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TALON LPE

Closure Report:

Richardson U #001
Lea County, New Mexico
API ID # 30-025-27783
Incident # NGRL0827042006 and nGRL0826839203

Prepared For:

Matador Resources
5347 N. 26th Street 2nd Floor.
Artesia, NM 88210

Prepared By:

Talon/LPE
408 W. Texas Avenue
Artesia, New Mexico 88210

August 31, 2023

Approximate Depth to Groundwater	**67 feet bgs**

☐Yes ☒No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse
☐Yes ☒No	Within 200 feet of any lakebed, sinkhole or a playa lake
☐Yes ☒No	Within 300 feet from an occupied permanent residence, school, hospital, institution or church
☐Yes ☒No	Within 500 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	Within 1000 feet of any freshwater well or spring
☐Yes ☒No	Within incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978
☐Yes ☒No	Within 300 feet of a wetland
☐Yes ☒No	Within the area overlying a subsurface mine
☐Yes ☒No	Within an unstable area
☐Yes ☒No	Within a 100-year floodplain

With depth to water source available that meets New Mexico Oil Conservation Division's (NMOCD) criteria within ½ mile of the site, the responsible party must therefore adhere to the cleanup criteria for this site of groundwater greater than 51 feet bgs, Table I, NMOCD Rule 19.15.29 NMAC.

Table I
Closure Criteria for Soils Impacted by a Release

Depth below horizontal extents of release to ground water less than 10,000 mg/l TDS	Constituent	Method	Limit
51 feet ≥ 100 feet	Total Chlorides	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Incident Description

Matador personnel noted a historical spill had been reported on April 22, 2008, that needed to be addressed. The C-141 submitted to the NMOCD, incident number NGRL0827042006 and nGRL0826839203, stated a 3 inch load line valve was not sealed correctly and a cow opened vavle, resulting in the release of one hundred and twenty three (123) barrels (bbls) of produced water was released to the site and Six (6) bbls were recovered. The site map is presented in Appendix I.

Site Assessment

On August 11th, 2023, Talon personnel mobilized to the site to conduct an initial site assessment of the area where the former heater treater resided. The impacted area was photographed, sampled utilizing a hand auger, and mapped. All soil samples were properly packaged, preserved, and transported to Cardinal laboratories with the chain of custody for analysis of Total Chlorides (Method SM4500Cl-B), TPH (EPA Method 8015M), and volatile Organics (BTEX, EPA Method 8021B). Sample locations are shown on the attached Figure 1 (Appendix I) and the results of our sampling event are presented on the following data table.

Table 1
Intial Site Assessment

Matador Resources - Richardson #001									
Sample ID	**Sample Date**	**Depth (BGS)**	**Benzene mg/kg**	**BTEX mg/kg**	**GRO mg/kg**	**DRO mg/kg**	**MRO mg/kg**	**Total TPH mg/kg**	**Chlorides mg/kg**
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			**10 mg/kg**	**50 mg/kg**	**DRO + GRO + MRO combined = 100 mg/kg**			**100 mg/kg**	**600 mg/kg**
S-1	8/11/23	1'	ND	ND	ND	ND	ND	ND	32
	8/11/23	1.5'R	ND	ND	ND	ND	ND	ND	64
S-2	8/11/23	1'	ND	ND	ND	12	ND	12	32
	8/11/23	2'R	ND	ND	ND	23	ND	23	48

S-3	8/11/23	1'	ND	ND	ND	ND	ND	ND	ND
	8/11/23	2'	ND	ND	ND	ND	ND	ND	16
	8/11/23	3'	ND	ND	ND	ND	ND	ND	32
	8/11/23	4.5'	ND	ND	ND	ND	ND	ND	32
S-4	8/11/23	1'	ND	ND	ND	ND	ND	ND	16
	8/11/23	2'	ND	ND	ND	ND	ND	ND	ND
	8/11/23	3'	ND	ND	ND	ND	ND	ND	ND
	8/11/23	4.5'	ND	ND	ND	ND	ND	ND	ND
S-5	8/11/23	1'R	ND	ND	ND	67.9	ND	67.9	80

NOTES:

BGS	Below ground surface
mg/kg	Milligrams per kilogram
TPH	Total Petroleum Hydrocarbons
GRO	Gasoline range organics
DRO	Diesel range organics
MRO	Motor oil range organics
S	Sample
C	Confirmation Sample
SW	Sidewall Sample
TT	Test Trench
R	Refusal
ND	Analyte Not Detected
NT	Analyte Not Tested

Highlighted cells indicate exceedance of NMOCD Table 1 Closure Criteria

Remedial Action Summary

- Representative soil samples were collected from the impacted area.
- Laboratory analysis confirms that NMOCD closure criteria for this site were not exceeded. Therefore, no remedial actions were deemed necessary.
- Photographic documentation is provided in Appendix IV.
- Copies of the Final C-141s are presented in Appendix III.

Closure

On behalf of Matador Resources, we respectfully request that no further actions be required and that closure of this incident be granted.

