District I
1625 N. French Dr., Hobbs, NM 88240
Partic II
211 S. First St. Astonia, NM 88210 District III
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410 District IV

State of New Mexico Energy Minerals and Natural Resources

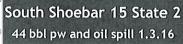
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

nKJ1600726055

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr.

Santa Fe, NM 87505 Santa Fe, NM 87505												
Release Notification and Corrective Action												
OPERATOR Initial Report Final Report									Final Report			
				ion Company		Contact Rudy Zuniga Production Foreman						
		Rivers Hwy		NM 88210			No. 575-390-54	135				
Facility Na	me South	Shoebar 15 S	State 2]	Facility Typ	oe Oil					
Surface Ow	ner State			Mineral (Owner	State			API No	30-025-3	34702	
				LOCA	TION	OF REI	LEASE					
Unit Letter	Section	Township	Range	Feet from the	North/	h/South Line Feet from the East/West Li			Vest Line		Count	ty
Н	15	17S	35E	1650	1	North	800	E	East	Lea		
		I	atitude:	N 32'40'49.11'	,	Lor	ngitude: W 103	3'54'53	.19"			
				NAT	URE	OF RELI	EASE					
Type of Rele						Volume of			Volume F	Recovered		
Produced Wa	ter and Oil					27 bbls Pro	duced Water and	17	6 bbls oil			
Source of Re		D.				Date and I	Hour of Occurre	nce		Hour of Di	scover	y
2" ball valv Was Immedi		Given?				1.3.16 @11 If YES, To			1.3.16 @1	nis oc. i		
., ammeu	I TOLICE		Yes [No Not Re	quired	Kellie Jone	s OCD					
By Whom? I	ynn Smith	, Assistant Pro	duction F	oreman		Date and Hour						
						1.4.16 @8:06 am 1.4.16 @8:10 am						
Was a Water	rcourse Re		V. N	1 x ₁ .		If YES, Volume Impacting the Watercourse						
Ye XX						N/A						
If a Waterco N/A	urse was I	mpacted, Des	cribe Ful	ly.*								
		lem and Ren sing a 44 bbl p		tion Taken.* vater and oil to rel	ease into	o unlined con	tainment. Well w	as imme	diately shu	it in to preve	ent furtl	her release.
		will be made								1		
		and Cleanup		Taken.* ased on the South	South 1	West side of	ha facility (LL1-	. oil	recovered	vio voc	ten al-	Size of
				ased on the South nined on location.						via vacuum	truck.	SIZE OI
						2	5					
				is true and comp								
regulations al	1 operators	are required to	o report ar	nd/or file certain r	elease no	otifications ar	nd perform correc	tive acti	ons for rele	eases which	may en	ndanger
				ce of a C-141 report investigate and re								
				tance of a C-141								
		vs and/or regu					•					A LIGHT-TOWNSON
Signature: Co	ovína.l	lova					OIL CONS	SERV	ATION	DIVISIO	<u>N</u>	
orginature: C	or or work	10 yw										
Printed Name	: Corina M	Ioya				Approved by	Environmental Sp	pecialist	:			
Title: Field A	dmin Sup	port				Approval Dat	e: 01/07/2016	H	Expiration I	Date: 03/0'	7/2016	
E-mail Addre	ss: corina.	moya@dvn.c	om			Conditions of	Approval:			100 100		
							es required. Del	lineate a	and	Attached		
Date: 1.5.20			ne: 575.74	6.5559		remediate as per MNOCD guides. Geotag 1RP-4079						
Attach Addit	nonai Shee	els II Necess		photographs of remediation recommended.								



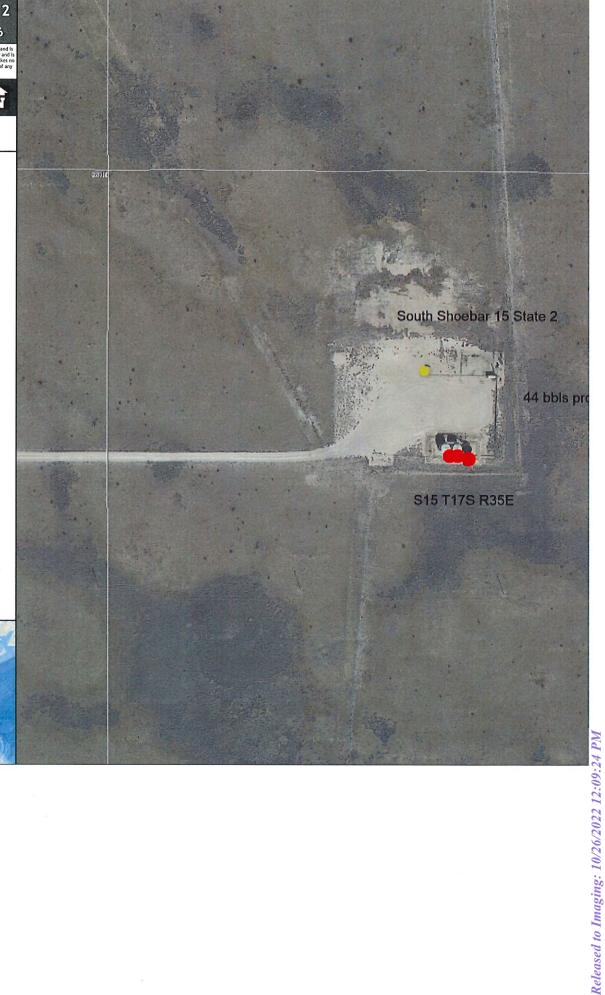


This map is for illustrative purposes only and is neither a legally recorded map nor survey and is not intended to be used as one. Devon makes no warranty, representation, or guarantee of any kind reparding this map.

WGS_1984_Web_Mercator_Auxiliary_Sphere Prepared by: corinamoya Map is current as of: 05-Jan-2016

