



## Volume Justification

This form is to be used to convey justification of spill volumes in the event of a release. Clearly indicate by calculations or description in the space provided below.

**Justification:**

Soil Type	Porosity	Length	Width	Depth (.083 per inch)	Cubic Feet	Estimated Barrels	Soil Type
Clay	0.15	10	10	0.083	8.3	0.22	Clay
Peat	0.40	10	10	0.083	8.3	0.59	Peat
Glacial Sediments	0.13	10	10	0.083	8.3	0.19	Glacial Sediments
Sandy Clay	0.12	92	92	0.115	973.36	20.82	Sandy Clay
Silt	0.16	10	10	0.083	8.3	0.24	Silt
Loess	0.25	10	10	0.083	8.3	0.37	Loess
Fine Sand	0.16	10	10	0.083	8.3	0.24	Fine Sand
Medium Sand	0.25	10	10	0.083	8.3	0.37	Medium Sand
Coarse Sand	0.26	10	10	0.083	8.3	0.38	Coarse Sand
Gravelly Sand	0.26	10	10	0.083	8.3	0.38	Gravelly Sand
Fine Gravel	0.26	10	10	0.083	8.3	0.38	Fine Gravel
Medium Gravel	0.20	10	10	0.083	8.3	0.30	Medium Gravel
Coarse Gravel	0.18	10	10	0.083	8.3	0.27	Coarse Gravel
Sandstone	0.25	10	10	0.083	8.3	0.37	Sandstone
Siltstone	0.18	10	10	0.083	8.3	0.27	Siltstone
Shale	0.05	10	10	0.083	8.3	0.07	Shale
Limestone	0.13	10	10	0.083	8.3	0.19	Limestone
Basalt	0.19	10	10	0.083	8.3	0.28	Basalt
Volcanic Tuff	0.20	10	10	0.083	8.3	0.30	Volcanic Tuff
Standing Liquids	X	10	10	0.083	8.3	1.48	Standing Liquids

1	2	3	4	5	6
0.083	0.166	0.250	0.332	0.415	0.500
7	8	9	10	11	12
0.581	0.664	0.750	0.830	0.913	1.000

**NOTE:** This is an **estimate** tool designed for quick field estimates of whether a C-141 should be required (i.e. a release is estimated to be greater than or less than 5 barrel volumes)

Choose the one prevailing ground type for estimating spill volumes at a single location.

Note that the depth should be measured in feet and tenths of feet (1 inch = .083)

Cubic Feet = L x W x D  
 Estimated Barrels = ((Cubic Feet x Porosity) / 5.61)

**~8,864sqft x 0.115ft (1.38 in) average depth = 973.36cuft**  
**Estimated Barrels Released: 20.82bbl = (973.36cuft X 0.12 / 5.61)**

**Approved by: Fernando Rodriguez**      **Date: 3/30/2026**



Incident Number: nAPP2511431582

## Remediation Work Plan

Mimosa Federal SWD #4 Pipeline

API: 30-015-26950

Unit I, Section 4, Township 20 South, Range 24 East

County: Eddy

Coordinates: 32.601337, -104.587266

Vertex File Number: 25A-03046

**Prepared for:**

Riley Permian Operating Company, LLC.

**Prepared by:**

Vertex Resource Services Inc.

**Date:**

March 2026

Riley Permian Operating Company, LLC.  
Mimosa Federal SWD #4 Pipeline

Remediation Work Plan  
March 2026

**Remediation Closure Report**  
**Mimosa Federal SWD #4 Pipeline**  
**API: 30-015-26950**  
**Incident ID: nAPP2511431582**  
**Unit I, Section 4, Township 20 South, Range 24 East**  
**County: Eddy**  
**Coordinates: 32.601337, -104.587266**


On behalf of:  
**Riley Permian Operating Company, LLC.**  
29 E. Reno Ave., Suite 500  
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March 25, 2026  
Date

  
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March 25, 2026  
Date

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## 1.0 Introduction

Riley Permian Operating Company, LLC. (Riley Permian) retained Vertex Resource Services Inc. (Vertex) to complete a Remediation Plan for a produced water release that occurred on April 12, 2025, at Mimosa Federal SWD #4 Pipeline (hereafter referred to as the “site”). At the time of release, the location was operated by Silverback Exploration (Silverback). The site is now operated by Riley Permian. Silverback submitted an initial C-141 release notification to the New Mexico Oil Conservation Division (NMOCD) District 2 on April 24, 2025. Incident ID number nAPP2511431582 was assigned to this incident.

This report provides a description of the site assessment, proposed remediation and characterization sampling activities associated with the site. The information presented demonstrates that closure criteria established in Table I of 19.15.29.12 of the *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) related to NMOCD will be met and all applicable regulations are being followed. This document is intended to serve as a remediation work plan to obtain approval from NMOCD, with the understanding that the release site will be reclaimed immediately following the completion of remediation activities as per 19.15.29.13 NMAC.

## 2.0 Incident Description

The release occurred on April 12, 2025, due to the pipeline riser for the Mimosa Federal SWD #4 having a defective ring gasket at the flange connection and released fluids onto surrounding areas of the reclaimed Mimosa Federal SWD #1 site, the pipeline right-of-way, and surrounding off-site areas. A vacuum truck was dispatched and removed pooled fluids. An excavation crew was brought to the site to scrape and haul off recoverable materials. Additional details relevant to the release are presented in the C-141 Report.

## 3.0 Site Characteristics

The site is located approximately 19.8 miles southwest of Artesia, New Mexico (Google Inc., 2025). The legal location for the site is Unit I, Section 4, Township 20 South and Range 24 East in Eddy County, New Mexico. The release area is located on Federal land.

The location was typical of saltwater disposal sites in the Permian Basin and was used for produced water disposal and storage. The following sections specifically describe the release area surrounding the site and surrounding areas.

*The Geological Map of New Mexico* (New Mexico Bureau of Geology and Mineral Resources, 2025) indicates the site’s surface geology primarily comprises Pqg – Queen and Grayburg Formations. The soil on this site is typically shallow over fractured limestone bedrock. Pockets of deeper soil can exist usually occurring along seams and cracks in the fractured limestone. The soils are well drained with a permeability that is moderate to moderately slow. Water-holding capacity is low except at seams and cracks in the limestone bedrock. Surface textures are cobbly loams, stony or rocky loams and cobbly silt loams. (United States Department of Agriculture, Natural Resources Conservation Service, 2025). The karst potential for the site is characterized as high instability (United States Department of the Interior, Bureau of Land Management, 2018).

The surrounding landscape is associated with hills, low mountains, and foot slopes with elevations ranging between 2,800 and 5,000 feet. The climate is semiarid with average annual precipitation ranging between 11 and 19 inches. The historical plant community was determined to be characterized by midgrasses such as blue grama, sideoats grama, curlyleaf muhly, and black grama and shrubs such as yuccas, sotol, ocotillo, lechuguilla. Litter and bare ground compose a significant proportion of the ground cover while grasses compose the remainder. Fire suppression, and the loss of grass cover due to overgrazing and drought may facilitate the increase and encroachment of shrubs (United States Department of Agriculture, Natural Resources Conservation Service, 2025).

#### 4.0 Closure Criteria Determination

The nearest active NMOSE well to the site is a livestock watering well (RA 05723) located approximately 0.79 miles north of the site with a recorded depth to groundwater of 270 feet below ground surface (New Mexico Office of the State Engineer, 2025b). Depth to groundwater was determined to be greater than 105 feet below ground surface (bgs) by referencing historical drilling activities performed by Carmona Resources, LLC on December 6, 2022, for another NMOCD incident. Carmona was onsite to drill a groundwater determination bore to 105 bgs and within a 0.5-mile radius of the location. The bore was located approximately 0.29 miles southeast of the site at 32.597410, -104.585720 in location: 1, S4, T20S, R24E. The bore was left open for 72 hours and tagged with a water level meter. No indications of water were detected at a depth of 105 bgs. Information pertaining to the closure criteria determination is included in Appendix A.

There is no surface water present at the site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, are features for the Dagger Draw located within the release area (United States Fish and Wildlife Service, 2025).

At the site, there are no continuously flowing watercourses, lakebeds, sinkholes, playa lakes or other critical water or community features as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

Riley Permian Operating Company, LLC.  
Mimosa Federal SWD #4 Pipeline

Remediation Work Plan  
March 2026

<b>Table 1. Closure Criteria Determination</b>			
<b>Site Specific Conditions</b>		<b>Value</b>	<b>Unit</b>
1	Depth to Groundwater (nearest reference)	>105	feet
	Distance between release and nearest DTGW reference	1,534	feet
		0.29	miles
Date of nearest DTGW reference measurement		December 6, 2022	
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	0	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	2,460	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	14,954	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or	4,150	feet
	ii) Within 1000 feet of any fresh water well or spring		feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	0	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
	Distance between release and nearest registered mine	48,805	feet
9	Within an unstable area (Karst Map)	High	Critical High Medium Low
	Distance between release and nearest unstable area	0	feet
10	Within a 100-year Floodplain	100	year
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	0	feet
11	Soil Type	PM - Pima silt loam	
12	Ecological Classification	R042CY151NM - Limestone Hills R070BC017NM - Bottomland	
13	Geology	Pqg - Queen and Grayburg Formations	
	<b>NMAC 19.15.29.12 E (Table 1) Closure Criteria</b>	<50'	<50' 51-100' >100'

The closure criteria determined for the site are associated with the following constituent concentration limits as presented in Table 2.

<b>Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS</b>	<b>Constituent</b>	<b>Limit</b>
Within a significant watercourse; Within high karst potential; Within 100-year floodplain	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

TDS – Total dissolved solids

TPH – total petroleum hydrocarbons, GRO – gas range organics, DRO – diesel range organics, MRO – motor oil range organics

BTEX – benzene, toluene, ethylbenzene and xylenes

### 5.0 Site Characterization Activities

Site characterization activities were conducted by Vertex on June 18, 2025, and finalized on June 19, 2025. A total of 22 sampling boreholes were established to obtain both horizontal and vertical delineation. From these boreholes, a total of 50 samples were collected at various depths and submitted to Cardinal Laboratories in Hobbs, New Mexico, under chain-of-custody protocols and analyzed for BTEX (EPA Method 8021B), total petroleum hydrocarbons (GRO, DRO, MRO – EPA Method 8015D) and total chlorides (EPA Method 300.0). The release extent and the sampling locations were mapped utilizing a handheld GPS and are presented on Figure 1. The Daily Field Report (DFR) with site photographs documenting site assessment activities is included in Appendix B. Laboratory results are presented in Table 4, and the laboratory data reports are included in Appendix C.

### 6.0 Proposed Remediation Activities

Areas identified with contaminant concentrations above closure criteria will be remediated through dig and haul methods. Laboratory results from the site characterization have been referenced to estimate both the vertical and horizontal limits of the impacts and the volume of soil to be removed. Soil will be excavated to the extent of the known contamination outside of the applicable closure criteria. Field screening will be utilized to confirm that all areas of the excavation base and walls meet the applicable closure criteria. Impacted materials will be stockpiled on a liner prior to disposal at an approved facility. Berms and wattles will be utilized on the south side of the portion of the release area that is located in the wetland to divert water away from the excavation. Once excavation is complete, notification for confirmatory samples collection will be provided to the New Mexico Oil Conservation Division (NMOCD) two business days prior to conducting final sampling pursuant to 19.15.29.12.D(1)(a) NMAC. Confirmatory samples will be collected, and laboratory analysis completed to confirm closure criteria guidelines are met. Excavations will be backfilled with clean soil sourced locally. Backfill material will be sampled and analyzed with a minimum of one five-point composite sample to confirm that it is not impacted with the same constituents labeled in Section 5.0.