Respectfully submitted,

Talon/LPE

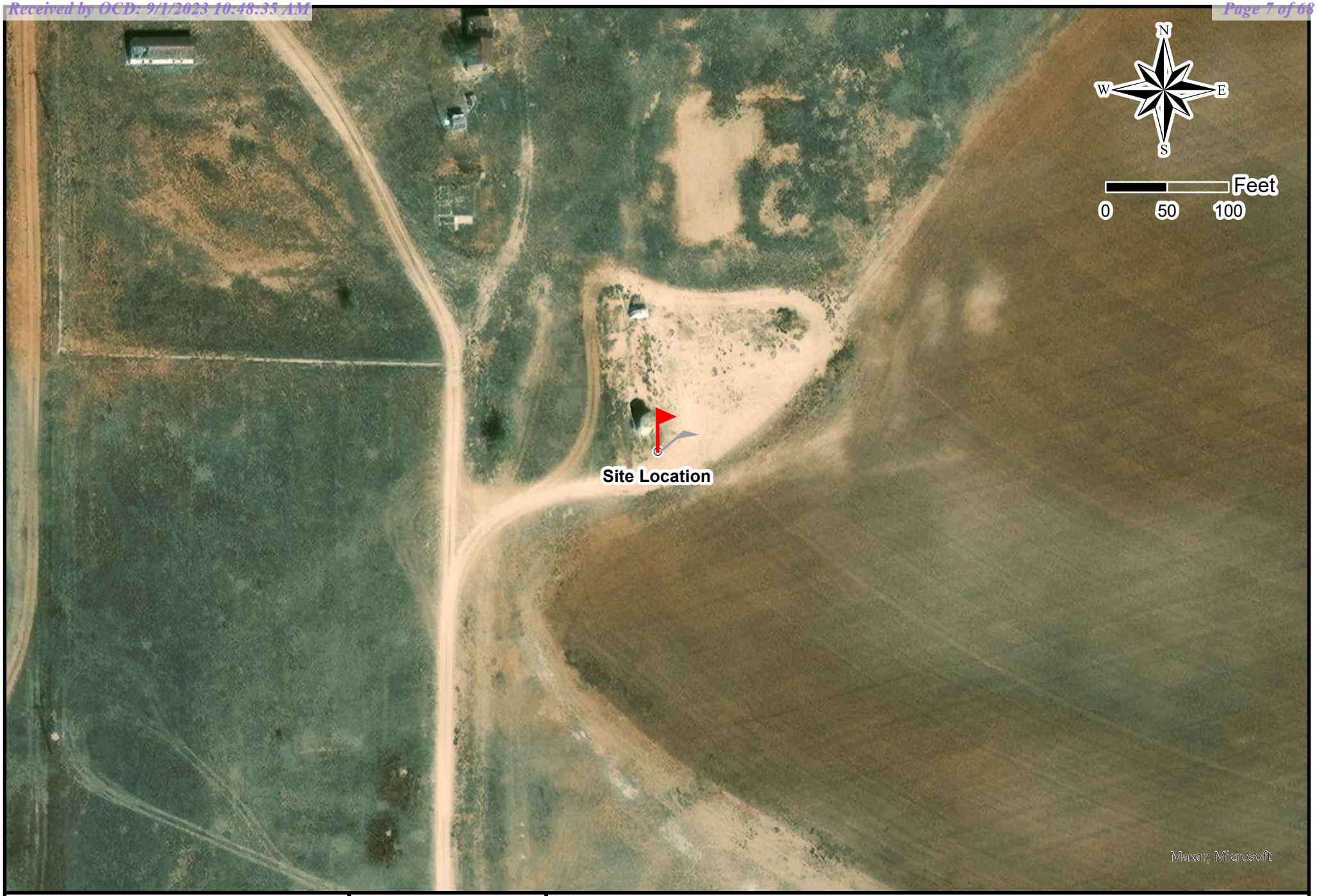
Chad Hensley
Project Manager

Attachments:

Appendix I	Site Maps
Appendix II	Groundwater Data, Soil Survey, FEMA Flood Map
Appendix III	C-141 Form
Appendix IV	Photographic Documentation
Appendix V	Laboratory Report