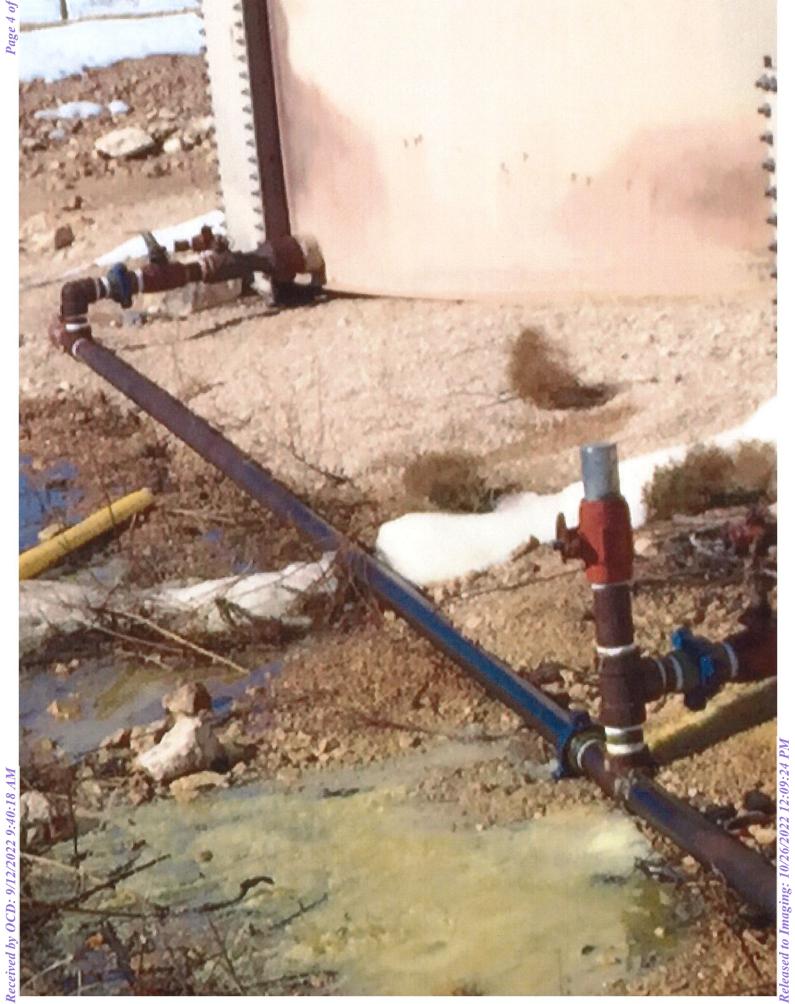
n

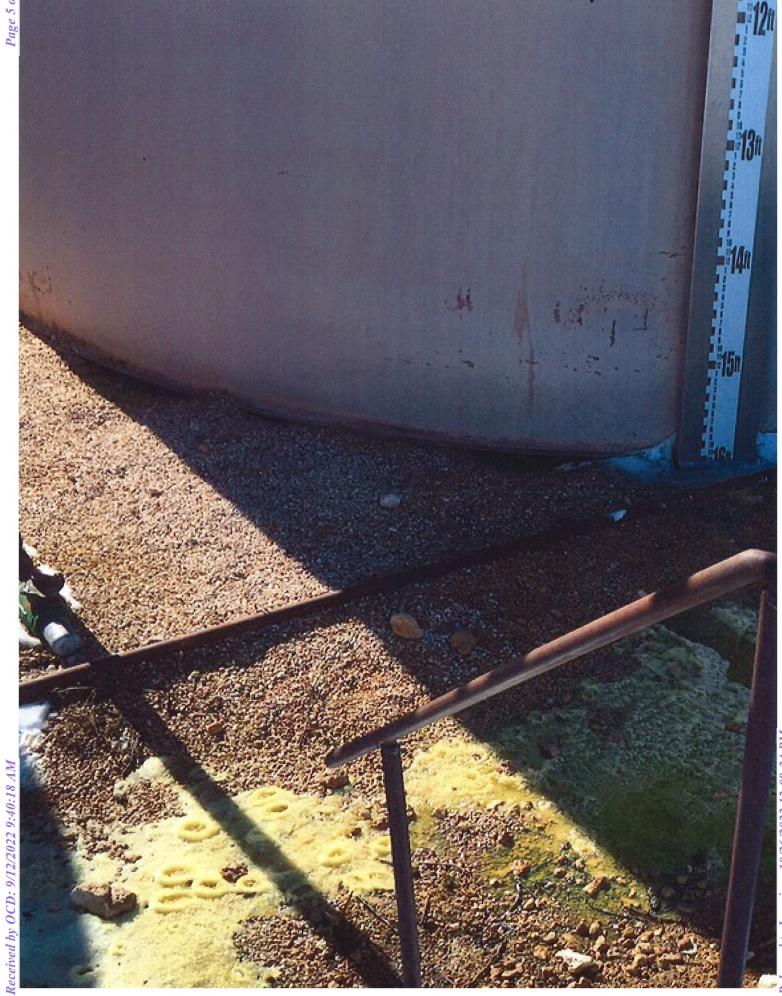
Miles 0 0.01 0.02 0.04 1:1,779





Received by OCD: 9/12/2022 9:40:18 AM





Released to Imaging: 10/26/2022 12:09:24 PM

Received by OCD: 9/12/2022 9:40:18 AM

Released to Imaging: 10/26/2022 12:09:24 PM



Pima Environmental Services 5614 N. Lovington Highway Hobbs, NM 88240 575-964-7740

September 6, 2022

NMOCD District 1 1625 N French Drive Hobbs, NM 88240

Re: Site Assessment and Closure Report

South Shoebar 15 State 2 API No. 30-025-34702

GPS: Latitude 32.837299 Longitude -103.439331

UL H, Sec. 15, T17S, R35E

Lea County, NM

NMOCD Ref. No. NKJ1600726055

Pima Environmental Services, LLC. (Pima) has been contracted by Manzano, LLC. (Manzano) to perform a spill assessment and submit this closure report for a produced water/crude oil mixed release that occurred at the South Shoebar 15 State 2 (Shoebar). The initial C-141 was submitted on January 7, 2016 (Appendix C). This incident was assigned Incident ID NKJ1600726055 by the New Mexico Oil Conservation Division (NMOCD).

Site Characterization

The Shoebar is located approximately nine (9) miles Southwest of Lovington, NM. This spill site is in Unit H, Section 15, Township 17S, Range 35E, Latitude 32.837299 Longitude -103.439331, Lea County, NM. Figure 1 references a Location Map.

Per the New Mexico Bureau of Geology and Mineral Resources, the geology is made up deposits of Alluvial and eolian deposits, and petrocalcic soils of the southern High Plains. Locally includes Qoa. May locally include uppermost Ogallala Formation. The soil in this area is made up of Kimbrough-Lea complex, 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 around the Shoebar (Figure 3).

According to the New Mexico Office of the State Engineer, depth to the nearest groundwater in this area is 90 feet below grade surface (BGS). According to the United States Geological Survey (USGS), the nearest groundwater is 44 feet BGS. The closest waterway McAdams Park Pond located approximately 14.33 miles to the Southeast of this location. See Appendix A for referenced water surveys.

Table 1 NMAC and Closure Criteria 19.15.29											
Depth to Groundwater	Constituent & Limits										
(Appendix A)	Chlorides	Total TPH	GRO+DRO	BTEX	Benzene						
<50' (Lack of GW data)	600 mg/kg	100 mg/kg		50 mg/kg	10 mg/kg						
51-100′	10,000 mg/kg	2,500 mg/kg	1,000 mg/kg	50 mg/kg	10 mg/kg						
>100′	20,000 mg/kg	2,500 mg/kg	1,000 mg/kg	50 mg/kg	10 mg/kg						

Reference Figure 2 for a Topographic Map.

Release Information

<u>NKJ1600726055</u>: On January 4, 2016, a 2" ball valve busted causing a fluid release, The released fluids were calculated to be approximately 27 barrels (bbls) of produced water and 17 barrels (bbls) of crude oil. A vacuum truck was able to recover approximately 6 bbls of total fluid from the impacted area.

Site Assessment and Soil Sampling Results

On August 25, 2022, Pima mobilized personnel to the site to assess the area. We sampled the impacted area around the tanks and outside the berm. Laboratory results of this sampling event can be found in the following data table. A Site Map can be found in Figure 4.

8-25-22 Soil Sample Results

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is <50')											
Date 8-25-22		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	1'	ND	ND	ND	16	ND	16	ND			
S-2 E. Composite	1'	ND	ND	ND	ND	ND	ND	48			
S-3 S. Composite 1'		ND	ND	ND	ND	ND	0	32			
S-4 W. Composite	1'	ND	ND	ND	ND	ND	ND	ND			
	1'	ND	ND	ND	ND	ND	ND	144			
S-1	2'	ND	ND	ND	ND	ND	ND	32			
3-1	3'	ND	ND	ND	ND	ND	ND	16			
	4'	ND	ND	ND	ND	ND	ND	160			
	1'	ND	ND	ND	ND	ND	ND	ND			
S-2	2'	ND	ND	ND	ND	ND	ND	ND			
3-2	3'	ND	ND	ND	ND	ND	ND	ND			
	4'	ND	ND	ND	ND	ND	ND	ND			
	1'	ND	ND	ND	ND	ND	ND	16			
S-3	2'	ND	ND	ND	ND	ND	ND	32			
3-5	3'	ND	ND	ND	ND	ND	ND	32			
	4'	ND	ND	ND	ND	ND	ND	ND			

ND- Analyte Not Detected

Complete laboratory reports can be found in Appendix E.

Based on the sample results, the bottom and sidewalls were below NMOCD Closure Criteria 19.15.29 NMAC.

Closure Request

After careful review, Pima requests that this incident, NKJ1600726055 be closed. Manzano has complied with the applicable closure requirements set forth in rule 19.15.19.12 NMAC.

Should you have any questions or need additional information, please feel free to contact Gio Gomez at 806-782-1151 or gio@pimaoil.com.