Remedial efforts will begin on the areas of exceedance and will be excavated to strictest criteria standards as outlined in Table 1 of 19.15.29.12 NMAC. Soil will be excavated at a planned depth of 2 - 4 feet for the areas of exceedances.

Hand excavation and vacuum excavation will be utilized to remove contaminated soil within the 18" tolerance zone of the pipeline riser infrastructure and pipeline areas. Then the remaining areas will be excavated using heavy equipment. The site schematic with proposed excavation depths is presented in Figure 2.

<b>Sample Point</b>	<b>Excavation Depth</b>	<b>Remediation Method</b>
BH25-03	4 feet	Mechanical Equipment
BH25-06	4 feet	Mechanical Equipment
BH25-09	4 feet	Mechanical Equipment
BH25-12	2 feet	Mechanical Equipment
BH25-15	2 feet	Mechanical Equipment
BH25-19	4 feet	Mechanical Equipment
BH25-20	4 feet	Mechanical Equipment

The estimated volume to be excavated is approximately **925 cubic yards**; however, this figure is subject to change based on the extent of impacted material identified during remediation activities, results of confirmatory field sampling, and any additional subsurface characterization that may be required as the project progresses.

## **7.0 Land Reclamation Plan**

### **7.1 Pastureland Reclamation**

The land use surrounding the site is defined as natural. A natural area is described as: away from human habitation and activities, where the primary concern is the protection of ecological receptors.

The areas around the site will be reclaimed so that the capability of the land will match that of the immediate surrounding areas, which consists of a water course and rangeland.

### **7.2 Contouring**

The site will be contoured to match surrounding topography as near as practicable to restore natural drainage, which is generally in a south-to-north and east-to-west direction. Any compaction affecting the upper soil will be alleviated by ripping to a maximum depth of 18 inches following re-contouring. In addition, a straw layer may be incorporated into the topsoil to prevent compaction, hinder erosion, and ensure proper soil aeration. This process helps assist the development of a healthy seed bed.

### **7.3 Soil Replacement**

Clean natural topsoil will be imported from a local source. Local topsoil will be sourced and applied at depth of no less than 12 inches.

#### 7.4 Erosion Control

The application of erosion control devices (waddles) will be installed to prevent erosion and direct water to a well vegetated area when deemed necessary.

#### 7.5 Revegetation

##### 7.5.1 Fertilization

Soil amendments may be incorporated into the contoured topsoil and/or upper subsoil to improve soil nutrient content if required. Topsoil will be tested to determine proper if fertilization is necessary and to establish proper fertilization rates.

##### 7.5.2 Seeding

A seed mix suitable for the site and surrounding area will be used and will be administered at an application rate of 18 PLS/acre. Seed establishment and revegetation will be monitored, bi-annually, to determine success.

BLM Seed Mix 1 will be obtained for the site and applied by Vertex personnel. In addition to the approved BLM seed mix, Vertex recommends the application of blue grama (*Bouteloua gracilis*), and black grama (*Bouteloua eriopoda*), as these species are naturally occurring in the area. Methods of seeding will be broadcast seeded followed by chain-dragging at the double application rate of PLS/acre.

#### 8.0 Reclamation Standards

Reclamation success will meet requirements outlined in chapter 6 of The Gold Book (U.S. Department of the Interior and U.S. Department of Agriculture, 2007) which states that “a self-sustaining, vigorous, diverse, native (or otherwise approved) plant community is established on site, with a density sufficient to control erosion and non-native plant invasion and to re-establish wildlife habitat or forage production.”

Should you have any questions or concerns, please do not hesitate to Chance Dixon at 575.988.1472 or [cdixon@vertexresource.com](mailto:cdixon@vertexresource.com).

## 9.0 References

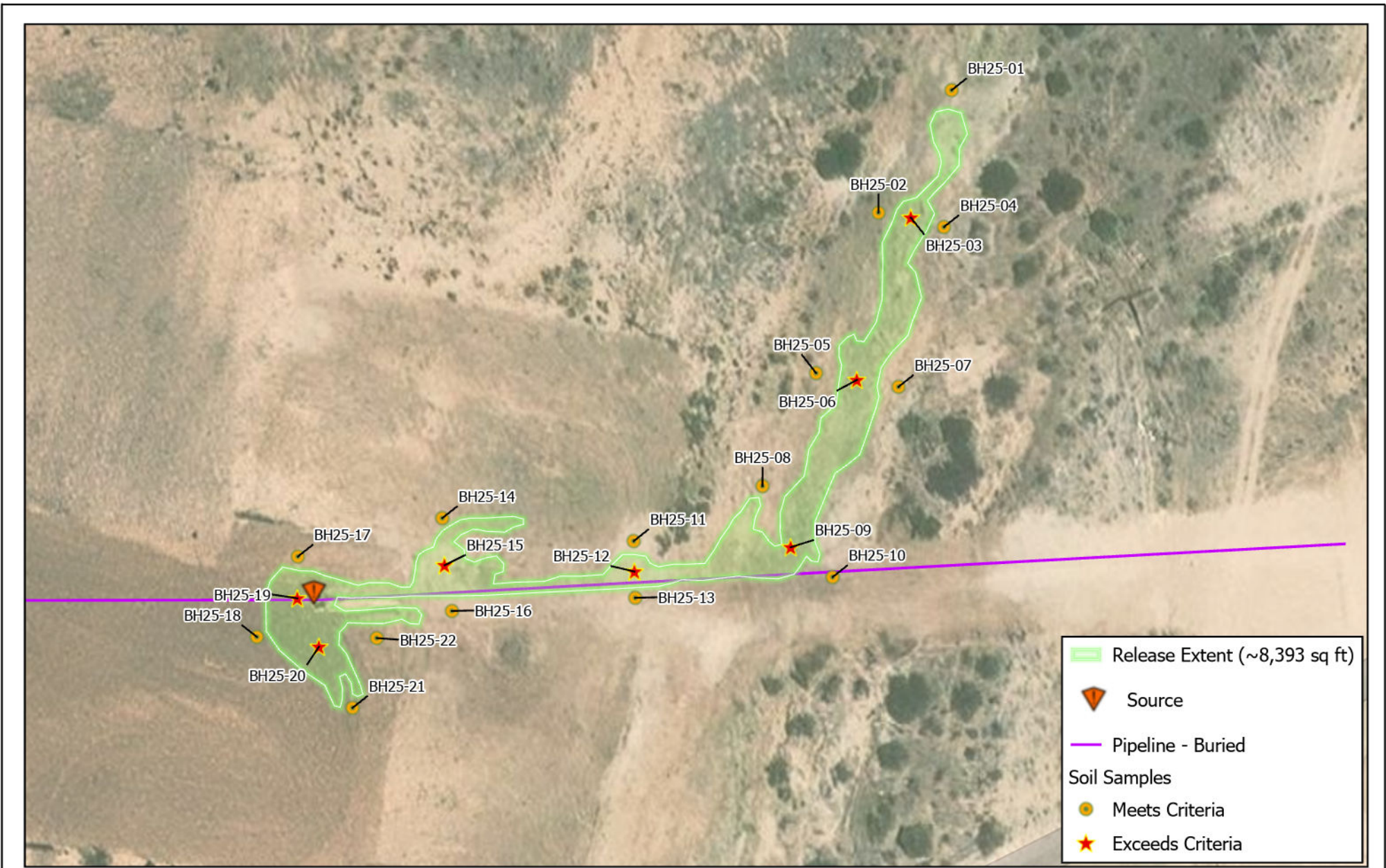
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## 10.0 Limitations

This report has been prepared for the sole benefit of Riley Permian Operating Company, LLC. This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division, without the express written consent of Vertex Resource Services Inc. (Vertex) and Riley Permian Operating Company, LLC. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.


The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgement of Vertex based on the data collected during the assessment. Due to the nature of the assessment and the data available, Vertex cannot warrant against undiscovered environmental liabilities. Conclusions and recommendations presented in this report should not be considered legal advice.

## **FIGURES**

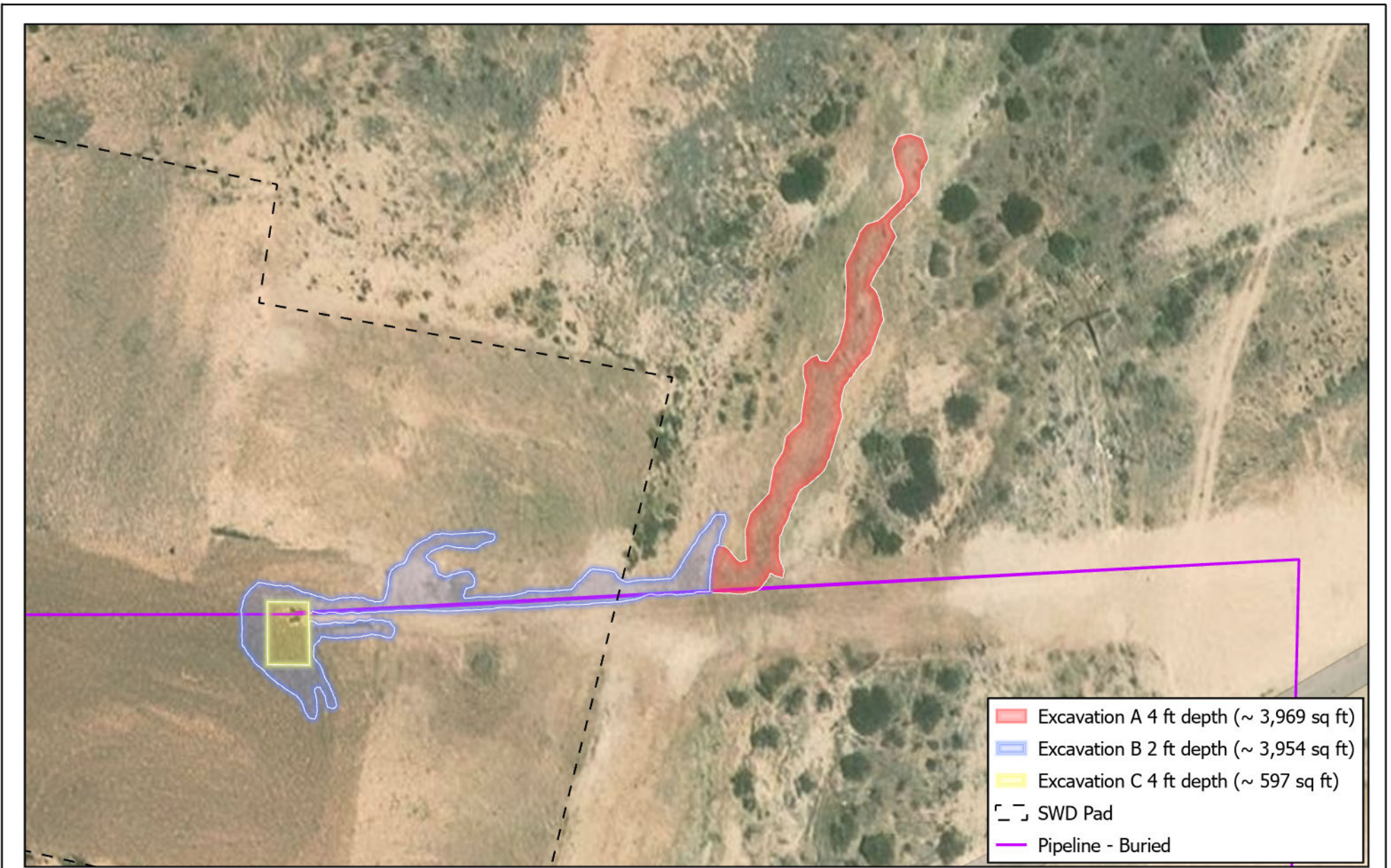



 Map Center: Lat/Long: 32.601529°N, 104.586684°W  
 Date: Mar 20/26  
 NAD 1983 StatePlane New Mexico East FIPS 3001 Feet

**Characterization Sampling Site Schematic**  
**nAPP2511431582**  
**Mimosa Fed SWD #4 Pipeline**

FIGURE: **1**


Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes. Note: Georeferenced image from Esri, 2025. Site features from GPS, Vertex, 2025.



