



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

September 9, 2020

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

Bureau of Land Management
Mr. Jim Amos
620 East Green Street
Carlsbad, NM 88220

Re: Site Remediation and Closure Report
Rigel 20 Fed Com #3H
API No. 30-015-39725
GPS: Latitude 32.6431353 Longitude -103.898920
UL "L", Sec. 20, T19S, R31E
Eddy County, NM
NMOCD Ref. No. 2RP-2960; 2RP-4452; 2RP-5429

Dear Mr. Bratcher and Mr. Amos,

Pima Environmental Services, LLC (Pima) has been contracted by Devon Energy Production Company (Devon) to perform a spill assessment and to perform remediation activities for an oil release that occurred at the Rigel 20 Fed Com #3H (Rigel). The initial C-141's were submitted on (Appendix C). These incidents were assigned 2RP-2960, Incident ID NAB1511038592, 2RP-4452, Incident ID NAB1729752650, and 2RP-5429, incident ID NAB1914044657 by the New Mexico Oil Conservation Division (NMOCD).

Site Characterization

The Rigel is located approximately twenty-five (25) miles northeast of Carlsbad, NM. This spill site is in Unit L, Section 20, Township 19S, Range 31E, Latitude 32.6431353, Longitude -103.898920, 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 Berino loamy fine sand, 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 Rigel (Figure 3).

According to the New Mexico Office of the State Engineer, depth to the nearest groundwater in this area is 180 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 the Hackberry Lake, located approximately 1.92 miles to the west of this location. See Appendix A for referenced water surveys.

Table 1 NMAC and Closure Criteria 19.15.29					
Depth to Groundwater (Appendix B)	Constituent & Limits				
	Chlorides	Total TPH	GRO+DRO	BTEX	Benzene
180'	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 300 feet of any continuously flowing watercourse or any other significant watercourse					x
Within 200 feet of any lakebed, sinkhole, or playa lake (measures from the ordinary high-water mark)					x
Within 300 feet from an occupied permanent residence, school, hospital, institution, or church					x
Within 500 feet of a spring or a private, domestic freshwater well used by less than five households for domestic or stock water purposes					x
Within 1000 feet of any freshwater well or spring					x
Within incorporated municipal boundaries or within a defined municipal freshwater well field					x
Within 300 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

2RP-2960: On April 14, 2015, the lease operator arrived on the location and discovered the vent tank was overflowing. The DCP line pressure had been high overnight and this caused the 2-phase separator back pressure valve to hang open and equalize the separator and heater treater and prevented them from dumping and caused a release of 75 barrels (bbls) of oil and produced water into the lined containment and 0.5 bbls of mixed fluids into the pasture. The pasture area affected was on the southwest of the location.

2RP-4452: On October 7, 2017, the supply gas line was opened to start the flare, the line had fluid built up inside and expelled from the flare causing the flare and trailer to catch on fire. The gas supply was immediately shut off and the fire was extinguished. Approximately 0.25 bbls of fluid were lost and no fluids were recovered, all fluids stayed on the location pad.

2RP-5429: On May 6, 2019, equipment malfunction caused tanks to run over. A calculated 103 bbls of produced water was released, all fluids stayed inside the engineered steel and poly lined containment. A vac truck was dispatched and recovered the 103 bbls of fluids.

Site Assessment and Soil Sampling Results

On July 27, 2020, Pima Environmental conducted a site assessment and obtained composite soil samples to verify that the liner had not been breached, and the integrity was still intact. Location and background samples were also obtained in the pasture to ensure that the fluids expelled into the pasture had not contaminated the soil. The laboratory results of this sampling event can be found in the following data table.

7-27-20 Soil Sample Results

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is >100')								
Sample Date 7-27-20		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
S-1 N. Composite	0-6"	ND	ND	ND	ND	ND	ND	1150
S-2 S. Composite	0-6"	ND	ND	ND	ND	ND	ND	1700
S-3 E. Composite	0-6"	ND	ND	ND	ND	ND	ND	96
S-4 W. Composite	0-6"	ND	ND	ND	646	164	810	9030
S-5	0-6"	ND	ND	ND	ND	ND	ND	4480
	1	ND	ND	ND	ND	ND	ND	1480
	2	ND	ND	ND	ND	ND	ND	976
	3	ND	ND	ND	ND	ND	ND	864
S-6	0-6"	ND	ND	ND	ND	ND	ND	224
	1	ND	ND	ND	ND	ND	ND	96
	2	ND	ND	ND	ND	ND	ND	128
	3	ND	ND	ND	ND	ND	ND	128
S-7	0-6"	ND	ND	ND	ND	ND	ND	48
	1	ND	ND	ND	ND	ND	ND	32
	2	ND	ND	ND	ND	ND	ND	32
	3	ND	ND	ND	ND	ND	ND	16
BG-1	0	ND	ND	ND	ND	ND	ND	320
BG-3	0	ND	ND	ND	ND	ND	ND	ND
BG-4	0	ND	ND	ND	ND	ND	ND	ND
BG-5	0	ND	ND	ND	ND	ND	ND	ND
BG-6	0	ND	ND	ND	ND	ND	ND	32
BG-7	0	ND	ND	ND	ND	ND	ND	ND
BG-8	0	ND	ND	ND	ND	ND	ND	64

ND- Analyte Not Detected

Complete Laboratory Reports are attached in Appendix C.

Remediation Activities

The sample results were below NMOCD Closure Criteria 19.15.29 NMAC. Based on these findings, no remediation activities were needed at this location.

Closure Request

After careful review, Pima requests that these incidents, NAB1511038592, NAB1729752650, and NAB1914044657, be closed. Devon has complied with the applicable closure requirements.

Should you have any questions or need additional information, please feel free to contact Chris Jones at 575-964-7740 or 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- Photographic Documentation
- Appendix E- Laboratory Reports



