



Pima Environmental Services, LLC  
1601 N. Turner Ste 500  
Hobbs, NM 88240  
575-964-7740

October 21, 2020

NMOCD District 2  
Mr. Mike Bratcher  
811 S. First Street  
Artesia, NM 88210

**Re: Site Assessment and Closure Report  
Hawkeye 7 Federal #1  
API No. 30-025-00892  
GPS: Latitude 32.66946 Longitude -103.81169  
UL "M", Sec. 07, T19S, R32E  
Eddy County, NM  
NMOCD Ref. No. 1RP-4986**

Dear Mr. Bratcher,

Pima Environmental Services, LLC (Pima) has been contracted by Devon Energy Production Company (Devon) to perform a spill assessment, site remediation and has prepared this Closure Report for a produced water release that occurred at the Hawkeye 7 Fed 1 (Hawkeye). The initial C-141 was submitted on February 23, 2018 (Appendix C). This incident was assigned 1RP-4986, Incident ID NOY1806632744, by the New Mexico Oil Conservation Division (NMOCD).

**Site Characterization**

The Hawkeye is located approximately thirty (30) miles northeast of Carlsbad, NM. This spill site is in Unit M, Section 07, Township 19S, Range 32E, Latitude 32.66946, Longitude -103.81169, Eddy County, NM. Figure 1 references a location map.

Per the New Mexico Bureau of Geology and Mineral Resources, the geology is in the Quaternary Formation- Eolian and piedmont deposits (Holocene to middle Pleistocene)-interlayered eolian sands and piedmont-slope deposits (QEP). The soil in this area is made up of Simona fine sandy loam, 0 to 3 percent slopes according to the United States Department of Agriculture Natural Resources Conservation Service soil survey (Appendix B). The drainage courses in this area are well-drained. There is a low potential for karst geology to be present in the area of the Hawkeye (Figure 3).

According to the New Mexico Office of the State Engineer, depth to the nearest groundwater in this area is greater than 100 feet below grade surface (BGS). According to the United States Geological Survey (USGS), the nearest groundwater is greater than 100 feet BGS. The closest waterway and is a Playa located approximately 5.61 miles to the south of this location. See Appendix A for the referenced Surface Water Map.

Table 1 NMAC and Closure Criteria 19.15.29					
Depth to Groundwater (Appendix B)	Constituent & Limits				
	Chlorides	Total TPH	GRO+DRO	BTEX	Benzene
100'	20,000 mg/kg	2,500 mg/kg	1,000 mg/kg	50 mg/kg	10 mg/kg
If the release occurred within any of the following areas, the responsible party would treat the release as if the groundwater was less than 50 feet per Rule 19.15.29					
Water Issues				Yes	No
Within <b>300</b> feet of any continuously flowing watercourse or any other significant watercourse					x
Within <b>200</b> feet of any lakebed, sinkhole, or playa lake (measures from the ordinary high-water mark)					x
Within <b>300</b> feet from an occupied permanent residence, school, hospital, institution, or church					x
Within <b>500</b> feet of a spring or a private, domestic freshwater well used by less than five households for domestic or stock water purposes					x
Within <b>1000</b> feet of any freshwater well or spring					x
Within incorporated municipal boundaries or within a defined municipal freshwater well field					x
Within <b>300</b> feet of a wetlands					x
Within the area overlying a subsurface mine					x
Within an unstable area (Karst)					x
Within a 100-year floodplain					x

Reference Figure 2 for a TOPO Map.

**Release Information**

1RP-4986: On February 19, 2018, the water tank overflowed, causing a release of 11.5 barrels (bbls) of produced water into the earthen bermed containment. A vac truck was dispatched and recovered 10 bbls, and the heater treater was isolated to prevent any further release.

**Site Assessment and Soil Sampling Results**

On July 29, 2020, Pima Environmental conducted a site assessment and obtained soil samples. The laboratory results of this sampling event can be found in the following data table.

8-4-20 Soil Sample Results

NMOC Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is >100')								
Sample Date 7-29-20		NM Approved Laboratory Results						
Sample ID	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
BG-1	0	ND	ND	ND	105	ND	105	80
BG-2	0	ND	ND	ND	ND	ND	ND	ND
BG-3	0	ND	ND	ND	ND	ND	ND	16
S-1	0-6	ND	ND	ND	ND	ND	ND	1380
S-2	0-6	ND	ND	ND	ND	ND	ND	2360
	1	ND	ND	ND	ND	ND	ND	560
	2	ND	ND	ND	ND	ND	ND	720
	3	ND	ND	ND	ND	ND	ND	880
S-4	0-6	ND	ND	ND	ND	ND	ND	64
S-5	0-6	ND	ND	ND	ND	ND	ND	16
	1	ND	ND	ND	ND	ND	ND	ND
	2	ND	ND	ND	ND	ND	ND	48
S-3	0-6	ND	ND	ND	7670	1910	9580	7330

ND- Analyte Not Detected

**Remediation Activities**

On September 4, 2020, Pima mobilized personnel and equipment to conduct remedial activities. The area in the vicinity of S-3 was excavated to a depth of 1.0-foot below grade surface (BGS). The excavation extended 10-feet by 30-feet horizontally away from the center of the initial sample point. Sidewall and bottom confirmation samples were obtained, and the laboratory results can be found in the following data table.

9-8-20 Confirmation Soil Sample Results

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is >100')								
Sample Date 9-8-20		NM Approved Laboratory Results						
Sample ID	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
N. Bottom	1	ND	ND	ND	14.3	ND	14.3	528
N. Sidewall	1	ND	ND	ND	ND	ND	ND	912
E. Bottom	1	ND	ND	ND	89.4	44.3	133.7	1380
E. Sidewall	1	ND	ND	ND	16.6	11	27.6	1420
S. Bottom	1	ND	ND	ND	557	160	717	928
S. Sidewall	1	ND	ND	ND	154	56	210	1760
W. Bottom	1	0.801	ND	21.5	2630	675	3326.5	1250
W. Sidewall	1	ND	ND	ND	31.1	20	51.1	1920

ND- Analyte Not Detected

Based on the results, Pima returned to the site to continue excavating from the west side, removing another 1.0-foot BGS from the excavation's bottom. Composite confirmation samples were again obtained to ensure the contamination was removed. The laboratory results can be found in the following data table.

9-29-20 Confirmation Soil Samples

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is >100')					
Sample Date 9-29-20					
Sample ID	Depth (BGS)	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg
West Bottom	2	ND	ND	ND	ND

ND- Analyte Not Detected

Complete Laboratory results can be found attached in Appendix D.

The final sample results were below NMOCD Closure Criteria 19.15.29 NMAC. Based on these findings, no further remediation activities were needed at this location. The excavation was backfilled with clean, like material, the area was then contoured to match the tank battery, and the berm was built back up.

**Closure Request**

After careful review, Pima requests that this incident, NOY1806632744, be closed. Devon has complied with the applicable closure requirements outlined in rule 19.15.19.12 NMAC.

Should you have any questions or need additional information, please feel free to contact Chris Jones at 575-964-7740 or [chris@pimaoil.com](mailto:chris@pimaoil.com).

