Site Assessment- Work Plan
Remedial Action

Ford State #002
API #30-015-22714
F-02-T22S-R28E

Prepared For:

Judah Oil
PO Box 568
Artesia, NM 88211

Prepared By:

Nighthawk Environmental Services, LLC
203 W. Wall, #514
Midland, TX 79701

July 4, 2024

NIGHTHAWK
ENVIRONMENTAL SERVICES, LLC

NMSLO
Attn. Tami Knight
NMOCD
Attn. Mike Bratcher
506 W. Texas
Artesia, NM 88210

Subject: **Reclamation- Remediation Work Plan NAB1701954977**
Ford State #002
API # 30-015-22714
Eddy County, New Mexico

Site Information

The Ford State No. 2 (Site) is located approximately 10 miles east of Carlsbad, New Mexico, more specifically the GPD coordinates are 32.424977, -104.060792. The legal location for this site is Unit F, Section 02, Township 22 South, Range 28 East in Eddy County, New Mexico. A site map is presented in Appendix I. The site can be accessed by traveling approximately 4 miles east of Carlsbad on Highway 62-180 then east on county lease road 604 7.5 miles and the site is located on the Noth side of the lease road with independent access.

According to the soil survey provided by the United States Department of Agriculture National Resources Conservation Service, the soil in this area is made up of Simona-Bippus complex, 0 to 5 percent slopes, with well drainage. There is no frequency of flooding. The soil has a slight natural salinity content. This soil survey is consistent with Site assessment, in that restrictive features are present at 7 to 20 inches petrocalcic. A copy of the soil survey is presented in Appendix II

The New Mexico Office of the State Engineer database indicates that the nearest reported groundwater depth is 70-feet below ground surface (bgs) approximately .5 miles from the project location. The referenced groundwater data and POD map are also presented in Appendix II. Further research of the Site indicates that it is within a medium Karst area.

Introduction

This remediation plan is being proposed because the well site has an open incident (NAB1701954977); according to the Release Notification C-141 on January 10, 2017 (Appendix III), a 5 bbl fluid release comprised of crude and produced water was discovered from the flowline, the polyline was immediately repaired and discharge ceased. Judah Oil took proactive measures minimizing damage to the environment by removed the top 6 inches of soil and disposing of at an NMOCD approved facility. This Site has been permanently plugged, but not released by the NMOCD (New Mexico Oil Conservation Division).
A work plan referenced in (Appendix III) was submitted to the NMOCD by Sauder Miller and Associates on March 9, 2017 however it was subsequently denied due to inadequate sampling. Sauder Miller did not follow up with a revised plan for this incident.

On September 18, 2023, Judah Oil Company (current operator) submitted a form C-103 as a subsequent report of Plug and Abandonment to the NMOCD (New Mexico Oil Conservation Division). Judah Oil, LLC contracted Nighthawk Environmental Service for completion of a site assessment, as well as the reclamation and remediation of the site in accordance with NMOCD Guidelines including but not limited to NMAC 19.15.29.13

Assessment Site Conditions and History

On May 27, 2024, a formal sampling notification was submitted and accepted by the NMOCD (Appendix III). The assessment and sampling event transpired on May 28, 2024. The field technician for Nighthawk Environmental attempted to hand auger several sample positions however refusal was encountered which is consistent with the results of the soil survey. The Project Manager assessed, mapped and flagged the location for New Mexico One Call clearance (Photo Documentation). Pursuant to the New Mexico line locate clearance a Geo Probe and track hoe were scheduled and utilized to advance bore holes and test trenches in order to complete the vertical delineation in the areas of concern as referenced on the site map.

- The subject well site was plugged and abandoned in September, 2023. The pumpjack and all ancillary equipment have been removed from the Site.
- According the NMOCD well site portal, the subject lease was issued on June 01, 1985. Visual site assessment indicates a possible drill pit on the north side of the designated pad area.
- All surface equipment has been removed from the property. A 4 foot well marker has been positioned where the wellhead was located. The current site and access road consists of a caliche surface and conditions appear to be suitable for access. All caliche surfaces will be removed as part of the reclamation of this location. The main easement area appears free of weeds and erosional features.
- Following a review of the New Mexico Oil Conservation Division Permitting site, two incidents were noted. A review of historical aerials disclosed distressed vegetation north of former wellhead area. This area was sampled.
- On May 28, 2024 personnel from Nighthawk Environmental Services conducted an initial site assessment. staining was noticed where a former possible drill pit was situated. This area was sampled and delineated. The area for incident number **NAB1701954977** was also sampled. Sample Positions are designated on site map Please see recap of data below All samples were properly collected, contained, preserved, and transported to Cardinal Laboratories of Hobbs, NM for analysis of Chlorides (Method SM4500Cl-B), Total Hydrocarbon content (Method TPH 8015M), and BTEX (Method BTEX 8021B). The recap of results of tabled below and a corresponding site map can be seen in Appendix I referencing both areas of concern.

Table I Assessment Data

Location	Date	Chloride Results	Analyzed	BTEX Results	GRO C6-C10	DRO C10-C28	EXT DRO C28-C36	Depth
BH1	5/28/2024	1410	5/30/2024	<0.300	<10.0	<10.0	<10.0	0-2 ft
	5/28/2024	3320	5/30/2024	<0.300	<10.0	<10.0	<10.0	2-4 ft
	5/28/2024	1960	5/30/2024	<0.300	<10.0	<10.0	<10.0	4-6 ft
	5/28/2024	1390	5/30/2024	<0.300	<10.0	<10.0	<10.0	6-8 ft
BH2	5/28/2024	1390	5/30/2024	<0.300	<10.0	<10.0	<10.0	0-2 ft
	5/28/2024	1520	5/30/2024	<0.300	<10.0	118	42.8	4-6 ft
	5/28/2024	656	5/30/2024	<0.300	<10.0	<10.0	<10.0	6-8 ft
BH3	5/28/2024	32.	5/30/2024	<0.300	<10.0	<10.0	<10.0	0-2 ft
	5/28/2024	336	5/30/2024	<0.300	<10.0	<10.0	<10.0	2-4 ft
	5/28/2024	16.0	5/30/2024	<0.300	<10.0	<10.0	<10.0	4-6 ft
	5/28/2024	208	5/30/2024	<0.300	<10.0	<10.0	<10.0	6-8 ft
BH4	5/28/2024	2280	5/30/2024	<0.300	<10.0	45.6	<10.0	0-2 ft
	5/28/2024	768	5/30/2024	<0.300	<10.0	<10.0	<10.0	2-4 ft
	5/28/2024	656	5/30/2024	<0.300	<10.0	<10.0	<10.0	4 ft R
BH5	5/28/2024	16.0	5/30/2024	<0.300	<10.0	<10.0	<10.0	0-2 ft R

*Highlighted Cell indicates exceedance in table 1 standards for soil remediation BH=Borehole R=Refusal

*A full laboratory report can be referenced in Appendix IV.

- Due to hard rock refusal from the Geo probe, a track hoe was dispatched and utilized to advance a test pit in the areas of BH1 and BH2. All soil samples were transported to Cardinal Labs via Chain of Custody and analyzed for BTEX, Chloride, and TPH soil constituents. The results are tabled below.

Table II Test Pit

Location	Date	Chloride Results	Analyzed	BTEX Results	GRO C6-C10	DRO C10-C28	EXT DRO C28-C36	Depth
TT 1 Pit	06/19/2024	1180	6/21/2024	<0.300	<10.0	<10.0	<10.0	4 ft
	06/19/2024	8600	6/21/2024	<0.300	<10.0	<10.0	<10.0	6 ft
	06/19/2024	1390	6/21/2024	<0.300	<10.0	<10.0	<10.0	8 ft
	06/19/2024	816	6/21/2024	<0.300	<10.0	<10.0	<10.0	12 ft
	06/19/2024	6700	6/21/2024	<0.300	<10.0	<10.0	<10.0	16 ft
	06/19/2024	6800	6/21/2024	<0.300	<10.0	118	42.8	18 ft
	06/19/2024	16.0	6/21/2024	<0.300	<10.0	<10.0	<10.0	20 ft
	06/19/2024	32.	6/21/2024	<0.300	<10.0	<10.0	<10.0	23 ft.

*Highlighted Cell indicates exceedance in table 1 standards for soil remediation TT=Test Trench

A full laboratory report is attached in Appendix IV.

- This site is not situated in an area of archaeological concern. If any artifacts are observed during the reclamation process, the NMSLO will be given immediate notification.

Proposed Reclamation Activities

Upon NMOCD and NMSLO permission the following remediation activities are proposed:

- The incident area of BH4 is to be excavated to 4 ft or to the extent that Chlorides levels are below 600 mg/kg., and sidewalls advanced horizontally to the extent Chlorides are below 600 mg/kg. Left margin photo.
- Based on site characteristics, we request that no further action be required in the areas of BH3 and BH5.
- Due to the restrictive features of the caprock, we request permission to excavate the impacted area north of the former wellhead area (drill pit) to a depth of 4 feet, and advanced horizontally to the extent that chlorides levels are below 600 mg/kg, Right margin photo.
- Nighthawk Environmental will confirmation sample both areas of concern on a 200 square foot, 5-point composite basis.
- Nighthawk will also submit a closure report requesting permission to backfill, complete with site maps, laboratory data, and site photo documentation.
- All impacted soil will be transported to Lealand Fill, an NMOCD approved facility.

Photo Documentation

Appendix II

Soil Characterization

NMOSE Depth to Groundwater

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 Eddy Area, New Mexico

July 5, 2024

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: Eddy Area, New Mexico
Survey Area Data: Version 19, Sep 7, 2023

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

Date(s) aerial images were photographed: Nov 12, 2022—Dec 2, 2022

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.