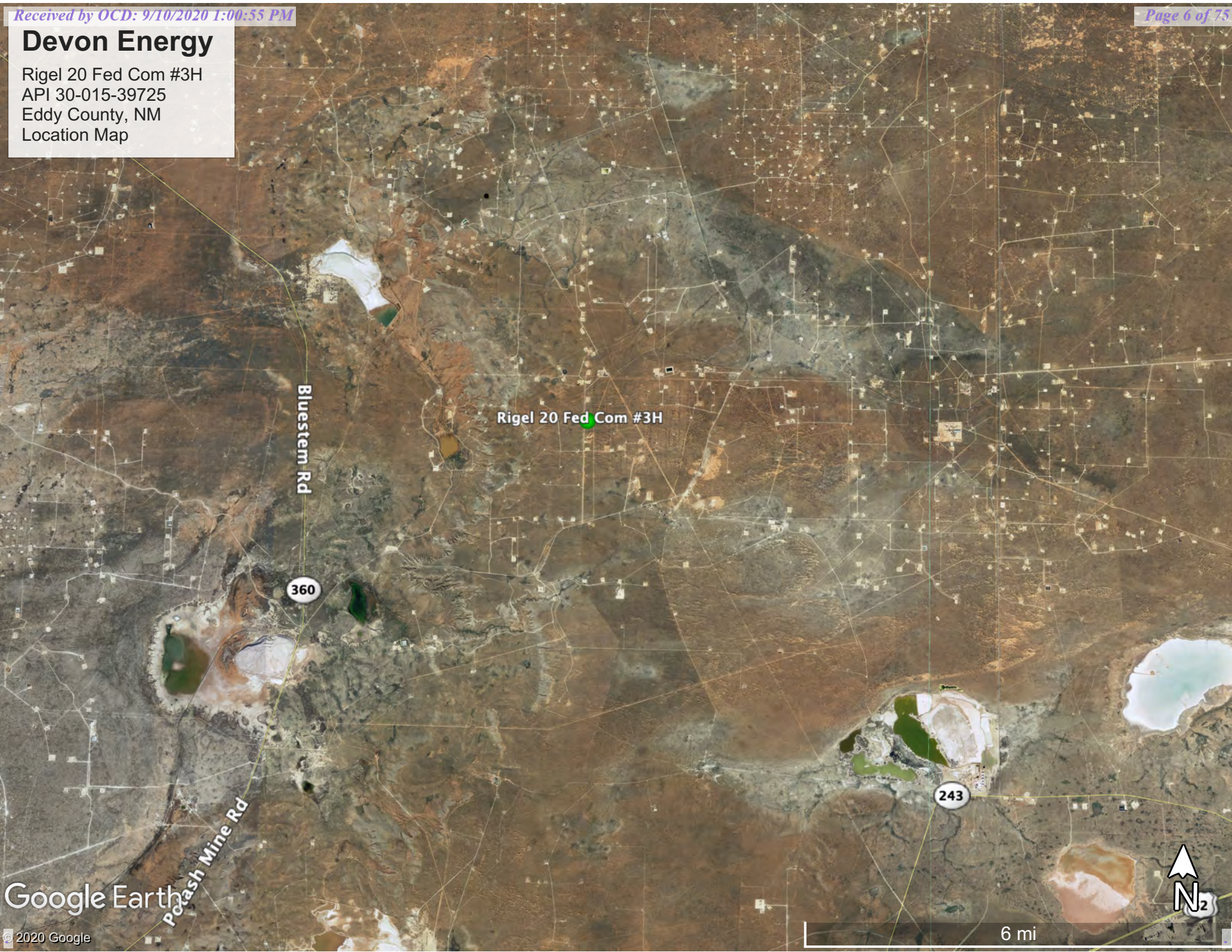
Pima Environmental Services

Figures:

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

Devon Energy

Rigel 20 Fed Com #3H
API 30-015-39725
Eddy County, NM
Location Map



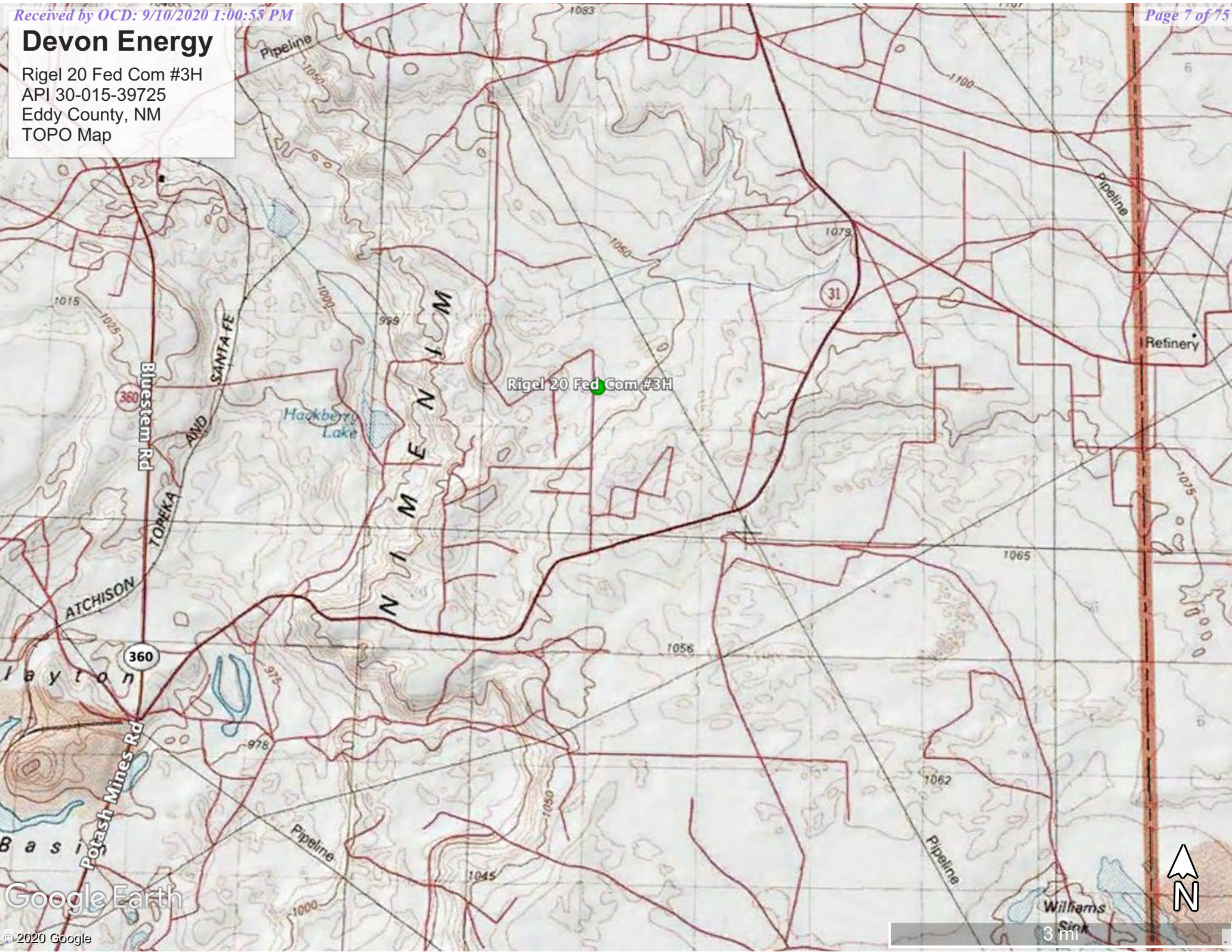
Google Earth

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Devon Energy

Rigel 20 Fed Com #3H
API 30-015-39725
Eddy County, NM
TOPO Map



Devon Energy

Rigel 20 Fed Com #3H
API 30-015-39725
Eddy County, NM
Karst Map

- Legend**
- High
 - Low
 - Medium

Bluestem Rd

Rigel 20 Fed Com #3H

Potash Mines Rd

Google Earth



4 mi

Devon Energy

Rigel 20 Fed Com #3H
API 30-015-39725
Eddy County, NM
Site Map

Legend

○ Samples



200 ft



Pima Environmental Services

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														Water
POD Number	Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Column	
CP 00873 POD1		CP	LE	1	1	19	19S	31E		601772	3613147*	1486	340	180	160	
CP 00357 POD1		CP	ED	4	4	1	24	19S	30E	600667	3612631*	2661	630			

Average Depth to Water: 180 feet

Minimum Depth: 180 feet

Maximum Depth: 180 feet

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 603254.858

Northing (Y): 3613251.412

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.



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 00873 POD1	1	1	19	19S	31E	601772	3613147*	

Driller License:	421	Driller Company:	GLENN'S WATER WELL SERVICE
Driller Name:	GLENN, CLARK A."CORKY"		
Drill Start Date:	01/02/1998	Drill Finish Date:	01/05/1998
Log File Date:	01/15/1998	PCW Rcv Date:	
Pump Type:		Pipe Discharge Size:	
Casing Size:	6.62	Depth Well:	340 feet
Plug Date:		Estimated Yield:	50 GPM
Source:	Shallow	Depth Water:	180 feet

Water Bearing Stratifications:	Top	Bottom	Description
	240	320	Shallow Alluvium/Basin Fill

Casing Perforations:	Top	Bottom
	226	340

Meter Number:	805	Meter Make:	MASTER
Meter Serial Number:	1748543	Meter Multiplier:	100.0000
Number of Dials:	6	Meter Type:	Diversion
Unit of Measure:	Gallons	Return Flow Percent:	
Usage Multiplier:		Reading Frequency:	Monthly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
01/01/1999	1999	37400	A	fm			0
01/15/1999	1999	43541	A	fm			1.885
04/27/2000	2000	14849	R	jw	Meter Rollover		298.083
07/31/2000	2000	24399	A	jw			2.931

**YTD Meter Amounts:	Year	Amount
	1999	1.885
	2000	301.014

*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.