Appendix I

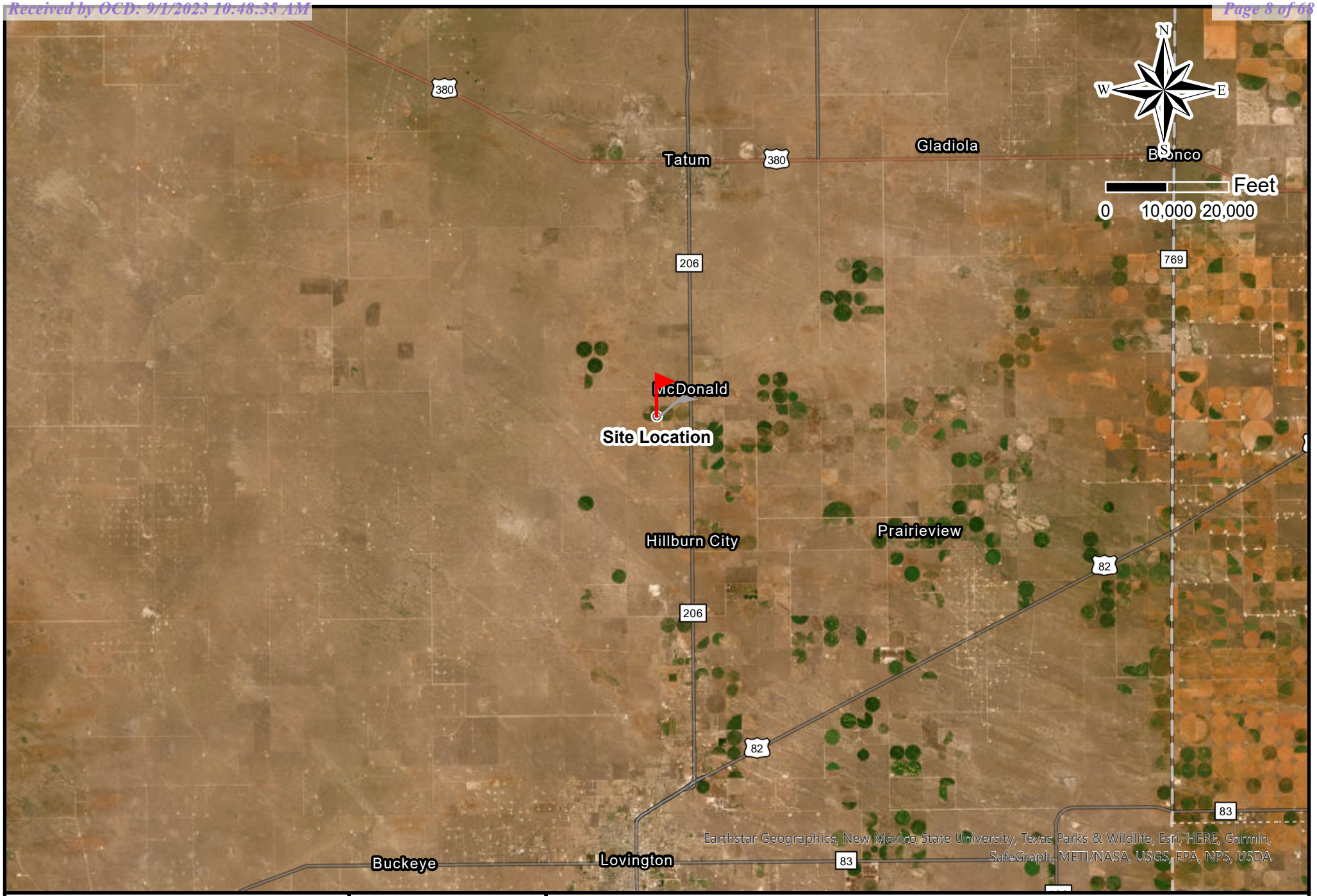
Site Maps



TALON LPE

Drafted: 8/25/2023
1 in = 100 ft
Drafted By: JAI

Matador Resources
Richardson U #001
Lea County, New Mexico
Aerial Map



TALON LPE

Drafted: 8/25/2023
1 in = 20,000 ft
Drafted By: JAI

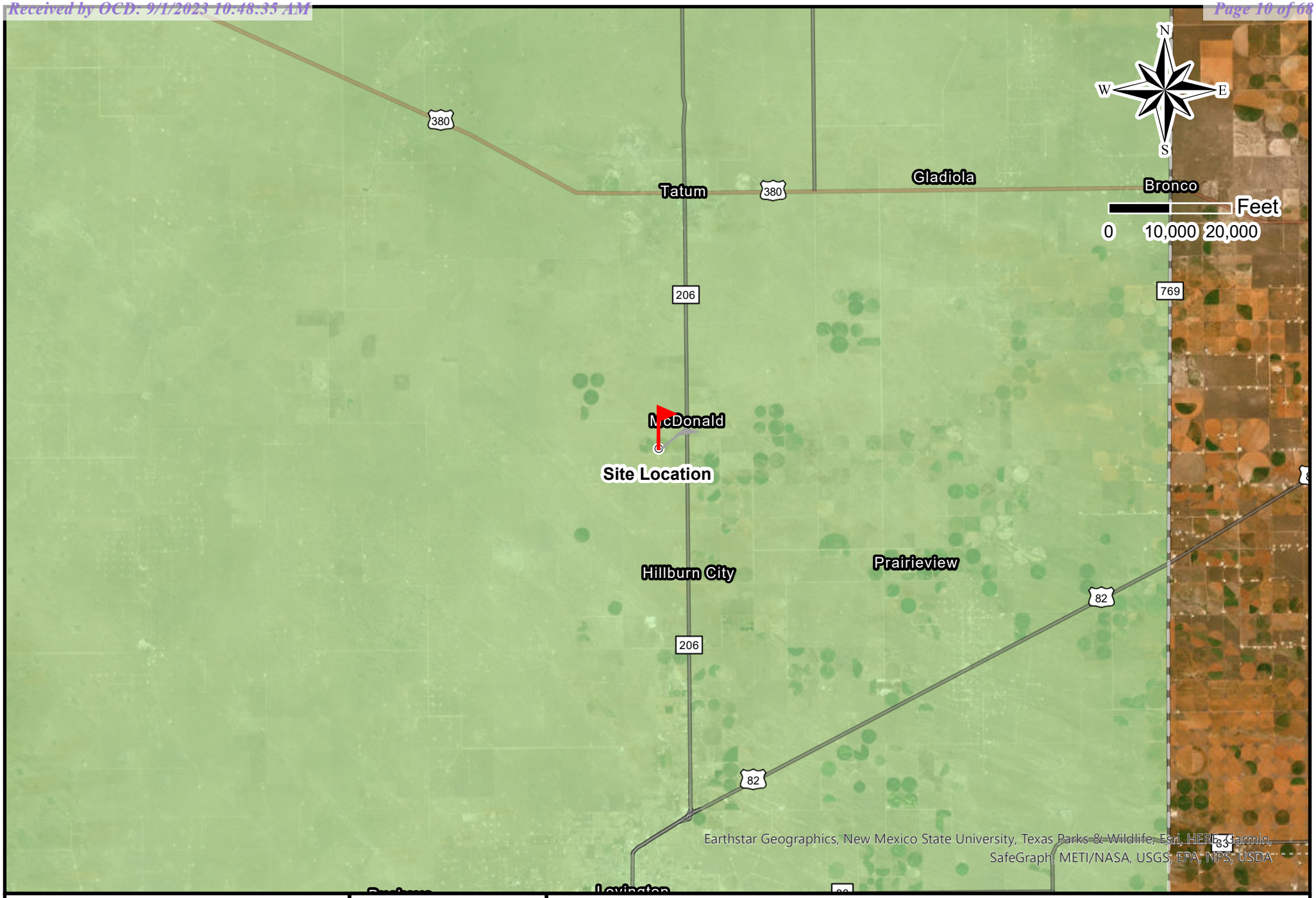
Matador Resources
Richardson U #001
Lea County, New Mexico
Location Map

TALON LPE

Drafted: 8/25/2023
1 in = 30 ft
Drafted By: JAI

Figure 1

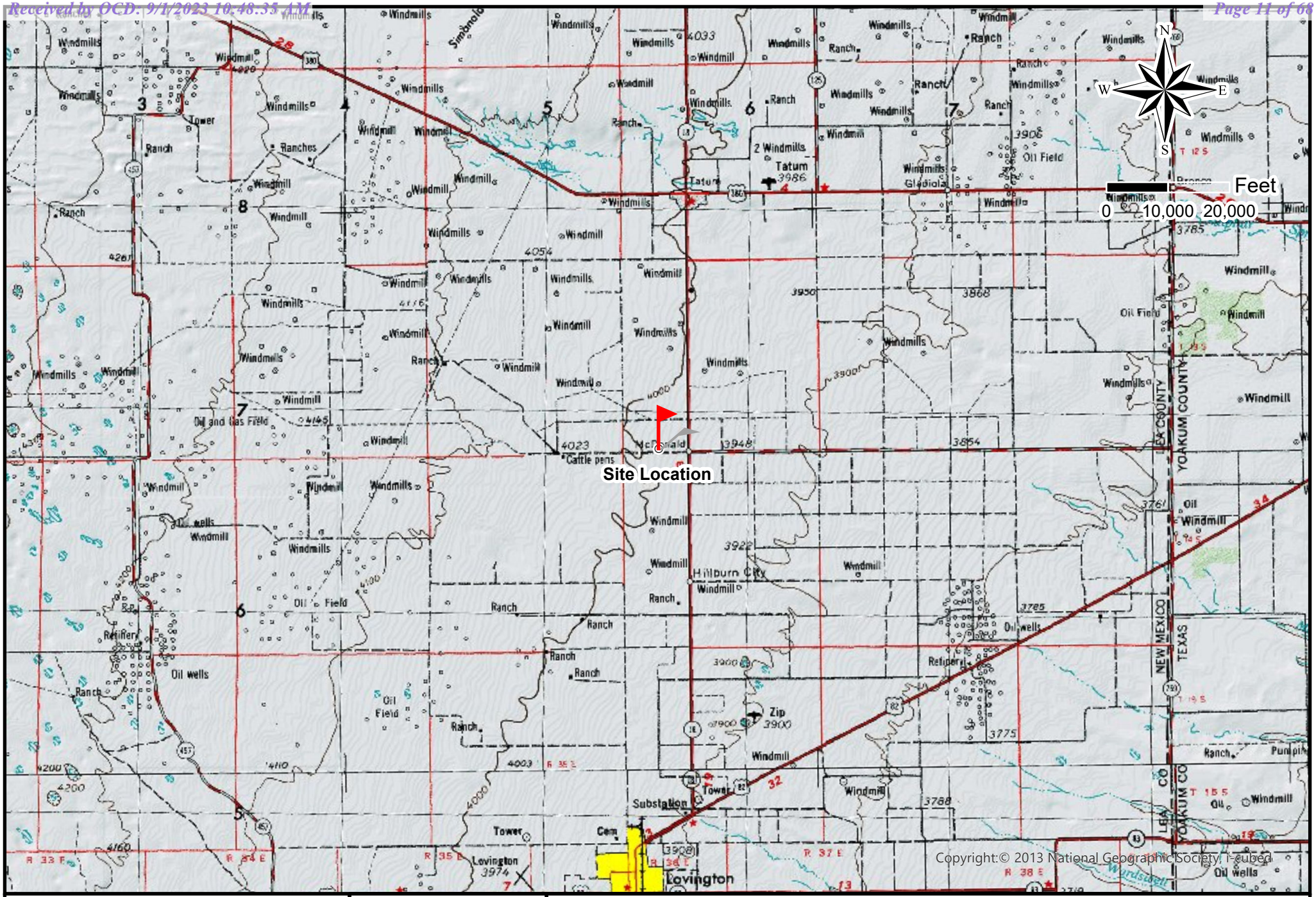
Matador Resources
Richardson U #001
Lea County, New Mexico
Assessment Map