	<p>Map Center: Lat/Long: 32.601553°N, 104.586632°W</p> <p>Date: Mar 20/26</p> <p>0 30 60 ft</p> <p>NAD 1983 StatePlane New Mexico East FIPS 3001 Feet</p>		<p><b>Proposed Excavation Depths Site Schematic</b></p> <p><b>nAPP2511431582</b></p> <p><b>Mimosa Fed SWD #4 Pipeline</b></p>	<p>FIGURE:</p> <p><b>2</b></p>	
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Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes. Note: Georeferenced image from Esri, 2025. Site features from GPS, Vertex, 2025.

**TABLE**

Client Name: Silverback Operating II, LLC  
 Site Name: Mimosa Federal SWD #4 Pipeline  
 NMOCD Incident #: nAPP2511431582  
 Project #: 25A-03046  
 Lab Reports: H253763

Table 4. Initial Characterization Field Screen and Laboratory Results

Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Volatile		Extractable					Chloride Concentration
						Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Closure Criteria for Soils Impacted by a Release - Table 1 of 19.15.29.12 NMAC													
BH25-01	0	June 18, 2025	-	-	292	ND	ND	ND	ND	ND	ND	ND	32
	2	June 18, 2025	-	-	125	ND	ND	ND	ND	ND	ND	ND	32
BH25-02	0	June 18, 2025	-	-	210	ND	ND	ND	ND	ND	ND	ND	80
	2	June 18, 2025	-	-	156	ND	ND	ND	ND	ND	ND	ND	16
BH25-03	0	June 18, 2025	-	-	3,271	ND	ND	ND	ND	ND	ND	ND	2,360
	2	June 18, 2025	-	-	898	ND	ND	ND	ND	ND	ND	ND	752
	4	June 18, 2025	-	-	278	ND	ND	ND	ND	ND	ND	ND	64
BH25-04	0	June 18, 2025	-	-	283	ND	ND	ND	ND	ND	ND	ND	32
	2	June 18, 2025	-	-	192	ND	ND	ND	ND	ND	ND	ND	16
BH25-05	0	June 18, 2025	-	-	229	ND	ND	ND	ND	ND	ND	ND	ND
	2	June 18, 2025	-	-	109	ND	ND	ND	ND	ND	ND	ND	ND
BH25-06	0	June 18, 2025	-	-	18,651	ND	ND	ND	ND	ND	ND	ND	16,000
	2	June 18, 2025	-	-	1,420	ND	ND	ND	ND	ND	ND	ND	624
	4	June 18, 2025	-	-	308	ND	ND	ND	ND	ND	ND	ND	16
BH25-07	0	June 18, 2025	-	-	363	ND	ND	ND	ND	ND	ND	ND	128
	2	June 18, 2025	-	-	102	ND	ND	ND	ND	ND	ND	ND	64
BH25-08	0	June 18, 2025	-	-	201	ND	ND	ND	ND	ND	ND	ND	32
	2	June 18, 2025	-	-	118	ND	ND	ND	ND	ND	ND	ND	ND
BH25-09	0	June 18, 2025	-	-	15,891	ND	ND	ND	ND	ND	ND	ND	12,000
	2	June 18, 2025	-	-	2,879	ND	ND	ND	ND	ND	ND	ND	2,720
	4	June 18, 2025	-	-	716	ND	ND	ND	ND	ND	ND	ND	384
BH25-10	0	June 18, 2025	-	-	389	ND	ND	ND	ND	ND	ND	ND	32
	2	June 18, 2025	-	-	169	ND	ND	ND	ND	ND	ND	ND	64
BH25-11	0	June 18, 2025	-	-	208	ND	ND	ND	ND	ND	ND	ND	32
	2	June 18, 2025	-	-	123	ND	ND	ND	ND	ND	ND	ND	32
BH25-12	0	June 19, 2025	-	-	4,834	ND	ND	ND	ND	ND	ND	ND	3,440
	2	June 19, 2025	-	-	675	ND	ND	ND	ND	ND	ND	ND	496
	4	June 19, 2025	-	-	168	ND	ND	ND	ND	ND	ND	ND	ND
BH25-13	0	June 19, 2025	-	-	211	ND	ND	ND	ND	ND	ND	ND	80
	2	June 19, 2025	-	-	109	ND	ND	ND	ND	ND	ND	ND	48
BH25-14	0	June 19, 2025	-	-	207	ND	ND	ND	ND	ND	ND	ND	ND
	2	June 19, 2025	-	-	155	ND	ND	ND	ND	ND	ND	ND	80
BH25-15	0	June 19, 2025	-	-	3,256	ND	ND	ND	ND	ND	ND	ND	2,320
	2	June 19, 2025	-	-	993	ND	ND	ND	ND	ND	ND	ND	688
	4	June 19, 2025	-	-	230	ND	ND	ND	ND	ND	ND	ND	64
BH25-16	0	June 19, 2025	-	-	249	ND	ND	ND	ND	ND	ND	ND	112
	2	June 19, 2025	-	-	136	ND	ND	ND	ND	ND	ND	ND	80
BH25-17	0	June 19, 2025	-	-	267	ND	ND	ND	ND	ND	ND	ND	112
	2	June 19, 2025	-	-	155	ND	ND	ND	ND	ND	ND	ND	80
BH25-18	0	June 19, 2025	-	-	303	ND	ND	ND	ND	ND	ND	ND	80
	2	June 19, 2025	-	-	258	ND	ND	ND	ND	ND	ND	ND	96
BH25-19	0	June 19, 2025	-	-	12,767	ND	ND	ND	ND	ND	ND	ND	10,600
	2	June 19, 2025	-	-	1,068	ND	ND	ND	ND	ND	ND	ND	800
	4	June 19, 2025	-	-	365	ND	ND	ND	ND	ND	ND	ND	ND
BH25-20	0	June 19, 2025	-	-	3,772	ND	ND	ND	ND	ND	ND	ND	2,600
	2	June 19, 2025	-	-	1,280	ND	ND	ND	ND	ND	ND	ND	1,060
	4	June 19, 2025	-	-	340	ND	ND	ND	ND	ND	ND	ND	ND
BH25-21	0	June 19, 2025	-	-	301	ND	ND	ND	ND	ND	ND	ND	48
	2	June 19, 2025	-	-	293	ND	ND	ND	ND	ND	ND	ND	112
BH25-22	0	June 19, 2025	-	-	344	ND	ND	ND	ND	ND	ND	ND	112
	2	June 19, 2025	-	-	275	ND	ND	ND	ND	ND	ND	ND	16

"ND" Not Detected at the Reporting Limit  
 "-" indicates not analyzed/assessed

**Bold and grey: exceeds NMOCD Closure Criteria (on-pad)**  
**Bold and green: exceeds NMOCD Reclamation Criteria (off-pad)**



## **APPENDIX A**



<b>Project Name :</b>	<b>Mimosa Federal SWD 003</b>	<b>Date :</b>	<b>Tuesday, December 6, 2022</b>
<b>Project No. :</b>	<b>1148</b>	<b>Sampler :</b>	<b>Lane Scarborough</b>
<b>Location :</b>	<b>Eddy County, New Mexico</b>	<b>Driller :</b>	<b>Scarborough Drilling</b>
<b>Coordinates :</b>	<b>32.597389°, -104.586147°</b>	<b>Method :</b>	<b>Air Rotary</b>
<b>Elevation :</b>	<b>3,797'</b>		

Depth (ft.)	WL	Soil Description	Lithology	Depth (ft.)	WL	Soil Description	Lithology
0		(0'-1') - White/Light coarse grained, well graded, angular gravel (GW).		50		(50') - White/Light coarse grained, well graded, angular gravel (GW).	
5		(5') - White/Light coarse grained, well graded, angular gravel (GW).		55		(55') - White/Light coarse grained, well graded, angular gravel (GW).	
10		(10') - White/Light coarse grained, well graded, angular gravel (GW).		60		(60') - White/Light coarse grained, well graded, angular gravel (GW).	
15		(15') - Light brown medium stiff clay with >25% coarse grained angular gravel (GC).		65		(65') - White/Light coarse grained, well graded, angular gravel (GW).	
20		(20') - Light brown medium stiff clay with >25% coarse grained angular gravel (GC).		70		(70') - White/Light grey silty sand with gypsum grains (SM).	
25		(25') - White/Light coarse grained, well graded, angular gravel (GW).		75		(75') - White/Light grey silty sand with gypsum grains (SM).	
30		(30') - White/Light coarse grained, well graded, angular gravel (GW).		80		(80') - White/Light grey silty sand with gypsum grains (SM).	
35		(35') - White/Light coarse grained, well graded, angular gravel (GW).		85		(85') - White/Light grey silty sand with gypsum grains (SM).	
40		(40') - White/Light coarse grained, well graded, angular gravel (GW).		90		(90') - Red/Light brown very loose clayey sand (SC)	
45		(45') - Red/Light brown very stiff clayey sand with >5% coarse, well cemented angular gravel (SC).		95		(95') - Red/Light brown very loose clayey sand (SC)	
50				105		(100'-105') - White/Light grey coarse grained, well graded, angular gravel (GW).	

Comments :  
 Boring terminated at 105' with no presence of groundwater or moisture.