Respectfully,

Gio Gomez

Gio Gomez Project Manager Pima Environmental Services, LLC

Attachments

Figures:

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

Appendices:

Appendix A – Referenced Water Surveys

Appendix B – Soil Survey and Geological Data

Appendix C – C-141 Form

Appendix D – Photographic Documentation

Appendix E – Laboratory Report



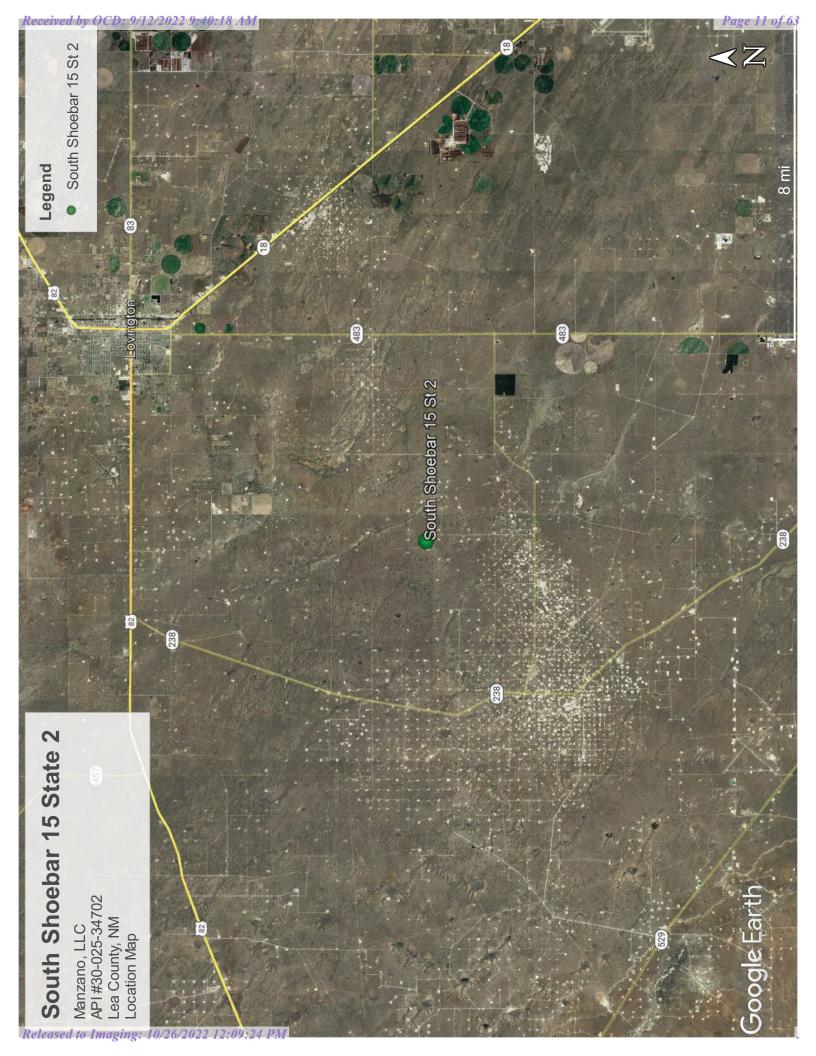
Figures:

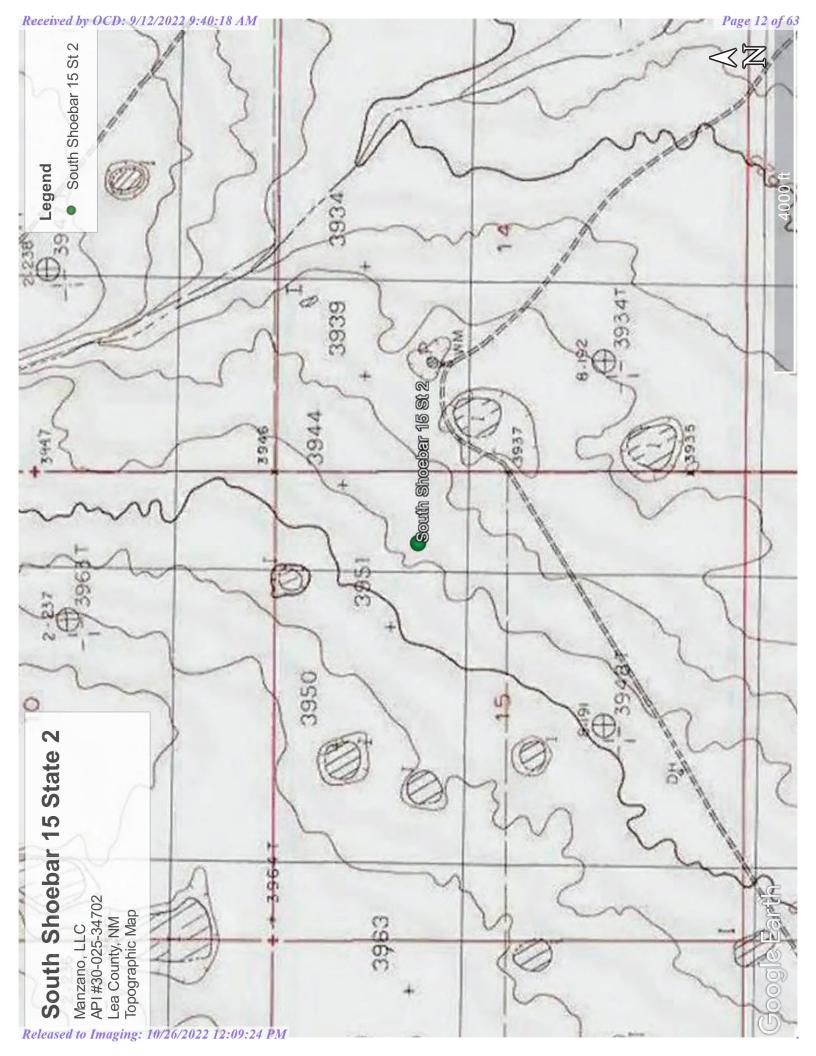
1-Location Map

2-Topographic Map

3-Karst Map

4-Site Map











Appendix A

Water Surveys:

OSE

USGS

Surface Water Map

Wetlands Map



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 Sub-		Q	Q	Q								W	/ater
POD Number	Code	basin	County	64	16	4	Sec	Tws	Rng	X	Y	DistanceDep	thWellDep	thWater Co	lumn
<u>L 09998</u>		L	LE		2	4	16	17S	35E	644489	3633847*	1614	160	90	70
L 01694 POD1		L	LE	4	4	2	22	17S	35E	646220	3632554*	1804	105	48	57
<u>L 03059</u>		L	LE		1	1	11	17S	35E	646465	3636286*	1987	128	75	53
L 10062		L	LE		2	4	22	17S	35E	646127	3632252*	2098	142	50	92
L 05381		L	LE	3	3	3	23	17S	35E	646436	3631752*	2628	95	45	50
<u>L 09901</u>		L	LE		4	3	23	17S	35E	646940	3631857*	2653	120		
<u>L 02101</u>		L	LE		3	3	09	17S	35E	643261	3635044*	2849	112	67	45

Average Depth to Water:

62 feet

Minimum Depth:

45 feet

Maximum Depth:

90 feet

Record Count: 7

UTMNAD83 Radius Search (in meters):

Easting (X): 646024.23 **Northing (Y):** 3634347.65 **Radius:** 3000

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

8/30/22 10:50 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater Geographic Area: ✓ United States

GO

Click to hideNews Bulletins

- Explore the NEW <u>USGS National Water Dashboard</u> interactive map to access realtime water data from over 13,500 stations nationwide.
- Attention current WaterAlert users: NextGen WaterAlert is replacing Legacy WaterAlert. You must take action before 9/30/2022 to retain your alerts. Read more.
- Full News

Groundwater levels for the Nation

Important: <u>Next Generation Monitoring Location Page</u>

Search Results -- 1 sites found

site_no list =

• 325000103254801

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 325000103254801 17S.35E.14.132440

Available data for this site Groundwater: Field measurements

GO

Lea County, New Mexico

Hydrologic Unit Code 12080003

Latitude 32°50'12", Longitude 103°25'57" NAD27

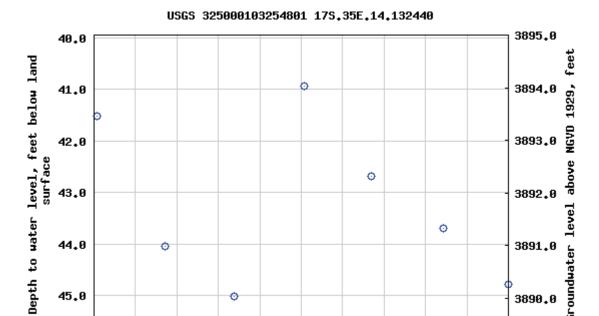
Land-surface elevation 3,935.00 feet above NGVD29

This well is completed in the High Plains aguifer (N100HGHPLN) national aguifer.