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

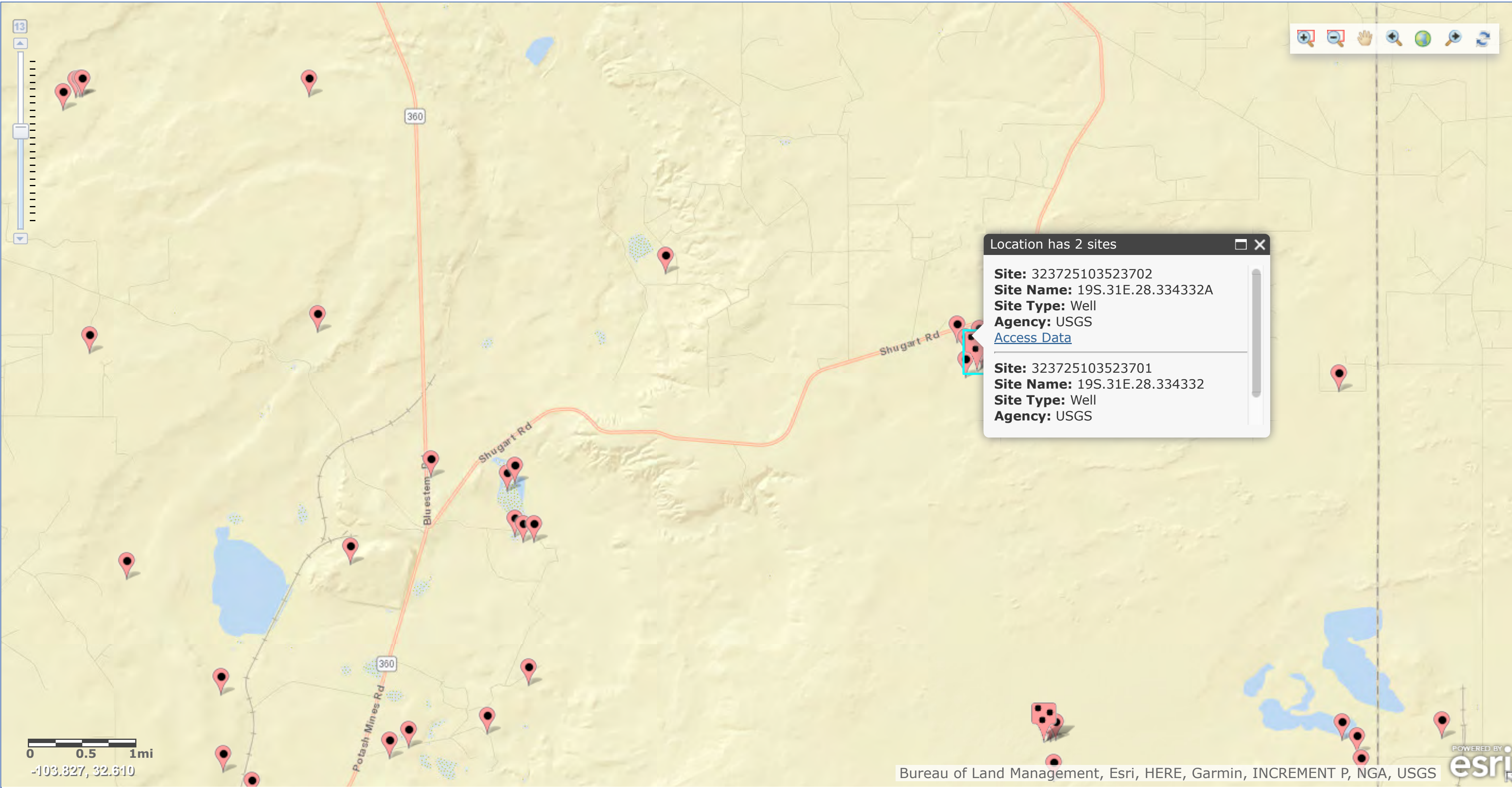
☐ Measurements

☐ Annual Report

Springs

Atmospheric Sites

Other Sites



Site Information

National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

- 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 =

- 323725103523702

Minimum number of levels = 1

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

USGS 323725103523702 19S.31E.28.334332A

Available data for this site Groundwater: Field measurements GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°37'25", Longitude 103°52'37" NAD27
Land-surface elevation 3,450 feet above NAVD88
The depth of the well is 190 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

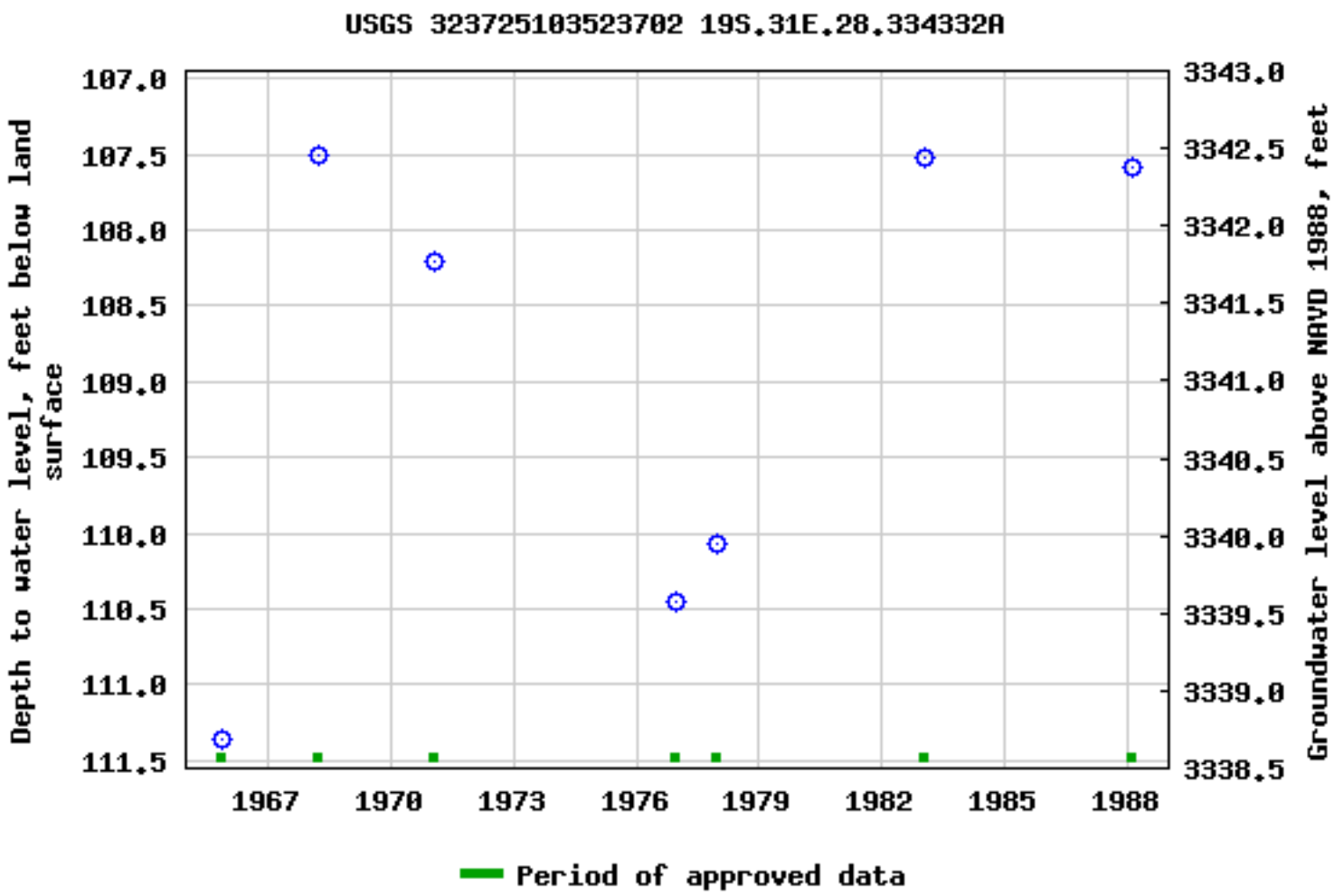
Output formats

Table of data

Tab-separated data

Graph of data

Reselect period



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



[Questions about sites/data?](#)
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[Automated retrievals](#)
[Help](#)