# PHOTOGRAPHIC LOG

Silverback Operating II, LLC

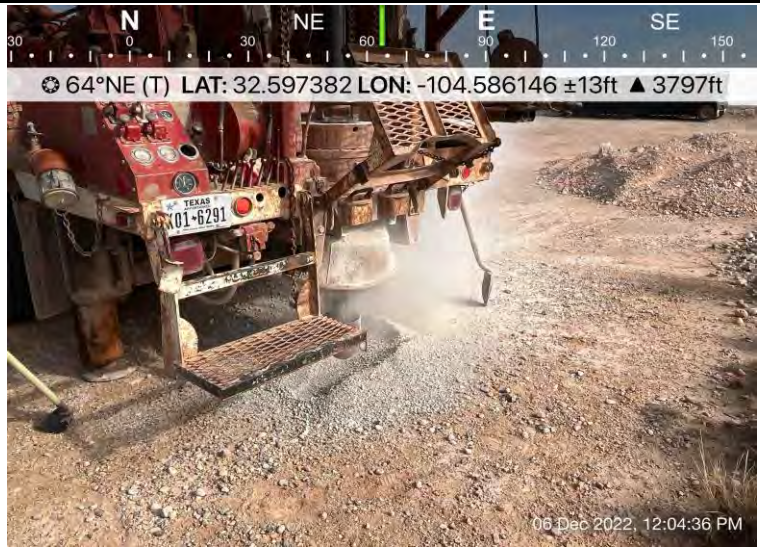
**Photograph No. 1**

**Facility:** Mimosa Fed #3 SWD

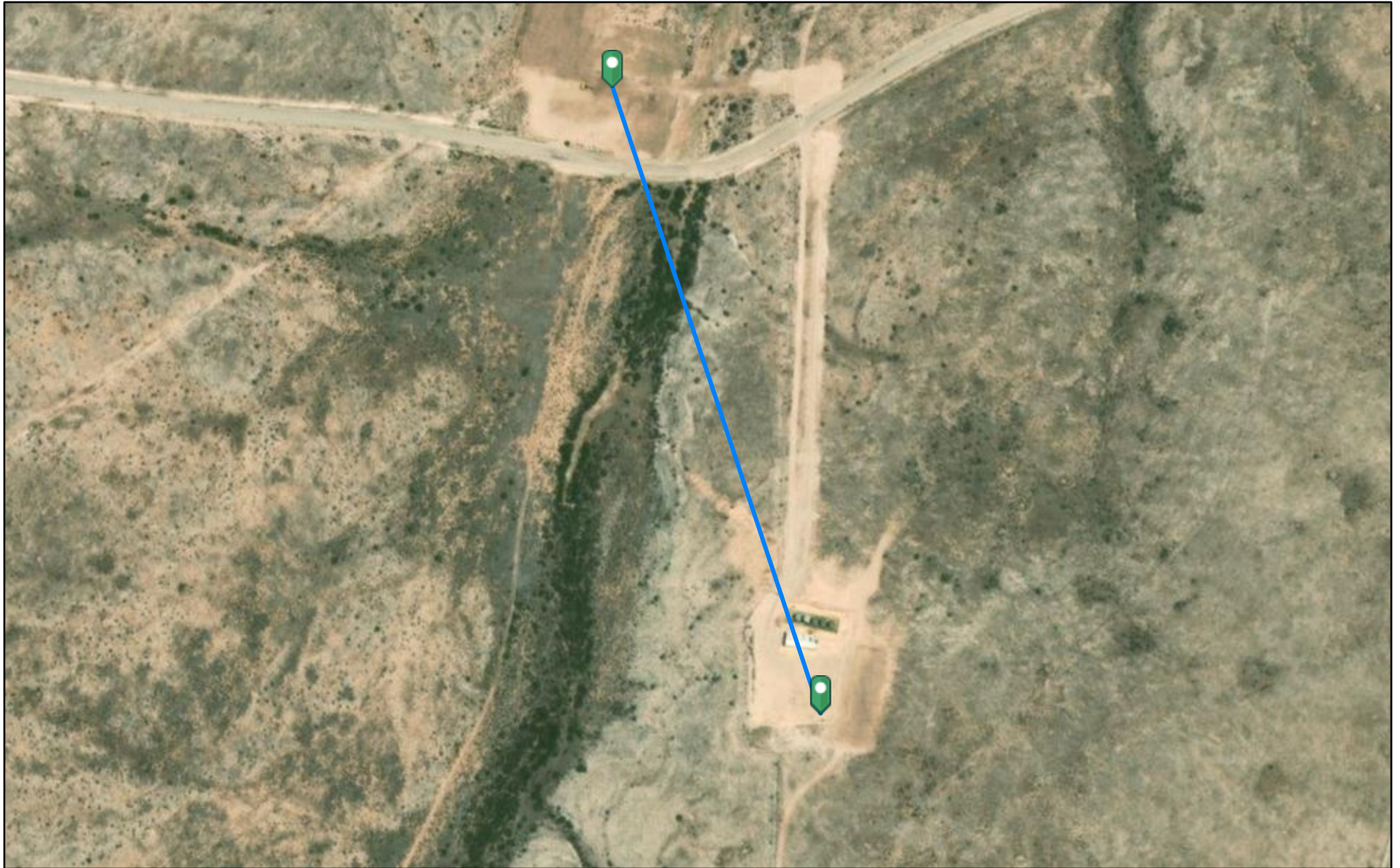
**County:** Eddy County, New Mexico

**Description:**

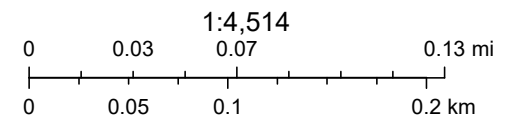
View Northeast, of installing the groundwater determination bore.



# Mimosa Federal SWD #4 Pipeline - DTGW



6/25/2025, 3:04:23 PM



Esri, HERE, Garmin, iPC, Maxar



# 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 smallest to largest)

(meters)

(In feet)

POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X	Y	Map	Distance	Well Depth	Depth Water	Water Column
<a href="#">RA 03084</a>	O	RA	ED			NW	03	20S	24E	539366.0	3607752.0 *	●	864	330	268	62
<a href="#">RA 05723</a>		RA	ED		SW	SW	34	19S	24E	539170.0	3608353.0 *	●	1264	310	270	40
<a href="#">RA 05478</a>		RA	ED	SW	NE	SW	08	20S	24E	536272.0	3605389.0 *	●	3032	550	500	50
<a href="#">RA 05676</a>		RA	ED	NE	NE	SW	28	19S	24E	538058.0	3610471.0 *	●	3370	600	558	42
<a href="#">RA 04245</a>		RA	ED		SE	SE	35	19S	24E	542005.0	3608363.0 *	●	3488	300		
<a href="#">RA 05146</a>		RA	ED		NW	NE	14	20S	24E	541600.0	3604734.0 *	●	3764	300	80	220
<a href="#">RA 03085</a>	O	RA	CH			NW	01	20S	24E	542613.0	3607799.0 *	●	3935	465	300	165
<a href="#">RA 04956</a>		RA	ED		NW	NW	21	20S	24E	537605.0	3603101.0 *	●	4219	1013		
<a href="#">RA 05284</a>		RA	ED		NW	NE	01	20S	24E	543220.0	3607973.0 *	●	4563	282	273	9
<a href="#">RA 10139</a>		RA	ED	SW	SW	NE	21	20S	24E	538285.0	3602597.0 *	●	4592	308		
<a href="#">RA 05576</a>		RA	ED	SW	NE	SE	21	19S	24E	538652.4	3611978.2	●	4810	320	307	13
<a href="#">RA 04727</a>		RA	ED	SW	NW	NE	26	19S	24E	541525.6	3611147.2	●	4864	354	322	32

Average Depth to Water: **319 feet**

Minimum Depth: **80 feet**

Maximum Depth: **558 feet**

**Record Count:** 12

**UTM Filters (in meters):**

**Easting:** 538728

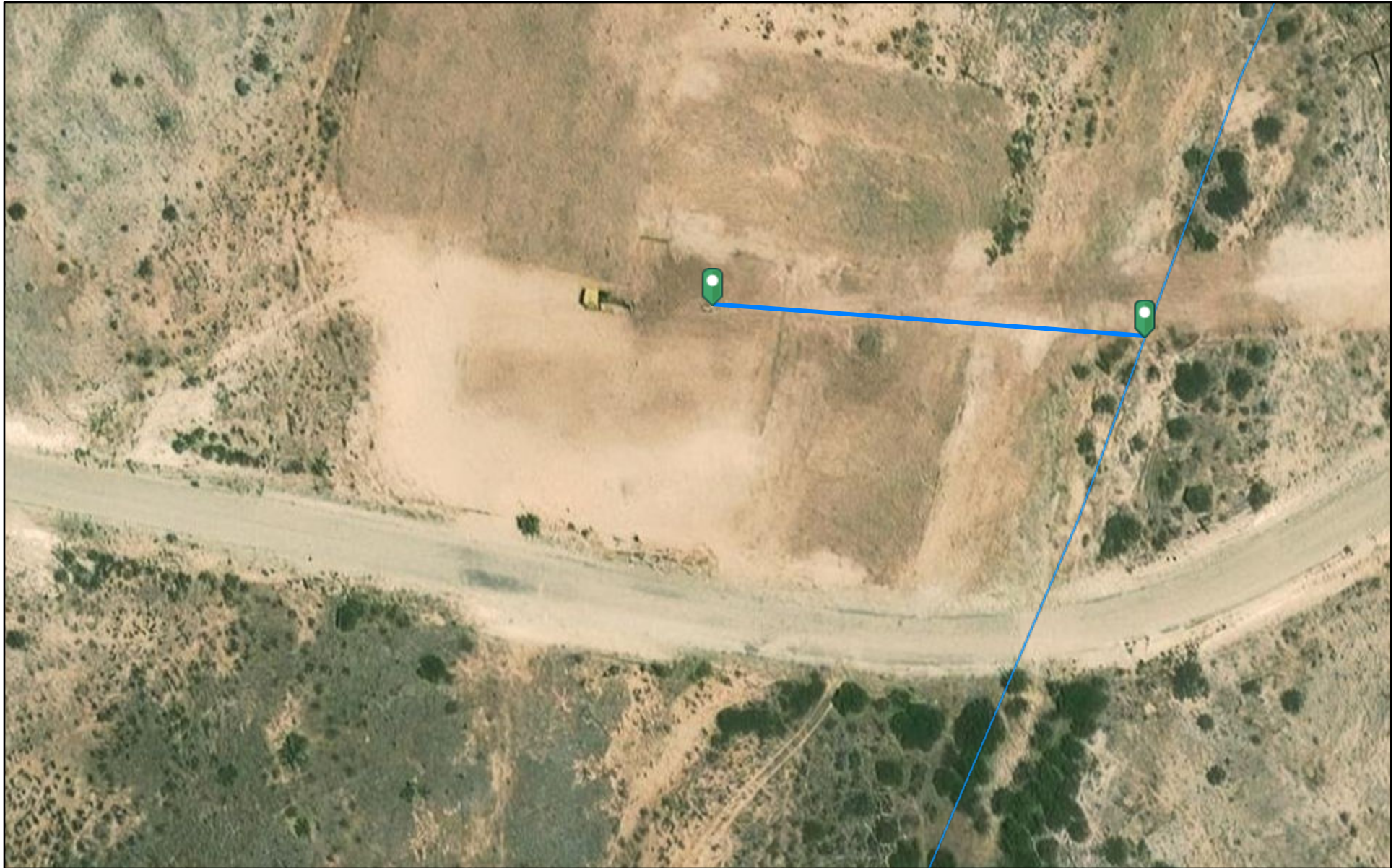
**Northing:** 3607168

**Radius:** 5000.0

\* UTM location was derived from PLSS - see Help

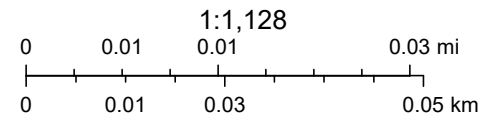
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

