



Incident Number: nAPP2433927741

## Remediation Closure and Reclamation Report

Rumble State #4H

API: 30-015-45749

Unit D, Section 28, Township 18 South, Range 25 East

County: Eddy

Coordinates: 32.725171, -104.497566

Vertex File Number: 24E-05130

**Prepared for:**

Silverback Operating II, LLC.

**Prepared by:**

Vertex Resource Services Inc.

**Date:**

May 2025

**Silverback Operating II, LLC.**  
Rumble State #4H

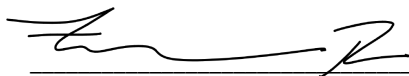
**Remediation Closure and Reclamation Report**  
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Prepared for:  
**Silverback Operating II, LLC.**  
108 South 4<sup>th</sup> Street  
Artesia, New Mexico 88210

**New Mexico Oil Conservation Division – District 2 – Artesia**  
508 West Texas Avenue  
Artesia, New Mexico 88210

Prepared by:  
**Vertex Resource Services Inc.**  
3101 Boyd Drive  
Carlsbad, New Mexico 88220



Fernando Rodriguez, B.Sc.  
PROJECT MANAGER, REPORTING

May 27, 2025

Date

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## 1.0 Introduction

Silverback Operating II, LLC. (Silverback) retained Vertex Resource Services Inc. (Vertex) to complete a Remediation Closure Report for a crude oil and produced water release that occurred on November 23, 2024, at Rumble State #4H (hereafter referred to as the “site”). Silverback submitted an initial C-141 release notification to the New Mexico Oil Conservation Division (NMOCD) District 2 on December 4, 2024. Incident ID number nAPP2433927741 was assigned to this incident.

This report provides a description of the site assessment, remediation and 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 has been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NMOCD for closure of this release, with the understanding that reclamation of the release site was completed following the completion of remediation activities as per 19.15.29.13 NMAC.

## 2.0 Incident Description

The release occurred on November 23, 2024, due to a power outage on the PLC for the air compressor that caused the separator and gas scrubber to overfill and route fluids to the high-pressure flare, which then over sprayed surrounding areas of the pad and pasture. Pooled standing oil caught fire and eventually extinguished itself. Silverback submitted the initial C-141 which describes the release volume of 15 barrels of crude oil and 5 barrels of produced water. No free fluids were recovered, and recoverable impacted materials were scraped off during the initial site assessment and clean-up. Additional details relevant to the release are presented in the C-141 Report.

## 3.0 Site Characteristics

The site is located approximately 9.9 miles southwest of Artesia, New Mexico (Google Inc., 2025). The legal location for the site is Unit D, Section 28, Township 18 South and Range 25 East in Eddy County, New Mexico. The release area is located on private property. An aerial photograph and site schematic are presented on Figure 1.

The location is typical of oil and gas exploration and production sites in the Permian Basin and is currently used for oil and gas production 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 Qp – Piedmont alluvial deposits (Holocene to lower Pleistocene). The predominant soil profile on the site is loam. Soil drainage can be classified as well-drained with a high runoff class. The karst geology at the site is characterized as medium potential (United States Department of the Interior, Bureau of Land Management, 2018).

The surrounding landscape is associated with plain, fan piedmont, and terrace landforms with elevations ranging between 2,800 and 5,000 feet. The climate is semiarid with average annual precipitation ranging between 6 and 15 inches. Using information from the United States Department of Agriculture, the historical plant community was

determined to be a black grama and dropseed dominated grassland. Blue grama also occurs as a subdominant species. 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 well to the site is a private well (RA 04345) located approximately 0.96 miles north of the site with a recorded depth to groundwater of 150 feet below ground surface (bgs; New Mexico Office of the State Engineer, 2025b). Information pertaining to the depth to ground water 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 Rio Penasco located approximately 0.51 miles northeast of the site (United States Fish and Wildlife Service, 2025).

At the site, there are no continuously flowing watercourses or significant 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.

