 01/22/1997      **PCW Rev Date:**      **Source:** Shallow

**Pump Type:**      **Pipe Discharge Size:**      **Estimated Yield:** 15 GPM

**Casing Size:** 5.50      **Depth Well:** 230 feet      **Depth Water:** 150 feet

---

**Water Bearing Stratifications:**

Top	Bottom	Description
173	209	Sandstone/Gravel/Conglomerate

---

**Casing Perforations:**

Top	Bottom
145	230

\*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.


9/30/22 12:44 PM

POINT OF DIVERSION SUMMARY



# 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>Tw</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
RA	04145	1	1	1	06	18S	26E	553492	3627435* 

---

<b>Driller License:</b>		<b>Driller Company:</b>	
<b>Driller Name:</b>			
<b>Drill Start Date:</b>	01/19/1960	<b>Drill Finish Date:</b>	02/10/1960
<b>Log File Date:</b>	02/25/1960	<b>PCW Rev Date:</b>	
<b>Pump Type:</b>		<b>Pipe Discharge Size:</b>	
<b>Casing Size:</b>	7.00	<b>Depth Well:</b>	201 feet
		<b>Plug Date:</b>	
		<b>Source:</b>	Shallow
		<b>Estimated Yield:</b>	
		<b>Depth Water:</b>	119 feet

---

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	145	201	Sandstone/Gravel/Conglomerate

---

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	164	200

\*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.

9/30/22 12:48 PM

POINT OF DIVERSION SUMMARY

## **Attachment V**

### **Field Data**



**Hungry Horse, LLC**

Date: 10/25/22

Project: Sherrell 4"

Latitude: 32.787732

Longitude: -104.421794

Sampler: Eli Dominguez

[illegible]

**Stockpile = Stockpile #1**

## **Attachment VI**

### **Laboratory Analytical Reports**





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

---

September 27, 2022

DANIEL DOMINGUEZ

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: SHERRELL 4"

Enclosed are the results of analyses for samples received by the laboratory on 09/22/22 15:51.

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:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received:	09/22/2022	Sampling Date:	09/22/2022
Reported:	09/27/2022	Sampling Type:	Soil
Project Name:	SHERRELL 4"	Sampling Condition:	Cool & Intact
Project Number:	FRONTIER FIELD SERVICES	Sample Received By:	Tamara Oldaker
Project Location:	UL / L SEC 25 T17S - R30E		

**Sample ID: SP 1 - SURFACE (H224418-01)**

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	09/24/2022	ND	2.00	99.9	2.00	7.87		
Toluene*	<0.050	0.050	09/24/2022	ND	2.22	111	2.00	9.09		
Ethylbenzene*	<0.050	0.050	09/24/2022	ND	2.13	106	2.00	8.68		
Total Xylenes*	<0.150	0.150	09/24/2022	ND	6.49	108	6.00	9.28		
Total BTEX	<0.300	0.300	09/24/2022	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/26/2022	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/23/2022	ND	204	102	200	1.13	
DRO >C10-C28*	<10.0	10.0	09/23/2022	ND	213	106	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	09/23/2022	ND					

Surrogate: 1-Chlorooctane 79.5 % 45.3-161

Surrogate: 1-Chlorooctadecane 84.9 % 46.3-178

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:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 09/22/2022  
 Reported: 09/27/2022  
 Project Name: SHERRELL 4"  
 Project Number: FRONTIER FIELD SERVICES  
 Project Location: UL / L SEC 25 T17S - R30E

Sampling Date: 09/22/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 - 3" (H224418-02)**

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	09/24/2022	ND	2.00	99.9	2.00	7.87		
Toluene*	<0.050	0.050	09/24/2022	ND	2.22	111	2.00	9.09		
Ethylbenzene*	<0.050	0.050	09/24/2022	ND	2.13	106	2.00	8.68		
Total Xylenes*	<0.150	0.150	09/24/2022	ND	6.49	108	6.00	9.28		
Total BTEx	<0.300	0.300	09/24/2022	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	09/26/2022	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/23/2022	ND	204	102	200	1.13	
DRO >C10-C28*	<10.0	10.0	09/23/2022	ND	213	106	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	09/23/2022	ND					

Surrogate: 1-Chlorooctane 94.9 % 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

---

### 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



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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

---

October 11, 2022

DANIEL DOMINGUEZ

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: SHERRELL 4"

Enclosed are the results of analyses for samples received by the laboratory on 10/06/22 16:00.