TALON LPE

Drafted: 8/25/2023
1 in = 20,000 ft
Drafted By: JAI

Matador Resources
Richardson U #001
Lea County, New Mexico
Karst Map



TALON LPE

Drafted: 8/25/2023
1 in = 20,000 ft
Drafted By: JAI

Matador Resources
Richardson U #001
Lea County, New Mexico
Topographic Map

Appendix II

Groundwater Data

Soil Survey

FEMA Flood 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 Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 01685 POD1		L	LE		3	3	32	13S	36E	655513	3668341*	3			
L 00118 POD2		L	LE	1	3	3	32	13S	36E	655412	3668440*	138	130		
L 00426 POD3		L	LE			3	32	13S	36E	655714	3668542*	283	120	88	32
L 00072 POD2		L	LE	1	1	1	05	14S	36E	655419	3668038*	318	100	75	25
L 00738		L	LE		1	1	05	14S	36E	655520	3667939*	404	113	70	43
L 00738	R	L	LE		1	1	05	14S	36E	655520	3667939*	404	113	70	43
L 00426 S	R	L	LE	3	2	3	32	13S	36E	655808	3668649*	426	100	40	60
L 00426		L	LE	1	2	3	32	13S	36E	655808	3668849*	586	96	40	56
L 01313		L	LE	1	2	4	31	13S	36E	655003	3668836*	707	88	43	45
L 00427 S		L	LE	2	1	4	31	13S	36E	654801	3668830*	860	132	65	67
L 00738 S		L	LE	3	3	1	05	14S	36E	655426	3667436*	911	105	45	60

Average Depth to Water: **59 feet**
Minimum Depth: **40 feet**
Maximum Depth: **88 feet**

Record Count: 11

UTMNAD83 Radius Search (in meters):

Easting (X): 655511.13 **Northing (Y):** 3668343.37 **Radius:** 1000

***UTM location was derived from PLSS - see Help**

United States Department of Agriculture

NRCS

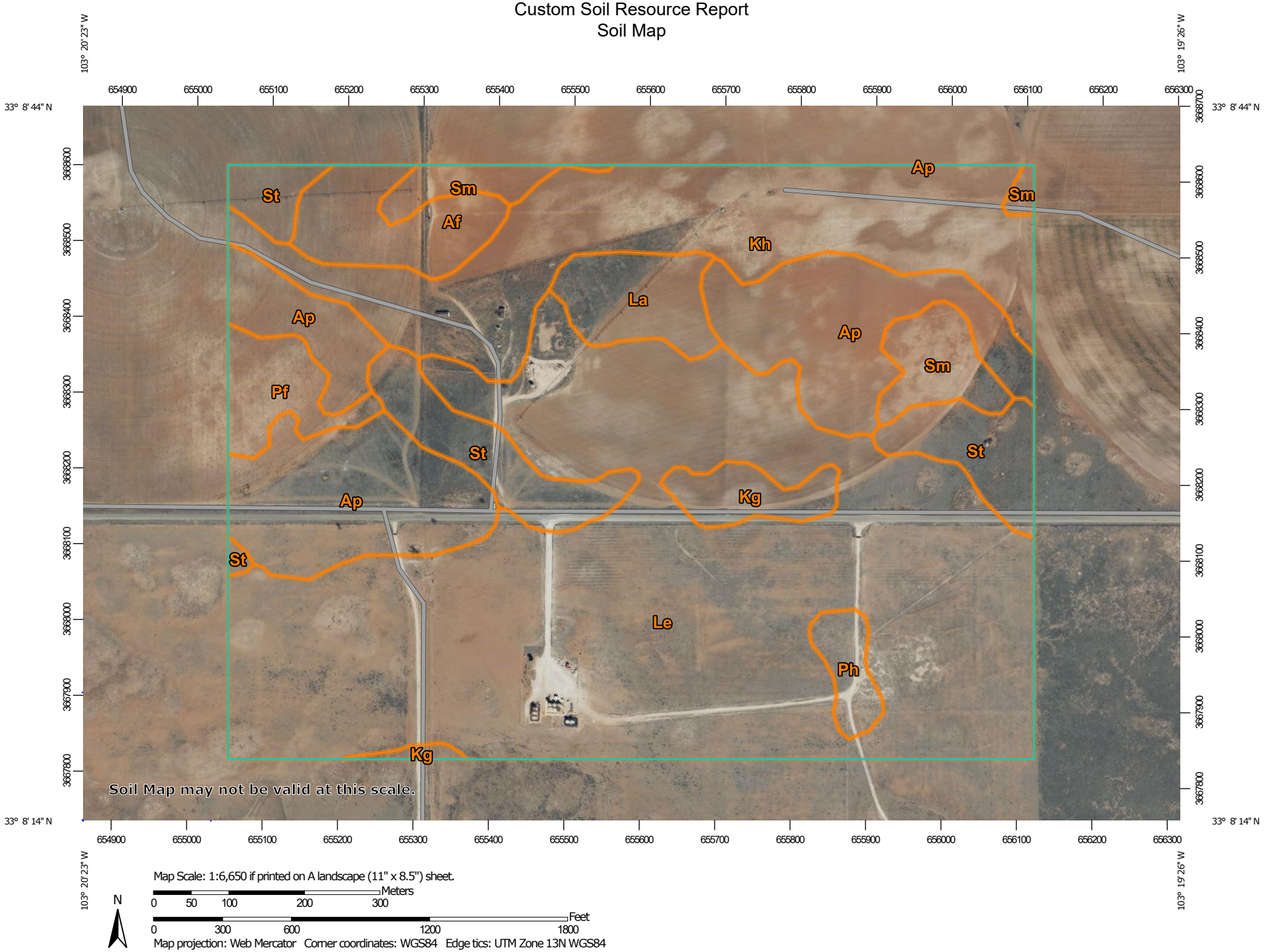
Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Lea County, New Mexico