Eddy Area, New Mexico

SM—Simona-Bippus complex, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1w5x
Elevation: 1,800 to 5,000 feet
Mean annual precipitation: 8 to 24 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 180 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Simona and similar soils: 55 percent
Bippus and similar soils: 30 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Simona

Setting

Landform: Plains, alluvial fans
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 19 inches: gravelly fine sandy loam
H2 - 19 to 23 inches: indurated

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 7 to 20 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 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 2.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: R070BD002NM - Shallow Sandy
Hydric soil rating: No

Description of Bippus

Setting

Landform: Flood plains, alluvial fans
Landform position (three-dimensional): Talf, rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile

H1 - 0 to 37 inches: silty clay loam
H2 - 37 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum content: 40 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 8.7 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: R070BC017NM - Bottomland
Hydric soil rating: No

Minor Components

Simona

Percent of map unit: 8 percent
Ecological site: R070BD002NM - Shallow Sandy
Hydric soil rating: No

Bippus

Percent of map unit: 7 percent
Ecological site: R070BC017NM - Bottomland
Hydric soil rating: No

UG—Upton gravelly loam, 0 to 9 percent slopes

Map Unit Setting

National map unit symbol: 1w64
Elevation: 1,100 to 4,400 feet
Mean annual precipitation: 7 to 15 inches
Mean annual air temperature: 60 to 70 degrees F
Frost-free period: 200 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Upton and similar soils: 96 percent
Minor components: 4 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Upton

Setting

Landform: Ridges, fans
Landform position (three-dimensional): Side slope, rise
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Typical profile

H1 - 0 to 9 inches: gravelly loam
H2 - 9 to 13 inches: gravelly loam
H3 - 13 to 21 inches: cemented
H4 - 21 to 60 inches: very gravelly loam

Properties and qualities

Slope: 0 to 9 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): Low to moderately high (0.01 to 0.60 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 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

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	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 01171 POD1		CP	ED		1	4	35	21S	28E	588814	3588862	1061	70		
CP 01171 POD3		CP	ED		1	4	35	21S	28E	588814	3588862	1061	115		
CP 01171 POD2		CP	ED		1	4	35	21S	28E	588866	3588862	1088	110		
CP 01118 POD1		CP	ED		1	4	35	21S	28E	588800	3588926	1112	25		
CP 01118 POD2		CP	ED		1	4	35	21S	28E	588800	3588926	1112	56		
C 03533 POD1		CUB	ED	3	4	4	03	22S	28E	587377	3586934	1360	55		
C 03533 POD2		CUB	ED	3	4	4	03	22S	28E	587358	3586935	1373	55		
C 03533 POD3		CUB	ED	3	4	4	03	22S	28E	587370	3586911	1382	55		
C 03533 POD4		CUB	ED	4	3	4	03	22S	28E	587331	3586892	1422	55		
C 03534 POD1		CUB	ED	4	3	4	03	22S	28E	587240	3586950	1446	150		

Average Depth to Water: --
Minimum Depth: --
Maximum Depth: --

Record Count: 10

UTMNAD83 Radius Search (in meters):

Easting (X): 588303.25 **Northing (Y):** 3587930.85 **Radius:** 5000

New Mexico Office of the State Engineer

Point of Diversion Summary

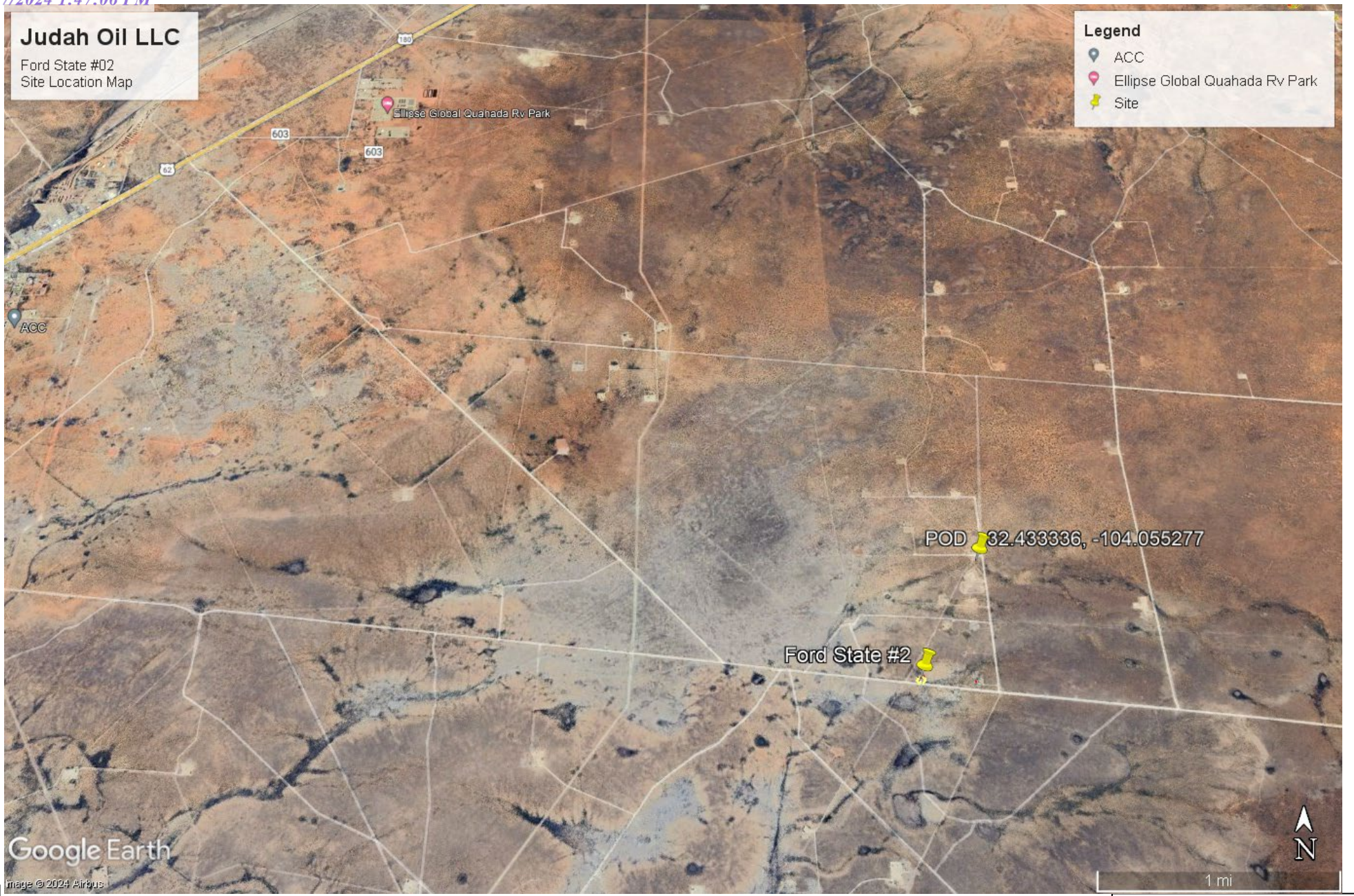
Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	CP 01171 POD1		1	4	35	21S	28E	588814	3588862

Driller License:	1478	**Driller Company:**	STRAUB CORPORATION		
Driller Name:	STRAUB, MARTIN				
Drill Start Date:	05/31/2013	**Drill Finish Date:**	05/31/2013	**Plug Date:**	
Log File Date:	06/10/2013	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:		**Depth Well:**	70 feet	**Depth Water:**	

Judah Oil	Eddy County Ford State No. 2	POD Groundwater Map

Appendix I

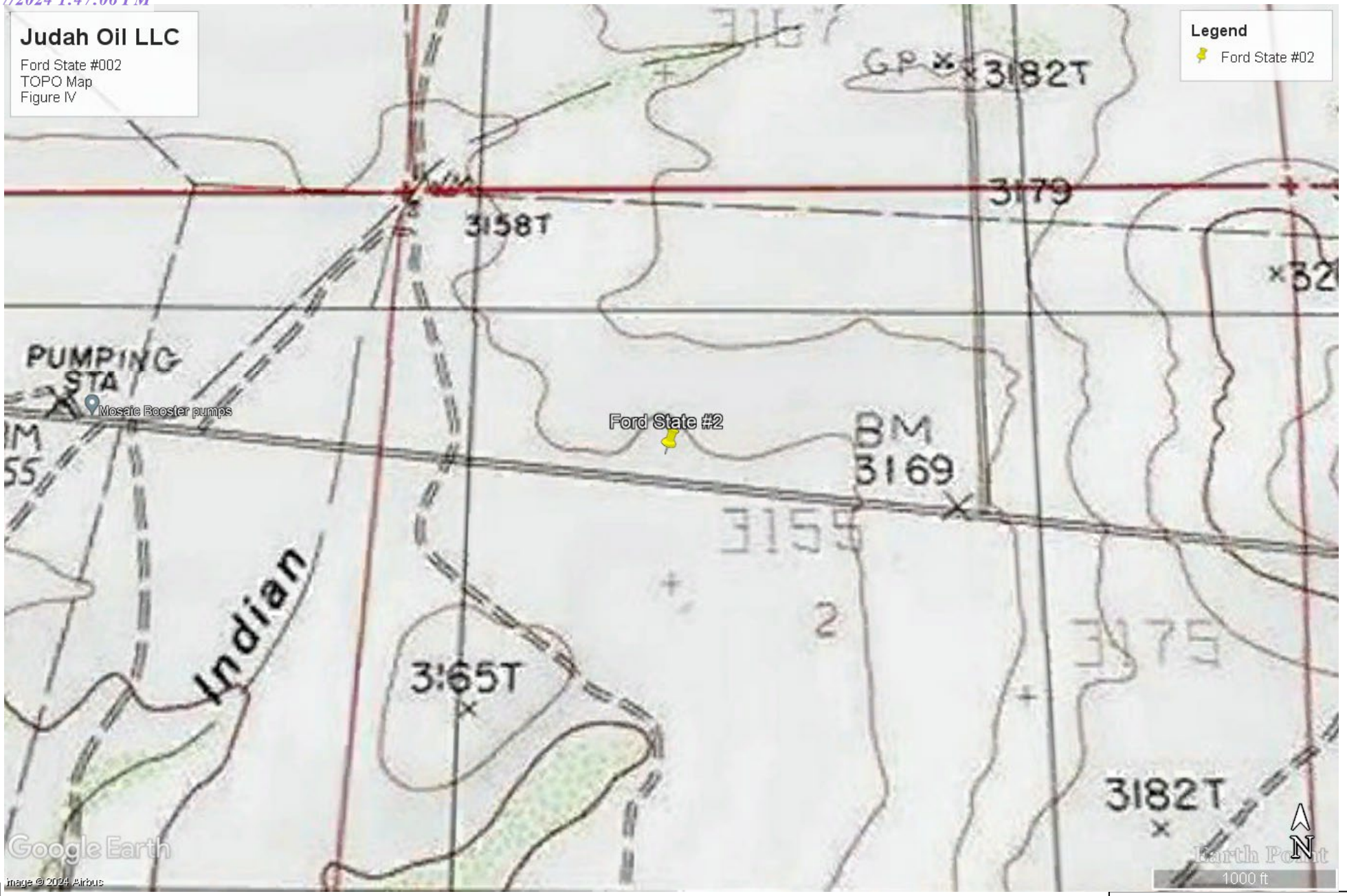
Site Maps



Judah Oil	Eddy County Ford State No. 2	Location Map

	Judah Oil — Eddy County Ford State No. 2	Proposed Remediation Areas

	Judah Oil Eddy County Ford State No. 2	Medium Karst Mapped Area



	Judah Oil — Eddy County Ford State No. 2	TOPO Map

Appendix III

C-141

Sampling Notifications

Correspondence

NM OIL CONSERVATION
ARTESIA DISTRICT
JAN 17 2017
RECEIVED

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

nAB1701954977

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Judah Oil 245872	Contact	Blaise Campanella
Address	PO Box 568, Artesia NM, 88211	Telephone No.	575-748-5488
Facility Name	Ford State #2	Facility Type	oil

Surface Owner	Mineral Owner	API No.
State		30-015-22714

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	02	22s	28e	1650	FNL	1650	FWL	Eddy

Latitude 32.42498 **Longitude** -104.06112

NATURE OF RELEASE

Type of Release pw/oil	Volume of Release 5bbl/oil 5bbl/pw Volume Recovered 0
Source of Release flowline	Date and Hour of Occurrence 1/10/17 Date and Hour of Discovery 1/10/17
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher
By Whom?	Date and Hour 1/10/17 in the A.M. call from B. Campanella
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Flowline ruptured, the polyline was immediately repaired and discharge ceased.