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:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received:	10/06/2022	Sampling Date:	10/06/2022
Reported:	10/11/2022	Sampling Type:	Soil
Project Name:	SHERRELL 4"	Sampling Condition:	Cool & Intact
Project Number:	FRONTIER FIELD SERVICES	Sample Received By:	Tamara Oldaker
Project Location:	UL / L SEC 31 T17S - R26E		

**Sample ID: SP 1 - 1' (H224705-01)**

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	10/10/2022	ND	2.20	110	2.00	2.06	
Toluene*	<0.050	0.050	10/10/2022	ND	2.09	104	2.00	2.50	
Ethylbenzene*	<0.050	0.050	10/10/2022	ND	2.01	100	2.00	2.13	
Total Xylenes*	<0.150	0.150	10/10/2022	ND	6.11	102	6.00	1.83	
Total BTEX	<0.300	0.300	10/10/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.6 % 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	<16.0	16.0	10/11/2022	ND	400	100	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	10/07/2022	ND	203	101	200	0.887	
DRO >C10-C28*	<10.0	10.0	10/07/2022	ND	203	102	200	3.52	
EXT DRO >C28-C36	<10.0	10.0	10/07/2022	ND					

Surrogate: 1-Chlorooctane 104 % 45.3-161

Surrogate: 1-Chlorooctadecane 117 % 46.3-178

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:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 10/06/2022  
 Reported: 10/11/2022  
 Project Name: SHERRELL 4"  
 Project Number: FRONTIER FIELD SERVICES  
 Project Location: UL / L SEC 31 T17S - R26E

Sampling Date: 10/06/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 - 2' (H224705-02)**

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	10/10/2022	ND	2.20	110	2.00	2.06		
Toluene*	<0.050	0.050	10/10/2022	ND	2.09	104	2.00	2.50		
Ethylbenzene*	<0.050	0.050	10/10/2022	ND	2.01	100	2.00	2.13		
Total Xylenes*	<0.150	0.150	10/10/2022	ND	6.11	102	6.00	1.83		
Total BTEx	<0.300	0.300	10/10/2022	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.9 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/11/2022	ND	400	100	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	10/07/2022	ND	203	101	200	0.887	
DRO >C10-C28*	<10.0	10.0	10/07/2022	ND	203	102	200	3.52	
EXT DRO >C28-C36	<10.0	10.0	10/07/2022	ND					

Surrogate: 1-Chlorooctane 99.3 % 45.3-161

Surrogate: 1-Chlorooctadecane 110 % 46.3-178

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:**

Hungry Horse Environmental  
 DANIEL DOMINGUEZ  
 P.O. Box 1058  
 Hobbs NM, 88240  
 Fax To: (505) 391-4585

Received: 10/06/2022  
 Reported: 10/11/2022  
 Project Name: SHERRELL 4"  
 Project Number: FRONTIER FIELD SERVICES  
 Project Location: UL / L SEC 31 T17S - R26E

Sampling Date: 10/06/2022  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 - 4' (H224705-03)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/10/2022	ND	2.20	110	2.00	2.06	
Toluene*	<0.050	0.050	10/10/2022	ND	2.09	104	2.00	2.50	
Ethylbenzene*	<0.050	0.050	10/10/2022	ND	2.01	100	2.00	2.13	
Total Xylenes*	<0.150	0.150	10/10/2022	ND	6.11	102	6.00	1.83	
Total BTX	<0.300	0.300	10/10/2022	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.6 % 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	<16.0	16.0	10/11/2022	ND	400	100	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	10/07/2022	ND	203	101	200	0.887	
DRO >C10-C28*	<10.0	10.0	10/07/2022	ND	203	102	200	3.52	
EXT DRO >C28-C36	<10.0	10.0	10/07/2022	ND					

Surrogate: 1-Chlorooctane 103 % 45.3-161

Surrogate: 1-Chlorooctadecane 116 % 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

---

### Notes and Definitions

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

---

Cardinal Laboratories

\*=Accredited Analyte

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

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

---

Celey D. Keene, Lab Director/Quality Manager



## Page 6 of 6

Released to Imaging: 1/13/2023 7:55:06 AM

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

---

November 01, 2022

DANIEL DOMINGUEZ

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: SHERRELL 4"

Enclosed are the results of analyses for samples received by the laboratory on 10/26/22 11:55.