# Mimosa Federal SWD #4 Pipeline - Watercourse



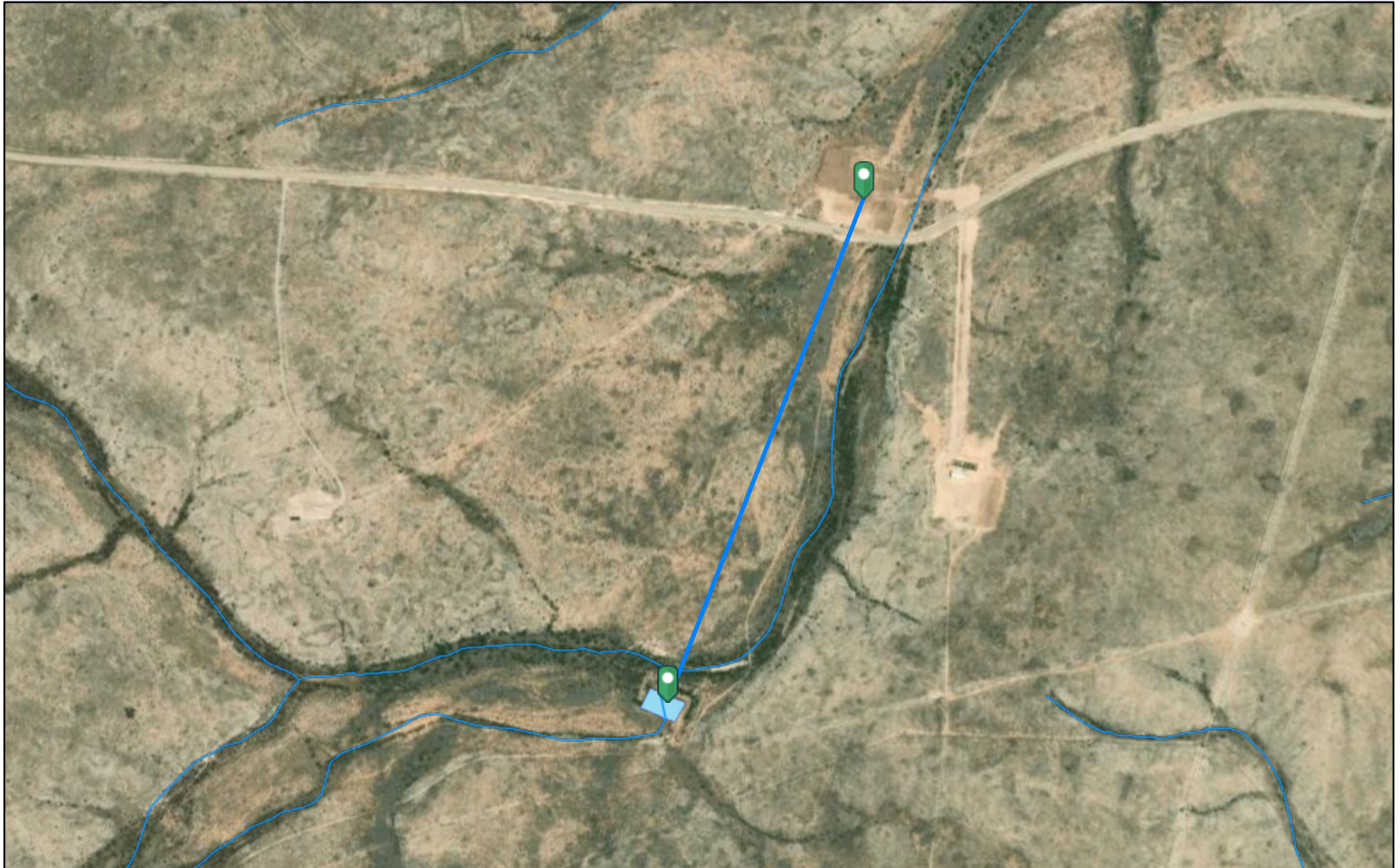
6/25/2025, 3:14:58 PM

— OSE Streams





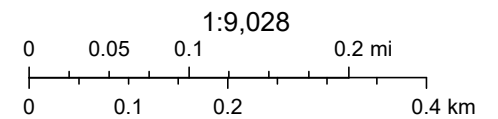
Maxar, Microsoft, Esri, HERE, Garmin, iPC, NM OSE

# Mimosa Federal SWD #4 Pipeline - Lake



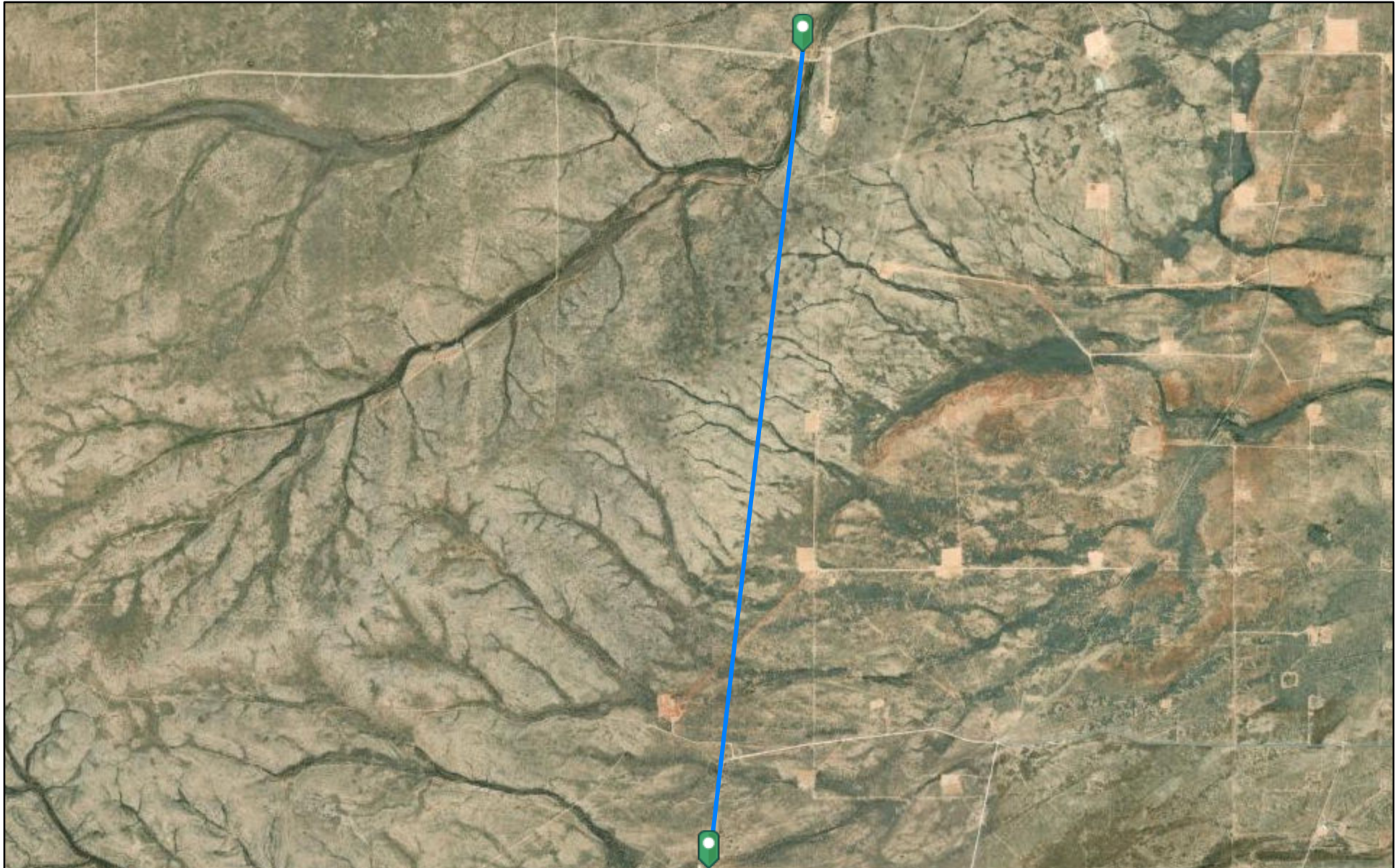
6/25/2025, 3:17:19 PM

-  OSW Water Bodys
-  OSE Streams

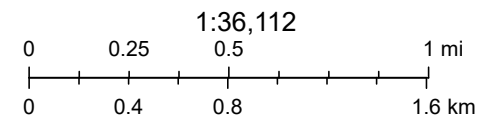


Esri, HERE, Garmin, iPC, Maxar, NM OSE

# Mimosa Federal SWD #4 Pipeline - Residence



6/25/2025, 3:21:00 PM



Esri, HERE, Garmin, Maxar



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

WR File Nbr	Sub basin	Use	Diversion	County	POD Number	Well Tag	Code	Grant	Source	(R=POD has been replaced and no longer serves this file, C=the file is closed)				(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)				(NAD83 UTM in meters)		Map	Distance	Start Date	End Date	Depth Well (in feet)	Depth Water (in feet)
										q64	q16	q4	Sec	Tws	Range	X	Y	(meters)	(meters)						
<a href="#">RA 05723</a>	RA	STK	3.000	ED	<a href="#">RA 05723</a>				Shallow		SW	SW	34	19S	24E	539170.0	3608353.0 *		1,264.7	1972-02-22	1972-03-13	310	270		
<a href="#">RA 09034</a>	RA	STK	3.000	ED	<a href="#">RA 09034</a>					NE	SW	SW	34	19S	24E	539269.0	3608452.0 *		1,393.3						

**Record Count:** 2

**Filters Applied:**

**UTM Filters (in meters):**

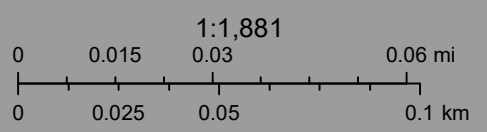
**Easting:** 538728  
**Northing:** 3607168  
**Radius:** 1616.0