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

Devon Energy

Rigel 20 Fed Com #3H
API 30-015-39725
Eddy County, NM
Surface Water Map

Legend

-  1.92 Mile
-  Surface Water

Rigel 20 Fed Com #3H

1.92 Mile



1 mi



Pima Environmental Services

Appendix B
Soil Survey & Geological Data:
USDA

Qep

Eolian and piedmont deposits (Holocene to middle Pleistocene)—
Interlayered eolian sands and piedmont–slope deposits along the eastern
flank of the Pecos River valley, primarily between Roswell and Carlsbad.
Typically capped by thin eolian deposits

Map Unit Description: Berino loamy fine sand, 0 to 3 percent slopes---Eddy Area, New Mexico

Eddy Area, New Mexico

BA—Berino loamy fine sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w42

Elevation: 2,000 to 5,700 feet

Mean annual precipitation: 6 to 14 inches

Mean annual air temperature: 57 to 70 degrees F

Frost-free period: 180 to 260 days

Farmland classification: Not prime farmland

Map Unit Composition

Berino and similar soils: 99 percent

Minor components: 1 percent

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

Description of Berino

Setting

Landform: Fan piedmonts, plains

Landform position (three-dimensional): Riser

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 12 inches: loamy fine sand

H2 - 12 to 58 inches: sandy clay loam

H3 - 58 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat):

Moderately high to high (0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 40 percent

Salinity, maximum in profile: Very slightly saline to slightly saline
(2.0 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 1.0

Available water storage in profile: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: B

Map Unit Description: Berino loamy fine sand, 0 to 3 percent slopes---Eddy Area, New Mexico

Ecological site: Loamy (R042XC007NM)

Hydric soil rating: No

Minor Components

Pajarito

Percent of map unit: 1 percent

Ecological site: Loamy Sand (R042XC003NM)

Hydric soil rating: No

Data Source Information

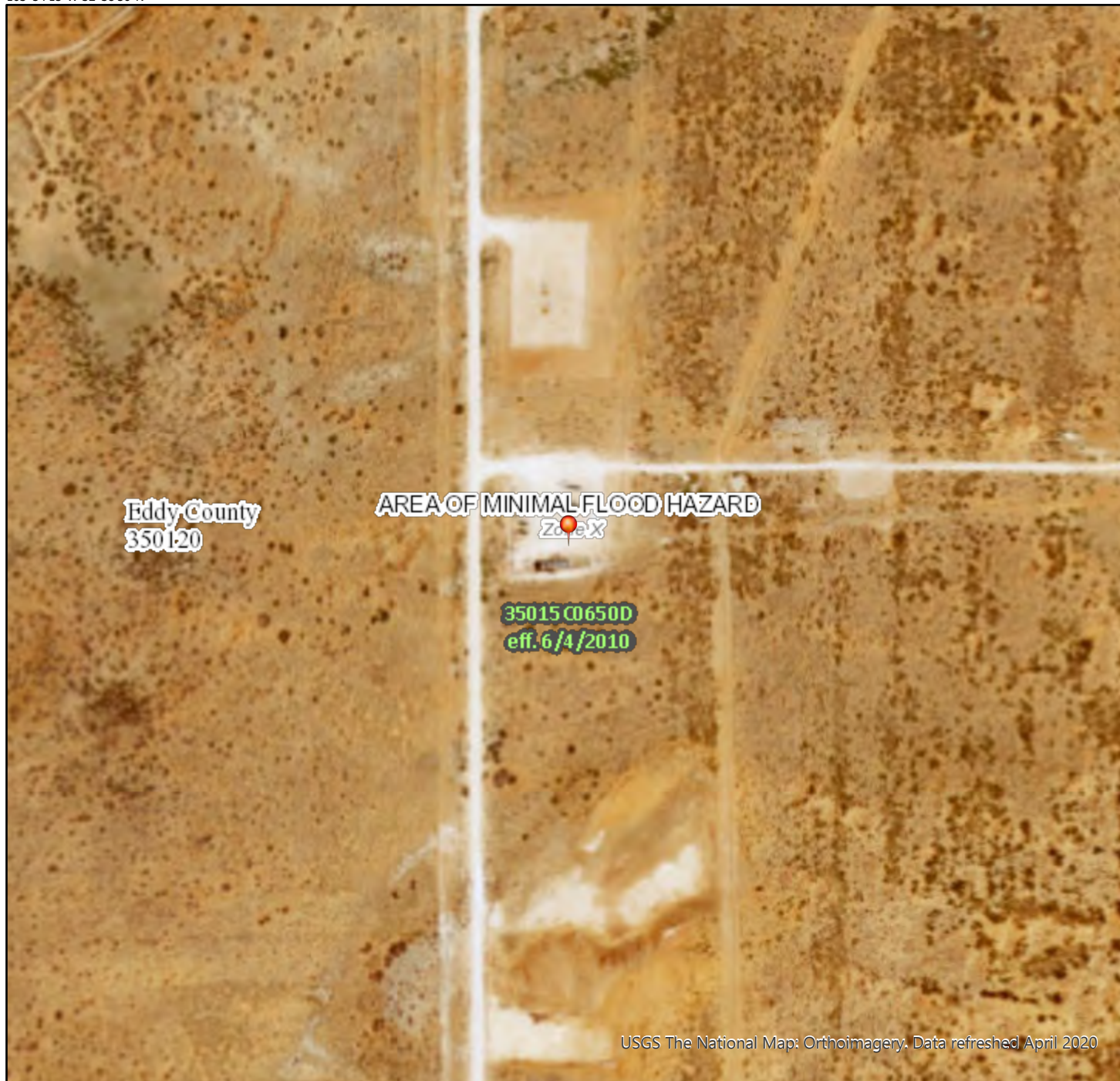
Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 16, Jun 8, 2020

National Flood Hazard Layer FIRMette



103°54'15"W 32°38'50"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

103°53'37"W 32°38'20"N

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		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		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 9/9/2020 at 4:30 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

ARTESIA DISTRICT

APR 17 2015

Form C-141
Revised August 8, 2011Submit 1 Copy to appropriate District Office in
conformance with 19.15.29 NMAC.

RECEIVED

Release Notification and Corrective Action

NAB151038592

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Devon Energy Production	Contact Rudy Zuniga, Production Foreman
Address 6488 Seven Rivers Hwy Artesia, NM 88220	Telephone No. 575-390-5435
Facility Name Rigel 20 Fed 3H	Facility Type Oil

Surface Owner Federal	Mineral Owner Federal	API No. 30-015-39725
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	20	19S	31E	1800	FSL	330	FWL	Eddy

Latitude: 32.6435781°N

Longitude: 103.8989164°W

NATURE OF RELEASE

Type of Release Spill of Oil/Produced Water	Volume of Release 75.5bbls	Volume Recovered 75bbls
Source of Release 2-Phase Separator	Date and Hour of Occurrence April 14, 2015 9:00AM	Date and Hour of Discovery April 14, 2015 9:00 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jeff Robertson, BLM Mike Bratcher, OCD	
By Whom? Ray Carter, Asst. Production Foreman	Date and Hour Jeff Robertson, BLM April 14, 2015 10:30 AM Mike Bratcher, OCD April 14, 2015 11:00 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		

Describe Cause of Problem and Remedial Action Taken.*

On April 14, 2105 9:00 AM the Lease Operator arrived at the Rigel 20 Fed 3H and discovered the vent tank was over flowing. The DCP line psi had been high overnight and this caused the 2-Phase Production Separator back psi valve to hang open and equalize the 2-Phase Separator and Heater Treator this would not allow the 2-Phase to dump into the Heater Treator and caused a release of 75bbls of oil and produced water mixture into the lined containment and a 1/2bbl oil and produced water mist into the pasture.

Describe Area Affected and Cleanup Action Taken.*

The 75bbls was in a lined containment and all 75bbls were recovered by vac truck. The pasture area was a 20x150 area to the Southwest of the location with 1/2bbl mist from the back psi valve on the 2-phase separator this will be raked up and pressure washed with Dawn soap. The liner was checked for holes and no holes were found.