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<b>Table 1. Closure Criteria Determination</b>			
<b>Site Specific Conditions</b>		<b>Value</b>	<b>Unit</b>
1	Depth to Groundwater (nearest reference)	150	feet
	Distance between release and nearest DTGW reference	5,052	feet
		0.96	miles
	Date of nearest DTGW reference measurement	January 31, 1961	
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	2,641	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	13,011	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	52,458	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		feet
	ii) Within 1000 feet of any fresh water well or spring	73,667	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	4,465	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
	Distance between release and nearest registered mine	16,989	feet
9	Within an unstable area (Karst Map)	Medium	Critical High Medium Low
	Distance between release and nearest unstable area	0	feet
10	Within a 100-year Floodplain	>500	year
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	2,773	feet
11	Soil Type	UR: Upton-Reagan Complex	
12	Ecological Classification	R042CY153NM — Loamy	
13	Geology	Qp - Piedmont alluvial deposits	
	<b>NMAC 19.15.29.12 E (Table 1) Closure Criteria</b>	<50'	<50' 51-100' >100'

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

<b>Table 2. Closure Criteria for Soils Impacted by a Release</b>		
<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>
No depth-to-groundwater reference within 0.5mi; Within medium karst potential	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 Remedial Actions Taken

The remedial activities were completed following the proposed remediation plan which was conditionally approved by NMOCD on March 10, 2025. The plan included a sampling variance requesting permission to use a sampling size variance of 400 square feet. A copy of the variance request correspondence approval is included in Appendix B. Site characterization activities were conducted by Vertex on January 2, 2025, and finalized on February 10, 2025. A total of 27 sampling boreholes were established to obtain both horizontal and vertical delineation. From these boreholes, a total of 60 samples were collected at various depths and submitted to Cardinal Laboratories in Hobbs, New Mexico, for laboratory analysis. Characterization laboratory results are presented in Table 3.

Remediation efforts began on April 4, 2025, and were finalized on April 7, 2025. Vertex supervised the excavation of impacted soils. Soil sampling was completed with a total of 71 sample points and consisted of field screen analysis using a Photo Ionization Detector (volatile hydrocarbons), Dextsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and Silver Nitrate titrations (chlorides). Field screening results were used to identify areas requiring further remediation. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility. The final Daily Field Report (DFR) with photographs of the remediated site prior to backfill is included in Appendix C.

Notification that confirmatory samples were being collected was provided to the NMOCD two business days prior to conducting final sampling pursuant to 19.15.29.12.D(1)(a). Confirmatory base floor and sidewall samples were collected from the surfaces of the excavation in 400 square foot increments. A total of 69 confirmation samples (54 base samples and 15 wall samples) were collected for laboratory analysis following NMOCD soil sampling procedures. Samples were submitted to Cardinal Laboratories 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 excavation extent and the final sampling locations were mapped utilizing a handheld GPS and are presented on Figures 2 and 3. Laboratory results are presented in Table 4, and the laboratory data reports are included in Appendix D.

## 6.0 Remediation Closure Request

Vertex recommends no additional remedial actions at the site. Laboratory analyses of confirmation samples collected at the site show final confirmatory values below the applicable NMOCD closure criteria, as presented in Table 2. There are no anticipated risks to human, ecological, or hydrological receptors at this site. The excavation was backfilled with non-waste-containing, uncontaminated, earthen material, sourced locally, and placed to meet the site's existing grade to prevent water ponding and erosion. The reclamation requirements of 19.15.29.13 NMAC were completed following backfilling activities and are outlined in Section 7.0, below.

On behalf of Silverback, Vertex requests that this incident (nAPP2433927741) be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. Silverback certifies that all information in this report and appendices are correct and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NMOCD requirements to obtain closure on the site.

Should you have any questions or concerns, please do not hesitate to contact Fernando Rodriguez at 575.361.4509 or frodriguez@vertexresource.com.

## 7.0 Reclamation Report

The Reclamation Report for the site is detailed below. This report outlines the principles that were used during the surface reclamation phase for the site. The DFR with photographs documenting backfilled remediated areas and reclamation activities is included in Appendix C. Reclamation areas are presented on Figure 4.