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

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

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

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

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

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

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
P.O. Box 1058  
Hobbs NM, 88240

Project: SHERRELL 4"  
Project Number: FRONTIER FIELD SERVICES  
Project Manager: DANIEL DOMINGUEZ  
Fax To: (505) 391-4585

Reported:  
01-Nov-22 14:01

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP 2 - SURF	H225039-01	Soil	25-Oct-22 00:00	26-Oct-22 11:55
SP 2 - 1'	H225039-02	Soil	25-Oct-22 00:00	26-Oct-22 11:55
SP 2 - 2'	H225039-03	Soil	25-Oct-22 00:00	26-Oct-22 11:55
SP 2 - 3'	H225039-04	Soil	25-Oct-22 00:00	26-Oct-22 11:55
SP 2 - 4'	H225039-05	Soil	25-Oct-22 00:00	26-Oct-22 11:55

11/01/22 - Client changed the sample IDs (see COC). This is the revised report and will replace the one sent on 10/31/22.

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:**

Hungry Horse Environmental  
P.O. Box 1058  
Hobbs NM, 88240

Project: SHERRELL 4"  
Project Number: FRONTIER FIELD SERVICES  
Project Manager: DANIEL DOMINGUEZ  
Fax To: (505) 391-4585

Reported:  
01-Nov-22 14:01

**SP 2 - SURF**  
**H225039-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories****Inorganic Compounds**

<b>Chloride</b>	<b>32.0</b>		16.0	mg/kg	4	2102836	AC	28-Oct-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2102765	JH	31-Oct-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID) 91.1 % 69.9-140 2102765 JH 31-Oct-22 8021B

**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2102745	MS	30-Oct-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2102745	MS	30-Oct-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2102745	MS	30-Oct-22	8015B	

Surrogate: 1-Chlorooctane 90.7 % 45.3-161 2102745 MS 30-Oct-22 8015B

Surrogate: 1-Chlorooctadecane 105 % 46.3-178 2102745 MS 30-Oct-22 8015B

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:**

Hungry Horse Environmental  
P.O. Box 1058  
Hobbs NM, 88240

Project: SHERRELL 4"  
Project Number: FRONTIER FIELD SERVICES  
Project Manager: DANIEL DOMINGUEZ  
Fax To: (505) 391-4585

Reported:  
01-Nov-22 14:01

**SP 2 - 1'**  
**H225039-02 (Soil)**

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

Chloride	<16.0		16.0	mg/kg	4	2102836	AC	28-Oct-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2102765	JH	31-Oct-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			91.7 %	69.9-140		2102765	JH	31-Oct-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2102745	MS	30-Oct-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2102745	MS	30-Oct-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2102745	MS	30-Oct-22	8015B	

Surrogate: 1-Chlorooctane			92.6 %	45.3-161		2102745	MS	30-Oct-22	8015B	
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Surrogate: 1-Chlorooctadecane			109 %	46.3-178		2102745	MS	30-Oct-22	8015B	
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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:**

Hungry Horse Environmental  
P.O. Box 1058  
Hobbs NM, 88240

Project: SHERRELL 4"  
Project Number: FRONTIER FIELD SERVICES  
Project Manager: DANIEL DOMINGUEZ  
Fax To: (505) 391-4585

Reported:  
01-Nov-22 14:01

**SP 2 - 2'**  
**H225039-03 (Soil)**

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

Chloride	<16.0		16.0	mg/kg	4	2102836	AC	28-Oct-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2102765	JH	31-Oct-22	8021B	

Surrogate: 4-Bromofluorobenzene (PID)			89.9 %	69.9-140		2102765	JH	31-Oct-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2102745	MS	30-Oct-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2102745	MS	30-Oct-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2102745	MS	30-Oct-22	8015B	

Surrogate: 1-Chlorooctane			101 %	45.3-161		2102745	MS	30-Oct-22	8015B	
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Surrogate: 1-Chlorooctadecane			121 %	46.3-178		2102745	MS	30-Oct-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
P.O. Box 1058  
Hobbs NM, 88240

Project: SHERRELL 4"  
Project Number: FRONTIER FIELD SERVICES  
Project Manager: DANIEL DOMINGUEZ  
Fax To: (505) 391-4585