**Sorted By:** Distance

\* UTM location was derived from PLSS - see Help

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

# Mimosa Federal SWD #4 - Wetlands



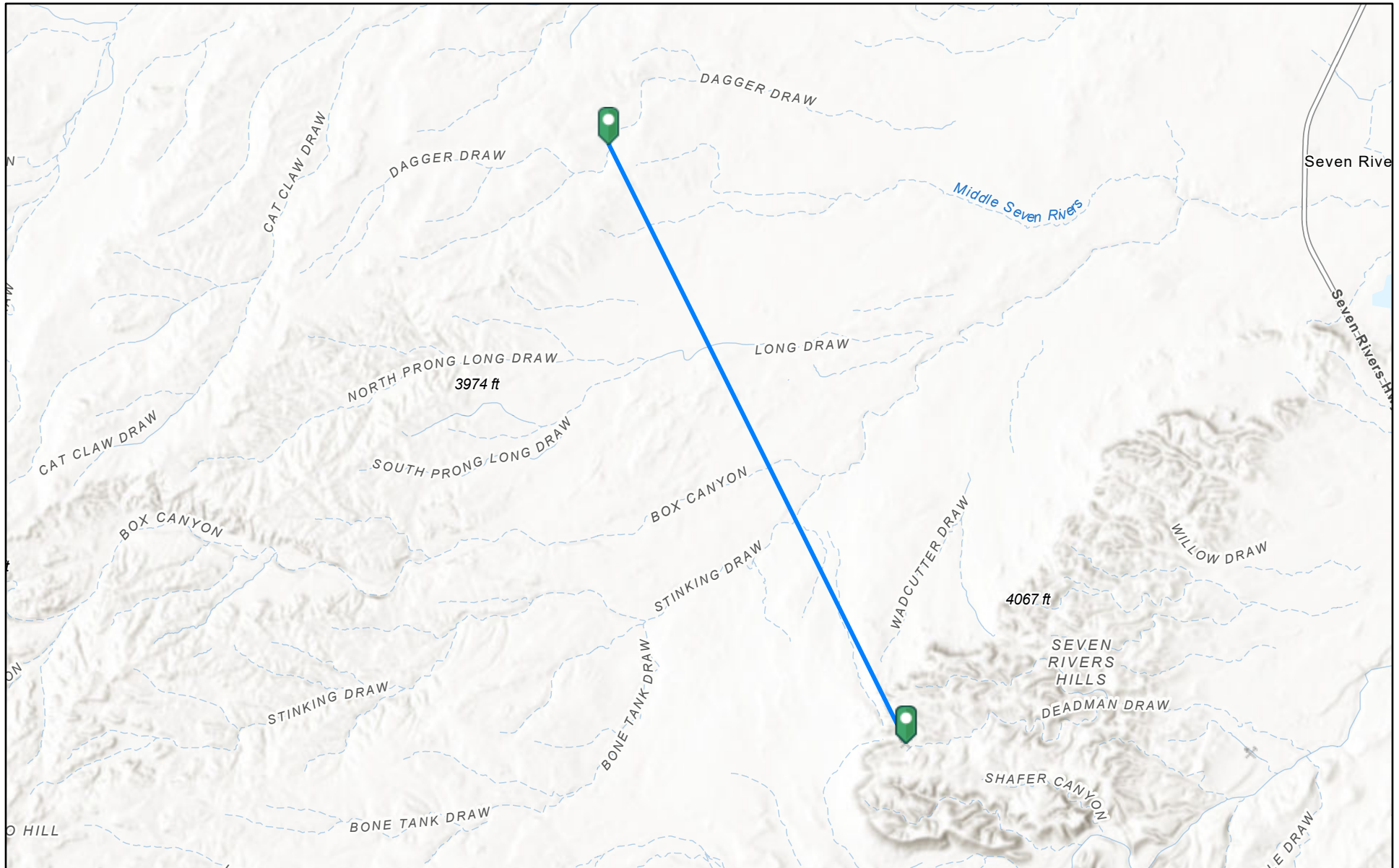
March 25, 2026

### Wetlands

- |   |                                |   |                                   |   |          |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland       |  | Lake     |
|  | Estuarine and Marine Wetland   |  | Freshwater Forested/Shrub Wetland |  | Other    |
|   |                                |  | Freshwater Pond                   |  | Riverine |

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

# Mimosa Federal SWD #4 - Mine

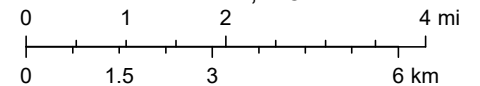


6/25/2025, 3:57:39 PM

Registered Mines

✕ Aggregate, Stone etc.

1:144,448



Esri, NASA, NGA, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

EMNRD MMD GIS Coordinator

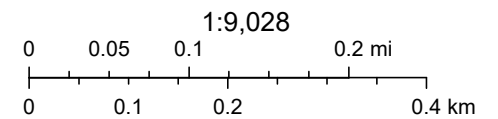
NM Energy, Minerals and Natural Resources Department (<http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=1b5e577974664d689b47790897ca2795>)

# Mimosa Federal SWD #4 Pipeline - Karst



6/25/2025, 4:02:05 PM

Karst Occurrence Potential  Medium  
 High



BLM, OCD, New Mexico Tech, Esri, HERE, Garmin, IPC, Maxar

# National Flood Hazard Layer FIRMette



104°35'33"W 32°36'20"N



## Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/25/2025 at 10:03 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Released to Imaging: 4/16/2026 9:19:30 AM

1:6,000 Basemap Imagery Source: USGS National Map 2023

## Custom Soil Resource Report

**Eddy Area, New Mexico****PM—Pima silt loam, 0 to 1 percent slopes****Map Unit Setting***National map unit symbol:* 1w56*Elevation:* 600 to 4,200 feet*Mean annual precipitation:* 8 to 25 inches*Mean annual air temperature:* 60 to 70 degrees F*Frost-free period:* 195 to 290 days*Farmland classification:* Farmland of statewide importance**Map Unit Composition***Pima and similar soils:* 98 percent*Minor components:* 2 percent*Estimates are based on observations, descriptions, and transects of the mapunit.***Description of Pima****Setting***Landform:* Flood plains, alluvial flats, alluvial fans*Landform position (three-dimensional):* Talf, rise*Down-slope shape:* Convex, linear*Across-slope shape:* Linear, convex*Parent material:* Alluvium**Typical profile***H1 - 0 to 3 inches:* silt loam*H2 - 3 to 60 inches:* silty clay loam**Properties and qualities***Slope:* 0 to 1 percent*Depth to restrictive feature:* More than 80 inches*Drainage class:* Well drained*Runoff class:* Medium*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.60 in/hr)*Depth to water table:* More than 80 inches*Frequency of flooding:* Rare*Frequency of ponding:* None*Calcium carbonate, maximum content:* 15 percent*Maximum salinity:* Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)*Sodium adsorption ratio, maximum:* 1.0*Available water supply, 0 to 60 inches:* High (about 11.9 inches)**Interpretive groups***Land capability classification (irrigated):* 1*Land capability classification (nonirrigated):* 7c*Hydrologic Soil Group:* C*Ecological site:* R070BC017NM - Bottomland*Hydric soil rating:* No**Minor Components****Reagan***Percent of map unit:* 1 percent

Custom Soil Resource Report

*Ecological site:* R070BC007NM - Loamy  
*Hydric soil rating:* No

**Dev**

*Percent of map unit:* 1 percent  
*Ecological site:* R070BC017NM - Bottomland  
*Hydric soil rating:* No

## **APPENDIX B**



# Daily Site Visit Report

Client	Silverback Operating II, LLC	Inspection Date	6/18-19/2025
Site Location Name	Mimosa Federal SWD #4 Pipeline	API #	30-015-26950
Client Contact Name	Rafael Alvizo	Project Owner	
Client Contact Phone #		Project Manager	
Project Reference #			
Unique Project ID			

## Summary of Times

Arrived at Site	
Departed Site	

## Field Notes

- Site Characterization/Delineation Activities (Pages 2-7)

## Next Steps & Recommendations

1

# Daily Site Visit Report



## Site Characterization/Delineation Activities

### Viewing Direction: Northeast



Release areas to the east

### Viewing Direction: South



Release areas to the east

### Viewing Direction: East



Release areas to the east

### Viewing Direction: North



Release areas to the east

# Daily Site Visit Report



## Site Characterization/Delineation Activities

**Viewing Direction: Northwest**



Overview of release areas

**Viewing Direction: Northeast**



Overview of release areas

**Viewing Direction: Southeast**



Overview of release areas

**Viewing Direction: Northwest**



Overview of release areas

# Daily Site Visit Report



## Site Characterization/Delineation Activities

### Viewing Direction: Southeast



Overview of release areas/reclaimed pad

### Viewing Direction: Southeast



Overview of release areas/reclaimed pad

### Viewing Direction: North



Overview of release areas/reclaimed pad

### Viewing Direction: Southwest

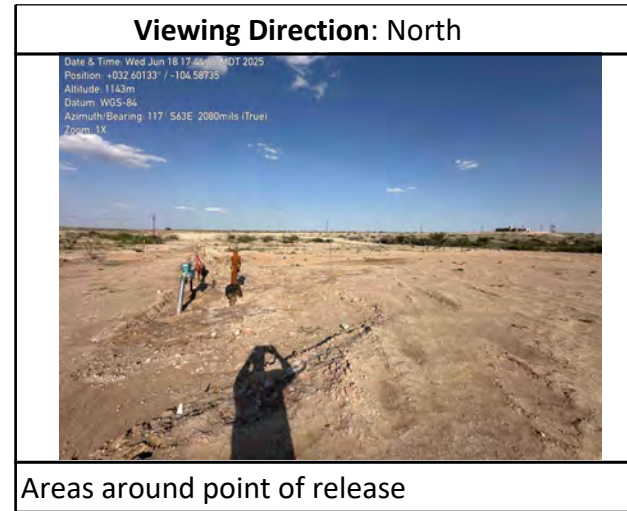


Overview of excavation/scrape areas

# Daily Site Visit Report



## Site Characterization/Delineation Activities



# Daily Site Visit Report



Daily Site Visit Signature

**Inspector:** Fernando Rodriguez

**Signature:**   
Signature

## **APPENDIX C**



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

June 27, 2025

MICHAEL MOFFITT  
VERTEX RESOURCE  
3101 BOYD DRIVE  
CARLSBAD, NM 88220

RE: MIMOSA FEDERAL SWD #4Y PIPELINE

Enclosed are the results of analyses for samples received by the laboratory on 06/23/25 11:49.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C25-00101. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-01 OFT (H253763-01)**

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	06/25/2025	ND	2.03	102	2.00	4.90	
Toluene*	<0.050	0.050	06/25/2025	ND	2.19	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.05	103	2.00	3.31	
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.17	103	6.00	3.79	
Total BTEX	<0.300	0.300	06/25/2025	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	32.0	16.0	06/25/2025	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	06/24/2025	ND	203	101	200	4.04	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	225	113	200	5.65	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 94.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.7 % 40.6-153

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-01 2FT (H253763-02)**

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	06/25/2025	ND	2.03	102	2.00	4.90	
Toluene*	<0.050	0.050	06/25/2025	ND	2.19	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.05	103	2.00	3.31	
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.17	103	6.00	3.79	
Total BTEX	<0.300	0.300	06/25/2025	ND					

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

Chloride, SM4500CI-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	06/25/2025	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	06/24/2025	ND	203	101	200	4.04	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	225	113	200	5.65	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 102 % 44.4-145

Surrogate: 1-Chlorooctadecane 98.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-02 OFT (H253763-03)**

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	06/25/2025	ND	2.03	102	2.00	4.90		
Toluene*	<0.050	0.050	06/25/2025	ND	2.19	109	2.00	2.59		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.05	103	2.00	3.31		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.17	103	6.00	3.79		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/25/2025	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	06/24/2025	ND	203	101	200	4.04		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	225	113	200	5.65		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 101 % 44.4-145

Surrogate: 1-Chlorooctadecane 97.5 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-02 2FT (H253763-04)**

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	06/25/2025	ND	2.03	102	2.00	4.90		
Toluene*	<0.050	0.050	06/25/2025	ND	2.19	109	2.00	2.59		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.05	103	2.00	3.31		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.17	103	6.00	3.79		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-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	06/25/2025	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	06/24/2025	ND	203	101	200	4.04		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	225	113	200	5.65		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 101 % 44.4-145

Surrogate: 1-Chlorooctadecane 96.9 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-03 OFT (H253763-05)**

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	06/25/2025	ND	2.03	102	2.00	4.90		
Toluene*	<0.050	0.050	06/25/2025	ND	2.19	109	2.00	2.59		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.05	103	2.00	3.31		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.17	103	6.00	3.79		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	752	16.0	06/25/2025	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	06/24/2025	ND	203	101	200	4.04		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	225	113	200	5.65		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 95.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 93.8 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-03 2FT (H253763-06)**

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	06/25/2025	ND	2.03	102	2.00	4.90		
Toluene*	<0.050	0.050	06/25/2025	ND	2.19	109	2.00	2.59		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.05	103	2.00	3.31		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.17	103	6.00	3.79		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2360	16.0	06/25/2025	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	203	101	200	4.04		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	225	113	200	5.65		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 92.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.7 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-03 4FT (H253763-07)**