This well is completed in the Ogallala Formation (1210GLL) local aquifer.

Output formats

Table of data	
Tab-separated data	
Graph of data	
Reselect period	



Period of approved data

1973 1976 1979

Breaks in the plot represent a gap of at least one year between field measurements. <u>Download a presentation-quality graph</u>

1982

1985

1988

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

1961 1964

1967

1970

Accessibility

FOIA

Privacy

Policies and Notices

U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels

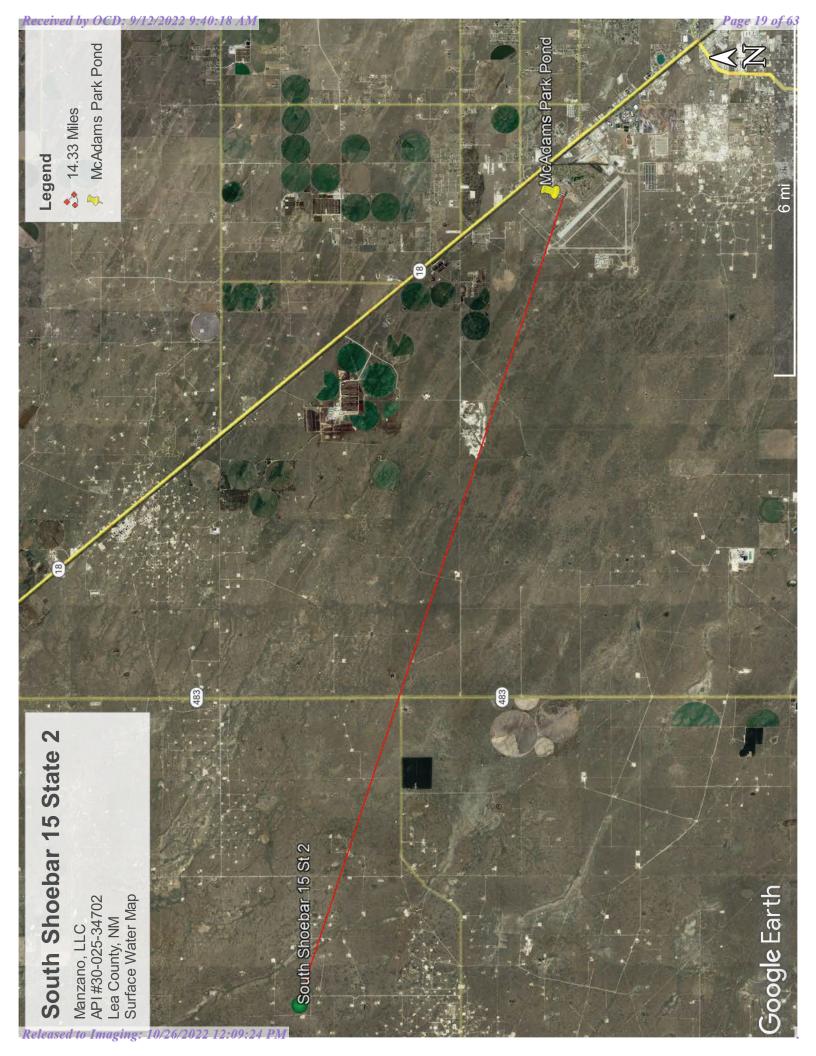
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u>

Page Last Modified: 2022-08-30 12:51:37 EDT

0.58 0.5 nadww02





National Wetlands Inventory U.S. Fish and Wildlife Service

Wetlands



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

September 7, 2022

Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Pond

Freshwater Forested/Shrub Wetland

Lake

Other

Riverine



Appendix B

Soil Survey & Geological Data FEMA Flood Map

Lea County, New Mexico

KU—Kimbrough-Lea complex, dry, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw46 Elevation: 2,500 to 4,800 feet

Mean annual precipitation: 14 to 16 inches Mean annual air temperature: 57 to 63 degrees F

Frost-free period: 180 to 220 days

Farmland classification: Not prime farmland

Map Unit Composition

Kimbrough and similar soils: 45 percent Lea and similar soils: 25 percent Minor components: 30 percent

Estimates are based on observations, descriptions, and transects of

the mapunit.

Description of Kimbrough

Setting

Landform: Playa rims, plains
Down-slope shape: Convex, linear
Across-slope shape: Concave, linear

Parent material: Loamy eolian deposits derived from sedimentary

rock

Typical profile

A - 0 to 3 inches: gravelly loam Bw - 3 to 10 inches: loam

Bkkm1 - 10 to 16 inches: cemented material Bkkm2 - 16 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 4 to 18 inches to petrocalcic

Drainage class: Well drained

Runoff class: High

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

to moderately low (0.00 to 0.01 in/hr) Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 95 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0

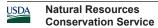
mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified



Map Unit Description: Kimbrough-Lea complex, dry, 0 to 3 percent slopes---Lea County, New Mexico

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: R077DY049TX - Very Shallow 12-17" PZ

Hydric soil rating: No

Description of Lea

Setting

Landform: Plains

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Calcareous, loamy eolian deposits from the blackwater draw formation of pleistocene age over indurated

caliche of pliocene age

Typical profile

A - 0 to 10 inches: loam Bk - 10 to 18 inches: loam

Bkk - 18 to 26 inches: gravelly fine sandy loam Bkkm - 26 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 22 to 30 inches to petrocalcic

Drainage class: Well drained

Runoff class: High

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

to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 90 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0

mmhos/cm)

Sodium adsorption ratio, maximum: 3.0

Available water supply, 0 to 60 inches: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: R077DY047TX - Sandy Loam 12-17" PZ

Hydric soil rating: No

Minor Components

Douro

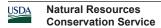
Percent of map unit: 12 percent

Landform: Plains

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: R077DY047TX - Sandy Loam 12-17" PZ Other vegetative classification: Unnamed (G077DH000TX)

Hydric soil rating: No



Map Unit Description: Kimbrough-Lea complex, dry, 0 to 3 percent slopes---Lea County, New Mexico

Kenhill

Percent of map unit: 12 percent

Landform: Plains

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: R077DY038TX - Clay Loam 12-17" PZ

Hydric soil rating: No

Spraberry

Percent of map unit: 6 percent Landform: Playa rims, plains Down-slope shape: Convex, linear