Describe Area Affected and Cleanup Action Taken.*
Area affected is approximately 15' x 80' just to the east side of the production pad. The top 6" of impacted soil has been scraped and hauled to an NMOCD approved facility. Further remediation efforts will be per an NMOCD approved work plan.

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

Signature: [signature]

Printed Name: Blaise Campanella

Title: Member/Manager

E-mail Address: judahoil@yahoo.com

Date: 1/17/2017 Phone: 575-748-5488

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By [signature]

Approval Date: 1/17/17 Expiration Date: N/A

Conditions of Approval: See attached

Attached ☐

* Attach Additional Sheets If Necessary

2RP-4081

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 1/17/17 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4081 has been assigned. **Please refer to this case number in all future correspondence.**

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

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

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 2/17/17. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

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

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

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

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

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

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

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

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

Bratcher, Mike, EMNRD

From: Heather Patterson <heather.patterson@soudermiller.com>
Sent: Tuesday, January 17, 2017 1:10 PM
To: Bratcher, Mike, EMNRD; Weaver, Crystal, EMNRD
Cc: Austin Weyant; judahoil@yahoo.com
Subject: C-141 initial ford state #2
Attachments: C-141fordstate2.pdf

Hey Mike and Crystal,

I hope all is well!

Please find the attached C-141 for the Judah Oil release at the Ford State #2. I don't have a business phone yet, but y'all know my number. Call if you have any questions.

See you soon,

Heather Patterson

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

QUESTIONS

Action 347993

QUESTIONS

Operator: JUDAH OIL LLC PO Box 568 Artesia, NM 88211	OGRID: 245872
	Action Number: 347993
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAB1701954977**
Incident Name	**NAB1701954977 2017 MINOR A SWS @ 30-015-22714**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Plan Received**
Incident Well	**[30-015-22714] FORD STATE #002**

Location of Release Source	
Site Name	*Unavailable.*
Date Release Discovered	**01/10/2017**
Surface Owner	**State**

Sampling Event General Information *Please answer all the questions in this group.*	
What is the sampling surface area in square feet	1,200
What is the estimated number of samples that will be gathered	11
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	05/28/2024
Time sampling will commence	10:00 AM
Warning: Notification can not be less than two business days prior to conducting final sampling.	
Please provide any information necessary for observers to contact samplers	Cody- 405-207-3804
Please provide any information necessary for navigation to sampling site	Coordinates: 32.425135, -104-061880

Souder, Miller & Associates ♦ 201 S. Halagueno ♦ Carlsbad, NM 88221
(575) 689-7040

March 8, 2017

#5B25501-BG5

NMOCD District II
Mike Bratcher
811 S. First St.
Eddy, NM 88210

SUBJECT: WORK PLAN FOR INCIDENT 2RP-4081, Ford State #2, UNIT F SECTION 2-T22S-R28E NMPM, API# 30-015-22714, EDDY COUNTY, NEW MEXICO

Dear Mr. Bratcher:

On behalf of Judah Oil LLC, Souder Miller & Associates is pleased to submit a work plan summarizing the planned soil remediation for the release site located at the Ford State # 002 in Eddy County, New Mexico. The purpose of the work plan is to obtain approval from the New Mexico Oil Conservation Division (NMOCD) for the remediation of the release that occurred on State Lands on January 10, 2017.

Souder, Miller & Associates (SMA) responded at the request of Judah Oil, to assess and delineate the release of production fluids associated with the Ford State # 002 well location. The release was initially reported to NMOCD by Judah Oil, on January 10, 2017 and was a result of an equipment failure. The table below summarizes information regarding the release. Results of the assessment, delineation are described in the following report.

Table 1: Release information and Site Ranking

Name	Ford State # 002				
Location	Incident Number	API Number	Section, Township, Range		
	2RP-4081	30-015-22714	SE/NW (F Unit)	Section 2	T22S, R28E
Estimated Date of Release	January 10, 2017				
Date Reported to NMOCD	January 10, 2017				
Reported by	Blaise Campanella				
Land Owner	State				
Reported To	NM Oil Conservation Division (NMOCD)				
Source of Release	Equipment Failure				
Released Material	Produced Fluids and Crude Oil				
Released Volume	10 bbls of Produced Fluids and Crude Oil				
Recovered Volume	0 bbls of Produced Fluids and Crude Oil				
Net Release	10 bbls of Produced Fluids and Crude Oil				
Nearest Waterway	5 miles West of the location				
Depth to Groundwater	Estimated to be 55 feet				

Nearest Domestic Water Source	Greater than 1,000 feet
NMOCD Ranking	10

Attached is a copy of the C-141 initial located in Appendix B. For questions or comments pertaining to the release or the attached work plan please feel free to contact either of us.

Submitted by:

SOUDER, MILLER & ASSOCIATES

J. Austin Weyant

Austin Weyant
Project Scientist

Reviewed by:

Cynthia Gray, CHMM
Senior Scientist

SOIL REMEDIATION WORK PLAN FOR INCIDENT 2RP-4081

JUDAH OIL LLC

FORD STATE # 002
UL F, SECTION 02, T22S R28E, NMPM
API #30-015-22714
EDDY COUNTY, NM

Prepared for:
Judah Oil LLC
PO Box 568,
Artesia, NM 88211

Prepared by:
Souder, Miller & Associates
201 S. Halagueno
Carlsbad, NM 88221
575-689-704

January 10, 2017
SMA Reference
5B25501 BG5

Table of Contents

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1.0 Introduction

On behalf of Judah Oil LLC, Souder, Miller & Associates (SMA) has prepared this report that describes the assessment, initial delineation and proposed remediation for a release associated with the Ford State # 002 location API# 30-015-22714. The site is located in Section 2, Township 22S, Range 28E NMPM, Eddy County, New Mexico, on state lands. Figure 1 illustrates the vicinity and location of the site.

2.0 Site Ranking and Land Jurisdiction

The release site is located approximately 9 miles east of the Carlsbad, with an elevation of approximately 3,162 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be 55 feet below ground surface (bgs).

SMA searched the New Mexico State Engineer's Office (NMOSE) online water well database for water wells in the vicinity of the release. 8 wells are located within a three mile radius of the site. The NMOSE water column data is included in appendix C. Figure 1 depicts the site vicinity and Figure 2 shows the site itself. The physical location of this release is within the jurisdiction of NMOCD.

Based on the NMOCD Guidelines Ranking Criteria, this release location has been assigned a NMOCD ranking of 10 which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm combined benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 1000 ppm total petroleum hydrocarbons (TPH). Table 1 illustrates site ranking rationale.

3.0 Assessment and Initial Results

On January 11, 2017 after receiving 811 clearance, SMA field personnel assessed the remediated release area onsite with a gas powered auger, Photo Ionization Detector (PID), and a mobile chlorides titration kit EPA method 9045D meter. The potentially affected area was found to be approximately 80 feet long and 50 feet wide. The effected spill area has already been scraped to approximately six inches. The resultant spill pile was sampled and hauled off to an NMOCD permitted facility. The site delineation samples were taken to depths of about one foot bgs. Location 1 (L1), Location 2 (L2), and Location 3 (L3) do not meet the recommended remediation action levels for TPH. Further field screens were taken around the perimeter of the spill to ensure horizontal delineation. Specific sample locations for all samples are depicted on Figure 2 (Sample Location Map) along with sampling details. All samples were collected and processed according to NMOCD soil sampling procedures. The samples were sent under chain-of-custody protocols to Hall Environmental Analysis Laboratory for analysis for Benzene and Total BTEX using EPA Method 8021B, DRO and GRO by EPA Method 8015D, and total Chlorides using EPA Method 300.0.

4.0 Soil Remediation Work Plan

SMA will continue to vertically delineate the location to satisfy NMOCD requirements. With approval from area utilities owners via 811 and NMOCD, SMA will conduct an in-situ remediation of the hydrocarbons using high nitrogen fertilizer to reach RRAL's for a site ranking of 10. Once bioremediation is complete, SMA will resample all three sample locations. In the event RRAL's cannot be met within 180 days of the remediation approval, soils with elevated hydrocarbons will be excavated and hauled to an NMOCD permitted facility.

5.0 Conclusions and Recommendations

NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern with a site ranking of 10: 10 ppm (mg/kg) Benzene, 50 ppm total BTEX, and 1000 ppm TPH

After the soil remediation work plan is approved by NMOCD, SMA will begin soil remediation activities on site.

Soil contaminant concentrations found during the initial delineation are illustrated in Figure 2. A summary of the laboratory analyses is included in Table 2. Laboratory reports are included in Appendix A.

Photo documentation is available by request.

6.0 Re-vegetation Plan

Seeding of the location is recommended for June or July to coincide with the "rainy" season to achieve optimum results. Seed will be planted a quarter to half- inch deep using a disc type or similar rangeland drill sufficient to accommodate variations in seed sizes. If broadcast, seeding rates should be doubled. Seeding can be accomplished as early as May given all dirt work for the location is stabilized. Soil in this area will be tilled to reduce compaction.

Seed-bed preparation will be performed to provide a hospitable environment for germinating seed by breaking up impermeable soil layers that have formed and increasing void spaces for air and water. Ground shall be roughed-up prior to planting, by raking, harrowing or other methods.

Mulch will be placed to prevent loss of moisture and seed to wind.
Mulching shall be accomplished using one of these following methods:
a. weed free straw (2 tons/ac;kg/ha)
b. wood residues (sawdust, wood chips, bark (2 tons/ac;kg/ha)
c. hydro-mulching (1,500 lb/ac;kg/ha)
d. composted manure (5 tons/ac;kg/ha)
e. excelsior blanket
f. straw jute
g. peanut hulls (2 tons/ac;kg/ha)

Stabilization should occur after a minimum of two full summer growing seasons after planting.

SMA will monitor the site in late August for Noxious Weeds, any species of concern will be treated chemically by a NMDA licensed applicator.

7.0 Closure and Limitations

The scope of our services consisted of the performance of confirmatory spill and spill mitigation assessment sampling, verification of release stabilization, regulatory liaison, and preparation of this work plan. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact either Austin Weyant at 575-689-7040 or Cindy Gray at 505-325-7535.