Respectfully,



Chris Jones  
Environmental Professional  
Pima Environmental Services, LLC

**Attachments**

Figures:

- 1- Location Map
- 2- TOPO Map
- 3- Karst Map
- 4- Site Map

Appendices:

- Appendix A- Referenced Water Surveys
- Appendix B- Soil Survey and Geological Data
- Appendix C- C-141's
- Appendix D- Laboratory Reports
- Appendix E- Photographic Documentation



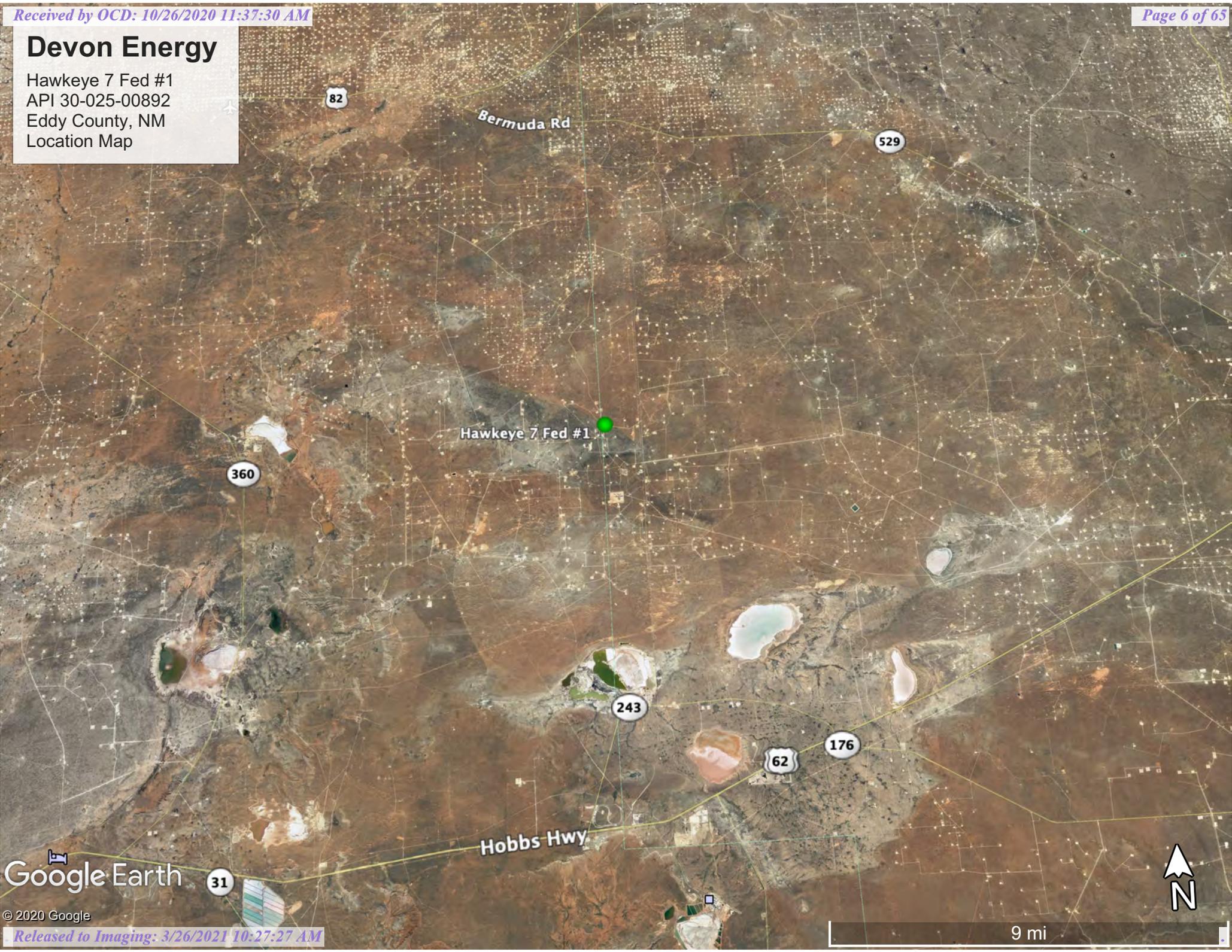
Pima Environmental Services

Figures:

- 1-Location Map
- 2- TOPO Map
- 3- Karst Map
- 4- Site Map

# Devon Energy

Hawkeye 7 Fed #1  
API 30-025-00892  
Eddy County, NM  
Location Map



Bermuda Rd

Hawkeye 7 Fed #1

Hobbs Hwy

Google Earth

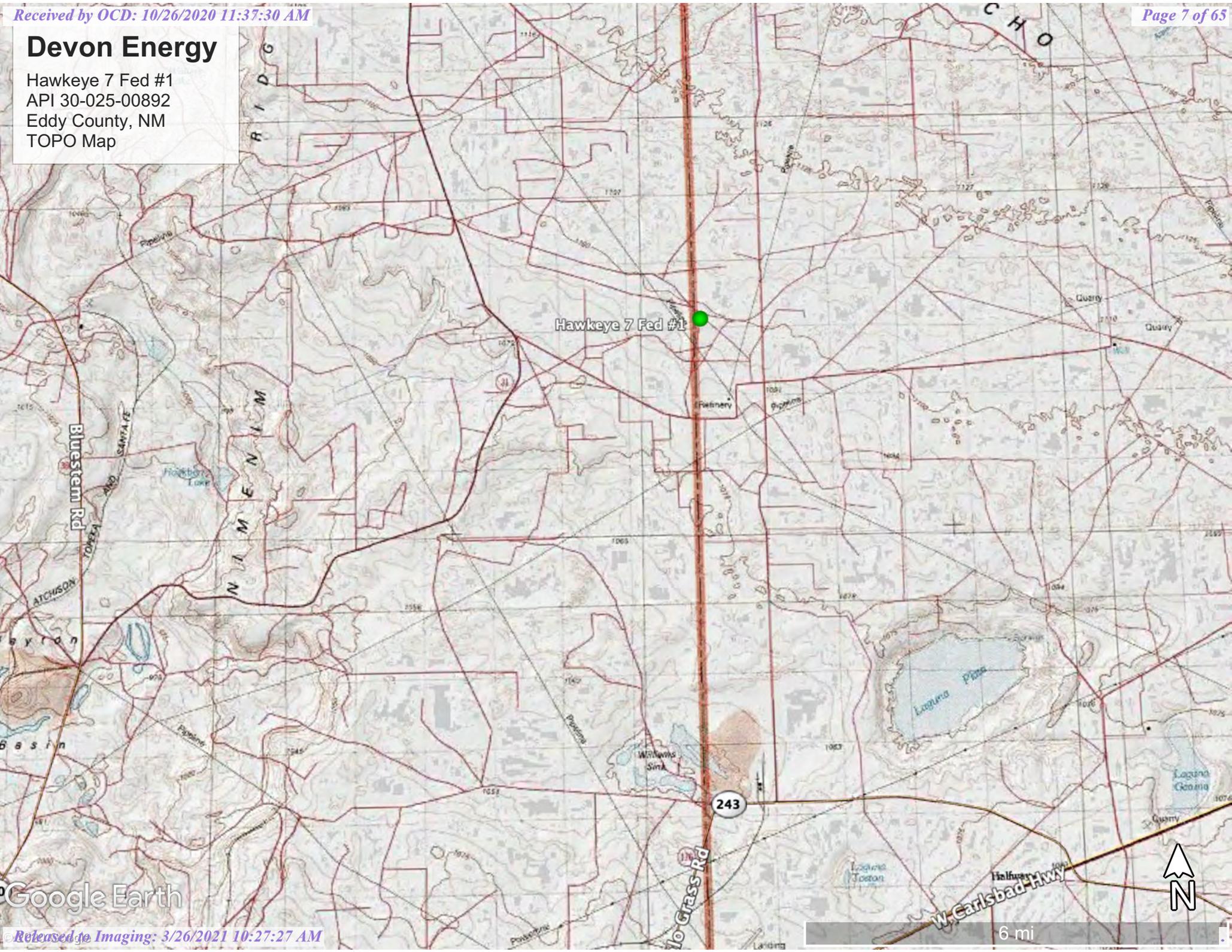
© 2020 Google

9 mi



# Devon Energy

Hawkeye 7 Fed #1  
API 30-025-00892  
Eddy County, NM  
TOPO Map



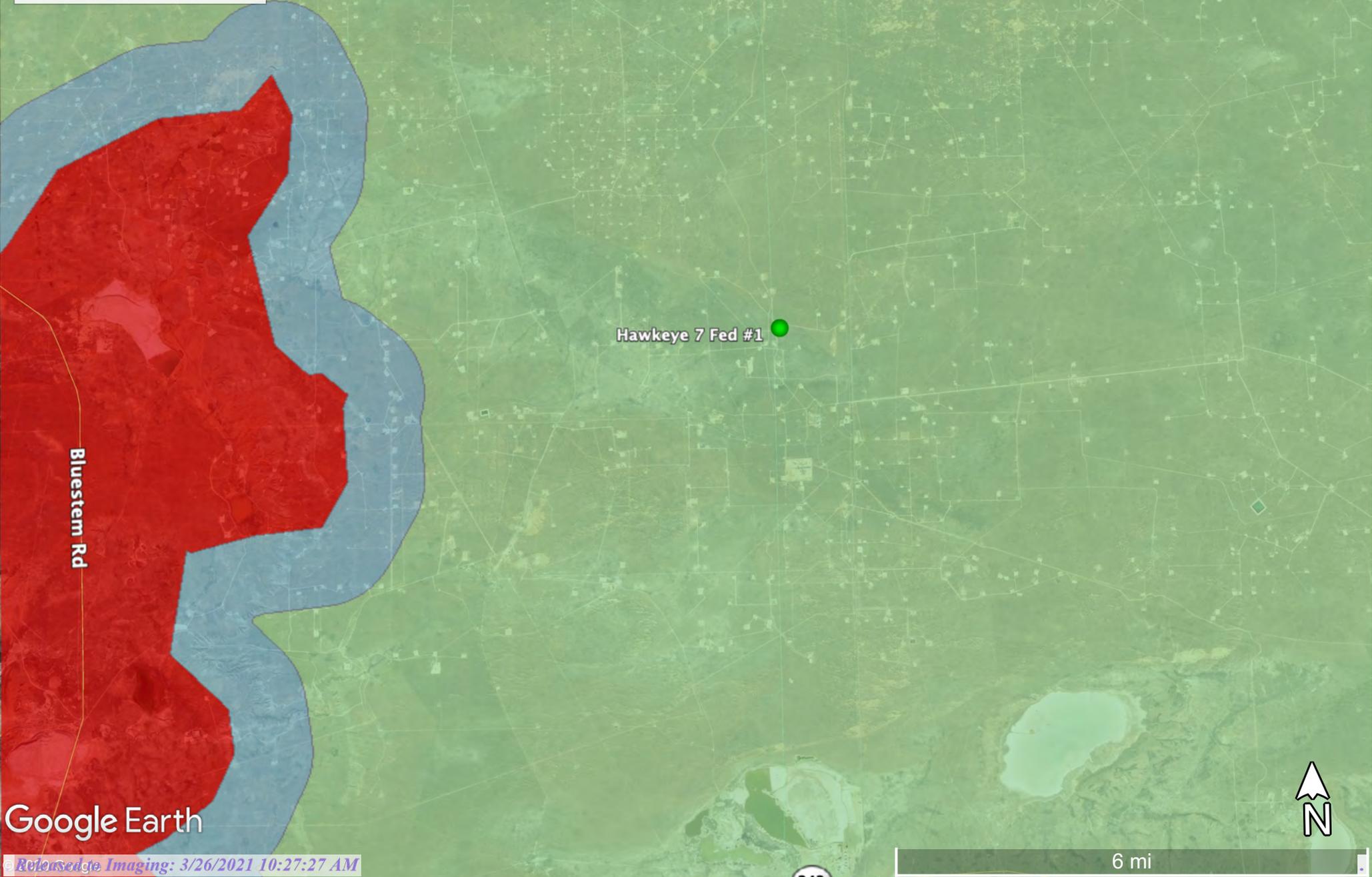
Google Earth

# Devon Energy

Hawkeye 7 Fed #1  
API 30-025-00892  
Eddy County, NM  
Karst Map

**Legend**

- High
- Low
- Medium



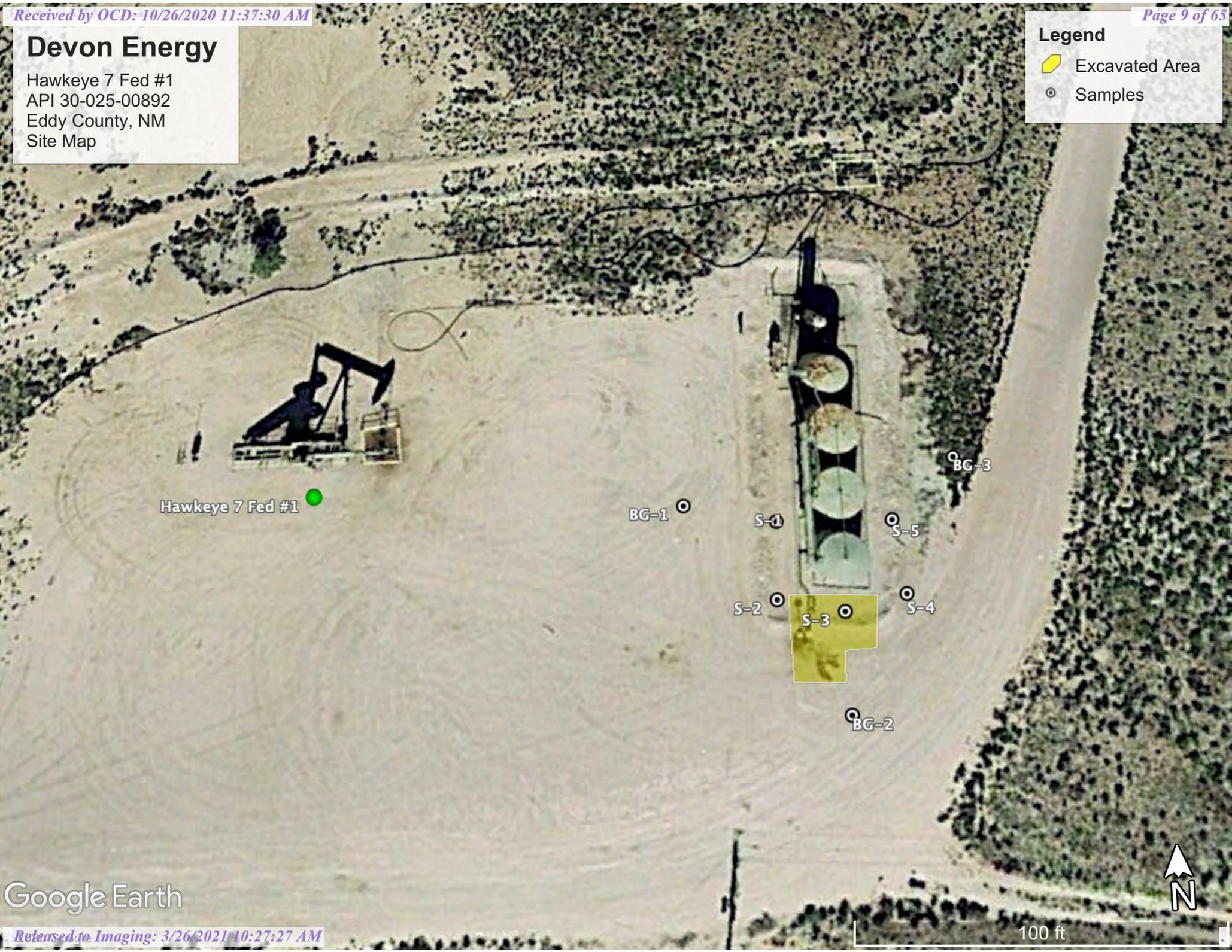
Google Earth

# Devon Energy

Hawkeye 7 Fed #1  
API 30-025-00892  
Eddy County, NM  
Site Map

**Legend**

-  Excavated Area
-  Samples



Hawkeye 7 Fed #1

BG-1

S-1

S-5

BG-3

S-2

S-3

S-4

BG-2





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Appendix A  
Water Surveys:  
OSE  
USGS