Across-slope shape: Linear

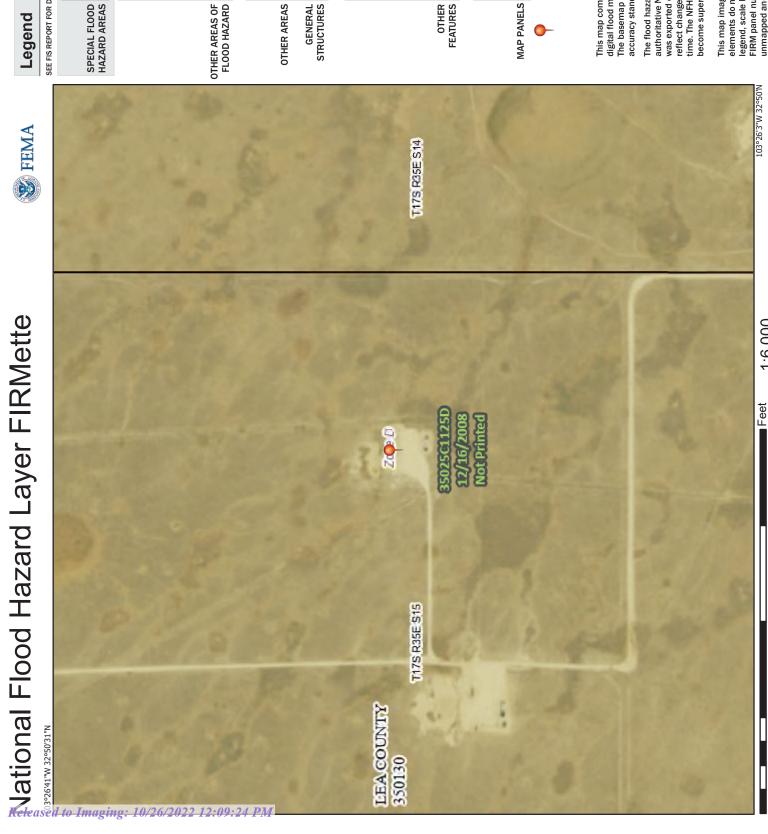
Ecological site: R077DY049TX - Very Shallow 12-17" PZ Other vegetative classification: Unnamed (G077DH000TX)

Hydric soil rating: No

Data Source Information

Soil Survey Area: Lea County, New Mexico Survey Area Data: Version 18, Sep 10, 2021





SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUP PROPERTY OF THE PANEL LAYOUP PANEL LAY With BFE or Depth Zone AE, AO, AH, VE, AR, OCT.
Regulatory Floodway

0.2% Annual Chance Flood Hazard, Arms of 1% annual chance flood with average depth less than one foot or with drain areas of less than one square mile zon 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 Zong Area

NO SCREEN Area of Minimal Flood Hazard Zone X **Effective LOMRs**

Area of Undetermined Flood Hazard Zone D

Channel, Culvert, or Storm Sewer STRUCTURES 1111111 Levee, Dike, or Floodwall

Cross Sections with 1% Annual Chance (B) 20.2

Water Surface Elevation Coastal Transect Base Flood Elevation Line (BFE) Limit of Study none Billianne

Jurisdiction Boundary

Coastal Transect Baseline

Hydrographic Feature Profile Baseline

No Digital Data Available Digital Data Available

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

Unmapped

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

authoritative NFHL web services provided by FEMA. This map reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or The flood hazard information is derived directly from the was exported on 8/30/2022 at 12:56 PM and does not become superseded by new data over time.

This map image is void if the one or more of the following map be 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.

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020 1,500 1,000

500

250



Appendix C C-141 Form

Form C-141

Revised August 8, 2011

pKJ1600726236

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

vation Division
St. Francis Dr.

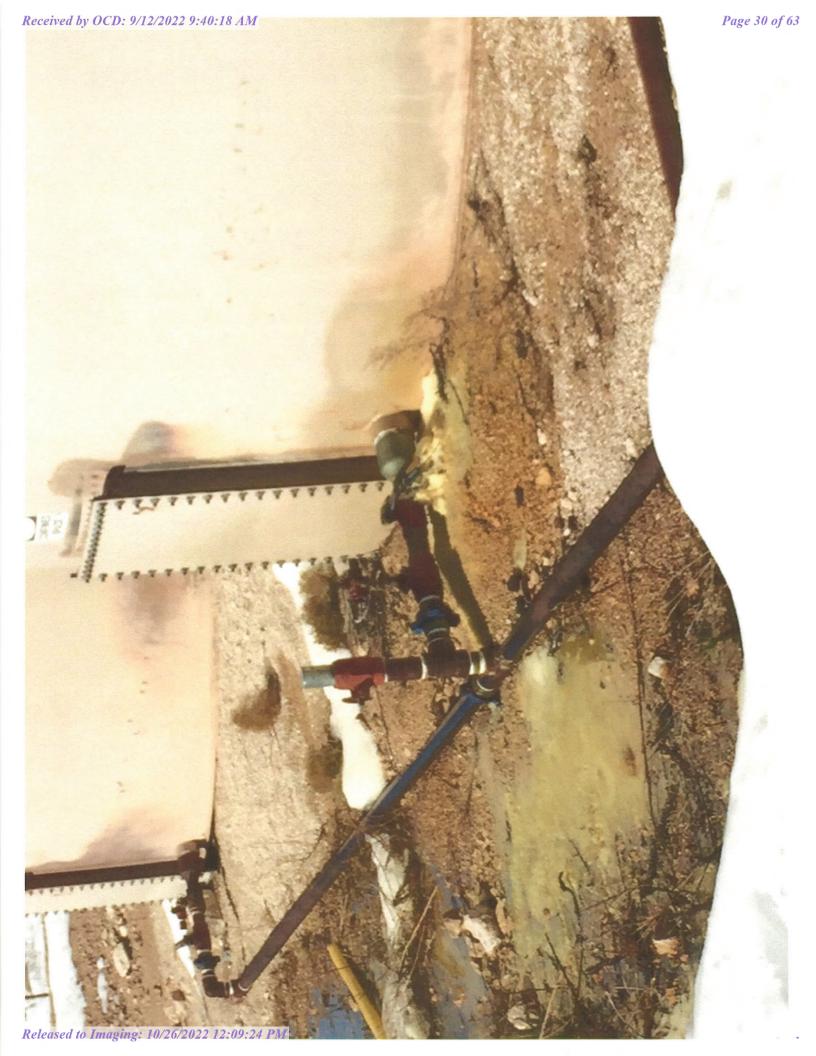
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