Submitted by:

SOUDER, MILLER & ASSOCIATES

Austin Weyant
Project Scientist

Reviewed by:

Cynthia Gray, CHMM
Senior Scientist

Figures:

Figure 1: Vicinity Map
Figure 2: Detailed Site and Sample Map

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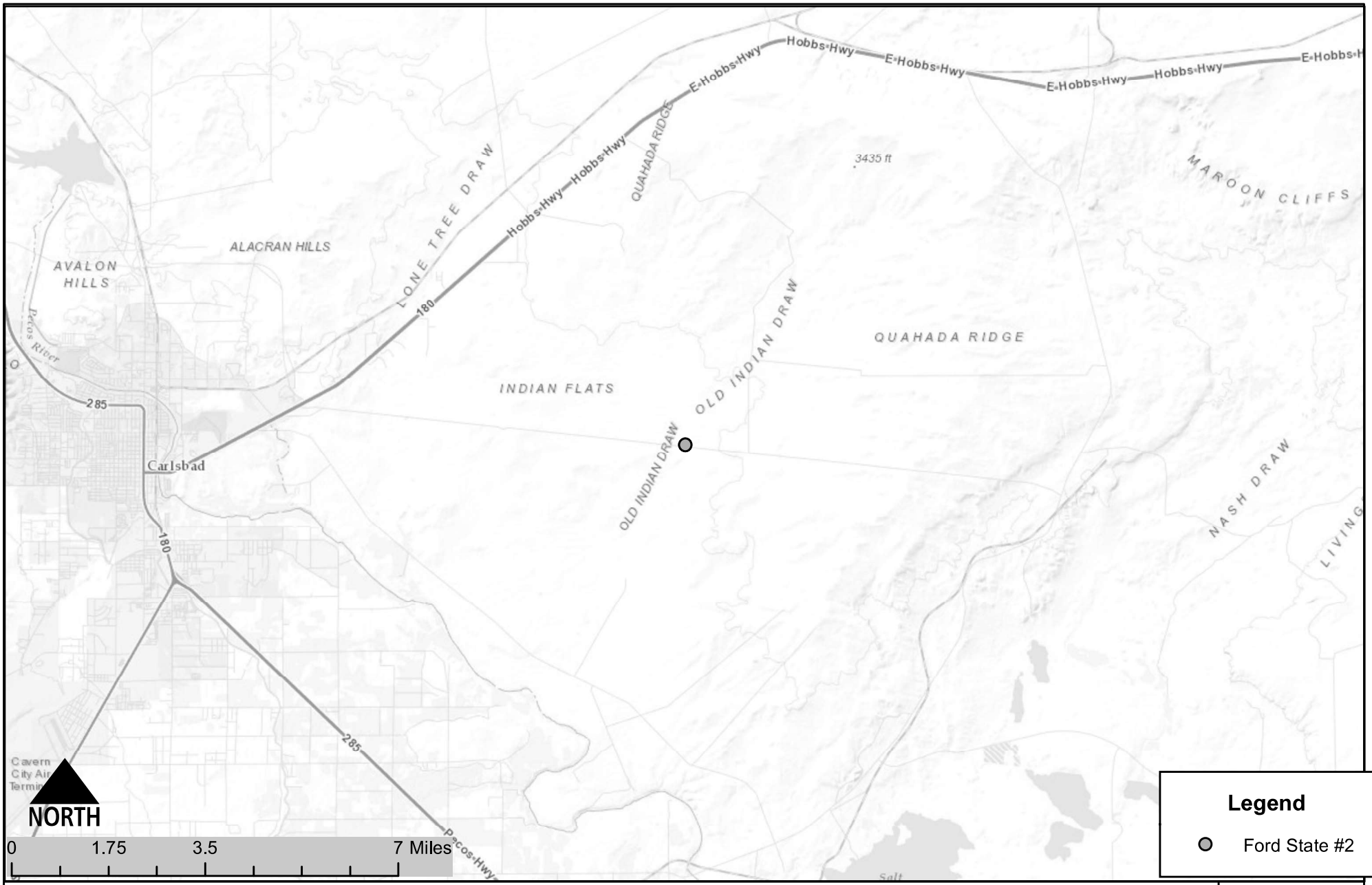
Table 1: Release Information and Site Ranking
Table 2: Summary of Chloride Field Screening Results
Table 3: Summary of Laboratory Analyses

Appendices:

Appendix A: Laboratory Analytical Reports
Appendix B: Form C141 Initial
Appendix C: NMOSE Water Column

FIGURE 1
VICINITY MAP



Detailed Site and Sample Map
Ford State #2
Carlsbad, New Mexico

Figure 1

Date Saved: 2/6/2017

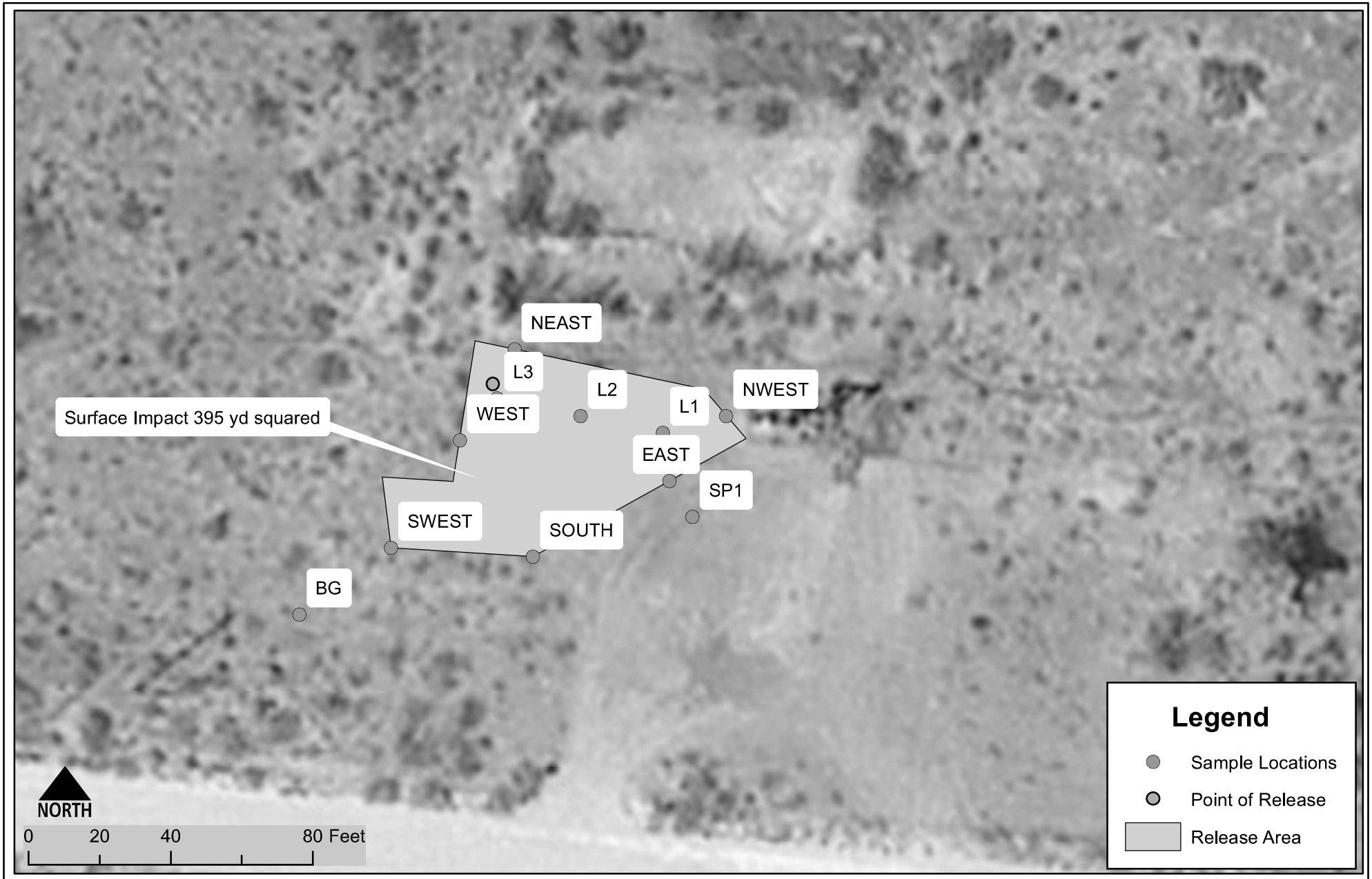
Revisions
By: Date: Descr:
By: Date: Descr:

Drawn Lucas Middleton
Checked
Approved

SMA
201 South Halaguena Street
Carlsbad, New Mexico 88221
(575) 689-7040
www.soudermiller.com
Serving the Southwest & Rocky Mountains

FIGURE 2

DETAILED SITE AND SAMPLE MAP



Detailed Site and Sample Map
Ford- Judah Oil
Carlsbad, NM

Figure 2

Revisions
By: Date: Descr:
By: Date: Descr:

Date Saved: 1/16/2017

Drawn Lucas Middleton
Checked
Approved

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Document: C:\Users\lcm.CBO\Documents\GIS DATA\MAPS\Ford.mxd

TABLE 1

RELEASE INFORMATION AND SITE RANKING

Judah Oil
Table 1: Site Ranking

Ford State #2
Flowline Release
1/10/2017

Site Ranking Determination Table

Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20		USGS Topo Maps; Google Earth , NMOSE database	average depth of ground water is 54 feet bgs
50' to 99' = 10	10		
>100' = 0			
Ranking Criteria for Horizontal Distance to Nearest Surface Water	**NMOCD Numeric Rank for this Site**	**Source for Ranking**	**Notes**
< 200' = 20		USGS Topo Maps; Google Earth ; ArcMap	nearset surface water 5.3 miles to the Pecos River
200' - 1000' = 10			
>1000' = 0	0		
Ranking Criteria for Horizontal Distance to a Water Well or Water Source	**NMOCD Numeric Rank for this Site**	**Source for Ranking**	**Notes**
<1000' from a water source? <200' from a private domestic water source? YES OR NO to BOTH. YES = 20, NO = 0	0	NM State Engineer Water Well Database	nearest well 3500 feet south of location
	0		
Total Site Ranking	**10**		
Soil Remedation Standards	**0 to 9**	**10 to 19**	**>19**
Benzene	**10 PPM**	**10 PPM**	**10 PPM**
BTEX	**50 PPM**	**50 PPM**	**50 PPM**
TPH	**5000 PPM**	**1000 PPM**	**100 PPM**

SMA Project #5B25501 BG5

TABLE 2

SUMMARY OF CHLORIDE FIELD SCREENING RESULTS

Table 2: Summary of Chloride Field Screening Results

Ford State #2
Sample Event
1/11/17

FIELD SCREENING RESULTS SUMMARY					
Date	Time	Field Screening Reference	Sample Depth (Feet BGS)	Chlorides Results	Lab Sample Collected Y/N
1/11/2017	1:00	L1	1'	85	N
1/11/2017	1:00	L1	1.5'	1580	Y
1/11/2017	1:00	L2	0.5'	<300	Y
1/11/2017	1:00	L3	0.5'	1351	N
1/11/2017	1:00	L3	1'	1717	Y
1/11/2017	1:00	West	0.5'	<300	N
1/11/2017	1:00	NW	0.5'	<300	N
1/11/2017	1:00	NE	0.5'	<300	N
1/11/2017	1:00	East	0.5'	<300	N
1/11/2017	1:00	South	0.5'	<300	N
1/11/2017	1:00	SW	0.5'	<300	N

TABLE 3

SUMMARY OF LABORATORY ANALYSES

Table 3: Summary of Laboratory Analyses

Analytical Report- 1701763	Sample Number on Figure 2 Map	Sample Date	Depth	BTEX ppm	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	Cl- mg/Kg
1701763-001	BG1	1/11/2017	0.5'	N/A	N/A	N/A	N/A	30
1701763-002	L1	1/11/2017	1.5'	14.57	BDL	440	8300	1400
1701763-003	L2	1/11/2017	0.5'	4.09	BDL	170	3200	380
1701763-004	L3	1/11/2017	1'	5.34	BDL	190	2500	1500
1701763-005	SP1	1/11/2017	comp.	27.4	BDL	550	18000	6700

APPENDIX A

LABORATORY ANALYTICAL REPORTS

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 27, 2017

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Ford State 2 OrderNo.: 1701763