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	06/25/2025	ND	2.03	102	2.00	4.90	
Toluene*	<0.050	0.050	06/25/2025	ND	2.19	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.05	103	2.00	3.31	
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.17	103	6.00	3.79	
Total BTEX	<0.300	0.300	06/25/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/25/2025	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	203	101	200	4.04	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	225	113	200	5.65	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 92.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-04 OFT (H253763-08)**

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	06/25/2025	ND	2.03	102	2.00	4.90		
Toluene*	<0.050	0.050	06/25/2025	ND	2.19	109	2.00	2.59		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.05	103	2.00	3.31		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.17	103	6.00	3.79		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/25/2025	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	203	101	200	4.04		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	225	113	200	5.65		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 97.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 93.5 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-04 2FT (H253763-09)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/25/2025	ND	2.03	102	2.00	4.90		
Toluene*	<0.050	0.050	06/25/2025	ND	2.19	109	2.00	2.59		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.05	103	2.00	3.31		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.17	103	6.00	3.79		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	06/25/2025	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 103 % 44.4-145

Surrogate: 1-Chlorooctadecane 103 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-05 OFT (H253763-10)**

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	06/25/2025	ND	2.03	102	2.00	4.90		
Toluene*	<0.050	0.050	06/25/2025	ND	2.19	109	2.00	2.59		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.05	103	2.00	3.31		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.17	103	6.00	3.79		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/25/2025	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 104 % 44.4-145

Surrogate: 1-Chlorooctadecane 105 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-05 2FT (H253763-11)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/25/2025	ND	2.03	102	2.00	4.90		
Toluene*	<0.050	0.050	06/25/2025	ND	2.19	109	2.00	2.59		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.05	103	2.00	3.31		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.17	103	6.00	3.79		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/25/2025	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 108 % 44.4-145

Surrogate: 1-Chlorooctadecane 105 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-06 OFT (H253763-12)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/25/2025	ND	2.03	102	2.00	4.90		
Toluene*	<0.050	0.050	06/25/2025	ND	2.19	109	2.00	2.59		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.05	103	2.00	3.31		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.17	103	6.00	3.79		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16000	16.0	06/25/2025	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 111 % 44.4-145

Surrogate: 1-Chlorooctadecane 110 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-06 2FT (H253763-13)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/25/2025	ND	2.03	102	2.00	4.90	
Toluene*	<0.050	0.050	06/25/2025	ND	2.19	109	2.00	2.59	
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.05	103	2.00	3.31	
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.17	103	6.00	3.79	
Total BTEX	<0.300	0.300	06/25/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	06/25/2025	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 110 % 44.4-145

Surrogate: 1-Chlorooctadecane 109 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-06 4FT (H253763-14)**

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	06/25/2025	ND	2.03	102	2.00	4.90		
Toluene*	<0.050	0.050	06/25/2025	ND	2.19	109	2.00	2.59		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.05	103	2.00	3.31		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.17	103	6.00	3.79		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	06/25/2025	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 104 % 44.4-145

Surrogate: 1-Chlorooctadecane 102 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-07 OFT (H253763-15)**

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	06/25/2025	ND	2.09	104	2.00	7.29		
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	06/25/2025	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 89.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.5 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-07 2FT (H253763-16)**

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	06/25/2025	ND	2.09	104	2.00	7.29	
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01	
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06	
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14	
Total BTEX	<0.300	0.300	06/25/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/25/2025	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 102 % 44.4-145

Surrogate: 1-Chlorooctadecane 100 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-08 OFT (H253763-17)**

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	06/25/2025	ND	2.09	104	2.00	7.29	
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01	
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06	
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14	
Total BTEX	<0.300	0.300	06/25/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/25/2025	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 96.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 93.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-08 2FT (H253763-18)**

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	06/25/2025	ND	2.09	104	2.00	7.29		
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/25/2025	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 100 % 44.4-145

Surrogate: 1-Chlorooctadecane 99.3 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-09 OFT (H253763-19)**

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	06/25/2025	ND	2.09	104	2.00	7.29	
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01	
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06	
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14	
Total BTEX	<0.300	0.300	06/25/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12000	16.0	06/25/2025	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 107 % 44.4-145

Surrogate: 1-Chlorooctadecane 106 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-09 2FT (H253763-20)**

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	06/25/2025	ND	2.09	104	2.00	7.29	
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01	
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06	
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14	
Total BTEX	<0.300	0.300	06/25/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2720	16.0	06/25/2025	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 92.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 91.8 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-09 4FT (H253763-21)**

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	06/25/2025	ND	2.09	104	2.00	7.29		
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	384	16.0	06/25/2025	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 89.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 87.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-10 OFT (H253763-22)**

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	06/25/2025	ND	2.09	104	2.00	7.29		
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/25/2025	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 95.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 95.3 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-10 2FT (H253763-23)**

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	06/25/2025	ND	2.09	104	2.00	7.29		
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	06/25/2025	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 103 % 44.4-145

Surrogate: 1-Chlorooctadecane 102 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-11 OFT (H253763-24)**

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	06/25/2025	ND	2.09	104	2.00	7.29	
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01	
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06	
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14	
Total BTEX	<0.300	0.300	06/25/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/25/2025	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 102 % 44.4-145

Surrogate: 1-Chlorooctadecane 101 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/18/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-11 2FT (H253763-25)**

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	06/25/2025	ND	2.09	104	2.00	7.29		
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	06/25/2025	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 64.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 61.7 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-12 OFT (H253763-27)**

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	06/25/2025	ND	2.09	104	2.00	7.29		
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3440	16.0	06/25/2025	ND	432	108	400	3.77	QM-07	

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	06/24/2025	ND	223	111	200	4.34		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 99.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 97.6 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-12 2FT (H253763-28)**

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	06/25/2025	ND	2.09	104	2.00	7.29	
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01	
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06	
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14	
Total BTEX	<0.300	0.300	06/25/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 103 % 44.4-145

Surrogate: 1-Chlorooctadecane 102 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-12 4FT (H253763-29)**

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	06/25/2025	ND	2.09	104	2.00	7.29		
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-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	06/25/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	223	111	200	4.34		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	217	109	200	5.08		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 114 % 44.4-145

Surrogate: 1-Chlorooctadecane 112 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-13 OFT (H253763-30)**

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	06/25/2025	ND	2.09	104	2.00	7.29		
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/25/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	209	104	200	2.28		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	206	103	200	4.20		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 91.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 93.4 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-13 2FT (H253763-31)**

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	06/25/2025	ND	2.09	104	2.00	7.29	
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01	
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06	
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14	
Total BTEX	<0.300	0.300	06/25/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	206	103	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 91.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.5 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-14 OFT (H253763-32)**

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	06/25/2025	ND	2.09	104	2.00	7.29		
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14		
Total BTEX	<0.300	0.300	06/25/2025	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	<16.0	16.0	06/25/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	209	104	200	2.28		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	206	103	200	4.20		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 104 % 44.4-145

Surrogate: 1-Chlorooctadecane 104 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-14 2FT (H253763-33)**

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	06/25/2025	ND	2.09	104	2.00	7.29		
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01		
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06		
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14		
Total BTEX	<0.300	0.300	06/25/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/25/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	209	104	200	2.28		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	206	103	200	4.20		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 100 % 44.4-145

Surrogate: 1-Chlorooctadecane 102 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-15 OFT (H253763-34)**

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	06/25/2025	ND	2.09	104	2.00	7.29	
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01	
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06	
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14	
Total BTEX	<0.300	0.300	06/25/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2320	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	206	103	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 107 % 44.4-145

Surrogate: 1-Chlorooctadecane 108 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-15 2FT (H253763-35)**

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	06/25/2025	ND	2.09	104	2.00	7.29	
Toluene*	<0.050	0.050	06/25/2025	ND	2.27	114	2.00	8.01	
Ethylbenzene*	<0.050	0.050	06/25/2025	ND	2.11	105	2.00	7.06	
Total Xylenes*	<0.150	0.150	06/25/2025	ND	6.31	105	6.00	7.14	
Total BTEX	<0.300	0.300	06/25/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	206	103	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 96.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 97.5 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-15 4FT (H253763-36)**

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	06/26/2025	ND	2.04	102	2.00	0.0505	
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146	
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948	
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19	
Total BTEX	<0.300	0.300	06/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	206	103	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 73.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 70.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-16 OFT (H253763-37)**

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	06/26/2025	ND	2.04	102	2.00	0.0505	
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146	
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948	
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19	
Total BTEX	<0.300	0.300	06/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	206	103	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 79.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.9 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-16 2FT (H253763-38)**

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	06/26/2025	ND	2.04	102	2.00	0.0505	
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146	
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948	
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19	
Total BTEX	<0.300	0.300	06/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	206	103	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 78.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 74.5 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-17 OFT (H253763-39)**

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	06/26/2025	ND	2.04	102	2.00	0.0505	
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146	
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948	
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19	
Total BTEX	<0.300	0.300	06/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	206	103	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 78.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 74.1 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-17 2FT (H253763-40)**

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	06/26/2025	ND	2.04	102	2.00	0.0505	
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146	
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948	
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19	
Total BTEX	<0.300	0.300	06/26/2025	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	80.0	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	206	103	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 79.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 77.1 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-18 OFT (H253763-41)**

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	06/26/2025	ND	2.04	102	2.00	0.0505		
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146		
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948		
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19		
Total BTEX	<0.300	0.300	06/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/25/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	209	104	200	2.28		
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	206	103	200	4.20		
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND						

Surrogate: 1-Chlorooctane 84.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.6 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-18 2FT (H253763-42)**

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	06/26/2025	ND	2.04	102	2.00	0.0505	
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146	
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948	
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19	
Total BTEX	<0.300	0.300	06/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	206	103	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 87.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.6 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-19 OFT (H253763-43)**

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	06/26/2025	ND	2.04	102	2.00	0.0505	
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146	
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948	
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19	
Total BTEX	<0.300	0.300	06/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10600	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	206	103	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 82.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.0 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-19 2FT (H253763-44)**

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	06/26/2025	ND	2.04	102	2.00	0.0505	
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146	
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948	
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19	
Total BTEX	<0.300	0.300	06/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	206	103	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 85.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 87.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-19 4FT (H253763-45)**

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	06/26/2025	ND	2.04	102	2.00	0.0505	
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146	
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948	
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19	
Total BTEX	<0.300	0.300	06/26/2025	ND					

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

Chloride, SM4500CI-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	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/25/2025	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	06/25/2025	ND	206	103	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	06/25/2025	ND					

Surrogate: 1-Chlorooctane 91.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 89.5 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-20 OFT (H253763-46)**

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	06/26/2025	ND	2.04	102	2.00	0.0505	
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146	
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948	
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19	
Total BTEX	<0.300	0.300	06/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2600	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/25/2025	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	06/25/2025	ND	206	103	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	06/25/2025	ND					

Surrogate: 1-Chlorooctane 80.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.0 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-20 2FT (H253763-47)**

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	06/26/2025	ND	2.04	102	2.00	0.0505		
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146		
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948		
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19		
Total BTEX	<0.300	0.300	06/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1060	16.0	06/25/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/25/2025	ND	209	104	200	2.28		
DRO >C10-C28*	<10.0	10.0	06/25/2025	ND	206	103	200	4.20		
EXT DRO >C28-C36	<10.0	10.0	06/25/2025	ND						