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

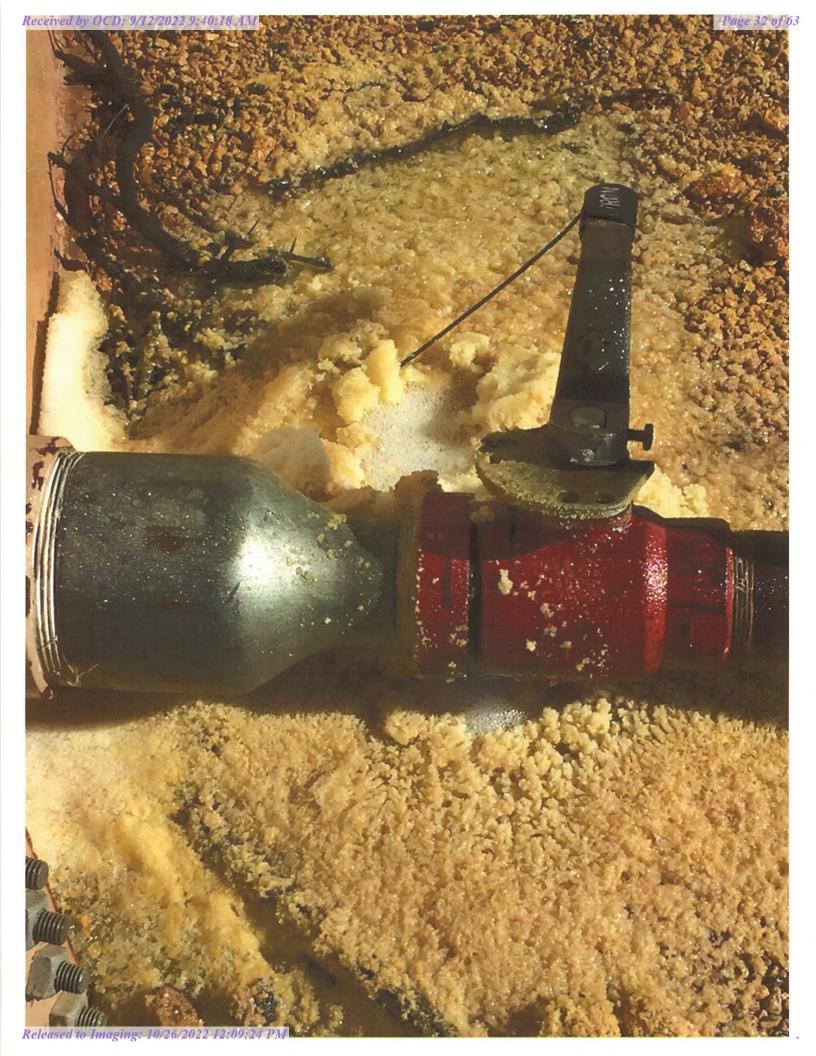
			Rele	ease Notific		and Co			l Report				
Name of Co	ompany D	evon Energy	Product	ion Company		OPERATOR ☑ Initial Report ☐ Final Report Contact Rudy Zuniga Production Foreman							
		Rivers Hwy				Telephone No. 575-390-5435							
Facility Na	me South	Shoebar 15	State 2		F	acility Ty	oe Oil						
Surface Ov	vner State			Mineral O)wner S	State		API No	30-025-34702				
				LOCA	TION	OF RE	LEASE						
Unit Letter	Section	Township	Range	Feet from the	10-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	outh Line	Feet from the	East/West Line	County				
Н	15	178	35E	1650	No	orth	800	East	Lea				
		1	atitude:	N 32'40'49.11" NATI		Loi OF REL	ngitude: W 103	3*54*53,19**					
Type of Rele Produced Wa						Volume of		Volume R 6 bbls oil	Recovered				
Source of Re 2" ball valv						Date and 1 1.3.16 @1	Hour of Occurre 1:30 am	Date and 1.3.16 @1	Hour of Discovery 1:30 am				
Was Immed	iate Notice	200	Yes	No Not Rec		If YES, To Kellie Jone Jim Amos	es OCD						
By Whom? Lynn Smith, Assistant Production Foreman							Date and Hour 1.4.16 @8:06 am 1.4.16 @8:10 am						
Was a Wate	rcourse Re		Yes 🛛	Nie		If YES, Volume Impacting the Watercourse							
	ourse was In	mpacted, Des				RECEIVED							
Describe Cause of Problem and Remedial Action Taken.* 2" ball valve busted causing a 44 bbl produced water and oil to release into unlined containment. Well was immediately shut in to prevent further release. Repairs on the ball valve will be made.													
Describe Area Affected and Cleanup Action Taken.* 27 bbls produced water and 17 bbls oil was released on the South, South West side of the facility. 6 bbls oil was recovered via vacuum truck. Size of affected area was 5'x48'. All released fluid remained on location. Environmental Agency to be contacted for remediation.							via vacuum truck. Size of						
regulations a public health should their or or the environ	Il operators or the envir operations h nment. In a	are required to conment. The ave failed to a	o report an acceptance adequately OCD accep	d/or file certain re e of a C-141 repor investigate and re	lease not t by the I mediate o	ifications and NMOCD material	nd perform correct arked as "Final R on that pose a thre	tive actions for rele eport" does not relie eat to ground water.	uant to NMOCD rules and lases which may endanger eve the operator of liability , surface water, human health ompliance with any other				
Signature: C	orina k	loya				OIL CONSERVATION DIVISION							
Printed Name	e: Corina N	loya			Aj	pproved by	Environmental S	pecialist: KOS	5				
Title: Field A	dmin Sup	port			Aj	pproval Da	e: 01/07/2016	Expiration I	Date: 03/07/2016				
						Conditions of Approval: Site samples required. Delineate and remediate as per MNOCD guides. Geotag Attached 1RP-4079							
Attach Addi	Attach Additional Sheets If Necessary photographs of remediation recommended. nKJ1600726055												











	Page 33 of	63
Incident ID	NKJ1600726055	
District RP		
Facility ID		
Application ID		

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	(ft bgs)				
Did this release impact groundwater or surface water?	☐ Yes ☒ No				
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes 🗵 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)?	☐ Yes 🏻 No				
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes 🔀 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?	☐ Yes ☒ No				
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No				
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes 🔀 No				
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No				
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No				
Are the lateral extents of the release overlying an unstable area such as karst geology?					
Are the lateral extents of the release within a 100-year floodplain? ☐ Yes ☒ N					
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes 🗵 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.

Received by OCD: 9/12/2022 9:40:18 AM Form C-141 State of New Mexico Oil Conservation Division Page 4

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Incident ID	NKJ1600726055
District RP	
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: Mike Hanagan _____ _{Title:} Manager Date: 9/7/2022 Signature: email: mike@manzanoenergy.com Telephone: 575-623-1996

OCD Only

Jocelyn Harimon Date: 09/12/2022 Received by:

Page 35 of 63

Incident ID NKJ1600726055
District RP
Facility ID
Application ID

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.1	1 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							
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of	ntions. The responsible party acknowledges they must substantially nditions that existed prior to the release or their final land use in						
Printed Name: Mike Hanagan	Title: Manager						
Signature:	Date: 9/7/2022						
email: mike@manzanoenergy.com	Telephone: 575-623-1996						
OCD Only							
Received by: Jocelyn Harimon	Date:09/12/2022						
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: Lattan Hall	Date: 10/26/2022						
Printed Name: Brittany Hall	Title: Environmental Specialist						



Appendix D

Photographic Documentation













Appendix E

Laboratory Reports



September 01, 2022

TOM BYNUM
PIMA ENVIROMENTAL
1601 N TURNER STE. 500
HOBBS, NM 88240

RE: SHOEBAR 15 ST 2

Enclosed are the results of analyses for samples received by the laboratory on 08/29/22 12:07.

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

Cardinal Laboratories is accreditated 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)

Celey D. Keene

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,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

SHOEBAR 15 ST 2

Project Name: SHC
Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM

Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: N. COMP 1' (H223958-01)

BTEX 8021B	mg,	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	1.98	99.1	2.00	3.36	
Toluene*	<0.050	0.050	09/01/2022	ND	2.20	110	2.00	1.49	
Ethylbenzene*	<0.050	0.050	09/01/2022	ND	2.12	106	2.00	0.837	
Total Xylenes*	< 0.150	0.150	09/01/2022	ND	6.62	110	6.00	1.57	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	112 9	% 69.9-14	0						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2022	ND	190	94.9	200	1.09	
DRO >C10-C28*	<10.0	10.0	08/31/2022	ND	182	90.9	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	08/31/2022	ND					
Surrogate: 1-Chlorooctane	82.4	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	84.5	% 46.3-17	8						

Cardinal Laboratories *=Accredited Analyte

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Celeg & Frence



Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

Project Name: SHOEBAR 15 ST 2

Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

Sample ID: S. COMP 1' (H223958-02)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	1.98	99.1	2.00	3.36	
Toluene*	<0.050	0.050	09/01/2022	ND	2.20	110	2.00	1.49	
Ethylbenzene*	<0.050	0.050	09/01/2022	ND	2.12	106	2.00	0.837	
Total Xylenes*	<0.150	0.150	09/01/2022	ND	6.62	110	6.00	1.57	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 9	69.9-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2022	ND	190	94.9	200	1.09	
DRO >C10-C28*	<10.0	10.0	08/31/2022	ND	182	90.9	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	08/31/2022	ND					
Surrogate: 1-Chlorooctane	83.9	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	83.9	% 46.3-17	8						

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Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