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/18/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1701763**
Date Reported: **1/27/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BG1-0.5
Project: Ford State 2
Collection Date: 1/11/2017 11:08:00 AM
Lab ID: 1701763-001 **Matrix:** SOIL **Received Date:** 1/18/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	ND	30		mg/Kg	20	1/20/2017 10:13:54 PM	29816

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1701763**
Date Reported: **1/27/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-1.5
Project: Ford State 2
Collection Date: 1/11/2017 12:15:00 PM
Lab ID: 1701763-002 **Matrix:** SOIL **Received Date:** 1/18/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	1400	75		mg/Kg	50	1/23/2017 2:56:15 PM	29816
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	8300	97		mg/Kg	10	1/20/2017 12:26:09 PM	29778
Motor Oil Range Organics (MRO)	3400	480		mg/Kg	10	1/20/2017 12:26:09 PM	29778
Surr: DNOP	0	70-130	S	%Rec	10	1/20/2017 12:26:09 PM	29778
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	440	99		mg/Kg	20	1/20/2017 12:49:27 PM	29781
Surr: BFB	200	68.3-144	S	%Rec	20	1/20/2017 12:49:27 PM	29781
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.50		mg/Kg	20	1/20/2017 12:49:27 PM	29781
Toluene	0.77	0.50		mg/Kg	20	1/20/2017 12:49:27 PM	29781
Ethylbenzene	1.8	0.99		mg/Kg	20	1/20/2017 12:49:27 PM	29781
Xylenes, Total	12	2.0		mg/Kg	20	1/20/2017 12:49:27 PM	29781
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	20	1/20/2017 12:49:27 PM	29781

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1701763**
Date Reported: **1/27/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-0.5
Project: Ford State 2
Collection Date: 1/11/2017 12:50:00 PM
Lab ID: 1701763-003 **Matrix:** SOIL **Received Date:** 1/18/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	380	30		mg/Kg	20	1/23/2017 12:49:45 PM	29834
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	3200	96		mg/Kg	10	1/20/2017 12:49:21 PM	29778
Motor Oil Range Organics (MRO)	1500	480		mg/Kg	10	1/20/2017 12:49:21 PM	29778
Surr: DNOP	0	70-130	S	%Rec	10	1/20/2017 12:49:21 PM	29778
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	170	49		mg/Kg	10	1/20/2017 1:12:50 PM	29781
Surr: BFB	178	68.3-144	S	%Rec	10	1/20/2017 1:12:50 PM	29781
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.24		mg/Kg	10	1/20/2017 1:12:50 PM	29781
Toluene	0.25	0.24		mg/Kg	10	1/20/2017 1:12:50 PM	29781
Ethylbenzene	0.54	0.49		mg/Kg	10	1/20/2017 1:12:50 PM	29781
Xylenes, Total	3.3	0.97		mg/Kg	10	1/20/2017 1:12:50 PM	29781
Surr: 4-Bromofluorobenzene	98.3	80-120		%Rec	10	1/20/2017 1:12:50 PM	29781

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1701763**
Date Reported: **1/27/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-1
Project: Ford State 2
Collection Date: 1/11/2017 1:05:00 PM
Lab ID: 1701763-004 **Matrix:** SOIL **Received Date:** 1/18/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	1500	75		mg/Kg	50	1/25/2017 12:55:19 PM	29834
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	2500	94		mg/Kg	10	1/20/2017 1:12:36 PM	29778
Motor Oil Range Organics (MRO)	1100	470		mg/Kg	10	1/20/2017 1:12:36 PM	29778
Surr: DNOP	0	70-130	S	%Rec	10	1/20/2017 1:12:36 PM	29778
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	190	98		mg/Kg	20	1/20/2017 10:52:36 AM	29781
Surr: BFB	119	68.3-144		%Rec	20	1/20/2017 10:52:36 AM	29781
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	0.49		mg/Kg	20	1/20/2017 10:52:36 AM	29781
Toluene	0.57	0.49		mg/Kg	20	1/20/2017 10:52:36 AM	29781
Ethylbenzene	0.77	0.49		mg/Kg	20	1/20/2017 10:52:36 AM	29781
Xylenes, Total	4.0	2.0		mg/Kg	20	1/20/2017 10:52:36 AM	29781
Surr: 4-Bromofluorobenzene	89.8	80-120		%Rec	20	1/20/2017 10:52:36 AM	29781

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1701763**
Date Reported: **1/27/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SP1
Project: Ford State 2
Collection Date: 1/11/2017 11:10:00 AM
Lab ID: 1701763-005 **Matrix:** SOIL **Received Date:** 1/18/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	6700	300		mg/Kg	200	1/25/2017 1:07:44 PM	29834
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	18000	950		mg/Kg	100	1/20/2017 10:52:51 AM	29778
Motor Oil Range Organics (MRO)	7200	4800		mg/Kg	100	1/20/2017 10:52:51 AM	29778
Surr: DNOP	0	70-130	S	%Rec	100	1/20/2017 10:52:51 AM	29778
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**	
Gasoline Range Organics (GRO)	550	250		mg/Kg	50	1/20/2017 11:15:58 AM	29781
Surr: BFB	126	68.3-144		%Rec	50	1/20/2017 11:15:58 AM	29781
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**	
Benzene	ND	1.2		mg/Kg	50	1/20/2017 11:15:58 AM	29781
Toluene	3.8	2.5		mg/Kg	50	1/20/2017 11:15:58 AM	29781
Ethylbenzene	3.6	2.5		mg/Kg	50	1/20/2017 11:15:58 AM	29781
Xylenes, Total	20	5.0		mg/Kg	50	1/20/2017 11:15:58 AM	29781
Surr: 4-Bromofluorobenzene	92.4	80-120		%Rec	50	1/20/2017 11:15:58 AM	29781

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701763**

27-Jan-17

Client: Souder, Miller & Associates

Project: Ford State 2

Sample ID	MB-29816	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS	Batch ID:	29816	RunNo:	40191				
Prep Date:	1/20/2017	Analysis Date:	1/20/2017	SeqNo:	1260055	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-29816	SampType:	LCS	TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS	Batch ID:	29816	RunNo:	40191				
Prep Date:	1/20/2017	Analysis Date:	1/20/2017	SeqNo:	1260056	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.8	90	110			

Sample ID	MB-29834	SampType:	mblk	TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS	Batch ID:	29834	RunNo:	40216				
Prep Date:	1/23/2017	Analysis Date:	1/23/2017	SeqNo:	1260604	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-29834	SampType:	lcs	TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS	Batch ID:	29834	RunNo:	40216				
Prep Date:	1/23/2017	Analysis Date:	1/23/2017	SeqNo:	1260605	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701763**

27-Jan-17

Client: Souder, Miller & Associates

Project: Ford State 2

Sample ID	MB-29778	SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS	Batch ID:	29778		RunNo:	40157				
Prep Date:	1/19/2017	Analysis Date:	1/20/2017		SeqNo:	1258850	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		117	70	130			

Sample ID	LCS-29778	SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	29778		RunNo:	40157				
Prep Date:	1/19/2017	Analysis Date:	1/20/2017		SeqNo:	1258898	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.2	63.8	116			
Surr: DNOP	5.9		5.000		117	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701763**

27-Jan-17

Client: Souder, Miller & Associates

Project: Ford State 2

Sample ID	**LCS-29781**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**29781**		RunNo:	**40152**				
Prep Date:	**1/19/2017**	Analysis Date:	**1/20/2017**		SeqNo:	**1259993**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.8	74.6	123			
Surr: BFB	840		1000		83.7	68.3	144			

Sample ID	**MB-29781**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**29781**		RunNo:	**40152**				
Prep Date:	**1/19/2017**	Analysis Date:	**1/20/2017**		SeqNo:	**1259994**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	780		1000		77.9	68.3	144			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701763**

27-Jan-17

Client: Souder, Miller & Associates

Project: Ford State 2

Sample ID	**LCS-29781**	SampType:	**LCS**		TestCode:	**EPA Method 8021B: Volatiles**				
Client ID:	**LCSS**	Batch ID:	**29781**		RunNo:	**40152**				
Prep Date:	**1/19/2017**	Analysis Date:	**1/20/2017**		SeqNo:	**1260015**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	75.2	115			
Toluene	0.93	0.050	1.000	0	92.9	80.7	112			
Ethylbenzene	0.90	0.050	1.000	0	90.0	78.9	117			
Xylenes, Total	2.8	0.10	3.000	0	92.3	79.2	115			
Surr: 4-Bromofluorobenzene	0.85		1.000		84.7	80	120			

Sample ID	**MB-29781**	SampType:	**MBLK**		TestCode:	**EPA Method 8021B: Volatiles**				
Client ID:	**PBS**	Batch ID:	**29781**		RunNo:	**40152**				
Prep Date:	**1/19/2017**	Analysis Date:	**1/20/2017**		SeqNo:	**1260016**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.82		1.000		81.9	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-CARLSBAD Work Order Number: 1701763 RcptNo: 1

Received by/date: 01/18/17

Logged By: Ashley Gallegos 1/18/2017 9:30:00 AM

Completed By: Ashley Gallegos 1/18/2017 12:32:56 PM

Reviewed By: 01/18/17

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	Good	Yes			

Chain-of-Custody Record

Client: SMA Carlsbad

Mailing Address:

Phone #:

Email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☒ NELAP ☐ Other _____

EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: Ford State #2

Project #:

Project Manager: Austin Wesant

Sampler:

On Ice: ☑ Yes ☐ No

Sample Temperature: 3.0—1.0°F =2.0°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1701763	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles (Y or N)
11/17	11:08		BG1-0.5			-001								X								
	12:15		L1-1.5			-002	X		X					X								
	12:50		L2-0.5			-003	X		X					X								
	1:05		L3-1			-004	X		X					X								
	11:10		SP1			-005	X		X					X								

Date:	Time:	Relinquished by:	Received by:	Date	Time
				11/18/17	0930
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

APPENDIX B
FORM C141 INITIAL

NM OIL CONSERVATION
ARTESIA DISTRICT
JAN 17 2017
RECEIVED

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

Submit to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1701954977

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Judah Oil 245872	Contact	Blaise Campanella
Address	PO Box 568, Artesia NM, 88211	Telephone No.	575-748-5488
Facility Name	Ford State #2	Facility Type	oil

Surface Owner	Mineral Owner	API No.
State		30-015-22714

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	02	22s	28e	1650	FNL	1650	FWL	Eddy

Latitude 32.42498 **Longitude** -104.06112

NATURE OF RELEASE

Type of Release pw/oil	Volume of Release 5bbl/oil 5bbl/pw Volume Recovered 0
Source of Release flowline	Date and Hour of Occurrence 1/10/17 Date and Hour of Discovery 1/10/17
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher
By Whom?	Date and Hour 1/10/17 in the A.M. call from B. Campanella
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Flowline ruptured, the polyline was immediately repaired and discharge ceased.

Describe Area Affected and Cleanup Action Taken.*
Area affected is approximately 15' x 80' just to the east side of the production pad. The top 6" of impacted soil has been scraped and hauled to an NMOCD approved facility. Further remediation efforts will be per an NMOCD approved work plan.