Reported:  
01-Nov-22 14:01

**SP 2 - 3'**  
**H225039-04 (Soil)**

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

<b>Chloride</b>	<b>16.0</b>		16.0	mg/kg	4	2102836	AC	28-Oct-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2102765	JH	31-Oct-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			91.0 %	69.9-140		2102765	JH	31-Oct-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2102745	MS	30-Oct-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2102745	MS	30-Oct-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2102745	MS	30-Oct-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			96.8 %	45.3-161		2102745	MS	30-Oct-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			121 %	46.3-178		2102745	MS	30-Oct-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
P.O. Box 1058  
Hobbs NM, 88240

Project: SHERRELL 4"  
Project Number: FRONTIER FIELD SERVICES  
Project Manager: DANIEL DOMINGUEZ  
Fax To: (505) 391-4585

Reported:  
01-Nov-22 14:01

**SP 2 - 4'**  
**H225039-05 (Soil)**

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

<b>Chloride</b>	<b>32.0</b>		16.0	mg/kg	4	2102836	AC	28-Oct-22	4500-Cl-B	
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**Volatile Organic Compounds by EPA Method 8021**

Benzene*	<0.050		0.050	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Toluene*	<0.050		0.050	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	2102765	JH	31-Oct-22	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	2102765	JH	31-Oct-22	8021B	

<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			90.3 %		69.9-140	2102765	JH	31-Oct-22	8021B	
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**Petroleum Hydrocarbons by GC FID**

GRO C6-C10*	<10.0		10.0	mg/kg	1	2102745	MS	30-Oct-22	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	2102745	MS	30-Oct-22	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	2102745	MS	30-Oct-22	8015B	

<i>Surrogate: 1-Chlorooctane</i>			100 %		45.3-161	2102745	MS	30-Oct-22	8015B	
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<i>Surrogate: 1-Chlorooctadecane</i>			120 %		46.3-178	2102745	MS	30-Oct-22	8015B	
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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

Hungry Horse Environmental  
P.O. Box 1058  
Hobbs NM, 88240

Project: SHERRELL 4"  
Project Number: FRONTIER FIELD SERVICES  
Project Manager: DANIEL DOMINGUEZ  
Fax To: (505) 391-4585

Reported:  
01-Nov-22 14:01

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 2102836 - 1:4 DI Water</b>									
<b>Blank (2102836-BLK1)</b>					Prepared & Analyzed: 28-Oct-22				
Chloride	ND	16.0	mg/kg						
<b>LCS (2102836-BS1)</b>					Prepared & Analyzed: 28-Oct-22				
Chloride	400	16.0	mg/kg	400	100	80-120			
<b>LCS Dup (2102836-BSD1)</b>					Prepared & Analyzed: 28-Oct-22				
Chloride	400	16.0	mg/kg	400	100	80-120	0.00	20	

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
P.O. Box 1058  
Hobbs NM, 88240

Project: SHERRELL 4"  
Project Number: FRONTIER FIELD SERVICES  
Project Manager: DANIEL DOMINGUEZ  
Fax To: (505) 391-4585

Reported:  
01-Nov-22 14:01

**Volatile Organic Compounds by EPA Method 8021 - Quality Control****Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2102765 - Volatiles****Blank (2102765-BLK1)**

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

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	ND		mg/kg	0.0500		89.8	69.9-140			

**LCS (2102765-BS1)**

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

Benzene	2.01	0.050	mg/kg	2.00		100	83.4-122			
Toluene	2.15	0.050	mg/kg	2.00		108	84.2-126			
Ethylbenzene	2.12	0.050	mg/kg	2.00		106	84.2-121			
m,p-Xylene	4.32	0.100	mg/kg	4.00		108	89.9-126			
o-Xylene	2.04	0.050	mg/kg	2.00		102	84.3-123			
Total Xylenes	6.36	0.150	mg/kg	6.00		106	89.1-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.0447		mg/kg	0.0500		89.4	69.9-140			

**LCS Dup (2102765-BSD1)**

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

Benzene	1.87	0.050	mg/kg	2.00		93.4	83.4-122	7.25	12.6	
Toluene	2.03	0.050	mg/kg	2.00		102	84.2-126	5.90	13.3	
Ethylbenzene	2.01	0.050	mg/kg	2.00		101	84.2-121	5.13	13.9	
m,p-Xylene	4.09	0.100	mg/kg	4.00		102	89.9-126	5.45	13.6	
o-Xylene	1.94	0.050	mg/kg	2.00		96.9	84.3-123	5.06	14.1	
Total Xylenes	6.03	0.150	mg/kg	6.00		101	89.1-124	5.33	13.4	
Surrogate: 4-Bromofluorobenzene (PID)	0.0451		mg/kg	0.0500		90.1	69.9-140			