Surrogate: 1-Chlorooctane 82.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-20 4FT (H253763-48)**

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	06/26/2025	ND	2.04	102	2.00	0.0505		
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146		
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948		
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19		
Total BTEX	<0.300	0.300	06/26/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	06/25/2025	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	<10.0	10.0	06/25/2025	ND	209	104	200	2.28		
DRO >C10-C28*	<10.0	10.0	06/25/2025	ND	206	103	200	4.20		
EXT DRO >C28-C36	<10.0	10.0	06/25/2025	ND						

Surrogate: 1-Chlorooctane 82.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.1 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-21 OFT (H253763-49)**

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	06/26/2025	ND	2.04	102	2.00	0.0505	
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146	
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948	
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19	
Total BTEX	<0.300	0.300	06/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/25/2025	ND	209	104	200	2.28	
DRO >C10-C28*	<10.0	10.0	06/25/2025	ND	206	103	200	4.20	
EXT DRO >C28-C36	<10.0	10.0	06/25/2025	ND					

Surrogate: 1-Chlorooctane 73.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 71.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-21 2FT (H253763-50)**

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	06/26/2025	ND	2.04	102	2.00	0.0505	
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146	
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948	
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19	
Total BTEX	<0.300	0.300	06/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	228	114	200	4.61	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	207	103	200	4.46	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 75.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 70.6 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-22 OFT (H253763-51)**

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	06/26/2025	ND	2.04	102	2.00	0.0505	
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146	
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948	
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19	
Total BTEX	<0.300	0.300	06/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	228	114	200	4.61	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	207	103	200	4.46	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 78.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 72.2 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 MICHAEL MOFFITT  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	06/23/2025	Sampling Date:	06/19/2025
Reported:	06/27/2025	Sampling Type:	Soil
Project Name:	MIMOSA FEDERAL SWD #4Y PIPELINE	Sampling Condition:	Cool & Intact
Project Number:	25A-03046	Sample Received By:	Tamara Oldaker
Project Location:	SILVERBACK - EDDY COUNTY, NM		

**Sample ID: BH25-22 2FT (H253763-52)**

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	06/26/2025	ND	2.04	102	2.00	0.0505	
Toluene*	<0.050	0.050	06/26/2025	ND	2.21	111	2.00	0.146	
Ethylbenzene*	<0.050	0.050	06/26/2025	ND	2.06	103	2.00	0.948	
Total Xylenes*	<0.150	0.150	06/26/2025	ND	6.16	103	6.00	1.19	
Total BTEX	<0.300	0.300	06/26/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	06/25/2025	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/24/2025	ND	228	114	200	4.61	
DRO >C10-C28*	<10.0	10.0	06/24/2025	ND	207	103	200	4.46	
EXT DRO >C28-C36	<10.0	10.0	06/24/2025	ND					

Surrogate: 1-Chlorooctane 94.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.6 % 40.6-153

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

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\*=Accredited Analyte

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Table with columns for Company Name, Project Manager, Address, City, State, Zip, Phone, Fax, Project #, Project Name, Project Location, Sampler Name, BILL TO (P.O. #, Company, Attn, Address, City, State, Zip, Phone, Fax), ANALYSIS REQUEST (TPH, BTEX, Chloride, etc.), Lab I.D., Sample I.D., MATRIX (GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE), PRESERV. (ACID/BASE, ICE / COOL, OTHER), SAMPLING (DATE, TIME).

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Relinquished By: [Signature] Date: 6-23-25 Time: 11:49 Received By: [Signature]

Phone Result: [ ] Yes [ ] No Fax Result: [ ] Yes [ ] No Add'l Phone #: Add'l Fax #: REMARKS: Direct bill to Silverback Exploration

Delivered By: (Circle One) CF+0.3c #140 Sample Condition: Cool Intact CHECKED BY: (Initials) Sampler - UPS - Bus - Other: -7.6c / 7.3c

Please fax with changes to 575-393-2476



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Vertex Resource Services
Project Manager: Michael Moffitt
Address: 3101 Boyd Dr
City: Carlsbad State: NM Zip: 88220
Phone #: 575-988-2681 Fax #:
Project #: 25A-03046 Project Owner:
Project Name: Mimosa Federal SWD #4Y Pipeline
Project Location: Eddy County, NM
Sampler Name: F.Rodriguez

Table with columns: 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), TPH: (8015) EXT, BTEX (8021B), Chloride (SM 4500). Rows include samples 14 through 25, with sample 26 marked 'NO SAMPLE'.

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Relinquished By: [Signature] Date: 6-23-25 Time: 1149
Received By: [Signature] Date: Time:

Phone Result: [ ] Yes [ ] No
Fax Result: [ ] Yes [ ] No
Add'l Phone #:
Add'l Fax #:
REMARKS:
Direct bill to Silverback Exploration
Email results to: frodriguez@vertex.ca & mmoffitt@vertex.ca

Delivered By: (Circle One) CF+0.3' #140
Sampler - UPS - Bus - Other: -7.6' / -7.3'
Sample Condition: Cool Intact
Checked By: (Initials) [Signature]

NO sample #26.
S. Rodriguez



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Vertex Resource Services
Project Manager: Michael Moffitt
Address: 3101 Boyd Dr
City: Carlsbad State: NM Zip: 88220
Phone #: 575-988-2681 Fax #:
Project #: 25A-03046 Project Owner:
Project Name: Mimosa Federal SWD #4Y Pipeline
Project Location: Eddy County, NM
Sampler Name: F.Rodriguez

Table with columns: Lab I.D., Sample I.D., (G)RAB OR (C)OMP., # CONTAINERS, MATRIX (GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE), PRESERV. (ACID/BASE, ICE / COOL, OTHER), SAMPLING (DATE, TIME), TPH: (8015) EXT, BTEX (8021B), Chloride (SM 4500)

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Relinquished By: [Signature] Date: 6-23-25 Time: 1:49 PM Received By: [Signature] Date: [Blank] Time: [Blank]
Phone Result: [ ] Yes [ ] No Add'l Phone #:
Fax Result: [ ] Yes [ ] No Add'l Fax #:
REMARKS: Direct bill to Silverback Exploration Email results to: frodriguez@vertex.ca & mmoffitt@vertex.ca

Delivered By: (Circle One) CF+0.3i #140 Sample Condition: Cool Intact CHECKED BY: (Initials)
Sampler - UPS - Bus - Other: -7.6c/-7.3c [ ] Yes [ ] Yes [ ] No [ ] No

Please fax written changes to 575-393-2476



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Vertex Resource Services
Project Manager: Michael Moffitt
Address: 3101 Boyd Dr
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Phone #: 575-988-2681 Fax #:
Project #: 25A-03046 Project Owner:
Project Name: Mimosa Federal SWD #4Y Pipeline
Project Location: Eddy County, NM
Sampler Name: F.Rodriguez

Table with columns: Lab I.D., Sample I.D., (GRAB OR (C)OMP. # CONTAINERS, MATRIX (GROUNDWATER, WASTEWATER, SOIL, OIL, SLUDGE, OTHER), PRESERV. (ACID/BASE, ICE / COOL, OTHER), SAMPLING (DATE, TIME), TPH: (8015) EXT, BTEX (8021B), Chloride (SM 4500)

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses.

Relinquished By: [Signature] Date: 6-23-25 Time: 7:149 Received By: [Signature] Date: Received By:
Delivered By: (Circle One) CF+0.3c #140 Sample Condition Cool Intact Checked By: (Initials)
Sampler - UPS - Bus - Other: FORM-006 R 2.0 -7.6c / -7.3c

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

QUESTIONS

Action 568792

**QUESTIONS**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 568792
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2511431582
Incident Name	NAPP2511431582 MIMOSA FEDERAL SWD #4 PIPELINE @ 30-015-26950
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received
Incident Well	[30-015-26950] MIMOSA FEDERAL SWD #004

<b>Location of Release Source</b>	
<i>Please answer all the questions in this group.</i>	
Site Name	MIMOSA FEDERAL SWD #4 PIPELINE
Date Release Discovered	04/12/2025
Surface Owner	Federal

<b>Incident Details</b>	
<i>Please answer all the questions in this group.</i>	
Incident Type	Produced Water 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

<b>Nature and Volume of Release</b>	
<i>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.</i>	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Pipeline (Any)   Produced Water   Released: 21 BBL   Recovered: 20 BBL   Lost: 1 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
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)	Pipeline riser for the Mimosa Federal SWD #4 had a defective ring gasket at the flange and released fluids onto surrounding areas of the reclaimed Mimosa Federal SWD #1 site. Vacuum truck was dispatched and removed pooled fluids. Excavation crew was brought to the site to scrape and haul off recoverable materials.

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QUESTIONS, Page 2

Action 568792

**QUESTIONS (continued)**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 568792
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	<b>No, according to supplied volumes this does not appear to be a "gas only" report.</b>
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	<b>No</b>
Reasons why this would be considered a submission for a notification of a major release	<i>Unavailable.</i>

*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	<b>True</b>
The impacted area has been secured to protect human health and the environment	<b>True</b>
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	<b>True</b>
All free liquids and recoverable materials have been removed and managed appropriately	<b>True</b>
If all the actions described above have not been undertaken, explain why	<b>NA</b>

*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: Fernando Rodriguez Title: SR EHS Specialist Email: fernandorodriguez@rileypermian.com Date: 03/30/2026
--	---

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QUESTIONS, Page 3

Action 568792

**QUESTIONS (continued)**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 568792
	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 100 and 500 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
<b>What is the minimum distance, between the closest lateral extents of the release and the following surface areas:</b>	
A continuously flowing watercourse or any other significant watercourse	Zero feet, overlying, or within area
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1000 (ft.) and ½ (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (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	Zero feet, overlying, or within area
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	High
A 100-year floodplain	Zero feet, overlying, or within area
Did the release impact areas not on an exploration, development, production, or storage site	Yes

**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
<i>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.</i>	
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)	16000
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
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	06/01/2026
On what date will (or did) the final sampling or liner inspection occur	06/15/2026
On what date will (or was) the remediation complete(d)	07/01/2026
What is the estimated surface area (in square feet) that will be reclaimed	8520
What is the estimated volume (in cubic yards) that will be reclaimed	970
What is the estimated surface area (in square feet) that will be remediated	8520
What is the estimated volume (in cubic yards) that will be remediated	970

*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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QUESTIONS, Page 4

Action 568792

**QUESTIONS (continued)**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 568792
	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 <b>off-site</b> disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for <b>off-site</b> disposal	fEEM0112334510 HALFWAY DISPOSAL AND LANDFILL
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	Not answered.
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and <b>on-site</b> 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: Fernando Rodriguez Title: SR EHS Specialist Email: fernandorodriguez@rileypermian.com Date: 03/30/2026
--	---

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, Page 5

Action 568792

**QUESTIONS (continued)**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 568792
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Deferral Requests Only</b>	
<i>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.</i>	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 568792

**QUESTIONS (continued)**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 568792
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**QUESTIONS**

<b>Sampling Event Information</b>	
Last sampling notification (C-141N) recorded	{Unavailable.}

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

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CONDITIONS

Action 568792

**CONDITIONS**

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 568792
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

**CONDITIONS**

Created By	Condition	Condition Date
nvez	The remediation plan is approved as written. Riley Permian Operating Co. has 90-days (July 15, 2026) to submit to OCD its appropriate or final remediation closure report.	4/16/2026