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: Sheila Fisher	OIL CONSERVATION DIVISION	
Printed Name: Sheila Fisher	Signed By <i>Mike Bratcher</i>	
Title: Field Admin Support	Approved by Environmental Specialist:	
E-mail Address: Sheila.Fisher@dvn.com	Approval Date: 4/20/15	Expiration Date: N/A
Date: 4/17/15	Conditions of Approval:	
Phone: 575.748.1829	Remediation per O.C.D. Rules & Guidelines	
	SUBMIT REMEDIATION PROPOSAL NO	
	LATER THAN: 5/20/15	

Attached ☐

* Attach Additional Sheets If Necessary

2RP-2960

Bratcher, Mike, EMNRD

From: Fisher, Sheila <Sheila.Fisher@dvn.com>
Sent: Friday, April 17, 2015 2:50 PM
To: Bratcher, Mike, EMNRD; Patterson, Heather, EMNRD
Cc: Harris, Jacqui
Subject: Rigel 20 Fed Com 3H_75.5bbl Oil PW mix release_4.14.15
Attachments: C-141_Rigel 20 Fed Com 3H_75.5bbl Oil PW mix release_4.14.15.doc; Rigel 20 Fed 3H_75.5bbl Oil PW mix release_GIS Image_4.14.15.Word.docx; Rigel 20 Fed 3H_75.5bbl Oil PW mix release_pic 1 of 5_4.14.15.JPG; Rigel 20 Fed 3H_75.5bbl Oil PW mix release_pic 2 of 5_4.14.15.JPG; Rigel 20 Fed 3H_75.5bbl Oil PW mix release_pic 3 of 5_4.14.15.JPG; Rigel 20 Fed 3H_75.5bbl Oil PW mix release_pic 4 of 5_4.14.15.JPG; Rigel 20 Fed 3H_75.5bbl Oil PW mix release_pic 5 of 5_4.14.15.JPG

Good Afternoon,

Attached please find the Initial C-141, GIS Image and photos for the 75bbl release in to containment and 1/2bbl mist in to pasture at the Rigel 20 Fed Com 3H.

If you have any questions please feel free to contact me.

Thank you,

Sheila Fisher
Field Admin Support
Production
A-Schedule

Devon Energy Corporation
PO Box 250
Artesia, NM 88211
575 748 1829 Direct



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Received by: OGD - 9/10/2020 1:00:55 PM

District I
15 N. French Dr., Hobbs, NM 88240
District II
S. First St., Artesia, NM 88210
District III
300 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

NM OIL CONSERVATION
ARTESIA DISTRICT
Form C-141
Revised April 3, 2017
OCT 20 2017
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.
RECEIVED

Release Notification and Corrective Action

NAB192A752650 GRID#6137 **OPERATOR** ☒ Initial Report ☐ Final Report

Name of Company	Devon Energy Production Company	Contact	Wesley Ryan, Production Foreman
Address	6488 Seven Rivers Hwy Artesia, NM 88210	Telephone No.	575-748-0177
Facility Name	Rigel 20 Fed Com 3H	Facility Type	Oil
Surface Owner	Federal	Mineral Owner	Federal
		API No.	30-015-39725

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	20	19S	31E	1800'	FSL	330'	FWL	Eddy

Latitude 32.6435814 Longitude -103.8989868 NAD83

NATURE OF RELEASE

Type of Release Oil	Volume of Release .25bbl	Volume Recovered 0bbls
Source of Release Gas Line going to Flare	Date and Hour of Occurrence October 7, 2017 @ 2:00 PM	Date and Hour of Discovery October 7, 2017 @ 2:00 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Shelly Tucker, BLM Crystal Weaver, OCD	
By Whom? Mike Shoemaker, EHS Representative	Date and Hour October 11, 2017 @ 4:20 PM Shelly Tucker, BLM October 11, 2017 @ 4:43 PM Crystal Weaver & Mike Bratcher, OCD	
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		
Describe Cause of Problem and Remedial Action Taken.* The supply gas line was opened to start the flare, the line had fluid built up inside of it that was expelled from the flare causing the flare and trailer to catch on fire. The gas supply was immediately shut off and the fire was put out with a fire extinguisher.		
Describe Area Affected and Cleanup Action Taken.* Approximately 1/4bbl lost out of the line. Obbls recovered due to fire. All fluid stayed on the location. An environmental contractor will be contacted to assist with the delineation and remediation of the well pad surface.		
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.		

Immediate notification timeframe is not in compliance with Regs

Signature: Sheila Fisher		OIL CONSERVATION DIVISION	
Printed Name: Sheila Fisher		Approved by Environmental Specialist: <i>Crystal W</i>	
Title: Field Admin Support		Approval Date: 10/24/17	Expiration Date: N/A
E-mail Address: Sheila.Fisher@dvn.com		Conditions of Approval: <i>see attached</i>	Attached <input checked="" type="checkbox"/> <i>ARP-4452</i>
Date: 10/11/17 Phone: 575.748.1829			

Attach Additional Sheets If Necessary

10/24/17 AB

Operator/Responsible Party,

The OCD has received the form C-141 you provided on **10/20/17** regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 20P-4452 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 II office in Artesia on or before 11/20/17. 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; C₆ thru C₃₆), 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; C₆ thru C₃₆), 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

Weaver, Crystal, EMNRD

From: Fisher, Sheila <Sheila.Fisher@dvn.com>
Sent: Friday, October 20, 2017 10:04 AM
To: Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD; Shelly Tucker (stucker@blm.gov)
Cc: Shoemaker, Mike; Fulks, Brett; Ryan, Wesley; Aguilar, Leonard
Subject: Rigel 20 Fed Com 3H_.25bbl oil_10.11.17
Attachments: Rigel 20 Fed Com 3H_.25bbl oil_Initial C-141_10.11.17.doc; Rigel 20 Fed Com 3H_.25bbl oil_GIS Image_10.11.17.pdf

Good Morning,

Attached please find the Initial C-141 and GIS Image for the .25bbls oil released at the Rigel 20 Fed Com 3H on 10.11.17.

If you have any questions please feel free to contact me.

Thank you,

Sheila Fisher

Field Admin Support
Production
B-Schedule

Devon Energy Corporation
PO Box 250
Artesia, NM 88211
575 748 1829 Direct



Confidentiality Warning: This message and any attachments are intended only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.

Bratcher, Mike, EMNRD

From: Shoemaker, Mike <Mike.Shoemaker@dvn.com>
Sent: Wednesday, October 11, 2017 4:43 PM
To: Weaver, Crystal, EMNRD; Bratcher, Mike, EMNRD
Subject: Rigel 20 Fed Com 3H (API #30-015-39725)

Crystal,

We had an incident that occurred on 10/07/17 at the Rigel 20 Fed Com 3H Battery (API 30-015-39725). In correspondence with Operations I believed that notifications had been completed at the time of the incident. As we began preparing information for the C-141 we were told that internal notification had been completed but not external notification. In turn, please see the following information related to this incident as notification.

The lease operator opened the supply gas to start flaring. The gas line had fluid built up in it which caused the liquid to be dispelled from the line. A 1/4 bbl of fluid was released and caused the flare and trailer to catch fire. The lease operator immediately shut the supply gas off and got his fire extinguisher and put out the small fire. The fire was contained on the trailer.

Because the incident involved a fire I wanted to follow up and provide you with notification.

A C-141 will be prepared and submitted to your office.

I will continue to with my operations group to ensure that notification are completed appropriately moving forward and within the regulatory timeframes. If you need any additional information please let me know.