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
<a href="#">CP 00563 POD1</a>		CP	LE	1	1	2	19	19S	32E	612118	3613376*	2036	300		
<a href="#">CP 00640 POD1</a>		CP	LE		2	2	19	19S	32E	612621	3613280*	2347	260	102	158
<a href="#">CP 01656 POD2</a>		CP	LE	3	4	3	17	19S	32E	613364	3613648	2561	70		
<a href="#">CP 01656 POD1</a>		CP	LE	3	4	3	17	19S	32E	613368	3613646	2565	70		
<a href="#">CP 01656 POD3</a>		CP	LE	3	4	3	17	19S	32E	613374	3613633	2578	30		
<a href="#">CP 00639 POD1</a>		CP	LE		3	1	20	19S	32E	613029	3612880*	2905	350	345	5

Average Depth to Water: **223 feet**  
 Minimum Depth: **102 feet**  
 Maximum Depth: **345 feet**

**Record Count:** 6

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

**Easting (X):** 611386.539

**Northing (Y):** 3615276.335

**Radius:** 3000

\*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.

8/6/20 9:57 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 00640 POD1	2	2	19	19S	32E		612621	3613280*

<b>Driller License:</b>	882	<b>Driller Company:</b>	LARRY'S DRILLING & PUMP CO.		
<b>Driller Name:</b>	FELKINS, LARRY				
<b>Drill Start Date:</b>	02/08/1982	<b>Drill Finish Date:</b>	02/09/1982	<b>Plug Date:</b>	
<b>Log File Date:</b>	03/04/1982	<b>PCW Rcv Date:</b>		<b>Source:</b>	Shallow
<b>Pump Type:</b>		<b>Pipe Discharge Size:</b>		<b>Estimated Yield:</b>	
<b>Casing Size:</b>		<b>Depth Well:</b>	260 feet	<b>Depth Water:</b>	102 feet

\*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.

8/6/20 9:57 AM

POINT OF DIVERSION SUMMARY



# National Water Information System: Web Interface

USGS Water Resources

Data Category:

Geographic Area:

- Click to hide News Bulletins
  - Introducing The Next Generation of USGS Water Data for the Nation
  - Full News

## Groundwater levels for the Nation

### Search Results -- 1 sites found

site\_no list = 

- 324046103464101

Minimum number of levels = 1

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

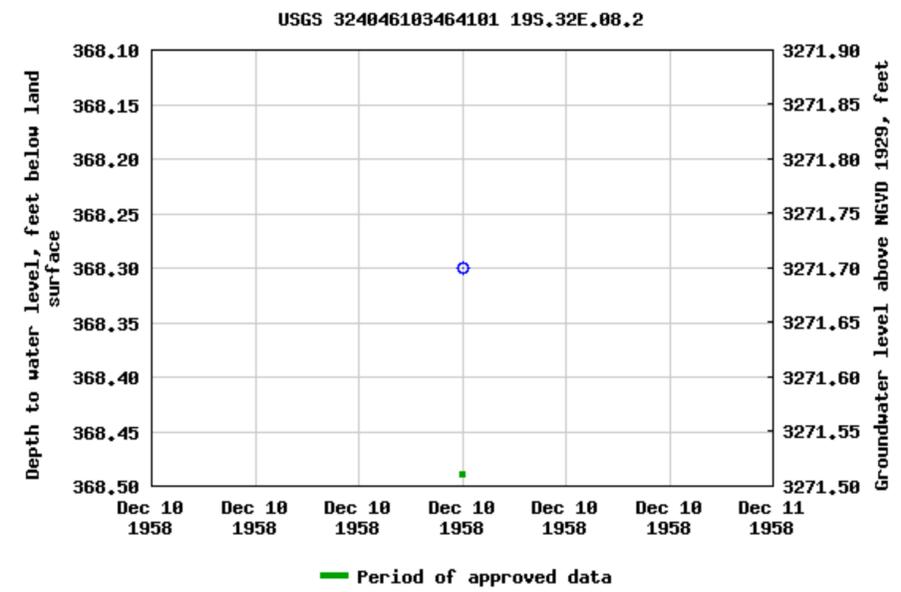
### USGS 324046103464101 19S.32E.08.2

Available data for this site

Lea County, New Mexico  
 Hydrologic Unit Code 12080003  
 Latitude 32°40'42", Longitude 103°47'00" NAD27  
 Land-surface elevation 3,640 feet above NGVD29

#### Output formats

- Table\_of\_data
- Tab-separated\_data
- Graph\_of\_data
- Reselect\_period



Breaks in the plot represent a gap of at least one year between field measurements.  
[Download a presentation-quality graph](#)

- [Questions about sites/data?](#)
- [Feedback on this web site](#)
- [Automated retrievals](#)
- [Help](#)

- [Data Tips](#)
- [Explanation of terms](#)
- [Subscribe for system changes](#)
- [News](#)