Project Name: SHOEBAR 15 ST 2

Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

Sample ID: E. COMP 1' (H223958-03)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	1.98	99.1	2.00	3.36	
Toluene*	<0.050	0.050	09/01/2022	ND	2.20	110	2.00	1.49	
Ethylbenzene*	<0.050	0.050	09/01/2022	ND	2.12	106	2.00	0.837	
Total Xylenes*	<0.150	0.150	09/01/2022	ND	6.62	110	6.00	1.57	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	109 9	69.9-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2022	ND	190	94.9	200	1.09	
DRO >C10-C28*	<10.0	10.0	08/31/2022	ND	182	90.9	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	08/31/2022	ND					
Surrogate: 1-Chlorooctane	79.3	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	80.2	% 46.3-17	8						

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Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

Project Name: SHOEBAR 15 ST 2
Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM

Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: W. COMP 1' (H223958-04)

BTEX 8021B	mg	/kg	Analyze	ed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	1.98	99.1	2.00	3.36	
Toluene*	<0.050	0.050	09/01/2022	ND	2.20	110	2.00	1.49	
Ethylbenzene*	<0.050	0.050	09/01/2022	ND	2.12	106	2.00	0.837	
Total Xylenes*	<0.150	0.150	09/01/2022	ND	6.62	110	6.00	1.57	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	108	% 69.9-14	0						
Chloride, SM4500CI-B	mg	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2022	ND	190	94.9	200	1.09	
DRO >C10-C28*	<10.0	10.0	08/31/2022	ND	182	90.9	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	08/31/2022	ND					
Surrogate: 1-Chlorooctane	89.7	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	90.0	% 46.3-17	78						

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Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

Project Name: SHOEBAR 15 ST 2

Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

Sample ID: S. 1 1' (H223958-05)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	2.01	101	2.00	3.25	
Toluene*	<0.050	0.050	09/01/2022	ND	2.40	120	2.00	15.9	
Ethylbenzene*	<0.050	0.050	09/01/2022	ND	2.32	116	2.00	15.4	
Total Xylenes*	<0.150	0.150	09/01/2022	ND	7.23	120	6.00	15.6	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	69.9-14	0						
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2022	ND	190	94.9	200	1.09	
DRO >C10-C28*	<10.0	10.0	08/31/2022	ND	182	90.9	200	1.90	
EXT DRO >C28-C36	<10.0	10.0	08/31/2022	ND					
Surrogate: 1-Chlorooctane	75.6	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	79.1	% 46.3-17	8						

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Celey D. Keine



Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

Project Name: SHOEBAR 15 ST 2

Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

Sample ID: S. 1 2' (H223958-06)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	2.01	101	2.00	3.25	
Toluene*	<0.050	0.050	09/01/2022	ND	2.40	120	2.00	15.9	
Ethylbenzene*	<0.050	0.050	09/01/2022	ND	2.32	116	2.00	15.4	
Total Xylenes*	<0.150	0.150	09/01/2022	ND	7.23	120	6.00	15.6	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103 9	69.9-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2022	ND	193	96.4	200	3.65	
DRO >C10-C28*	<10.0	10.0	08/31/2022	ND	196	98.1	200	2.71	
EXT DRO >C28-C36	<10.0	10.0	08/31/2022	ND					
Surrogate: 1-Chlorooctane	91.2	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	102 9	6 46.3-17	8						

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Celey D. Keine



Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

SHOEBAR 15 ST 2

ma/ka

Project Name: SHC Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM

Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S. 1 3' (H223958-07)

RTFY 8021R

BIEX 8021B	mg,	/ kg	Anaiyze	a BA: TH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	2.01	101	2.00	3.25	
Toluene*	< 0.050	0.050	09/01/2022	ND	2.40	120	2.00	15.9	
Ethylbenzene*	< 0.050	0.050	09/01/2022	ND	2.32	116	2.00	15.4	
Total Xylenes*	<0.150	0.150	09/01/2022	ND	7.23	120	6.00	15.6	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	110	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2022	ND	193	96.4	200	3.65	
DRO >C10-C28*	<10.0	10.0	08/31/2022	ND	196	98.1	200	2.71	
EXT DRO >C28-C36	<10.0	10.0	08/31/2022	ND					
Surrogate: 1-Chlorooctane	118 9	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	133	% 46.3-17	8						

Applyzod By: 1H

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Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

Project Name: SHOEBAR 15 ST 2

Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM

ma/ka

Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S. 1 4' (H223958-08)

RTFY 8021R

BIEX 8021B	mg	/ kg	Anaiyze	ea By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	2.01	101	2.00	3.25	
Toluene*	<0.050	0.050	09/01/2022	ND	2.40	120	2.00	15.9	
Ethylbenzene*	<0.050	0.050	09/01/2022	ND	2.32	116	2.00	15.4	
Total Xylenes*	<0.150	0.150	09/01/2022	ND	7.23	120	6.00	15.6	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	103	% 69.9-14	0						
Chloride, SM4500CI-B	mg	/kg	Analyze	Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2022	ND	193	96.4	200	3.65	
DRO >C10-C28*	<10.0	10.0	08/31/2022	ND	196	98.1	200	2.71	
EXT DRO >C28-C36	<10.0	10.0	08/31/2022	ND					
Surrogate: 1-Chlorooctane	101	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	110	% 46.3-17	78						

Analyzed By: 14

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Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

Project Name: SHOEBAR 15 ST 2

Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM

Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S. 2 1' (H223958-09)

BTEX 8021B	mg	/kg	Analyze	ed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	2.01	101	2.00	3.25	
Toluene*	<0.050	0.050	09/01/2022	ND	2.40	120	2.00	15.9	
Ethylbenzene*	< 0.050	0.050	09/01/2022	ND	2.32	116	2.00	15.4	
Total Xylenes*	<0.150	0.150	09/01/2022	ND	7.23	120	6.00	15.6	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	107	% 69.9-14	0						
Chloride, SM4500CI-B	mg	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2022	ND	193	96.4	200	3.65	
DRO >C10-C28*	<10.0	10.0	08/31/2022	ND	196	98.1	200	2.71	
EXT DRO >C28-C36	<10.0	10.0	08/31/2022	ND					
Surrogate: 1-Chlorooctane	92.3	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	101	% 46.3-17	78						

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Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

Project Name: SHOEBAR 15 ST 2

Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM

Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S. 2 2' (H223958-10)

BTEX 8021B	mg	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	2.01	101	2.00	3.25	
Toluene*	<0.050	0.050	09/01/2022	ND	2.40	120	2.00	15.9	
Ethylbenzene*	< 0.050	0.050	09/01/2022	ND	2.32	116	2.00	15.4	
Total Xylenes*	<0.150	0.150	09/01/2022	ND	7.23	120	6.00	15.6	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	105	% 69.9-14	0						
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/01/2022	ND	215	107	200	1.15	
DRO >C10-C28*	<10.0	10.0	09/01/2022	ND	198	98.9	200	8.00	
EXT DRO >C28-C36	<10.0	10.0	09/01/2022	ND					
Surrogate: 1-Chlorooctane	76.1	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	87.1	% 46.3-17	78						

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Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

Project Name: SHOEBAR 15 ST 2

Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM

Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S. 2 3' (H223958-11)

BTEX 8021B	mg	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	2.01	101	2.00	3.25	
Toluene*	<0.050	0.050	09/01/2022	ND	2.40	120	2.00	15.9	
Ethylbenzene*	<0.050	0.050	09/01/2022	ND	2.32	116	2.00	15.4	
Total Xylenes*	<0.150	0.150	09/01/2022	ND	7.23	120	6.00	15.6	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	115	% 69.9-14	0						
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/01/2022	ND	215	107	200	1.15	
DRO >C10-C28*	<10.0	10.0	09/01/2022	ND	198	98.9	200	8.00	
EXT DRO >C28-C36	<10.0	10.0	09/01/2022	ND					
Surrogate: 1-Chlorooctane	81.7	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	93.6	% 46.3-17	78						

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Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

Project Name: SHOEBAR 15 ST 2

Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

Sample ID: S. 2 4' (H223958-12)