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

Signature: [signature]

Printed Name: Blaise Campanella

Title: Member/Manager

E-mail Address: judahoil@yahoo.com

Date: 1/17/2017 Phone: 575-748-5488

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By [signature]

Approval Date: 1/17/17 Expiration Date: N/A

Conditions of Approval: See attached ☐ Attached

* Attach Additional Sheets If Necessary

2RP-4081

Operator/Responsible Party,

The OCD has received the form C-141 you provided on 1/17/17 regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4081 has been assigned. **Please refer to this case number in all future correspondence.**

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

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

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District 2 office in ARTESIA on or before 2/17/17. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

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

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

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

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

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

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

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

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

APPENDIX C
OSE WATER COLUMN DATA

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	POD Sub-basin	Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 01171 POD1			ED		1	4	35	21S	28E	588814	3588862	1074	70		
CP 01171 POD3			ED		1	4	35	21S	28E	588814	3588862	1074	115		
CP 01171 POD2			ED		1	4	35	21S	28E	588866	3588862	1102	110		
C 03533 POD1		C	ED	3	4	4	03	22S	28E	587377	3586934	1342	55		
C 03533 POD2		C	ED	3	4	4	03	22S	28E	587358	3586935	1355	55		
C 03533 POD3		C	ED	3	4	4	03	22S	28E	587370	3586911	1364	55		
C 03533 POD4		C	ED	4	3	4	03	22S	28E	587331	3586892	1404	55		
C 03534 POD1		C	ED	4	3	4	03	22S	28E	587240	3586950	1427	150		

Average Depth to Water: --
Minimum Depth: --
Maximum Depth: --

Record Count: 8

UTMNAD83 Radius Search (in meters):

Easting (X): 588277.25 **Northing (Y):** 3587930.79 **Radius:** 5000

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

Operator: JUDAH OIL LLC PO Box 568 Artesia, NM 88211	OGRID: 245872
	Action Number: 347993
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aquinones	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	5/27/2024

Appendix IV

Analytical Results

Chain of Custody

CARDINAL Laboratories

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

May 30, 2024

CODY YORK

NIGHTHAWK

25 HIGHLAND PARK VILLAGE

DALLAS, TX 75205

RE: FORD STATE #2

Enclosed are the results of analyses for samples received by the laboratory on 05/29/24 8:11.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-23-16. 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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

NIGHTHAWK
CODY YORK
25 HIGHLAND PARK VILLAGE
DALLAS TX, 75205
Fax To:

Received:	05/29/2024	Sampling Date:	05/28/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	FORD STATE #2	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY		

Sample ID: BH 1 0-2 (H242957-01)

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	05/29/2024	ND	1.91	95.5	2.00	2.16	
Toluene*	<0.050	0.050	05/29/2024	ND	1.90	95.0	2.00	2.54	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.84	92.2	2.00	2.79	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.79	96.5	6.00	2.86	
Total BTEX	<0.300	0.300	05/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1410**	16.0	05/29/2024	ND	432	108	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	05/29/2024	ND	231	115	200	1.02	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	239	119	200	4.46	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane *97.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *91.5 %* *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:

NIGHTHAWK
CODY YORK
25 HIGHLAND PARK VILLAGE
DALLAS TX, 75205
Fax To:

Received:	05/29/2024	Sampling Date:	05/28/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	FORD STATE #2	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY		

Sample ID: BH 1 2-4 (H242957-02)

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	05/29/2024	ND	1.91	95.5	2.00	2.16	
Toluene*	<0.050	0.050	05/29/2024	ND	1.90	95.0	2.00	2.54	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.84	92.2	2.00	2.79	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.79	96.5	6.00	2.86	
Total BTEX	<0.300	0.300	05/29/2024	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3320**	16.0	05/29/2024	ND	432	108	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	05/29/2024	ND	231	115	200	1.02	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	239	119	200	4.46	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane *107 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *107 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

NIGHTHAWK
CODY YORK
25 HIGHLAND PARK VILLAGE
DALLAS TX, 75205
Fax To:

Received:	05/29/2024	Sampling Date:	05/28/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	FORD STATE #2	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY		

Sample ID: BH 1 4-6 (H242957-03)

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	05/29/2024	ND	1.91	95.5	2.00	2.16	
Toluene*	<0.050	0.050	05/29/2024	ND	1.90	95.0	2.00	2.54	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.84	92.2	2.00	2.79	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.79	96.5	6.00	2.86	
Total BTEX	<0.300	0.300	05/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1960**	16.0	05/29/2024	ND	432	108	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	05/29/2024	ND	231	115	200	1.02	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	239	119	200	4.46	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane *88.5 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *84.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

NIGHTHAWK
CODY YORK
25 HIGHLAND PARK VILLAGE
DALLAS TX, 75205
Fax To:

Received:	05/29/2024	Sampling Date:	05/28/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	FORD STATE #2	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY		

Sample ID: BH 1 6-8 (H242957-04)

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	05/29/2024	ND	1.91	95.5	2.00	2.16	
Toluene*	<0.050	0.050	05/29/2024	ND	1.90	95.0	2.00	2.54	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.84	92.2	2.00	2.79	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.79	96.5	6.00	2.86	
Total BTEX	<0.300	0.300	05/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1390**	16.0	05/29/2024	ND	432	108	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	05/29/2024	ND	231	115	200	1.02	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	239	119	200	4.46	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane *92.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *90.9 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

NIGHTHAWK
CODY YORK
25 HIGHLAND PARK VILLAGE
DALLAS TX, 75205
Fax To:

Received:	05/29/2024	Sampling Date:	05/28/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	FORD STATE #2	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY		

Sample ID: BH 2 0-2 (H242957-05)

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	05/29/2024	ND	1.91	95.5	2.00	2.16	
Toluene*	<0.050	0.050	05/29/2024	ND	1.90	95.0	2.00	2.54	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.84	92.2	2.00	2.79	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.79	96.5	6.00	2.86	
Total BTEX	<0.300	0.300	05/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1390**	16.0	05/29/2024	ND	432	108	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	05/29/2024	ND	231	115	200	1.02	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	239	119	200	4.46	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane *100 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *96.4 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

NIGHTHAWK
CODY YORK
25 HIGHLAND PARK VILLAGE
DALLAS TX, 75205
Fax To:

Received:	05/29/2024	Sampling Date:	05/28/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	FORD STATE #2	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY		

Sample ID: BH 2 4-6 (H242957-06)

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	05/29/2024	ND	1.91	95.5	2.00	2.16	
Toluene*	<0.050	0.050	05/29/2024	ND	1.90	95.0	2.00	2.54	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.84	92.2	2.00	2.79	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.79	96.5	6.00	2.86	
Total BTEX	<0.300	0.300	05/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1520**	16.0	05/29/2024	ND	432	108	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	05/29/2024	ND	231	115	200	1.02	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	239	119	200	4.46	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane *90.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *87.1 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

NIGHTHAWK
CODY YORK
25 HIGHLAND PARK VILLAGE
DALLAS TX, 75205
Fax To:

Received:	05/29/2024	Sampling Date:	05/28/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	FORD STATE #2	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY		

Sample ID: BH 2 6-8 (H242957-07)

BTEX 8021B mg/kg Analyzed By: JH HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	1.91	95.5	2.00	2.16	
Toluene*	<0.050	0.050	05/29/2024	ND	1.90	95.0	2.00	2.54	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.84	92.2	2.00	2.79	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.79	96.5	6.00	2.86	
Total BTEX	<0.300	0.300	05/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**656**	16.0	05/29/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/29/2024	ND	231	115	200	1.02	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	239	119	200	4.46	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane *106 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *101 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

NIGHTHAWK
CODY YORK
25 HIGHLAND PARK VILLAGE
DALLAS TX, 75205
Fax To:

Received:	05/29/2024	Sampling Date:	05/28/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	FORD STATE #2	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY		

Sample ID: BH 3 0-2 (H242957-08)

BTEX 8021B mg/kg Analyzed By: JH HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	1.91	95.5	2.00	2.16	
Toluene*	<0.050	0.050	05/29/2024	ND	1.90	95.0	2.00	2.54	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.84	92.2	2.00	2.79	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.79	96.5	6.00	2.86	
Total BTEX	<0.300	0.300	05/29/2024	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	05/29/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/29/2024	ND	193	96.4	200	0.156	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	196	98.0	200	0.0347	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane *69.9 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *64.7 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

NIGHTHAWK
CODY YORK
25 HIGHLAND PARK VILLAGE
DALLAS TX, 75205
Fax To:

Received:	05/29/2024	Sampling Date:	05/28/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	FORD STATE #2	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY		

Sample ID: BH 3 2-4 (H242957-09)

BTEX 8021B mg/kg Analyzed By: JH HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	1.91	95.5	2.00	2.16	
Toluene*	<0.050	0.050	05/29/2024	ND	1.90	95.0	2.00	2.54	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.84	92.2	2.00	2.79	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.79	96.5	6.00	2.86	
Total BTEX	<0.300	0.300	05/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**336**	16.0	05/29/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/29/2024	ND	193	96.4	200	0.156	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	196	98.0	200	0.0347	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane *74.2 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *70.0 %* *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:

NIGHTHAWK
CODY YORK
25 HIGHLAND PARK VILLAGE
DALLAS TX, 75205
Fax To:

Received:	05/29/2024	Sampling Date:	05/28/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	FORD STATE #2	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY		

Sample ID: BH 3 4-6 (H242957-10)

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	05/29/2024	ND	1.91	95.5	2.00	2.16	
Toluene*	<0.050	0.050	05/29/2024	ND	1.90	95.0	2.00	2.54	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.84	92.2	2.00	2.79	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.79	96.5	6.00	2.86	
Total BTEX	<0.300	0.300	05/29/2024	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	05/29/2024	ND	448	112	400	3.64	

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	05/29/2024	ND	193	96.4	200	0.156	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	196	98.0	200	0.0347	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane *93.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *87.2 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

NIGHTHAWK
CODY YORK
25 HIGHLAND PARK VILLAGE
DALLAS TX, 75205
Fax To:

Received:	05/29/2024	Sampling Date:	05/28/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	FORD STATE #2	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY		

Sample ID: BH 3 6-8 (H242957-11)

BTEX 8021B mg/kg Analyzed By: JH HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	1.91	95.5	2.00	2.16	
Toluene*	<0.050	0.050	05/29/2024	ND	1.90	95.0	2.00	2.54	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.84	92.2	2.00	2.79	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.79	96.5	6.00	2.86	
Total BTEX	<0.300	0.300	05/29/2024	ND					

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

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**208**	16.0	05/29/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/29/2024	ND	193	96.4	200	0.156	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	196	98.0	200	0.0347	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane *81.3 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *76.3 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

NIGHTHAWK
CODY YORK
25 HIGHLAND PARK VILLAGE
DALLAS TX, 75205
Fax To:

Received:	05/29/2024	Sampling Date:	05/28/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	FORD STATE #2	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY		

Sample ID: BH 4 0-2 (H242957-12)