Thanks,

Mike Shoemaker
 EHS Representative

Devon Energy Corporation
 6488 Seven Rivers Highway
 Artesia, New Mexico 88210
 575-746-5566 Office
 575-513-5035 Mobile



Confidentiality Warning: This message and any attachments are intended only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

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

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

AB

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

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

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

Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

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

Initial Response

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

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: _____	Title: _____
Signature: <u>Kendra DeHoyos</u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: <u>Analia B. Ramirez</u>	Date: _____

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?	_____ 180 (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 not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

Incident ID	NAB1511038592
District RP	2RP-2960
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: 9/18/2020
email: tom.bynum@dvn.com Telephone: 575-748-2663

OCD Only

Received by: _____ Date: _____

Incident ID	NAB1511038592
District RP	2RP-2960
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Tom Bynum Title: EHS Consultant
Signature: Tom Bynum Date: 9/9/2020
email: tom.bynum@dv.com Telephone: 575-748-2663

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

Incident ID	NAB1511038592
District RP	2RP-2960
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: 9/9/2020
email: tom.bynum@dvni.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: _____

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?	_____ 180 (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 not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

Incident ID	NAB1729752650
District RP	2RP-4452
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: 9/9/2020
email: tom.bynum@dvn.com Telephone: 575-748-2663

OCD Only

Received by: _____ Date: _____

Incident ID	NAB1729752650
District RP	2RP-4452
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Tom Bynum Title: EHS Consultant
Signature: Tom Bynum Date: 9/9/2020
email: tom.bynum@dvn.com Telephone: 575-748-2663

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

Incident ID	NAB1729752650
District RP	2RP-4452
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: _____ Date: 9/9/2020
email: tom.bynum@dv.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: _____

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?	_____ 180 (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 not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

Incident ID	NAB1914044657
District RP	2RP-5429
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: 9/9/2020

email: tom.bynum@dvni.com Telephone: 575-748-2663

OCD Only

Received by: _____ Date: _____

Incident ID	NAB1914044657
District RP	2RP-5429
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: Tom Bynum Title: EHS Consultant
Signature: Tom Bynum Date: 9/9/2020
email: tom.bynum@dvn.com Telephone: 575-748-2663

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

Incident ID	NAB1914044657
District RP	2RP-5429
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: 9/9/2020
email: tom.bynum@dv.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:
Photographic Documentation

Photographs









Pima Environmental Services

Appendix E:
Laboratory Reports



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

July 30, 2020

CHRIS JONES

PIMA ENVIROMENTAL

1601 N TURNER STE. 500

HOBBS, NM 88240

RE: RIGEL 20 FED COM 3H

Enclosed are the results of analyses for samples received by the laboratory on 07/28/20 12:30.

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.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: N - COMP (H001951-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2020	ND	1.83	91.5	2.00	4.16	
Toluene*	<0.050	0.050	07/28/2020	ND	1.85	92.5	2.00	3.95	
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.86	93.0	2.00	3.90	
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.33	88.9	6.00	3.97	
Total BTX	<0.300	0.300	07/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 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	
Chloride	1150	16.0	07/29/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2020	ND	208	104	200	0.0970	
DRO >C10-C28*	<10.0	10.0	07/29/2020	ND	218	109	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	07/29/2020	ND					

Surrogate: 1-Chlorooctane 90.5 % 44.3-144

Surrogate: 1-Chlorooctadecane 102 % 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: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S - COMP (H001951-02)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2020	ND	1.83	91.5	2.00	4.16	
Toluene*	<0.050	0.050	07/28/2020	ND	1.85	92.5	2.00	3.95	
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.86	93.0	2.00	3.90	
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.33	88.9	6.00	3.97	
Total BTX	<0.300	0.300	07/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.2 % 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	
Chloride	1700	16.0	07/29/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2020	ND	208	104	200	0.0970	
DRO >C10-C28*	<10.0	10.0	07/29/2020	ND	218	109	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	07/29/2020	ND					

Surrogate: 1-Chlorooctane 99.0 % 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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Analytical Results For:

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

Received: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: E - COMP (H001951-03)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2020	ND	1.83	91.5	2.00	4.16	
Toluene*	<0.050	0.050	07/28/2020	ND	1.85	92.5	2.00	3.95	
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.86	93.0	2.00	3.90	
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.33	88.9	6.00	3.97	
Total BTX	<0.300	0.300	07/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 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
Chloride	96.0	16.0	07/29/2020	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2020	ND	208	104	200	0.0970	
DRO >C10-C28*	<10.0	10.0	07/29/2020	ND	218	109	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	07/29/2020	ND					

Surrogate: 1-Chlorooctane 104 % 44.3-144

Surrogate: 1-Chlorooctadecane 116 % 42.2-156

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: W - COMP (H001951-04)

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	07/28/2020	ND	1.83	91.5	2.00	4.16		
Toluene*	<0.050	0.050	07/28/2020	ND	1.85	92.5	2.00	3.95		
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.86	93.0	2.00	3.90		
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.33	88.9	6.00	3.97		
Total BTEX	<0.300	0.300	07/28/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.6 % 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	
Chloride	8930	16.0	07/29/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2020	ND	208	104	200	0.0970	
DRO >C10-C28*	646	10.0	07/29/2020	ND	218	109	200	12.3	
EXT DRO >C28-C36	164	10.0	07/29/2020	ND					

Surrogate: 1-Chlorooctane 103 % 44.3-144

Surrogate: 1-Chlorooctadecane 144 % 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: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BG 1 (H001951-05)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2020	ND	1.83	91.5	2.00	4.16	
Toluene*	<0.050	0.050	07/28/2020	ND	1.85	92.5	2.00	3.95	
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.86	93.0	2.00	3.90	
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.33	88.9	6.00	3.97	
Total BTX	<0.300	0.300	07/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 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	
Chloride	320	16.0	07/29/2020	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2020	ND	208	104	200	0.0970	
DRO >C10-C28*	<10.0	10.0	07/29/2020	ND	218	109	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	07/29/2020	ND					

Surrogate: 1-Chlorooctane 99.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 110 % 42.2-156

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BG 3 (H001951-06)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2020	ND	1.83	91.5	2.00	4.16	
Toluene*	<0.050	0.050	07/28/2020	ND	1.85	92.5	2.00	3.95	
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.86	93.0	2.00	3.90	
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.33	88.9	6.00	3.97	
Total BTX	<0.300	0.300	07/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.8 % 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	
Chloride	<16.0	16.0	07/29/2020	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2020	ND	208	104	200	0.0970	
DRO >C10-C28*	<10.0	10.0	07/29/2020	ND	218	109	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	07/29/2020	ND					

Surrogate: 1-Chlorooctane 101 % 44.3-144

Surrogate: 1-Chlorooctadecane 113 % 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: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BG 4 (H001951-07)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2020	ND	1.83	91.5	2.00	4.16	
Toluene*	<0.050	0.050	07/28/2020	ND	1.85	92.5	2.00	3.95	
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.86	93.0	2.00	3.90	
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.33	88.9	6.00	3.97	
Total BTX	<0.300	0.300	07/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 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	
Chloride	<16.0	16.0	07/29/2020	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2020	ND	208	104	200	0.0970	
DRO >C10-C28*	<10.0	10.0	07/29/2020	ND	218	109	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	07/29/2020	ND					

Surrogate: 1-Chlorooctane 106 % 44.3-144

Surrogate: 1-Chlorooctadecane 117 % 42.2-156

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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: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BG 5 (H001951-08)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2020	ND	1.83	91.5	2.00	4.16	
Toluene*	<0.050	0.050	07/28/2020	ND	1.85	92.5	2.00	3.95	
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.86	93.0	2.00	3.90	
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.33	88.9	6.00	3.97	
Total BTX	<0.300	0.300	07/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.6 % 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	
Chloride	<16.0	16.0	07/29/2020	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2020	ND	208	104	200	0.0970	
DRO >C10-C28*	<10.0	10.0	07/29/2020	ND	218	109	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	07/29/2020	ND					

Surrogate: 1-Chlorooctane 102 % 44.3-144

Surrogate: 1-Chlorooctadecane 112 % 42.2-156

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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: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BG 6 (H001951-09)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2020	ND	1.83	91.5	2.00	4.16	
Toluene*	<0.050	0.050	07/28/2020	ND	1.85	92.5	2.00	3.95	
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.86	93.0	2.00	3.90	
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.33	88.9	6.00	3.97	
Total BTX	<0.300	0.300	07/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.5 % 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
Chloride	32.0	16.0	07/29/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2020	ND	208	104	200	0.0970	
DRO >C10-C28*	<10.0	10.0	07/29/2020	ND	218	109	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	07/29/2020	ND					

Surrogate: 1-Chlorooctane 106 % 44.3-144

Surrogate: 1-Chlorooctadecane 120 % 42.2-156

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Analytical Results For:

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

Received: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BG 7 (H001951-10)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/28/2020	ND	1.83	91.5	2.00	4.16		
Toluene*	<0.050	0.050	07/28/2020	ND	1.85	92.5	2.00	3.95		
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.86	93.0	2.00	3.90		
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.33	88.9	6.00	3.97		
Total BTX	<0.300	0.300	07/28/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 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	
Chloride	<16.0	16.0	07/29/2020	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2020	ND	208	104	200	0.0970	
DRO >C10-C28*	<10.0	10.0	07/29/2020	ND	218	109	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	07/29/2020	ND					

Surrogate: 1-Chlorooctane 102 % 44.3-144

Surrogate: 1-Chlorooctadecane 114 % 42.2-156

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Analytical Results For:

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

Received: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: BG 8 (H001951-11)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2020	ND	1.83	91.5	2.00	4.16	
Toluene*	<0.050	0.050	07/28/2020	ND	1.85	92.5	2.00	3.95	
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.86	93.0	2.00	3.90	
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.33	88.9	6.00	3.97	
Total BTX	<0.300	0.300	07/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 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
Chloride	64.0	16.0	07/29/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2020	ND	208	104	200	0.0970	
DRO >C10-C28*	<10.0	10.0	07/29/2020	ND	218	109	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	07/29/2020	ND					

Surrogate: 1-Chlorooctane 97.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 107 % 42.2-156

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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: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S5 - 0-6" (H001951-12)

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	07/28/2020	ND	1.93	96.3	2.00	2.91	
Toluene*	<0.050	0.050	07/28/2020	ND	1.95	97.4	2.00	3.15	
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.96	98.0	2.00	2.97	
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.65	94.1	6.00	2.88	
Total BTEx	<0.300	0.300	07/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 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	
Chloride	4480	16.0	07/29/2020	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2020	ND	208	104	200	0.0970	
DRO >C10-C28*	<10.0	10.0	07/29/2020	ND	218	109	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	07/29/2020	ND					

Surrogate: 1-Chlorooctane 99.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 111 % 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: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S5 - 1' (H001951-13)

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	07/28/2020	ND	1.93	96.3	2.00	2.91	
Toluene*	<0.050	0.050	07/28/2020	ND	1.95	97.4	2.00	3.15	
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.96	98.0	2.00	2.97	
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.65	94.1	6.00	2.88	
Total BTEx	<0.300	0.300	07/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 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
Chloride	1480	16.0	07/29/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2020	ND	208	104	200	0.0970	
DRO >C10-C28*	<10.0	10.0	07/29/2020	ND	218	109	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	07/29/2020	ND					

Surrogate: 1-Chlorooctane 104 % 44.3-144

Surrogate: 1-Chlorooctadecane 116 % 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: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S5 - 2' (H001951-14)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2020	ND	1.93	96.3	2.00	2.91	
Toluene*	<0.050	0.050	07/28/2020	ND	1.95	97.4	2.00	3.15	
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.96	98.0	2.00	2.97	
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.65	94.1	6.00	2.88	
Total BTX	<0.300	0.300	07/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.9 % 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
Chloride	976	16.0	07/29/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/29/2020	ND	208	104	200	0.0970	
DRO >C10-C28*	<10.0	10.0	07/29/2020	ND	218	109	200	12.3	
EXT DRO >C28-C36	<10.0	10.0	07/29/2020	ND					

Surrogate: 1-Chlorooctane 104 % 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: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S5 - 3' (H001951-15)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2020	ND	1.93	96.3	2.00	2.91	
Toluene*	<0.050	0.050	07/28/2020	ND	1.95	97.4	2.00	3.15	
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.96	98.0	2.00	2.97	
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.65	94.1	6.00	2.88	
Total BTX	<0.300	0.300	07/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 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
Chloride	864	16.0	07/29/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/28/2020	ND	200	99.9	200	5.97	
DRO >C10-C28*	<10.0	10.0	07/28/2020	ND	213	107	200	4.65	
EXT DRO >C28-C36	<10.0	10.0	07/28/2020	ND					

Surrogate: 1-Chlorooctane 114 % 44.3-144

Surrogate: 1-Chlorooctadecane 126 % 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: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S6 - 0-6" (H001951-16)

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	07/28/2020	ND	1.93	96.3	2.00	2.91	
Toluene*	<0.050	0.050	07/28/2020	ND	1.95	97.4	2.00	3.15	
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.96	98.0	2.00	2.97	
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.65	94.1	6.00	2.88	
Total BTEx	<0.300	0.300	07/28/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 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
Chloride	224	16.0	07/29/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/28/2020	ND	200	99.9	200	5.97	
DRO >C10-C28*	<10.0	10.0	07/28/2020	ND	213	107	200	4.65	
EXT DRO >C28-C36	<10.0	10.0	07/28/2020	ND					

Surrogate: 1-Chlorooctane 113 % 44.3-144

Surrogate: 1-Chlorooctadecane 125 % 42.2-156

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Analytical Results For:

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

Received: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S6 - 1' (H001951-17)

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	07/28/2020	ND	1.93	96.3	2.00	2.91		
Toluene*	<0.050	0.050	07/28/2020	ND	1.95	97.4	2.00	3.15		
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.96	98.0	2.00	2.97		
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.65	94.1	6.00	2.88		
Total BTEx	<0.300	0.300	07/28/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 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	
Chloride	96.0	16.0	07/29/2020	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/28/2020	ND	200	99.9	200	5.97	
DRO >C10-C28*	<10.0	10.0	07/28/2020	ND	213	107	200	4.65	
EXT DRO >C28-C36	<10.0	10.0	07/28/2020	ND					

Surrogate: 1-Chlorooctane 110 % 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: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S6 - 2' (H001951-18)

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	07/28/2020	ND	1.93	96.3	2.00	2.91		
Toluene*	<0.050	0.050	07/28/2020	ND	1.95	97.4	2.00	3.15		
Ethylbenzene*	<0.050	0.050	07/28/2020	ND	1.96	98.0	2.00	2.97		
Total Xylenes*	<0.150	0.150	07/28/2020	ND	5.65	94.1	6.00	2.88		
Total BTEx	<0.300	0.300	07/28/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.6 % 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
Chloride	128	16.0	07/29/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/28/2020	ND	200	99.9	200	5.97	
DRO >C10-C28*	<10.0	10.0	07/28/2020	ND	213	107	200	4.65	
EXT DRO >C28-C36	<10.0	10.0	07/28/2020	ND					

Surrogate: 1-Chlorooctane 115 % 44.3-144

Surrogate: 1-Chlorooctadecane 129 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S6 - 3' (H001951-19)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2020	ND	1.93	96.3	2.00	2.91		
Toluene*	<0.050	0.050	07/29/2020	ND	1.95	97.4	2.00	3.15		
Ethylbenzene*	<0.050	0.050	07/29/2020	ND	1.96	98.0	2.00	2.97		
Total Xylenes*	<0.150	0.150	07/29/2020	ND	5.65	94.1	6.00	2.88		
Total BTX	<0.300	0.300	07/29/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 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	
Chloride	128	16.0	07/29/2020	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/28/2020	ND	200	99.9	200	5.97	
DRO >C10-C28*	<10.0	10.0	07/28/2020	ND	213	107	200	4.65	
EXT DRO >C28-C36	<10.0	10.0	07/28/2020	ND					

Surrogate: 1-Chlorooctane 112 % 44.3-144

Surrogate: 1-Chlorooctadecane 124 % 42.2-156

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Analytical Results For:

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

Received: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S7 - 0-6" (H001951-20)

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	07/29/2020	ND	1.93	96.3	2.00	2.91		
Toluene*	<0.050	0.050	07/29/2020	ND	1.95	97.4	2.00	3.15		
Ethylbenzene*	<0.050	0.050	07/29/2020	ND	1.96	98.0	2.00	2.97		
Total Xylenes*	<0.150	0.150	07/29/2020	ND	5.65	94.1	6.00	2.88		
Total BTEx	<0.300	0.300	07/29/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 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	
Chloride	48.0	16.0	07/29/2020	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/28/2020	ND	200	99.9	200	5.97	
DRO >C10-C28*	<10.0	10.0	07/28/2020	ND	213	107	200	4.65	
EXT DRO >C28-C36	<10.0	10.0	07/28/2020	ND					