# National Water Information System: Mapper

Help Info

Sites Map

Search

Surface-Water Sites

Groundwater Sites

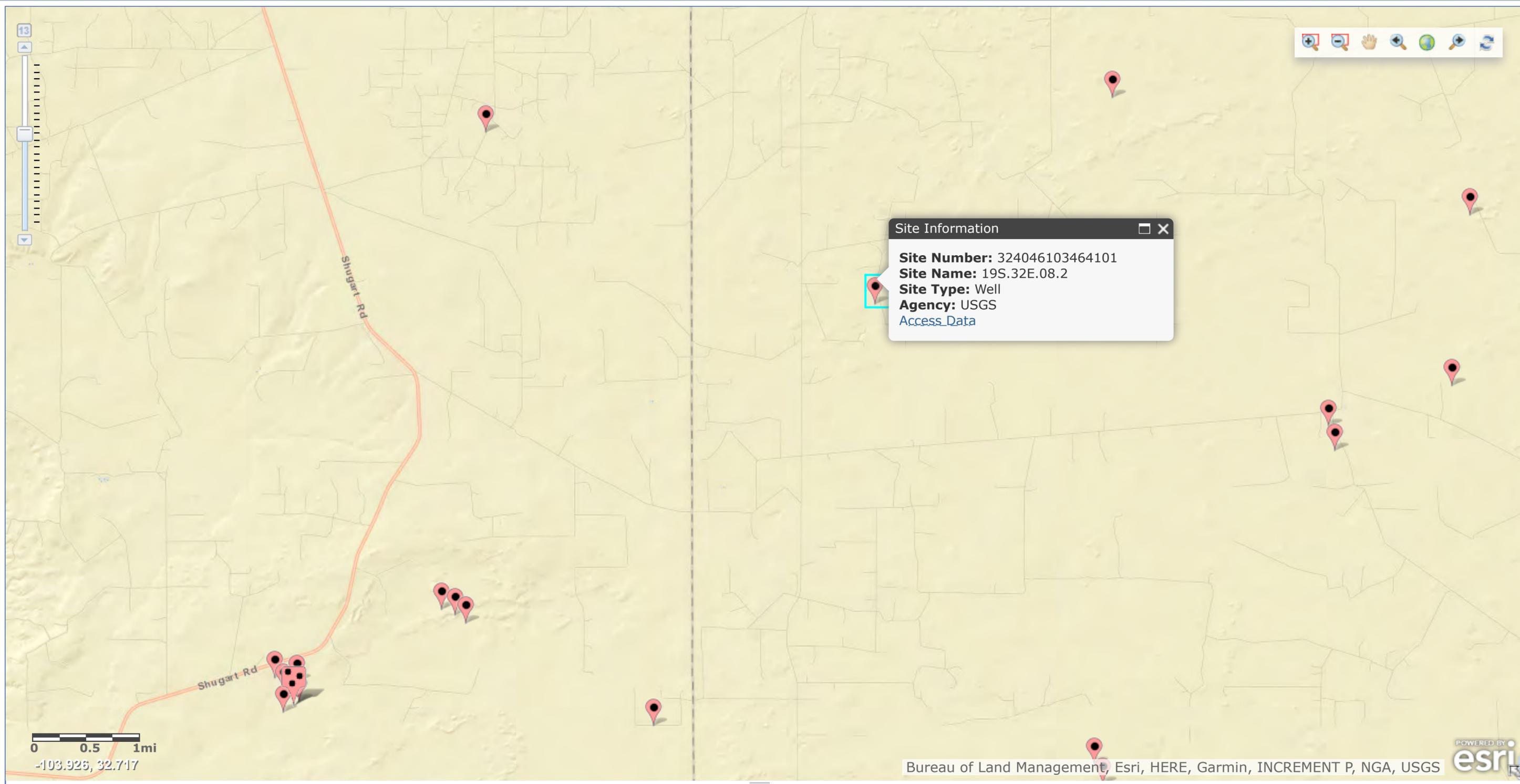
- Active Sites
  - Any data
  - Instantaneous data
  - Daily data
  - Water-quality data
  - Measurements
  - Annual Report
- Inactive Sites
  - Any data
  - Instantaneous data
  - Daily data
  - Water-quality data
  - Measurements
  - Annual Report

Springs

Atmospheric Sites

Other Sites

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# Devon Energy

Hawkeye 7 Fed #1  
API 30-025-00892  
Eddy County, NM  
Surface Water Map

**Legend**

-  5.61 Miles
-  Surface Water

Hawkeye 7 Fed #1



5.61 Miles



243

3 mi



Google Earth



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Appendix B  
Soil Survey & Geological Data:  
FEMA Flood Map

Map Unit Description: Simona fine sandy loam, 0 to 3 percent slopes---Lea County, New Mexico

## Lea County, New Mexico

### SE—Simona fine sandy loam, 0 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* dmr2  
*Elevation:* 3,000 to 4,200 feet  
*Mean annual precipitation:* 10 to 15 inches  
*Mean annual air temperature:* 58 to 62 degrees F  
*Frost-free period:* 190 to 205 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Simona and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Simona

##### Setting

*Landform:* Plains  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Calcareous eolian deposits derived from sedimentary rock

##### Typical profile

*A - 0 to 8 inches:* fine sandy loam  
*Bk - 8 to 16 inches:* gravelly fine sandy loam  
*Bkm - 16 to 26 inches:* cemented material

##### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* 7 to 20 inches to petrocalcic  
*Drainage class:* Well drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 35 percent  
*Gypsum, maximum content:* 1 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 2.0  
*Available water capacity:* Very low (about 2.0 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 6s

Map Unit Description: Simona fine sandy loam, 0 to 3 percent slopes---Lea County, New Mexico

---

*Land capability classification (nonirrigated): 7s*  
*Hydrologic Soil Group: D*  
*Ecological site: R042XC002NM - Shallow Sandy*  
*Hydric soil rating: No*

#### **Minor Components**

##### **Kimbrough**

*Percent of map unit: 8 percent*  
*Ecological site: R077CY037TX - Very Shallow 16-21" PZ*  
*Hydric soil rating: No*

##### **Lea**

*Percent of map unit: 7 percent*  
*Ecological site: R077CY028TX - Limy Upland 16-21" PZ*  
*Hydric soil rating: No*

### **Data Source Information**

Soil Survey Area: Lea County, New Mexico  
Survey Area Data: Version 17, Jun 8, 2020

# National Flood Hazard Layer FIRMette



103°49'1"W 32°40'25"N



USGS The National Map: Orthoimagery. Data refreshed April 2020

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## Legend

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

- SPECIAL FLOOD HAZARD AREAS**
  - Without Base Flood Elevation (BFE) Zone A, V, A99
  - With BFE or Depth Zone AE, AO, AH, VE, AR
  - Regulatory Floodway
- OTHER AREAS OF FLOOD HAZARD**
  - 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
- OTHER AREAS**
  - NO SCREEN Area of Minimal Flood Hazard Zone X
  - Effective LOMRs
  - Area of Undetermined Flood Hazard Zone D
- GENERAL STRUCTURES**
  - Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall
- OTHER FEATURES**
  - Cross Sections with 1% Annual Chance Water Surface Elevation
  - Coastal Transect
  - Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Feature
- MAP PANELS**
  - 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 8/6/2020 at 12:23 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 unmodernized areas cannot be used for regulatory purposes.



Pima Environmental Services

Appendix C

C-141's:

Initial

Final

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  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

### Release Notification and Corrective Action

#### OPERATOR

Initial Report  Final Report

Name of Company Devon Energy Production Company	Contact Hubert Perry	
Address 6488 Seven Rivers Hwy Artesia, NM 88210	Telephone No. 575-513-9637	
Facility Name Hawkeye 7 Federal 1	Facility Type Oil	
Surface Owner Federal	Mineral Owner Federal	API No. 30-025-00892

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	07	19S	32E					Lea

Latitude 32.66946 Longitude -103.81169 NAD83

#### NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 11.5 bbls	Volume Recovered 10 bbls
Source of Release Water tank	Date and Hour of Occurrence February 19, 2018 10:00 AM MST	Date and Hour of Discovery February 19, 2018 10:00 AM MST
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD-Olivia Yu BLM-Shelly Tucker	
By Whom? Mike Shoemaker	Date and Hour February 20, 2018 8:23 AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.\*  
N/A

RECEIVED

By Olivia Yu at 8:58 am, Mar 07, 2018

Describe Cause of Problem and Remedial Action Taken.\*  
The water tank overflowed causing produced water to be release into the unlined earthen berm SPCC containment. The water leg on the heater treater was shut off and isolated to prevent farther release.

Describe Area Affected and Cleanup Action Taken.\*  
Approximately 11.5 bbls of produced water was released from the water tank in an unlined earthen berm SPCC containment. A vacuum truck was dispatched and recovered approximately 10 bbls of produced water. An environmental contractor will be contacted to assist with delineation and remediation efforts.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: <i>Jennifer Reyna</i>	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Jennifer Reyna	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Field Admin Support	Approval Date: <span style="border: 1px solid red; padding: 2px;">3/7/2018</span>	Expiration Date:
E-mail Address: Jennifer.Reyna@dvn.com	Conditions of Approval: <span style="border: 1px solid red; padding: 2px;">see attached directive</span>	Attached <input checked="" type="checkbox"/>
Date: 2/23/2018 Phone: 575.746.5588		

\* Attach Additional Sheets If Necessary

1RP-4986

nOY1806632744

pOY1806632992

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 3/5/2018 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 1RP-4986 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

*The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]*

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 1 office in Hobbs on or before 4/7/2018. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

**Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.**

**Jim Griswold**

OCD Environmental Bureau Chief  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505  
505-476-3465  
jim.griswold@state.nm.us

# Hawkeye 7 Fed 1

11.5 bbls of Produced Water



This map is for illustrative purposes only and is neither a legally recorded map nor survey and is not intended to be used as one. Devon makes no warranty, representation, or guarantee of any kind regarding this map.

WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere  
Prepared by: Jennifer Reyna  
Map is current as of: 27-Feb-2018



Miles  
0 0.00 0.00 0.01 1:445

S7-T19S-R32E



11.5 bbls of PW

## 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?	_____ 102 (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 1/2-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

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

State of New Mexico  
Oil Conservation Division

Page 2

Incident ID	NOY18906632744
District RP	1RP-4986
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Tom Bynum Title: EHS Consultant  
 Signature: *Tom Bynum* Date: 10/12/2020  
 email: tom.bynum@dvn.com Telephone: 575-748-2663

**OCD Only**

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

State of New Mexico  
Oil Conservation Division

Incident ID	NOY18906632744
District RP	1RP-4986
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: Tom Bynum Title: EHS Consultant  
 Signature: *Tom Bynum* Date: 10/12/2020  
 email: tom.bynum@dvn.com Telephone: 575-748-2663

**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: \_\_\_\_\_



Pima Environmental Services

Appendix D:  
Laboratory Analysis



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

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August 04, 2020

CHRIS JONES

PIMA ENVIROMENTAL

1601 N TURNER STE. 500

HOBBS, NM 88240

RE: HAWKEYE 7 FED #1

Enclosed are the results of analyses for samples received by the laboratory on 07/31/20 13:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	07/31/2020	Sampling Date:	07/29/2020
Reported:	08/04/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	20869662	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: BG - 1 0' (H001981-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2020	ND	1.79	89.7	2.00	1.26	
Toluene*	<0.050	0.050	08/01/2020	ND	1.79	89.6	2.00	1.49	
Ethylbenzene*	<0.050	0.050	08/01/2020	ND	1.82	90.9	2.00	1.79	
Total Xylenes*	<0.150	0.150	08/01/2020	ND	5.26	87.7	6.00	1.76	
Total BTEX	<0.300	0.300	08/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	08/04/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2020	ND	201	101	200	12.1	
<b>DRO &gt;C10-C28*</b>	<b>105</b>	10.0	08/01/2020	ND	192	95.9	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	08/01/2020	ND					

Surrogate: 1-Chlorooctane 80.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.7 % 42.2-156

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:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	07/31/2020	Sampling Date:	07/29/2020
Reported:	08/04/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	20869662	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: BG - 2 0' (H001981-02)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2020	ND	1.79	89.7	2.00	1.26	
Toluene*	<0.050	0.050	08/01/2020	ND	1.79	89.6	2.00	1.49	
Ethylbenzene*	<0.050	0.050	08/01/2020	ND	1.82	90.9	2.00	1.79	
Total Xylenes*	<0.150	0.150	08/01/2020	ND	5.26	87.7	6.00	1.76	
Total BTEX	<0.300	0.300	08/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	08/04/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2020	ND	201	101	200	12.1	
DRO >C10-C28*	<10.0	10.0	08/01/2020	ND	192	95.9	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	08/01/2020	ND					

Surrogate: 1-Chlorooctane 90.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.0 % 42.2-156

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:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	07/31/2020	Sampling Date:	07/29/2020
Reported:	08/04/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	20869662	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: BG - 3 0' (H001981-03)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2020	ND	1.79	89.7	2.00	1.26		
Toluene*	<0.050	0.050	08/01/2020	ND	1.79	89.6	2.00	1.49		
Ethylbenzene*	<0.050	0.050	08/01/2020	ND	1.82	90.9	2.00	1.79		
Total Xylenes*	<0.150	0.150	08/01/2020	ND	5.26	87.7	6.00	1.76		
Total BTEX	<0.300	0.300	08/01/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 92.8 % 73.3-129

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	08/04/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/01/2020	ND	201	101	200	12.1		
DRO >C10-C28*	<10.0	10.0	08/01/2020	ND	192	95.9	200	12.3		
EXT DRO >C28-C36	<10.0	10.0	08/01/2020	ND						

Surrogate: 1-Chlorooctane 92.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.4 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	07/31/2020	Sampling Date:	07/29/2020
Reported:	08/04/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	20869662	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: S - 1 0-6" (H001981-04)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2020	ND	1.79	89.7	2.00	1.26	
Toluene*	<0.050	0.050	08/01/2020	ND	1.79	89.6	2.00	1.49	
Ethylbenzene*	<0.050	0.050	08/01/2020	ND	1.82	90.9	2.00	1.79	
Total Xylenes*	<0.150	0.150	08/01/2020	ND	5.26	87.7	6.00	1.76	
Total BTEX	<0.300	0.300	08/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1380	16.0	08/04/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2020	ND	201	101	200	12.1	
DRO >C10-C28*	<10.0	10.0	08/01/2020	ND	192	95.9	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	08/01/2020	ND					

Surrogate: 1-Chlorooctane 81.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 83.5 % 42.2-156

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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:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	07/31/2020	Sampling Date:	07/29/2020
Reported:	08/04/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	20869662	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: S - 2 0-6" (H001981-05)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2020	ND	1.79	89.7	2.00	1.26	
Toluene*	<0.050	0.050	08/01/2020	ND	1.79	89.6	2.00	1.49	
Ethylbenzene*	<0.050	0.050	08/01/2020	ND	1.82	90.9	2.00	1.79	
Total Xylenes*	<0.150	0.150	08/01/2020	ND	5.26	87.7	6.00	1.76	
Total BTEX	<0.300	0.300	08/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.4 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>2360</b>	16.0	08/04/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/01/2020	ND	201	101	200	12.1	
DRO >C10-C28*	<10.0	10.0	08/01/2020	ND	192	95.9	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	08/01/2020	ND					

Surrogate: 1-Chlorooctane 91.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 92.9 % 42.2-156

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:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	07/31/2020	Sampling Date:	07/29/2020
Reported:	08/04/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	20869662	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: S - 2 1' (H001981-06)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/01/2020	ND	1.79	89.7	2.00	1.26		
Toluene*	<0.050	0.050	08/01/2020	ND	1.79	89.6	2.00	1.49		
Ethylbenzene*	<0.050	0.050	08/01/2020	ND	1.82	90.9	2.00	1.79		
Total Xylenes*	<0.150	0.150	08/01/2020	ND	5.26	87.7	6.00	1.76		
Total BTEX	<0.300	0.300	08/01/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	560	16.0	08/04/2020	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/01/2020	ND	201	101	200	12.1		
DRO >C10-C28*	<10.0	10.0	08/01/2020	ND	192	95.9	200	12.3		
EXT DRO >C28-C36	<10.0	10.0	08/01/2020	ND						

Surrogate: 1-Chlorooctane 96.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 98.5 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	07/31/2020	Sampling Date:	07/29/2020
Reported:	08/04/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	20869662	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: S - 2 2' (H001981-07)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2020	ND	1.79	89.7	2.00	1.26	
Toluene*	<0.050	0.050	08/01/2020	ND	1.79	89.6	2.00	1.49	
Ethylbenzene*	<0.050	0.050	08/01/2020	ND	1.82	90.9	2.00	1.79	
Total Xylenes*	<0.150	0.150	08/01/2020	ND	5.26	87.7	6.00	1.76	
Total BTEX	<0.300	0.300	08/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	720	16.0	08/04/2020	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/03/2020	ND	197	98.5	200	6.64	
DRO >C10-C28*	<10.0	10.0	08/03/2020	ND	202	101	200	8.14	
EXT DRO >C28-C36	<10.0	10.0	08/03/2020	ND					