BTEX 8021B mg/kg Analyzed By: JH HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	1.91	95.5	2.00	2.16	
Toluene*	<0.050	0.050	05/29/2024	ND	1.90	95.0	2.00	2.54	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.84	92.2	2.00	2.79	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.79	96.5	6.00	2.86	
Total BTEX	<0.300	0.300	05/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2280**	16.0	05/29/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/29/2024	ND	193	96.4	200	0.156	
DRO >C10-C28*	**45.6**	10.0	05/29/2024	ND	196	98.0	200	0.0347	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane *81.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *77.0 %* *49.1-148*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

NIGHTHAWK
CODY YORK
25 HIGHLAND PARK VILLAGE
DALLAS TX, 75205
Fax To:

Received:	05/29/2024	Sampling Date:	05/28/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	FORD STATE #2	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY		

Sample ID: BH 4 2-4 (H242957-13)

BTEX 8021B mg/kg Analyzed By: JH HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	1.68	83.8	2.00	4.35	QM-07
Toluene*	<0.050	0.050	05/29/2024	ND	1.75	87.4	2.00	4.11	QM-07
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.82	91.2	2.00	3.16	QM-07
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.54	92.3	6.00	2.31	
Total BTEX	<0.300	0.300	05/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *111 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**768**	16.0	05/29/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/29/2024	ND	193	96.4	200	0.156	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	196	98.0	200	0.0347	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane *87.0 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *82.0 %* *49.1-148*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

NIGHTHAWK
CODY YORK
25 HIGHLAND PARK VILLAGE
DALLAS TX, 75205
Fax To:

Received:	05/29/2024	Sampling Date:	05/28/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	FORD STATE #2	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY		

Sample ID: BH 4 R (H242957-14)

BTEX 8021B mg/kg Analyzed By: JH HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	1.68	83.8	2.00	4.35	
Toluene*	<0.050	0.050	05/29/2024	ND	1.75	87.4	2.00	4.11	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.82	91.2	2.00	3.16	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.54	92.3	6.00	2.31	
Total BTEX	<0.300	0.300	05/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *114 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**656**	16.0	05/29/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/29/2024	ND	193	96.4	200	0.156	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	196	98.0	200	0.0347	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane *80.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *76.2 %* *49.1-148*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

NIGHTHAWK
CODY YORK
25 HIGHLAND PARK VILLAGE
DALLAS TX, 75205
Fax To:

Received:	05/29/2024	Sampling Date:	05/28/2024
Reported:	05/30/2024	Sampling Type:	Soil
Project Name:	FORD STATE #2	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Shalyn Rodriguez
Project Location:	EDDY COUNTY		

Sample ID: BH 5 0-2 R (H242957-15)

BTEX 8021B mg/kg Analyzed By: JH HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/29/2024	ND	1.68	83.8	2.00	4.35	
Toluene*	<0.050	0.050	05/29/2024	ND	1.75	87.4	2.00	4.11	
Ethylbenzene*	<0.050	0.050	05/29/2024	ND	1.82	91.2	2.00	3.16	
Total Xylenes*	<0.150	0.150	05/29/2024	ND	5.54	92.3	6.00	2.31	
Total BTEX	<0.300	0.300	05/29/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *123 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	05/29/2024	ND	448	112	400	3.64	

TPH 8015M mg/kg Analyzed By: MS HDSP-1

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/29/2024	ND	193	96.4	200	0.156	
DRO >C10-C28*	<10.0	10.0	05/29/2024	ND	196	98.0	200	0.0347	
EXT DRO >C28-C36	<10.0	10.0	05/29/2024	ND					

Surrogate: 1-Chlorooctane *83.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *78.0 %* *49.1-148*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
HDSP-1	Sample container had headspace. Results may be biased low.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
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

1/2

Page 1

Company Name:	Night hawk environmental services
Project Manager:	Cody york
Address:	25 highland park village suit 100-554
City:	Dallas State: TX Zip: 75205
Phone #:	432-294-4102 Fax #:
Project #:	Project Owner: Julah oil
Project Name:	Ford State 2
Project Location:	Eddy county
Sampler Name:	DeShaun Sanders

BILL TO

P.O. #:	
Company:	Julah oil
Attn:	
Address:	US hwy 285
City:	Malaga
State:	nm Zip: 88263
Phone #:	575-703-0409
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	TOTAL	Cl
H24267																	
1	BH1 0-2	G	6			X					X		5-28	11:00	X	X	X
2	BH1 2-4	G	6			X					X		5-28	11:05	X	X	X
3	BH1 4-6	G	6			X					X		5-28	11:10	X	X	X
4	BH1 6-8	G	6			X					X		5-28	11:20	X	X	X
5	BH2 0-2	G	6			X					X		5-28	11:30	X	X	X
6	BH2 4-6	G	6			X					X		5-28	11:35	X	X	X
7	BH2 6-8	G	6			X					X		5-28	11:40	X	X	X
8	BH3 0-2	G	6			X					X		5-28	11:50	X	X	X
9	BH3 2-4	G	6			X					X		5-28	11:55	X	X	X
10	BH3 4-6	G	6			X					X		5-28	12:00	X	X	X

Relinquished By:	Date: 5.29.24	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
D. Sanders	Time: 0811	S Rodriguez	All Results are emailed. Please provide Email address: SDeShaun925@gmail.com
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One)	Observed Temp. °C -13.0	Sample Condition Cool Intact	CHECKED BY: (Initials)	Turnaround Time: Standard ☐ Rush ☐ 24HR
Sampler - UPS - Bus - Other:	Corrected Temp. °C	☐ Yes ☐ Yes ☐ No ☐ No	SR	Thermometer ID #113 Correction Factor -0.5°C

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

FORM-006 R 3.2 10/07/21

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

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Page 2

Company Name:		**BILL TO**	
Project Manager:		P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name: Ford State 2		State: Zip:	
Project Location:		Phone #:	
Sampler Name:		Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	BTEX	TPH	Cl
H24295-1	BH3 6-8	G	1			X					X		5-28	12:20	X	X	X
12	BH4 0-2	G	1			X					X		5-28	12:30	X	X	X
13	BH4 2-4	G	1			X					X		5-28	12:35	X	X	X
14	BH4 8	G	1			X					X		5-28	12:40	X	X	X
15	BH5 0-2'	G	1			X					X		5-28	12:50	X	X	X

Relinquished By: D. Sanders	Date: 5.29.24 Time: 0911	Received By: S Rodriguez	Verbal Result: ☐ Yes ☐ No Add'l Phone #: All Results are emailed. Please provide Email address:
Relinquished By:	Date: Time:	Received By:	REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C -13.0 Corrected Temp. °C	Sample Condition Cool: Yes / No Intact: Yes / No	CHECKED BY: (Initials) SR

Turnaround Time: #140 Standard ☐ Rush ☐ 24 hr
Thermometer ID #113
Correction Factor -0.5°C
Bacteria (only) Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.2 10/07/21

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

CARDINAL Laboratories

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

June 21, 2024

JORDAN TOHKUBBI

JUDAH OIL

P.O. BOX 568

ARTESIA, NM 88210

RE: FORD STATE #002 PIT

Enclosed are the results of analyses for samples received by the laboratory on 06/20/24 15:21.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. 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:

JUDAH OIL
JORDAN TOHKUBBI
P.O. BOX 568
ARTESIA NM, 88210
Fax To: (575) 746-1290

Received:	06/20/2024	Sampling Date:	06/19/2024
Reported:	06/21/2024	Sampling Type:	Soil
Project Name:	FORD STATE #002 PIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY		

Sample ID: TT 1 PIT @ 4' (H243668-01)

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	06/20/2024	ND	1.94	96.9	2.00	2.79	
Toluene*	<0.050	0.050	06/20/2024	ND	1.91	95.7	2.00	3.00	
Ethylbenzene*	<0.050	0.050	06/20/2024	ND	1.94	97.0	2.00	1.96	
Total Xylenes*	<0.150	0.150	06/20/2024	ND	5.69	94.8	6.00	2.30	
Total BTEX	<0.300	0.300	06/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.4 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1180**	16.0	06/21/2024	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	06/20/2024	ND	188	93.9	200	4.11	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	174	87.1	200	1.96	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *118 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *125 %* *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:

JUDAH OIL
JORDAN TOHKUBBI
P.O. BOX 568
ARTESIA NM, 88210
Fax To: (575) 746-1290

Received:	06/20/2024	Sampling Date:	06/19/2024
Reported:	06/21/2024	Sampling Type:	Soil
Project Name:	FORD STATE #002 PIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY		

Sample ID: TT 1 PIT @ 6' (H243668-02)

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	06/20/2024	ND	1.94	96.9	2.00	2.79	
Toluene*	<0.050	0.050	06/20/2024	ND	1.91	95.7	2.00	3.00	
Ethylbenzene*	<0.050	0.050	06/20/2024	ND	1.94	97.0	2.00	1.96	
Total Xylenes*	<0.150	0.150	06/20/2024	ND	5.69	94.8	6.00	2.30	
Total BTEX	<0.300	0.300	06/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.5 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**8600**	16.0	06/21/2024	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	06/20/2024	ND	188	93.9	200	4.11	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	174	87.1	200	1.96	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *121 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *128 %* *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:

JUDAH OIL
JORDAN TOHKUBBI
P.O. BOX 568
ARTESIA NM, 88210
Fax To: (575) 746-1290

Received:	06/20/2024	Sampling Date:	06/19/2024
Reported:	06/21/2024	Sampling Type:	Soil
Project Name:	FORD STATE #002 PIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY		

Sample ID: TT 1 PIT @ 8' (H243668-03)

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	06/20/2024	ND	1.94	96.9	2.00	2.79	
Toluene*	<0.050	0.050	06/20/2024	ND	1.91	95.7	2.00	3.00	
Ethylbenzene*	<0.050	0.050	06/20/2024	ND	1.94	97.0	2.00	1.96	
Total Xylenes*	<0.150	0.150	06/20/2024	ND	5.69	94.8	6.00	2.30	
Total BTEX	<0.300	0.300	06/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *93.3 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1390**	16.0	06/21/2024	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	06/20/2024	ND	188	93.9	200	4.11	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	174	87.1	200	1.96	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *107 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *114 %* *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:

JUDAH OIL
JORDAN TOHKUBBI
P.O. BOX 568
ARTESIA NM, 88210
Fax To: (575) 746-1290

Received:	06/20/2024	Sampling Date:	06/19/2024
Reported:	06/21/2024	Sampling Type:	Soil
Project Name:	FORD STATE #002 PIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY		

Sample ID: TT 1 PIT @ 12' (H243668-04)

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	06/20/2024	ND	1.94	96.9	2.00	2.79	
Toluene*	<0.050	0.050	06/20/2024	ND	1.91	95.7	2.00	3.00	
Ethylbenzene*	<0.050	0.050	06/20/2024	ND	1.94	97.0	2.00	1.96	
Total Xylenes*	<0.150	0.150	06/20/2024	ND	5.69	94.8	6.00	2.30	
Total BTEX	<0.300	0.300	06/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *91.2 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**816**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	188	93.9	200	4.11	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	174	87.1	200	1.96	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *124 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *131 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

JUDAH OIL
JORDAN TOHKUBBI
P.O. BOX 568
ARTESIA NM, 88210
Fax To: (575) 746-1290

Received:	06/20/2024	Sampling Date:	06/19/2024
Reported:	06/21/2024	Sampling Type:	Soil
Project Name:	FORD STATE #002 PIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY		