BTEX 8021B	mg/	kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	2.01	101	2.00	3.25	
Toluene*	<0.050	0.050	09/01/2022	ND	2.40	120	2.00	15.9	
Ethylbenzene*	<0.050	0.050	09/01/2022	ND	2.32	116	2.00	15.4	
Total Xylenes*	<0.150	0.150	09/01/2022	ND	7.23	120	6.00	15.6	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	110 9	69.9-14	0						
Chloride, SM4500CI-B	mg/	kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/01/2022	ND	215	107	200	1.15	
DRO >C10-C28*	<10.0	10.0	09/01/2022	ND	198	98.9	200	8.00	
EXT DRO >C28-C36	<10.0	10.0	09/01/2022	ND					
Surrogate: 1-Chlorooctane	77.1	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	87.3	% 46.3-17	8						

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Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

SHOEBAR 15 ST 2

Project Name: Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact Sample Received By: Tamara Oldaker

Sample ID: S. 3 1' (H223958-13)

BTEX 8021B	mg/	'kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	2.01	101	2.00	3.25	
Toluene*	<0.050	0.050	09/01/2022	ND	2.40	120	2.00	15.9	
Ethylbenzene*	<0.050	0.050	09/01/2022	ND	2.32	116	2.00	15.4	
Total Xylenes*	<0.150	0.150	09/01/2022	ND	7.23	120	6.00	15.6	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	107 9	% 69.9-14	0						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg/	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/01/2022	ND	215	107	200	1.15	
DRO >C10-C28*	<10.0	10.0	09/01/2022	ND	198	98.9	200	8.00	
EXT DRO >C28-C36	<10.0	10.0	09/01/2022	ND					
Surrogate: 1-Chlorooctane	68.6	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	78.3	% 46.3-17	8						

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Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

SHOEBAR 15 ST 2

Project Name: SHC Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM

ma/ka

Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S. 3 2' (H223958-14)

RTFY 8021R

BIEX 8021B	mg	/кд	Anaiyze	a BA: TH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	2.01	101	2.00	3.25	
Toluene*	<0.050	0.050	09/01/2022	ND	2.40	120	2.00	15.9	
Ethylbenzene*	<0.050	0.050	09/01/2022	ND	2.32	116	2.00	15.4	
Total Xylenes*	<0.150	0.150	09/01/2022	ND	7.23	120	6.00	15.6	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	110	% 69.9-14	0						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2022	ND	215	107	200	1.15	
DRO >C10-C28*	<10.0	10.0	08/31/2022	ND	198	98.9	200	8.00	
EXT DRO >C28-C36	<10.0	10.0	08/31/2022	ND					
Surrogate: 1-Chlorooctane	78.8	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	91.0	% 46.3-17	8						

Applyzod By: 1H

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Celey D. Keine



Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

Project Name: SHOEBAR 15 ST 2

Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM

Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S. 3 3' (H223958-15)

BTEX 8021B	mg	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	2.01	101	2.00	3.25	
Toluene*	< 0.050	0.050	09/01/2022	ND	2.40	120	2.00	15.9	
Ethylbenzene*	<0.050	0.050	09/01/2022	ND	2.32	116	2.00	15.4	
Total Xylenes*	<0.150	0.150	09/01/2022	ND	7.23	120	6.00	15.6	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	110	% 69.9-14	0						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/01/2022	ND	215	107	200	1.15	
DRO >C10-C28*	<10.0	10.0	09/01/2022	ND	198	98.9	200	8.00	
EXT DRO >C28-C36	<10.0	10.0	09/01/2022	ND					
Surrogate: 1-Chlorooctane	61.7	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	70.6	% 46.3-17	78						

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Celey D. Keine



Analytical Results For:

PIMA ENVIROMENTAL TOM BYNUM 1601 N TURNER STE. 500 HOBBS NM, 88240 Fax To:

Received: 08/29/2022 Reported: 09/01/2022

SHOEBAR 15 ST 2

Project Name: SHC
Project Number: 8-2

Project Location: MANZANO ENERGY - LEA CO NM

Sampling Date: 08/25/2022

Sampling Type: Soil

Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S. 3 4' (H223958-16)

BTEX 8021B	mg	/kg	Analyze	d By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/01/2022	ND	2.01	101	2.00	3.25	
Toluene*	<0.050	0.050	09/01/2022	ND	2.40	120	2.00	15.9	
Ethylbenzene*	<0.050	0.050	09/01/2022	ND	2.32	116	2.00	15.4	
Total Xylenes*	<0.150	0.150	09/01/2022	ND	7.23	120	6.00	15.6	
Total BTEX	<0.300	0.300	09/01/2022	ND					
Surrogate: 4-Bromofluorobenzene (PID	114	% 69.9-14	0						
Chloride, SM4500CI-B	mg	/kg	Analyze	ed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/31/2022	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/31/2022	ND	215	107	200	1.15	
DRO >C10-C28*	<10.0	10.0	08/31/2022	ND	198	98.9	200	8.00	
EXT DRO >C28-C36	<10.0	10.0	08/31/2022	ND					
Surrogate: 1-Chlorooctane	77.2	% 45.3-16	1						
Surrogate: 1-Chlorooctadecane	88.0	% 46.3-17	8						

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Notes and Definitions

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.

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

QR-04

QM-07

** 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

The RPD for the BS/BSD was outside of historical limits.

Samples reported on an as received basis (wet) unless otherwise noted on report

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CARDINAL

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Pima Environmental Services	ental Services	BILL TO	ANALYSIS REQUEST
Project Manager: Tom Bynum		P.O.#:	
Address: 5614 N. Lovington Hwy	Hwy	Company: Montano Energy	
city: Hobbs	State: NM Zip: 88240	Attn:	
Phone #: 575-964-7740	Fax#:	Address:	
Project #: 8-2	Project Owner:	City:	
Project Name: Shoebook 15 St	2	State: Zip:	
Project Location: (PON County)		Phone #:	
Sampler Name: Nord Rogers		Fax#:	
FOR LAB USE ONLY	MATRIX	PRESERV. SAMPLING	7(
Lab I.D. Sample I.D. H22 2858	D S)RAB OR (C)OMP CONTRINERS NASTEWATER NOIL OIL	ТРЕВ: ТРев: ТРЕВ: Т	
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PLEASE NOTE: Liability and Character Configurate liability and Character Configurate liability and Character Configurate liability and Character Configurate Liability and Character Chara	7		
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	-	Phone Result:	□ No Add'I Fax #:
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Delivered By: (Circle One) 10.0 Sampler - UPS - Bus - Other:	10-0.62	CHECKED BY: (Initials)	
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101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Enail Ton - For Bill + Report

Add'l Phone #: Add'l Fax #:

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Page 20 of 20

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Project Manager: Tom Bynum		P.O. #:	_	
Address: 5614 N. Lovington Hwy		Company: Mo	Company: Monzon L	
city: Hobbs Stal	State: NM Zip: 88240	Attn:	Program Chargin	
Phone #: 575-964-7740 Fax #:	**	Address:		
Project #: 8 2 Proje	Project Owner:	City:		
Project Name: Shorbar 16 St Z			Zip:	
Project Location: (ex. (Durty		Phone #:		
Sampler Name: NPO ROOPIS		Fax #:		
FOR LAB USE ONLY	MATRIX	PRESERV.	SAMPLING	
Lab I.D. Sample I.D.	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL	SLUDGE SLUDGE SLUDGE	BTEX TPH	
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h 7.5.27		-	1 1 55:9	
149.32			82	
15 8.3 3			8.8	
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TEASE NOTE: Lability and Damages. Cardinal's lability and client's exclusive remedy for any claim arising whether based in contract or fort shall be limited in the associate and be also also also also also also also also	usive remedy for any claim arising whether based in contra	confract or tort shall be limited to the	Serviced and far this elicity for the	

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

-10.00

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Date: Time: CHECKED BY:

Received By:

TORPIT TIMES OF

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CARDINAL Laboratories

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

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811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 142289

CONDITIONS

Operator:	OGRID:
MANZANO LLC	231429
P.O. Box 1737	Action Number:
Roswell, NM 88202	142289
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Creat By	ed Condition	Condition Date
bha	II None	10/26/2022