Surrogate: 1-Chlorooctane 89.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 91.7 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	07/31/2020	Sampling Date:	07/29/2020
Reported:	08/04/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	20869662	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: S - 2 3' (H001981-08)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2020	ND	1.79	89.7	2.00	1.26	
Toluene*	<0.050	0.050	08/01/2020	ND	1.79	89.6	2.00	1.49	
Ethylbenzene*	<0.050	0.050	08/01/2020	ND	1.82	90.9	2.00	1.79	
Total Xylenes*	<0.150	0.150	08/01/2020	ND	5.26	87.7	6.00	1.76	
Total BTEX	<0.300	0.300	08/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	880	16.0	08/04/2020	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/03/2020	ND	197	98.5	200	6.64	
DRO >C10-C28*	<10.0	10.0	08/03/2020	ND	202	101	200	8.14	
EXT DRO >C28-C36	<10.0	10.0	08/03/2020	ND					

Surrogate: 1-Chlorooctane 91.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 93.0 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	07/31/2020	Sampling Date:	07/29/2020
Reported:	08/04/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	20869662	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: S - 4 0-6" (H001981-09)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2020	ND	1.79	89.7	2.00	1.26	
Toluene*	<0.050	0.050	08/01/2020	ND	1.79	89.6	2.00	1.49	
Ethylbenzene*	<0.050	0.050	08/01/2020	ND	1.82	90.9	2.00	1.79	
Total Xylenes*	<0.150	0.150	08/01/2020	ND	5.26	87.7	6.00	1.76	
Total BTEX	<0.300	0.300	08/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	08/04/2020	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/03/2020	ND	197	98.5	200	6.64	
DRO >C10-C28*	<10.0	10.0	08/03/2020	ND	202	101	200	8.14	
EXT DRO >C28-C36	<10.0	10.0	08/03/2020	ND					

Surrogate: 1-Chlorooctane 85.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.1 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	07/31/2020	Sampling Date:	07/29/2020
Reported:	08/04/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	20869662	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: S - 5 0-6" (H001981-10)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/01/2020	ND	1.79	89.7	2.00	1.26	
Toluene*	<0.050	0.050	08/01/2020	ND	1.79	89.6	2.00	1.49	
Ethylbenzene*	<0.050	0.050	08/01/2020	ND	1.82	90.9	2.00	1.79	
Total Xylenes*	<0.150	0.150	08/01/2020	ND	5.26	87.7	6.00	1.76	
Total BTEX	<0.300	0.300	08/01/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.9 % 73.3-129

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	08/04/2020	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/03/2020	ND	197	98.5	200	6.64	
DRO >C10-C28*	<10.0	10.0	08/03/2020	ND	202	101	200	8.14	
EXT DRO >C28-C36	<10.0	10.0	08/03/2020	ND					

Surrogate: 1-Chlorooctane 94.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.7 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	07/31/2020	Sampling Date:	07/29/2020
Reported:	08/04/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	20869662	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: S - 5 1' (H001981-11)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/03/2020	ND	1.97	98.4	2.00	2.40		
Toluene*	<0.050	0.050	08/03/2020	ND	1.97	98.7	2.00	2.38		
Ethylbenzene*	<0.050	0.050	08/03/2020	ND	2.01	100	2.00	2.53		
Total Xylenes*	<0.150	0.150	08/03/2020	ND	5.80	96.6	6.00	2.47		
Total BTEX	<0.300	0.300	08/03/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 73.3-129

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	08/04/2020	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/03/2020	ND	197	98.5	200	6.64		
DRO >C10-C28*	<10.0	10.0	08/03/2020	ND	202	101	200	8.14		
EXT DRO >C28-C36	<10.0	10.0	08/03/2020	ND						

Surrogate: 1-Chlorooctane 96.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 98.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	07/31/2020	Sampling Date:	07/29/2020
Reported:	08/04/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	20869662	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: S - 5 2' (H001981-12)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	08/03/2020	ND	1.97	98.4	2.00	2.40		
Toluene*	<0.050	0.050	08/03/2020	ND	1.97	98.7	2.00	2.38		
Ethylbenzene*	<0.050	0.050	08/03/2020	ND	2.01	100	2.00	2.53		
Total Xylenes*	<0.150	0.150	08/03/2020	ND	5.80	96.6	6.00	2.47		
Total BTEX	<0.300	0.300	08/03/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 73.3-129

Chloride, SM4500Cl-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	08/04/2020	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/03/2020	ND	197	98.5	200	6.64		
DRO >C10-C28*	<10.0	10.0	08/03/2020	ND	202	101	200	8.14		
EXT DRO >C28-C36	<10.0	10.0	08/03/2020	ND						

Surrogate: 1-Chlorooctane 95.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 96.9 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	07/31/2020	Sampling Date:	07/29/2020
Reported:	08/04/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	20869662	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: S - 3 0-6" (H001981-13)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/03/2020	ND	1.97	98.4	2.00	2.40	
Toluene*	<0.050	0.050	08/03/2020	ND	1.97	98.7	2.00	2.38	
Ethylbenzene*	<0.050	0.050	08/03/2020	ND	2.01	100	2.00	2.53	
Total Xylenes*	<0.150	0.150	08/03/2020	ND	5.80	96.6	6.00	2.47	
Total BTEX	<0.300	0.300	08/03/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>7330</b>	16.0	08/04/2020	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	08/03/2020	ND	197	98.5	200	6.64		
<b>DRO &gt;C10-C28*</b>	<b>7670</b>	10.0	08/03/2020	ND	202	101	200	8.14		
<b>EXT DRO &gt;C28-C36</b>	<b>1910</b>	10.0	08/03/2020	ND						

Surrogate: 1-Chlorooctane 87.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 417 % 42.2-156

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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.
QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference.
QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD.
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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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager







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

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September 17, 2020

CHRIS JONES

PIMA ENVIROMENTAL

1601 N TURNER STE. 500

HOBBS, NM 88240

RE: HAWKEYE 7 FED #1

Enclosed are the results of analyses for samples received by the laboratory on 09/11/20 16:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	09/11/2020	Sampling Date:	09/08/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	35	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: N BOTTOM (H002425-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>528</b>	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.5	200	12.8	
<b>DRO &gt;C10-C28*</b>	<b>14.3</b>	10.0	09/14/2020	ND	171	85.3	200	8.54	QR-03
EXT DRO >C28-C36	<10.0	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane 98.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 110 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	09/11/2020	Sampling Date:	09/08/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	35	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: N SIDE (H002425-02)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88		
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16		
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80		
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74		
Total BTEX	<0.300	0.300	09/14/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	912	16.0	09/14/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.5	200	12.8		
DRO >C10-C28*	<10.0	10.0	09/14/2020	ND	171	85.3	200	8.54		
EXT DRO >C28-C36	<10.0	10.0	09/14/2020	ND						

Surrogate: 1-Chlorooctane 96.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 108 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	09/11/2020	Sampling Date:	09/08/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	35	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: E BOTTOM (H002425-03)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1380</b>	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.5	200	12.8	
<b>DRO &gt;C10-C28*</b>	<b>89.4</b>	10.0	09/14/2020	ND	171	85.3	200	8.54	
<b>EXT DRO &gt;C28-C36</b>	<b>44.3</b>	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane 93.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 115 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	09/11/2020	Sampling Date:	09/08/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	35	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: E SIDE (H002425-04)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1420</b>	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/15/2020	ND	165	82.5	200	12.8	
<b>DRO &gt;C10-C28*</b>	<b>16.6</b>	10.0	09/15/2020	ND	171	85.3	200	8.54	
<b>EXT DRO &gt;C28-C36</b>	<b>11.0</b>	10.0	09/15/2020	ND					