August 31, 2023

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 19, Sep 8, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 5, 2021—Feb 8, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Af	Amarillo fine sandy loam, 0 to 1 percent slopes	6.8	3.3%
Ap	Arvana fine sandy loam, 0 to 1 percent slopes	31.9	15.4%
Kg	Kimbrough gravelly loam, 0 to 3 percent slopes	3.9	1.9%
Kh	Kimbrough-Lea complex, 0 to 3 percent slopes	32.0	15.4%
La	Lea fine sandy loam	5.7	2.8%
Le	Lea loam	99.3	47.8%
Pf	Portales fine sandy loam, dry, 1 to 3 percent slopes	4.6	2.2%
Ph	Portales loam, 0 to 1 percent slopes	2.4	1.2%
Sm	Simona fine sandy loam, 0 to 1 percent slopes	7.1	3.4%
St	Stegall loam, 0 to 1 percent slopes	14.0	6.7%
Totals for Area of Interest		**207.8**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They

generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Lea County, New Mexico

Af—Amarillo fine sandy loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: f5r6
Elevation: 2,600 to 5,100 feet
Mean annual precipitation: 16 to 21 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 185 to 220 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Amarillo and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Amarillo

Setting

Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy eolian deposits

Typical profile

Ap - 0 to 10 inches: fine sandy loam
Bt - 10 to 41 inches: sandy clay loam
Btkk - 41 to 56 inches: sandy clay loam
Btk - 56 to 80 inches: sandy clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 65 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: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: R077CY036TX - Sandy Loam 16-21" PZ
Hydric soil rating: No

Minor Components

Arvana

Percent of map unit: 4 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077CY036TX - Sandy Loam 16-21" PZ
Hydric soil rating: No

Posey

Percent of map unit: 4 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077CY028TX - Limy Upland 16-21" PZ
Hydric soil rating: No

Sharvana

Percent of map unit: 2 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R077CY037TX - Very Shallow 16-21" PZ
Hydric soil rating: No

Ap—Arvana fine sandy loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: f5rn
Elevation: 2,600 to 5,100 feet
Mean annual precipitation: 16 to 21 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 185 to 220 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

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

Description of Arvana

Setting

Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy eolian deposits

Typical profile

Ap - 0 to 11 inches: fine sandy loam
Bt - 11 to 26 inches: sandy clay loam
Bkkm - 26 to 37 inches: cemented material
Bkk - 37 to 80 inches: very gravelly loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: 20 to 40 inches to petrocalcic
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 80 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 5.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0
Available water supply, 0 to 60 inches: Low (about 4.0 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R077CY036TX - Sandy Loam 16-21" PZ
Hydric soil rating: No

Minor Components

Sharvana

Percent of map unit: 7 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R077CY037TX - Very Shallow 16-21" PZ
Hydric soil rating: No

Amarillo

Percent of map unit: 6 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077CY036TX - Sandy Loam 16-21" PZ
Hydric soil rating: No

Posey

Percent of map unit: 2 percent
Landform: Playa slopes, plains
Down-slope shape: Concave, convex
Across-slope shape: Linear
Ecological site: R077CY028TX - Limy Upland 16-21" PZ
Hydric soil rating: No

Kg—Kimbrough gravelly loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw42
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: 85 percent
Minor components: 15 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: Very 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
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Minor Components

Eunice

Percent of map unit: 6 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Spraberry

Percent of map unit: 5 percent
Landform: Playa rims, plains
Down-slope shape: Convex, linear
Across-slope shape: Linear
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Kenhill

Percent of map unit: 4 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077DY038TX - Clay Loam 12-17" PZ
Hydric soil rating: No

Kh—Kimbrough-Lea complex, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw45
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: 50 percent
Lea and similar soils: 35 percent
Minor components: 15 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: Very 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
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

Kenhill

Percent of map unit: 6 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077DY038TX - Clay Loam 12-17" PZ
Hydric soil rating: No

Douro

Percent of map unit: 6 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

Spraberry

Percent of map unit: 3 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

La—Lea fine sandy loam

Map Unit Setting

National map unit symbol: dmq8
Elevation: 3,600 to 4,400 feet
Mean annual precipitation: 12 to 16 inches
Mean annual air temperature: 58 to 60 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Lea and similar soils: 85 percent
Minor components: 15 percent

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

Description of Lea

Setting

Landform: Plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium derived from sedimentary rock

Typical profile

A - 0 to 5 inches: fine sandy loam
Bk - 5 to 26 inches: loam
Bkm - 26 to 36 inches: cemented material

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: 20 to 40 inches to petrocalcic
Drainage class: Well drained
Runoff class: Medium
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: 30 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R077CY035TX - Sandy 16-21" PZ
Hydric soil rating: No

Minor Components

Portales

Percent of map unit: 8 percent
Ecological site: R077CY028TX - Limy Upland 16-21" PZ
Hydric soil rating: No

Arvana

Percent of map unit: 7 percent
Ecological site: R077CY035TX - Sandy 16-21" PZ
Hydric soil rating: No

Le—Lea loam

Map Unit Setting

National map unit symbol: dmq9
Elevation: 2,500 to 4,400 feet
Mean annual precipitation: 12 to 20 inches
Mean annual air temperature: 57 to 64 degrees F
Frost-free period: 195 to 230 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

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

Description of Lea

Setting

Landform: Plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium derived from sedimentary rock

Typical profile

A - 0 to 4 inches: loam
Bk - 4 to 26 inches: loam
Bkm - 26 to 36 inches: cemented material

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: 20 to 40 inches to petrocalcic
Drainage class: Well drained
Runoff class: Medium
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: 30 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: C
Ecological site: R077CY028TX - Limy Upland 16-21" PZ

Hydric soil rating: No

Minor Components

Kimbrough

Percent of map unit: 6 percent
Ecological site: R077CY037TX - Very Shallow 16-21" PZ
Hydric soil rating: No

Stegall, loam

Percent of map unit: 5 percent
Ecological site: R077CY028TX - Limy Upland 16-21" PZ
Hydric soil rating: No

Arvana

Percent of map unit: 4 percent
Ecological site: R077CY035TX - Sandy 16-21" PZ
Hydric soil rating: No

Pf—Portales fine sandy loam, dry, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: dmqv
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: Farmland of statewide importance

Map Unit Composition

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

Description of Portales, Dry

Setting

Landform: Playa rims, plains
Landform position (three-dimensional): Dip, talf
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Calcareous loamy eolian deposits and/or lacustrine deposits

Typical profile

A - 0 to 15 inches: fine sandy loam
Bk1 - 15 to 36 inches: clay loam
Bk2 - 36 to 48 inches: loam
Bkk - 48 to 80 inches: clay loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches

Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 75 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 3.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R077DY042TX - Limy Upland 12-17" PZ
Hydric soil rating: No

Minor Components

Ratliff

Percent of map unit: 7 percent
Landform: Plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077DY042TX - Limy Upland 12-17" PZ
Hydric soil rating: No

Chavaro

Percent of map unit: 5 percent
Landform: Plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R077DY042TX - Limy Upland 12-17" PZ
Hydric soil rating: No

Delphos

Percent of map unit: 3 percent
Landform: Plains, draws
Landform position (two-dimensional): Footslope, backslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear, concave
Across-slope shape: Linear
Ecological site: R077DY046TX - Sandy 12-17" PZ
Hydric soil rating: No

Ph—Portales loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: f5t2
Elevation: 2,600 to 5,300 feet
Mean annual precipitation: 16 to 21 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 185 to 220 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

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

Description of Portales

Setting

Landform: Playa steps, interdunes, plains
Down-slope shape: Convex, linear, concave
Across-slope shape: Linear
Parent material: Calcareous loamy eolian deposits and/or lacustrine deposits

Typical profile

Ap - 0 to 15 inches: loam
Bk1 - 15 to 35 inches: clay loam
Bk2 - 35 to 43 inches: loam
Bkk - 43 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 75 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 3.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: R077CY028TX - Limy Upland 16-21" PZ
Hydric soil rating: No

Minor Components

Midessa

Percent of map unit: 10 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077CY028TX - Limy Upland 16-21" PZ
Hydric soil rating: No

Posey

Percent of map unit: 3 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077CY028TX - Limy Upland 16-21" PZ
Hydric soil rating: No

Acuff

Percent of map unit: 2 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077CY022TX - Deep Hardland 16-21" PZ
Hydric soil rating: No

Sm—Simona fine sandy loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: dmr8
Elevation: 3,000 to 4,200 feet
Mean annual precipitation: 10 to 15 inches
Mean annual air temperature: 58 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

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

Description of Simona

Setting

Landform: Ridges
Landform position (two-dimensional): Shoulder
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Calcareous eolian deposits derived from sedimentary rock

Typical profile

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

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: 7 to 20 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: 35 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Very low (about 2.0 inches)

Interpretive groups

Land capability classification (irrigated): 6s
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R070BD002NM - Shallow Sandy
Hydric soil rating: No

Minor Components

Lea

Percent of map unit: 8 percent
Ecological site: R077CY028TX - Limy Upland 16-21" PZ
Hydric soil rating: No

Kimbrough

Percent of map unit: 7 percent
Ecological site: R077CY037TX - Very Shallow 16-21" PZ
Hydric soil rating: No

St—Stegall loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 1idyr
Elevation: 2,500 to 5,300 feet
Mean annual precipitation: 16 to 21 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 185 to 220 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Stegall and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Stegall

Setting

Landform: Plains
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loamy eolian deposits from the blackwater draw formation of pleistocene age

Typical profile

Ap - 0 to 8 inches: loam
Bt - 8 to 28 inches: clay loam
Bkkm - 28 to 38 inches: cemented material
BCkk - 38 to 80 inches: clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: 20 to 36 inches to petrocalcic
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 60 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R077CY022TX - Deep Hardland 16-21" PZ
Hydric soil rating: No

Minor Components

Kimberson

Percent of map unit: 5 percent
Landform: Plains
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R077CY037TX - Very Shallow 16-21" PZ
Hydric soil rating: No

Friona

Percent of map unit: 3 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear

Ecological site: R077CY022TX - Deep Hardland 16-21" PZ
Hydric soil rating: No

Slaughter

Percent of map unit: 2 percent
Landform: Plains
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R077CY037TX - Very Shallow 16-21" PZ
Hydric soil rating: No

National Flood Hazard Layer FIRMette

103°20'16"W 33°8'49"N

103°19'39"W 33°8'19"N

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

1:6,000

Basemap Imagery Source: USGS National Map 2023

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*

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
- 17.5 — Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/31/2023 at 1:41 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.

Appendix III

C-141 Forms

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	NGRL0827042006 & NGRL0826839203
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	Matador Resources	OGRID	228937
Contact Name	Clinton Talley	Contact Telephone	337-319-8398
Contact email	clinton.talley@matadorresources.com	Incident # *(assigned by OCD)*	
Contact mailing address	5347 N. 26th Street 2nd Floor, Artesia, NM 88210		

Location of Release Source

Latitude 33.1426926 Longitude -103.3326874

(NAD 83 in decimal degrees to 5 decimal places)

Site Name	RICHARDSON UNIT #001	Site Type	Produced water
Date Release Discovered	4/22/2008	API# *(if applicable)*	30-025-27783

Unit Letter	Section	Township	Range	County
M	32	13S	36E	Lea

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)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☑ Produced Water	Volume Released (bbls) 123	Volume Recovered (bbls) 6
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

3" load line valve was not sealed and cow kicked it partially open.
Fluid stayed on lease road and location.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	GRL0827042006 & NGRL0826839203
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☑ 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

☑ The source of the release has been stopped.
☑ The impacted area has been secured to protect human health and the environment.
☑ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☑ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Clinton Talley Title: EHS

Signature: Clint Talley Date: 8/31/2023

email: clinton.talley@matadorresources.com Telephone: 337-319-8398

OCD Only

Received by: Shelly Wells Date: 9/1/2023

State of New Mexico
Oil Conservation Division

Incident ID	GRL0827042006 & NGRL0826839203
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?	67 (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?	☐ Yes ☑ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☑ No
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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	GRL0827042006 & NGRL0826839203
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: Clinton Talley Title: EHS

Signature: Clint Talley Date: 8/31/2023

email: clinton.talley@matadorresources.com Telephone: 337-319-8398

OCD Only

Received by: Shelly Wells Date: 9/1/2023

Incident ID	
District RP	
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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	GRL0827042006 & NGRL0826839203
District RP	
Facility ID	
Application ID	

Closure

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

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

☑ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☑ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☑ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☑ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Clinton Talley Title: EHS

Signature: Clint Talley Date: 8/31/2023

email: clinton.talley@matadorresources.com Telephone: 337-319-8398

OCD Only

Received by: Shelly Wells Date: 9/1/2023

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

State of New Mexico
Oil Conservation Division

Incident ID	GRL0827042006 & NGRL0826839203
District RP	
Facility ID	
Application ID	

Closure

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

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

☑ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☑ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☑ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☑ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Clinton Talley Title: EHS

Signature: Clint Talley Date: 8/31/2023

email: clinton.talley@matadorresources.com Telephone: 337-319-8398

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: _____

Appendix IV

Photographic Documentation

Richardson Unit #001
Lea County, NM

Photograph No.1 Description:	Richardson S-1 sample area

Photograph No.2 Description:	Richardson S-2 sample area

Photograph No.3 Description:	Richardson S-3 sample area

Photograph No.4 Description:	Richardson S-4 sample area

Photograph No.5 Description:	Richardson S-5 sample area

Appendix V

Laboratory Reports

CARDINAL Laboratories

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

August 17, 2023

CHAD HENSLEY

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: RICHARDSON

Enclosed are the results of analyses for samples received by the laboratory on 08/11/23 14:06.