Sample ID: TT 1 PIT @ 16' (H243668-05)

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	06/20/2024	ND	1.94	96.9	2.00	2.79	
Toluene*	<0.050	0.050	06/20/2024	ND	1.91	95.7	2.00	3.00	
Ethylbenzene*	<0.050	0.050	06/20/2024	ND	1.94	97.0	2.00	1.96	
Total Xylenes*	<0.150	0.150	06/20/2024	ND	5.69	94.8	6.00	2.30	
Total BTEX	<0.300	0.300	06/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *94.3 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6700**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	188	93.9	200	4.11	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	174	87.1	200	1.96	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *121 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *128 %* *49.1-148*

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

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Analytical Results For:

JUDAH OIL
JORDAN TOHKUBBI
P.O. BOX 568
ARTESIA NM, 88210
Fax To: (575) 746-1290

Received:	06/20/2024	Sampling Date:	06/19/2024
Reported:	06/21/2024	Sampling Type:	Soil
Project Name:	FORD STATE #002 PIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY		

Sample ID: TT 1 PIT @ 18' (H243668-06)

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	06/20/2024	ND	1.94	96.9	2.00	2.79	
Toluene*	<0.050	0.050	06/20/2024	ND	1.91	95.7	2.00	3.00	
Ethylbenzene*	<0.050	0.050	06/20/2024	ND	1.94	97.0	2.00	1.96	
Total Xylenes*	<0.150	0.150	06/20/2024	ND	5.69	94.8	6.00	2.30	
Total BTEX	<0.300	0.300	06/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *94.4 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6800**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	188	93.9	200	4.11	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	174	87.1	200	1.96	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *92.8 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *98.1 %* *49.1-148*

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Analytical Results For:

JUDAH OIL
JORDAN TOHKUBBI
P.O. BOX 568
ARTESIA NM, 88210
Fax To: (575) 746-1290

Received:	06/20/2024	Sampling Date:	06/20/2024
Reported:	06/21/2024	Sampling Type:	Soil
Project Name:	FORD STATE #002 PIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY		

Sample ID: TT 1 PIT @ 20' (H243668-07)

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	06/20/2024	ND	1.94	96.9	2.00	2.79	
Toluene*	<0.050	0.050	06/20/2024	ND	1.91	95.7	2.00	3.00	
Ethylbenzene*	<0.050	0.050	06/20/2024	ND	1.94	97.0	2.00	1.96	
Total Xylenes*	<0.150	0.150	06/20/2024	ND	5.69	94.8	6.00	2.30	
Total BTEX	<0.300	0.300	06/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *93.5 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	188	93.9	200	4.11	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	174	87.1	200	1.96	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *111 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *114 %* *49.1-148*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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Analytical Results For:

JUDAH OIL
JORDAN TOHKUBBI
P.O. BOX 568
ARTESIA NM, 88210
Fax To: (575) 746-1290

Received:	06/20/2024	Sampling Date:	06/20/2024
Reported:	06/21/2024	Sampling Type:	Soil
Project Name:	FORD STATE #002 PIT	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Alyssa Parras
Project Location:	EDDY COUNTY		

Sample ID: TT 1 PIT @ 23' (H243668-08)

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	06/20/2024	ND	1.94	96.9	2.00	2.79	
Toluene*	<0.050	0.050	06/20/2024	ND	1.91	95.7	2.00	3.00	
Ethylbenzene*	<0.050	0.050	06/20/2024	ND	1.94	97.0	2.00	1.96	
Total Xylenes*	<0.150	0.150	06/20/2024	ND	5.69	94.8	6.00	2.30	
Total BTEX	<0.300	0.300	06/20/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID *93.8 %* *71.5-134*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	06/21/2024	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/20/2024	ND	188	93.9	200	4.11	
DRO >C10-C28*	<10.0	10.0	06/20/2024	ND	174	87.1	200	1.96	
EXT DRO >C28-C36	<10.0	10.0	06/20/2024	ND					

Surrogate: 1-Chlorooctane *121 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *128 %* *49.1-148*

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Notes and Definitions

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

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CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Night hawk environmental services
Project Manager:	Jordan tohkubbi
Address:	209 w wall st unit 802
City:	midland State: tx Zip: 79701
Phone #:	432-294-4102 Fax #:
Project #:	Project Owner: Jujah oil
Project Name:	ford state #002 pit
Project Location:	Eddy county
Sampler Name:	D. Sanders

BILL TO

P.O. #:	
Company:	Jujah oil
Attn:	
Address:	us hwy 225
City:	Malaga
State:	nm Zip: 88263
Phone #:	575-703-0409
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
H213018																	
1	TT1 pit @4'	G	1			X					X		6/19	10:17	X	X	X
2	TT1 pit @6'	G	1			X					X		6/19	10:36	X	X	X
3	TT1 pit @8'	G	1			X					X		6/19	10:58	X	X	X
4	TT1 pit 12'	G	1			X					X		6/19	11:32	X	X	X
5	TT1 pit @16'	G	1			X					X		6/19	11:33	X	X	X
6	TT1 pit @18'	G	1			X					X		6/19	12:32	X	X	X
7	TT1 pit @ 20'	G	1			X					X		6/20	11:34	X	X	X
8	TT1 pit @ 23'	G	1			X					X		6/20	11:51	X	X	X
		G															

Relinquished By: Dr Sanders	Date: 6-20-24 Time: 1521	Received By:	Verbal Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	All Results are emailed. Please provide Email address: SDrshawn925@gmail.com
			REMARKS:

Delivered By: (Circle One)	Observed Temp. °C	Sample Condition Cool Intact	CHECKED BY: (Initials)	Turnaround Time: Standard ☐ Rush 24 ☑ #140
Sampler - UPS - Bus - Other:	Corrected Temp. °C 3.6°C	☑ Yes ☐ Yes ☐ No ☐ No	KP	Thermometer ID #113 Correction Factor -0.5°C KP 6-20-24

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

FORM-006 R 3.2 10/07/21

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

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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

QUESTIONS

Action 335997

QUESTIONS

Operator: JUDAH OIL LLC PO Box 568 Artesia, NM 88211	OGRID: 245872
	Action Number: 335997
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAB1701954977**
Incident Name	**NAB1701954977 FLOW LINE @ 30-015-22714**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Plan Received**
Incident Well	**[30-015-22714] FORD STATE #002**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	Flow line
Date Release Discovered	01/10/2017
Surface Owner	State

Incident Details	
Please answer all the questions in this group.	
Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Equipment Failure | Flow Line - Production | Crude Oil | Released: 5 BBL | Recovered: 0 BBL | Lost: 5 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure | Flow Line - Production | Produced Water | Released: 5 BBL | Recovered: 0 BBL | Lost: 5 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	Cause: Equipment Failure | Flow Line - Production | Condensate | Released: 0 BBL | Recovered: 0 BBL | Lost: 0 BBL.
Natural Gas Vented (Mcf) Details	Cause: Equipment Failure | Flow Line - Production | Natural Gas Vented | Released: 0 Mcf | Recovered: 0 Mcf | Lost: 0 Mcf.
Natural Gas Flared (Mcf) Details	Cause: Equipment Failure | Flow Line - Production | Natural Gas Flared | Released: 0 Mcf | Recovered: 0 Mcf | Lost: 0 Mcf.
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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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

QUESTIONS (continued)

Operator: JUDAH OIL LLC PO Box 568 Artesia, NM 88211	OGRID: 245872
	Action Number: 335997
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

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	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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.

I hereby agree and sign off to the above statement	Name: Ashlie Quinones Title: office manager Email: ashlie@judahoil.com Date: 07/17/2024

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

QUESTIONS (continued)

Operator: JUDAH OIL LLC PO Box 568 Artesia, NM 88211	OGRID: 245872
	Action Number: 335997
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 500 and 1000 (ft.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1000 (ft.) and ½ (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	8600
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	160.8
GRO+DRO (EPA SW-846 Method 8015M)	118
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	05/28/2024
On what date will (or did) the final sampling or liner inspection occur	08/31/2024
On what date will (or was) the remediation complete(d)	08/31/2024
What is the estimated surface area (in square feet) that will be reclaimed	8100
What is the estimated volume (in cubic yards) that will be reclaimed	395
What is the estimated surface area (in square feet) that will be remediated	1800
What is the estimated volume (in cubic yards) that will be remediated	267
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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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
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Santa Fe, NM 87505

QUESTIONS (continued)

Operator: JUDAH OIL LLC PO Box 568 Artesia, NM 88211	OGRID: 245872
	Action Number: 335997
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	LEA LAND LANDFILL [fEEM0112342028]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
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.	
I hereby agree and sign off to the above statement	Name: Ashlie Quinones Title: office manager Email: ashlie@judahoil.com Date: 07/17/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: JUDAH OIL LLC PO Box 568 Artesia, NM 88211	OGRID: 245872
	Action Number: 335997
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Deferral Requests Only *Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.*	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

Operator: JUDAH OIL LLC PO Box 568 Artesia, NM 88211	OGRID: 245872
	Action Number: 335997
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**347993**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**05/28/2024**
What was the (estimated) number of samples that were to be gathered	**11**
What was the sampling surface area in square feet	**1200**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Action 335997

CONDITIONS

Operator: JUDAH OIL LLC PO Box 568 Artesia, NM 88211	OGRID: 245872
	Action Number: 335997
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
crystal.walker	The Remediation Work Plan is approved with the following Conditions of Approval: - The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. CP 01171 PD1 indicates the depth of the well is 70' with no records of water depth. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29. NMAC in lieu of drilling to determine the depth to groundwater. - The Siting Criteria / Remediation plan requirements of 19.15.29.12.C need to be included in the remediation closure report. If the location is within a 100-year floodplain.	7/31/2024
crystal.walker	- Laboratory Analysis of the samples taken indicate remediation depths from 4' – 8' excavations for BH-1, BH-2 and BH-4 and an excavation of at least 18' for TT-1 Pit. SMA soil sampling done in 2017 indicates L1, L2, L3 and SP1 all exceeded TPH and will be required to be vertically and horizontally delineated through the proposed excavation. The responsible party will be required to excavate to the extent that contaminate levels are below 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX and 10mg/kg Benzene, unless groundwater depth can be determined. The top 4 feet of cover will need to reclaimed with non-waste containing material that is defined as material less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX and 10mg/kg Benzene.	7/31/2024
crystal.walker	- Horizontal delineation submitted was incomplete and did not meet the requirements of 19.15.29.11 NMAC. The values for determination of horizontal impact are derived by either approved "background" values or Table I Closure Criteria for releases where groundwater is at a depth of 50 feet or less. This is especially important for releases in areas reasonably needed for production operations or for subsequent drilling operations, to ensure the release did not extend to the pasture area or areas not reasonable needed for production/drilling operations. A visual footprint on the surface is not sufficient to assess the horizontal extent of the release. Laboratory data must be provided as evidence of delineation efforts. Any sample exceeding approved "background" values or Table I Closure Criteria for releases where groundwater is at a depth of 50 feet or less requires additional samples for horizontal delineation.	7/31/2024
crystal.walker	Judah Oil will submit a completed remediation closure Report no late than January 1st, 2025 to the OCD Permitting website.	7/31/2024