Surrogate: 1-Chlorooctane 97.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 109 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	09/11/2020	Sampling Date:	09/08/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	35	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: S BOTTOM (H002425-05)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.98	99.1	2.00	5.50	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	5.63	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	1.99	99.5	2.00	5.50	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.74	95.7	6.00	5.35	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>928</b>	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/15/2020	ND	165	82.5	200	12.8	
<b>DRO &gt;C10-C28*</b>	<b>557</b>	10.0	09/15/2020	ND	171	85.3	200	8.54	
<b>EXT DRO &gt;C28-C36</b>	<b>160</b>	10.0	09/15/2020	ND					

Surrogate: 1-Chlorooctane 102 % 44.3-144

Surrogate: 1-Chlorooctadecane 114 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	09/11/2020	Sampling Date:	09/08/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	35	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: S SIDE (H002425-06)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.98	99.1	2.00	5.50	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	5.63	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	1.99	99.5	2.00	5.50	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.74	95.7	6.00	5.35	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1760</b>	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.5	200	12.8	
<b>DRO &gt;C10-C28*</b>	<b>154</b>	10.0	09/14/2020	ND	171	85.3	200	8.54	
<b>EXT DRO &gt;C28-C36</b>	<b>56.0</b>	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane 92.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 123 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	09/11/2020	Sampling Date:	09/08/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	35	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: W BOTTOM (H002425-07)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.98	99.1	2.00	5.50	
<b>Toluene*</b>	<b>0.065</b>	0.050	09/14/2020	ND	2.00	100	2.00	5.63	
<b>Ethylbenzene*</b>	<b>0.156</b>	0.050	09/14/2020	ND	1.99	99.5	2.00	5.50	
<b>Total Xylenes*</b>	<b>0.580</b>	0.150	09/14/2020	ND	5.74	95.7	6.00	5.35	
<b>Total BTEX</b>	<b>0.801</b>	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1250</b>	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10*</b>	<b>21.5</b>	10.0	09/15/2020	ND	165	82.5	200	12.8		
<b>DRO &gt;C10-C28*</b>	<b>2630</b>	10.0	09/15/2020	ND	171	85.3	200	8.54		
<b>EXT DRO &gt;C28-C36</b>	<b>675</b>	10.0	09/15/2020	ND						

Surrogate: 1-Chlorooctane 99.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 191 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	09/11/2020	Sampling Date:	09/08/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	Cool & Intact
Project Number:	35	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: W SIDE (H002425-08)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.98	99.1	2.00	5.50	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	5.63	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	1.99	99.5	2.00	5.50	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.74	95.7	6.00	5.35	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1920</b>	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/15/2020	ND	165	82.5	200	12.8	
<b>DRO &gt;C10-C28*</b>	<b>31.1</b>	10.0	09/15/2020	ND	171	85.3	200	8.54	
<b>EXT DRO &gt;C28-C36</b>	<b>20.0</b>	10.0	09/15/2020	ND					

Surrogate: 1-Chlorooctane 97.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 111 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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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.
QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
\*\* Samples not received at proper temperature of 6°C or below.
\*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager





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October 05, 2020

CHRIS JONES

PIMA ENVIROMENTAL

1601 N TURNER STE. 500

HOBBS, NM 88240

RE: HAWKEYE 7 FED #1

Enclosed are the results of analyses for samples received by the laboratory on 09/30/20 16:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

PIMA ENVIROMENTAL  
 CHRIS JONES  
 1601 N TURNER STE. 500  
 HOBBS NM, 88240  
 Fax To:

Received:	09/30/2020	Sampling Date:	09/29/2020
Reported:	10/05/2020	Sampling Type:	Soil
Project Name:	HAWKEYE 7 FED #1	Sampling Condition:	** (See Notes)
Project Number:	35	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

**Sample ID: WEST BOTTOM (H002592-01)**

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	10/01/2020	ND	205	103	200	5.24	
DRO >C10-C28*	<10.0	10.0	10/01/2020	ND	192	96.2	200	2.77	
EXT DRO >C28-C36	<10.0	10.0	10/01/2020	ND					
<hr/>									
Surrogate: 1-Chlorooctane	102 %	44.3-144							
Surrogate: 1-Chlorooctadecane	92.7 %	42.2-156							

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\*=Accredited Analyte

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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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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager





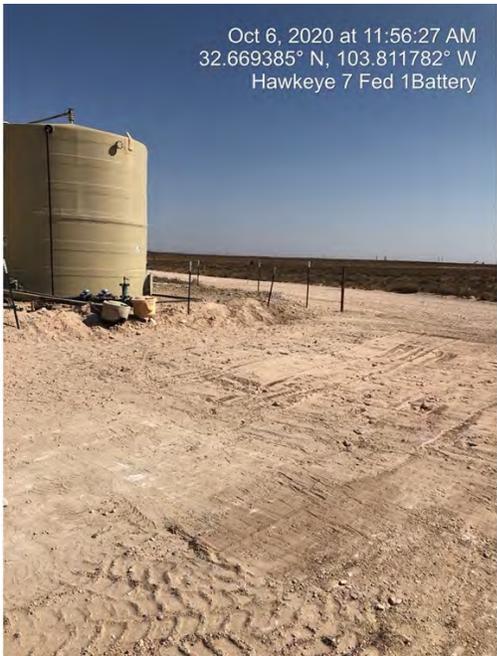
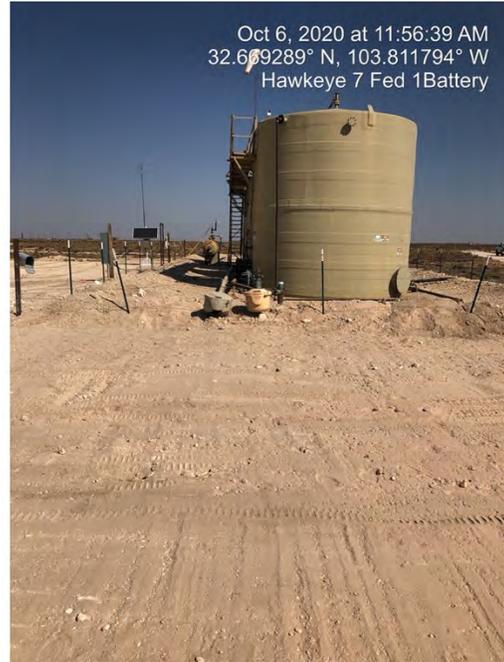
Pima Environmental Services

Appendix E:  
Photographic Documentation

### Excavation



Completed



Incident ID	NOY18906632744
District RP	1RP-4986
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: Tom Bynum Title: EHS Consultant  
 Signature: *Tom Bynum* Date: 10/12/2020  
 email: tom.bynum@dvn.com Telephone: 575-748-2663

**OCD Only**

Received by: Robert Hamlet Date: 3/26/2021

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: 3/26/2021

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

**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 10840

**CONDITIONS OF APPROVAL**

Operator: PIMA ENVIRONMENTAL SERVICES, L Suite 500 Hobbs, NM88240	1601 N. Turner	OGRID: 329999	Action Number: 10840	Action Type: C-141
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OCD Reviewer	Condition
rhamlet	We have received your closure report and final C-141 for Incident #NOY1806632744 HAWKEYE 7 FEDERAL 1, thank you. This closure is approved.