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

Hungry Horse Environmental  
P.O. Box 1058  
Hobbs NM, 88240

Project: SHERRELL 4"  
Project Number: FRONTIER FIELD SERVICES  
Project Manager: DANIEL DOMINGUEZ  
Fax To: (505) 391-4585

Reported:  
01-Nov-22 14:01

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 2102745 - General Prep - Organics****Blank (2102745-BLK1)**

Prepared: 27-Oct-22 Analyzed: 30-Oct-22

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	67.8		mg/kg	50.0		136	45.3-161			
Surrogate: 1-Chlorooctadecane	81.1		mg/kg	50.0		162	46.3-178			

**LCS (2102745-BS1)**

Prepared: 27-Oct-22 Analyzed: 30-Oct-22

GRO C6-C10	189	10.0	mg/kg	200		94.6	76.8-124			
DRO >C10-C28	194	10.0	mg/kg	200		97.0	74.9-127			
Total TPH C6-C28	383	10.0	mg/kg	400		95.8	77.5-124			
Surrogate: 1-Chlorooctane	70.8		mg/kg	50.0		142	45.3-161			
Surrogate: 1-Chlorooctadecane	89.4		mg/kg	50.0		179	46.3-178			S-04

**LCS Dup (2102745-BS1)**

Prepared: 27-Oct-22 Analyzed: 30-Oct-22

GRO C6-C10	186	10.0	mg/kg	200		93.1	76.8-124	1.69	17.2	
DRO >C10-C28	191	10.0	mg/kg	200		95.3	74.9-127	1.73	18.6	
Total TPH C6-C28	377	10.0	mg/kg	400		94.2	77.5-124	1.71	17.6	
Surrogate: 1-Chlorooctane	61.2		mg/kg	50.0		122	45.3-161			
Surrogate: 1-Chlorooctadecane	78.8		mg/kg	50.0		158	46.3-178			

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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

---

Celey D. Keene, Lab Director/Quality Manager





## Page 12 of 12

Released to Imaging: 1/13/2023 7:55:06 AM

**Attachment VII**  
**NMOCD Form Initial 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	nAPP2223829555
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party Frontier Field Services, LLC	OGRID 221115
Contact Name Amber Groves	Contact Telephone 575-703-7992
Contact email <a href="mailto:agroves@durangomidstream.com">agroves@durangomidstream.com</a>	Incident # (assigned by OCD)
Contact mailing address 47 Conoco Rd, Maljamar NM 88264	

### Location of Release Source

Latitude 32.787732 Longitude -104.421794  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Sherrell 4" Steel Pipeline	Site Type Pipeline
Date Release Discovered 8/25/2022	API# (if applicable)

Unit Letter	Section	Township	Range	County
N	31	17S	26E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name: ;John & Stephanie Palomo Liv. Trust )

### 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 checked="" type="checkbox"/> Natural Gas	Volume Released (Mcf) 236.97	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release  
Internal corrosion.



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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?          
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### 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.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not 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: Amber Groves Title: Remediation Specialist  
Signature:  Date: 8/26/2022  
email: agroves@durangomidstream.com Telephone: (575)703-7992

#### OCD Only

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



## Gas Volume Release Report

Gas Release Volume Calculator		
Date:	8/25/2022	
Site or Line Name:	4" Steel Sherrell	
Area of hole in pipe:	0.25	square inches
Absolute Pressure:	104.7	psia - absolute pressure (psia = psig gauge pressure + 14.7)
Duration of Release:	60.00	minutes
Temperature:	89	Degrees F
Absolute Pressure:	104.7	psia (Gauge Pressure + 14.7)
Representative Gas Analysis	Please attach or email a representative gas analysis	

Constants		
Temperature at standard conditions:	60	Deg. F
Pressure at standard conditions:	14.7	PSIA
Volume of Gas - SCF	236.97	MSCF

Notes
Entered by user
Calculated Value
Constant



**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 155901

CONDITIONS

Operator: FRONTIER FIELD SERVICES, LLC 10077 Grogans Mill Rd. The Woodlands, TX 77380	OGRID: 221115
	Action Number: 155901
	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 #NAPP2223829555 SHERRELL 4" STEEL PIPELINE, thank you. This closure is approved.	1/13/2023