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

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)

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

CARDINAL Laboratories

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

Analytical Results For:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	RICHARDSON	Sampling Condition:	** (See Notes)
Project Number:	702520.050.01	Sample Received By:	Shalyn Rodriguez
Project Location:	MATADOR - LEA COUNTY, NM		

Sample ID: S - 1 1' (H234352-01)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/15/2023	ND	2.00	99.8	2.00	1.06	
Toluene*	<0.050	0.050	08/15/2023	ND	1.88	93.8	2.00	0.484	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.85	92.6	2.00	0.232	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.40	90.0	6.00	0.616	
Total BTEX	<0.300	0.300	08/15/2023	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/15/2023	ND	400	100	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/14/2023	ND	169	84.6	200	0.732	
DRO >C10-C28*	<10.0	10.0	08/14/2023	ND	172	86.0	200	0.0901	
EXT DRO >C28-C36	<10.0	10.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane *90.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *103 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	RICHARDSON	Sampling Condition:	** (See Notes)
Project Number:	702520.050.01	Sample Received By:	Shalyn Rodriguez
Project Location:	MATADOR - LEA COUNTY, NM		

Sample ID: S - 1 1.5' R (H234352-02)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/15/2023	ND	2.00	99.8	2.00	1.06	
Toluene*	<0.050	0.050	08/15/2023	ND	1.88	93.8	2.00	0.484	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.85	92.6	2.00	0.232	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.40	90.0	6.00	0.616	
Total BTEX	<0.300	0.300	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *112 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	08/15/2023	ND	400	100	400	3.92	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/14/2023	ND	169	84.6	200	0.732	
DRO >C10-C28*	<10.0	10.0	08/14/2023	ND	172	86.0	200	0.0901	
EXT DRO >C28-C36	<10.0	10.0	08/14/2023	ND					

Surrogate: 1-Chlorooctane *89.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *102 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	RICHARDSON	Sampling Condition:	** (See Notes)
Project Number:	702520.050.01	Sample Received By:	Shalyn Rodriguez
Project Location:	MATADOR - LEA COUNTY, NM		

Sample ID: S - 2 1' (H234352-03)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/15/2023	ND	2.00	99.8	2.00	1.06	
Toluene*	<0.050	0.050	08/15/2023	ND	1.88	93.8	2.00	0.484	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.85	92.6	2.00	0.232	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.40	90.0	6.00	0.616	
Total BTEX	<0.300	0.300	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *110 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/15/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2023	ND	169	84.6	200	0.732	
DRO >C10-C28*	**12.0**	10.0	08/15/2023	ND	172	86.0	200	0.0901	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane *83.7 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.3 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	RICHARDSON	Sampling Condition:	** (See Notes)
Project Number:	702520.050.01	Sample Received By:	Shalyn Rodriguez
Project Location:	MATADOR - LEA COUNTY, NM		

Sample ID: S - 2 2' R (H234352-04)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/15/2023	ND	2.00	99.8	2.00	1.06	
Toluene*	<0.050	0.050	08/15/2023	ND	1.88	93.8	2.00	0.484	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.85	92.6	2.00	0.232	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.40	90.0	6.00	0.616	
Total BTEX	<0.300	0.300	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *110 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	08/15/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2023	ND	169	84.6	200	0.732	
DRO >C10-C28*	**23.0**	10.0	08/15/2023	ND	172	86.0	200	0.0901	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane *73.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *84.9 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	RICHARDSON	Sampling Condition:	** (See Notes)
Project Number:	702520.050.01	Sample Received By:	Shalyn Rodriguez
Project Location:	MATADOR - LEA COUNTY, NM		

Sample ID: S - 3 1' (H234352-05)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/15/2023	ND	2.00	99.8	2.00	1.06	
Toluene*	<0.050	0.050	08/15/2023	ND	1.88	93.8	2.00	0.484	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	1.85	92.6	2.00	0.232	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	5.40	90.0	6.00	0.616	
Total BTEX	<0.300	0.300	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *110 %* *71.5-134*

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	08/15/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2023	ND	169	84.6	200	0.732	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	172	86.0	200	0.0901	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane *91.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *105 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	RICHARDSON	Sampling Condition:	** (See Notes)
Project Number:	702520.050.01	Sample Received By:	Shalyn Rodriguez
Project Location:	MATADOR - LEA COUNTY, NM		

Sample ID: S - 3 2' (H234352-06)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/15/2023	ND	2.10	105	2.00	1.47	
Toluene*	<0.050	0.050	08/15/2023	ND	2.13	106	2.00	0.948	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	2.12	106	2.00	0.975	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	6.48	108	6.00	1.35	
Total BTEX	<0.300	0.300	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.2 %* *71.5-134*

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	08/15/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2023	ND	169	84.6	200	0.732	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	172	86.0	200	0.0901	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane *77.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *88.3 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	RICHARDSON	Sampling Condition:	** (See Notes)
Project Number:	702520.050.01	Sample Received By:	Shalyn Rodriguez
Project Location:	MATADOR - LEA COUNTY, NM		

Sample ID: S - 3 3' (H234352-07)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/15/2023	ND	2.10	105	2.00	1.47	
Toluene*	<0.050	0.050	08/15/2023	ND	2.13	106	2.00	0.948	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	2.12	106	2.00	0.975	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	6.48	108	6.00	1.35	
Total BTEX	<0.300	0.300	08/15/2023	ND					

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

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/15/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2023	ND	169	84.6	200	0.732	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	172	86.0	200	0.0901	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane *84.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *96.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	RICHARDSON	Sampling Condition:	** (See Notes)
Project Number:	702520.050.01	Sample Received By:	Shalyn Rodriguez
Project Location:	MATADOR - LEA COUNTY, NM		

Sample ID: S - 3 4.5' (H234352-08)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/15/2023	ND	2.10	105	2.00	1.47	
Toluene*	<0.050	0.050	08/15/2023	ND	2.13	106	2.00	0.948	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	2.12	106	2.00	0.975	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	6.48	108	6.00	1.35	
Total BTEX	<0.300	0.300	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.4 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/15/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2023	ND	169	84.6	200	0.732	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	172	86.0	200	0.0901	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane *86.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *99.9 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	RICHARDSON	Sampling Condition:	** (See Notes)
Project Number:	702520.050.01	Sample Received By:	Shalyn Rodriguez
Project Location:	MATADOR - LEA COUNTY, NM		