Surrogate: 1-Chlorooctane 110 % 44.3-144

Surrogate: 1-Chlorooctadecane 120 % 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: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S7 - 1' (H001951-21)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2020	ND	1.93	96.3	2.00	2.91		
Toluene*	<0.050	0.050	07/29/2020	ND	1.95	97.4	2.00	3.15		
Ethylbenzene*	<0.050	0.050	07/29/2020	ND	1.96	98.0	2.00	2.97		
Total Xylenes*	<0.150	0.150	07/29/2020	ND	5.65	94.1	6.00	2.88		
Total BTX	<0.300	0.300	07/29/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 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	32.0	16.0	07/29/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/28/2020	ND	200	99.9	200	5.97	
DRO >C10-C28*	<10.0	10.0	07/28/2020	ND	213	107	200	4.65	
EXT DRO >C28-C36	<10.0	10.0	07/28/2020	ND					

Surrogate: 1-Chlorooctane 112 % 44.3-144

Surrogate: 1-Chlorooctadecane 122 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S7 - 2' (H001951-22)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2020	ND	1.93	96.3	2.00	2.91		
Toluene*	<0.050	0.050	07/29/2020	ND	1.95	97.4	2.00	3.15		
Ethylbenzene*	<0.050	0.050	07/29/2020	ND	1.96	98.0	2.00	2.97		
Total Xylenes*	<0.150	0.150	07/29/2020	ND	5.65	94.1	6.00	2.88		
Total BTX	<0.300	0.300	07/29/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 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
Chloride	32.0	16.0	07/29/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/28/2020	ND	200	99.9	200	5.97	
DRO >C10-C28*	<10.0	10.0	07/28/2020	ND	213	107	200	4.65	
EXT DRO >C28-C36	<10.0	10.0	07/28/2020	ND					

Surrogate: 1-Chlorooctane 111 % 44.3-144

Surrogate: 1-Chlorooctadecane 121 % 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: 07/28/2020
Reported: 07/30/2020
Project Name: RIGEL 20 FED COM 3H
Project Number: 31
Project Location: DEVON - EDDY COUNTY

Sampling Date: 07/27/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S7 - 3' (H001951-23)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/29/2020	ND	1.93	96.3	2.00	2.91		
Toluene*	<0.050	0.050	07/29/2020	ND	1.95	97.4	2.00	3.15		
Ethylbenzene*	<0.050	0.050	07/29/2020	ND	1.96	98.0	2.00	2.97		
Total Xylenes*	<0.150	0.150	07/29/2020	ND	5.65	94.1	6.00	2.88		
Total BTX	<0.300	0.300	07/29/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 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
Chloride	16.0	16.0	07/29/2020	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/28/2020	ND	200	99.9	200	5.97	
DRO >C10-C28*	<10.0	10.0	07/28/2020	ND	213	107	200	4.65	
EXT DRO >C28-C36	<10.0	10.0	07/28/2020	ND					

Surrogate: 1-Chlorooctane 110 % 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

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

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

Celey D. Keene, Lab Director/Quality Manager

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Pima Environmental Project Manager: Chris Jones Address: 1601 N. Turner Ste 500 City: Hobbs State: NM Zip: 88240 Phone #: 575-631-6977 Fax #: Project #: 31 Project Owner: Project Name: Rigel 20 Fed Com 3H Project Location: EDDY COUNTY Sample Name: MARK NEVENS				P.O. #: 20754990 Company: DEVON Attn: Tom Bynum Address: City: State: Zip: Phone #: Fax #:				BILL TO				ANALYSIS REQUEST			
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors as a result of or related to the performance of services rendered by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.															
Relinquished By: _____ Received By: <i>Chas Jones</i> Date: 7-28-20 Time: 12:30 Date: _____ Time: _____ Relinquished By: _____ Received By: <i>Chas Jones</i>															
Delivered By: (Circle One) Observed Temp. °C 5.9 Sample Condition <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact CHECKED BY: (Initials) <i>TS</i> Sampler - UPS - Bus - Other: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> Bus <input type="checkbox"/> Other Corrected Temp. °C 4.0															
REMARKS: Bill to Devon Turnaround Time: _____ Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Thermometer ID #113 Bacteria (only) <input type="checkbox"/> Sample Condition <input type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No Correction Factor None Observed Temp. °C _____ Corrected Temp. °C _____															

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							PRESERV	SAMPLING	DATE	TIME	BTEX	TPH	EXT	Chloride
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:								
ADD1951	1 N-comp	C	1									7/28/20	11:40					
	2 E-comp		1									7/28/20	11:45					
	3 E-comp		1									7/28/20	11:50					
	4 W-comp		1									7/28/20	11:55					
	5 BG1		1									7/28/20	12:00					
	6 BG3		1									7/28/20	12:05					
	7 BG4		1									7/28/20	12:10					
	8 BG5		1									7/28/20	12:15					
	9 BG6		1									7/28/20	12:20					
	10 BG7		1									7/28/20	12:25					



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Pima Environmental

Project Manager: Chris Jones

Address: 1601 N. Turner Ste 500

City: Hobbs State: NM Zip: 88240

Phone #: 575-631-6977 Fax #:

Project #: 31 Project Owner:

Project Name: Rigel 20 Fed Com 3H

Project Location: Eddy County

Sampler Name: Mark Newcomb

FOR LAB USE ONLY

Lab I.D. Sample I.D.

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.		MATRIX					PRESERV		SAMPLING		ANALYSIS REQUEST				
		# CONTAINERS		GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	BTEX	TPH EXT	Chloride
11	B58	1	1										7/25/20	0330			
12	55-0-6"	1	1										8/7	1235			
13	55-1'	1	1										7/28	1240			
14	55-2'	1	1										7/28	1245			
15	55-3'	1	1										1250	1250			
16	56-0-6"	1	1										1255	1300			
17	56-1'	1	1										1305	1310			
18	56-2'	1	1										1310	1315			
19	56-3'	1	1										1315	1315			
20	57-0-6"	1	1										1315	1315			

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Relinquished By: Received By: Pima Environmental

Relinquished By: Received By: Pima Environmental

Delivered By: (Circle One) Observed Temp. °C Corrected Temp. °C

Sampler - UPS - Bus - Other: Corrected Temp. °C

Sample Condition: Cool Intact ☒ Yes ☐ No

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

ANALYSIS REQUEST

Verbal Result: ☐ Yes ☒ No Add'l Phone #:

REMARKS: Bill to Devon

Turnaround Time: Standard ☒ Rush ☐

Thermometer ID #113 Correction Factor None

Bacteria (only) Sample Condition: Cool Intact ☐ Yes ☐ No

Observed Temp. °C Corrected Temp. °C

Page 28 of 28



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Pima Environmental				BILL TO				ANALYSIS REQUEST			
Project Manager: Chris Jones				P.O. #: 20754990							
Address: 1601 N. Turner Ste 500				Company: Devon							
City: HHVS				Attn: Town Bynum							
Phone #: 575-631-6977				Address:							
Project #: 31				City:							
Project Name: Rigel 20 Fed Com 3H				State: Zip:							
Project Location: EDDY County				Phone #:							
Sampler Name: Mark Newcomb				Fax #:							
FOR LAB USE ONLY											
Lab I.D. Sample I.D. <div style="float: right; text-align: right;"> HHVS 21 57-1' 22 57-2' 23 57-3' </div>				(G)RAB OR (C)OMP.							
				# CONTAINERS							
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors, arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated remedies or otherwise.		Matrix GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :		PRESERV SAMPLING		DATE		TIME			
						57-1'		1320			
						57-2'		1325			
						57-3'		1330			
Relinquished By:		Date: 7-28-20		Received By: <i>[Signature]</i>		Time: 1330		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By:		Date:		Received By:		Time:		All Results are emailed. Please provide Email address:			
Delivered By: (Circle One)		Observed Temp. °C 5.9		Sample Condition		CHECKED BY: (Initials)		T turnaround Time:		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>	
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No				Thermometer ID #113		Bacteria (only) Sample Condition	
								Correction Factor None		Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	
										Observed Temp. °C	
										Corrected Temp. °C	
REMARKS: Bill to Devon											