Sample ID: S - 4 1' (H234352-09)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/15/2023	ND	2.10	105	2.00	1.47	
Toluene*	<0.050	0.050	08/15/2023	ND	2.13	106	2.00	0.948	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	2.12	106	2.00	0.975	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	6.48	108	6.00	1.35	
Total BTEX	<0.300	0.300	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.9 %* *71.5-134*

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	08/15/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2023	ND	169	84.6	200	0.732	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	172	86.0	200	0.0901	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane *86.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *98.5 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	RICHARDSON	Sampling Condition:	** (See Notes)
Project Number:	702520.050.01	Sample Received By:	Shalyn Rodriguez
Project Location:	MATADOR - LEA COUNTY, NM		

Sample ID: S - 4 2' (H234352-10)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/15/2023	ND	2.10	105	2.00	1.47	
Toluene*	<0.050	0.050	08/15/2023	ND	2.13	106	2.00	0.948	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	2.12	106	2.00	0.975	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	6.48	108	6.00	1.35	
Total BTEX	<0.300	0.300	08/15/2023	ND					

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

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	08/15/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2023	ND	169	84.6	200	0.732	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	172	86.0	200	0.0901	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane *87.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *100 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	RICHARDSON	Sampling Condition:	** (See Notes)
Project Number:	702520.050.01	Sample Received By:	Shalyn Rodriguez
Project Location:	MATADOR - LEA COUNTY, NM		

Sample ID: S - 4 3' (H234352-11)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/15/2023	ND	2.10	105	2.00	1.47	
Toluene*	<0.050	0.050	08/15/2023	ND	2.13	106	2.00	0.948	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	2.12	106	2.00	0.975	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	6.48	108	6.00	1.35	
Total BTEX	<0.300	0.300	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *71.5-134*

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	08/15/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2023	ND	169	84.6	200	0.732	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	172	86.0	200	0.0901	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane *84.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *95.6 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	RICHARDSON	Sampling Condition:	** (See Notes)
Project Number:	702520.050.01	Sample Received By:	Shalyn Rodriguez
Project Location:	MATADOR - LEA COUNTY, NM		

Sample ID: S - 4 4.5' (H234352-12)

BTEX 8021B mg/kg Analyzed By: JH

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/15/2023	ND	2.10	105	2.00	1.47	
Toluene*	<0.050	0.050	08/15/2023	ND	2.13	106	2.00	0.948	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	2.12	106	2.00	0.975	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	6.48	108	6.00	1.35	
Total BTEX	<0.300	0.300	08/15/2023	ND					

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

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	08/15/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2023	ND	169	84.6	200	0.732	
DRO >C10-C28*	<10.0	10.0	08/15/2023	ND	172	86.0	200	0.0901	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane *83.1 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *94.8 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

TALON LPE
CHAD HENSLEY
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	RICHARDSON	Sampling Condition:	** (See Notes)
Project Number:	702520.050.01	Sample Received By:	Shalyn Rodriguez
Project Location:	MATADOR - LEA COUNTY, NM		

Sample ID: S - 5 1' R (H234352-13)

BTEX 8021B mg/kg **Analyzed By: JH**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/15/2023	ND	2.10	105	2.00	1.47	
Toluene*	<0.050	0.050	08/15/2023	ND	2.13	106	2.00	0.948	
Ethylbenzene*	<0.050	0.050	08/15/2023	ND	2.12	106	2.00	0.975	
Total Xylenes*	<0.150	0.150	08/15/2023	ND	6.48	108	6.00	1.35	
Total BTEX	<0.300	0.300	08/15/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *88.0 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	08/15/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	08/15/2023	ND	169	84.6	200	0.732	
DRO >C10-C28*	**67.9**	10.0	08/15/2023	ND	172	86.0	200	0.0901	
EXT DRO >C28-C36	<10.0	10.0	08/15/2023	ND					

Surrogate: 1-Chlorooctane *78.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *84.1 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Talon LPE
Project Manager:	Chad Hensley
Address:	408 W. Texas ave
City:	Artesia State: NM Zip: 88210
Phone #:	575-746-8768 Fax #:
Project #:	702520.050.01 Project Owner: Matador
Project Name:	Richardson 001
Project Location:	Lea County
Sampler Name:	N. Rose

BILL TO

P.O. #:	
Company:	
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.		(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	BTEX	TPH	CL
H234352																		
1	S-1	1'	G	1			X					X		8-11-23	08:10	X	X	X
2		1.5 R													08:17			
3	S-2	1'													08:24			
4		2' R													08:29			
5	S-3	1'													08:36			
6		2'													08:40			
7		3'													08:47			
8		4.5'													08:51			
9	S-4	1'													09:06			
10		2'													09:10			

Relinquished By:	Date: 8/11/23 Time: 1400	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	All Results are emailed. Please provide Email address:
			REMARKS: 1 of 2
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 29.7 Corrected Temp. °C	Sample Condition: Cool ☐ Yes ☐ No Intact ☒ Yes ☐ No	CHECKED BY: (Initials) SR
			Turnaround Time: Standard ☒ Rush ☐ Thermometer ID #140 Correction Factor 0°C
			Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.4 07/11/23

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

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Talon LPE
Project Manager:	Chad Hensley
Address:	408 W. Texas ave
City:	Artesia State: NM Zip: 88210
Phone #:	575-746-8768 Fax #:
Project #:	702520.050.01 Project Owner: Matador
Project Name:	Richardson 001
Project Location:	Lea County
Sampler Name:	N. Rose

BILL TO

P.O. #:	
Company:	
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	BTEX	CL	TPH
H234352																	
11	S-4 3'	G	1			X					X		8-1-23	0916	X	X	X
12	4.5'													0920			
13	S-5 1'12	↓	↓			↓					↓		↓	0942	↓	↓	↓

Relinquished By:	Date: 8/11/23 Time: 1400	Received By:
Relinquished By:	Date: Time:	Received By:

Verbal Result: ☐ Yes ☐ No Add'l Phone #:
All Results are emailed. Please provide Email address:

REMARKS: 2 of 2

Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 29.7c Corrected Temp. °C	Sample Condition Cool Intact ☐ Yes ☐ Yes ☐ No ☐ No	CHECKED BY: (Initials) SR	Turnaround Time: Standard ☑ Rush ☐ Thermometer ID #140 Correction Factor 0°C

Bacteria (only) Sample Condition: Cool Intact ☐ Yes ☐ Yes ☐ No ☐ No; Observed Temp. °C; Corrected Temp. °C

FORM-006 R 3.4 07/11/23

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

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

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

CONDITIONS

Action 261361

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 261361
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Duplicate incident. Refer to incident NGRL0826839203 which was approved for closure.	9/18/2023