### 7.1 End Land Use and Capability

The land use surrounding the site is defined as natural; therefore, the end land use would be natural land. A natural area is described as: away from human habitation and activities, where the primary concern is the protection of ecological receptors. The site was reclaimed so that the capability of the land will match that of the areas immediately surrounding the site, which consists of rangeland.

### 7.2 Infrastructure Decommissioning

All equipment, infrastructure, and associated components have been decommissioned and removed as part of past reclamation efforts.

### 7.3 Reclamation Procedures

#### 7.3.1 Excavation Backfill

Restoration of the site included the replacement of removed materials to the near original relative positions and contoured to achieve erosion control, long-term stability and preservation of surface water flow patterns. The excavation was backfilled on April 7, 2025, and was finalized on April 8, 2025. Approximately 560 cubic yards of materials were used for backfilling the excavation and used as topsoil for reclamation. Materials used for backfilling procedures were sampled and sent in for laboratory analysis for constituents as described in Table 1 of 19.15.29 NMAC. On April 7, 2025, two representative 5-point composite samples were collected from the backfill material that was used

for the reclamation of the remediated areas. Analytical results for these samples are presented in Table 4, and the laboratory data report is included in Appendix D.

### **7.3.2 Contouring**

The site was contoured to match surrounding topography as near as practicable to restore natural drainage, which is generally in a southwest-to-northeast direction. Compaction on the reclaimed areas was addressed by decompaction via cross ripping to a maximum depth of 18 inches (or as site conditions allow) with a furrow spacing of 2 feet. Decompaction activities were conducted post-backfill and pre-seeding to maximize seed to soil contact and promote vegetation establishment.

### **7.3.3 Access Road and Pad**

The supplementary access road and portions of the pad associated with the release were restored and reconstructed with caliche materials. Locally sourced caliche materials were brought in to replace the scraped surface materials. The map that outlines the restored access road and pad areas is presented on Figure 4.

### **7.3.4 Erosion Control**

There are currently no erosion concerns on-site, and the use of erosion control devices at this site was not anticipated; however, erosion control devices will be installed at the discretion of the on-site environmental inspector during monitoring activities.

### **7.3.5 Seeding**

Seeding activities commenced and were completed on April 8, 2025. A seed mix suitable for the site and surrounding area was used and applied at appropriate rates. New Mexico State Land Office loamy seed mix was obtained for the site and administered at an application rate of 18 PLS/acre. Seeding methods were completed using a tractor with a no-till seed drill on all areas under reclamation. Seed establishment and revegetation will be monitored bi-annually to determine success. The utilized seed mixture and application document is included in Appendix E.

### **7.3.6 Fertilization**

Fertilizer application was not planned but will be incorporated into the contoured topsoil and/or upper subsoil to improve soil nutrient content, if deemed necessary or as per landowner recommendations.

## **7.4 Reclamation Standards**

Reclamation of all disturbed areas will be considered complete when uniform vegetative cover has been established that reflects a life-form ratio of plus or minus 50% of pre-disturbance levels and a total percent plant cover of at least 70% of pre-disturbance levels, excluding noxious weeds.

## **7.5 Weed Management**

The site will be monitored for vegetative growth throughout all phases of the project. Should state classified noxious weeds be identified on-site, a control program will be implemented and managed as required.

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Weed management programs will identify weed species of concern and utilize effective control methods. These methods include but are not limited to chemical (herbicide) control, mechanical (mowing) control or biological control as approved by governing regulatory agencies.

## 8.0 Monitoring Program

Bi-annual inspections will be conducted, during the growing season, to monitor site progression and assess the need for additional best management practices (BMPs). Inspections will include photographs of the site and BMPs implemented.



## 9.0 References

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- United States Fish and Wildlife Service. (2025). *National Wetland Inventory - Surface Waters and Wetlands*. Retrieved from <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>
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Silverback Operating II, LLC.  
Rumble State #4H

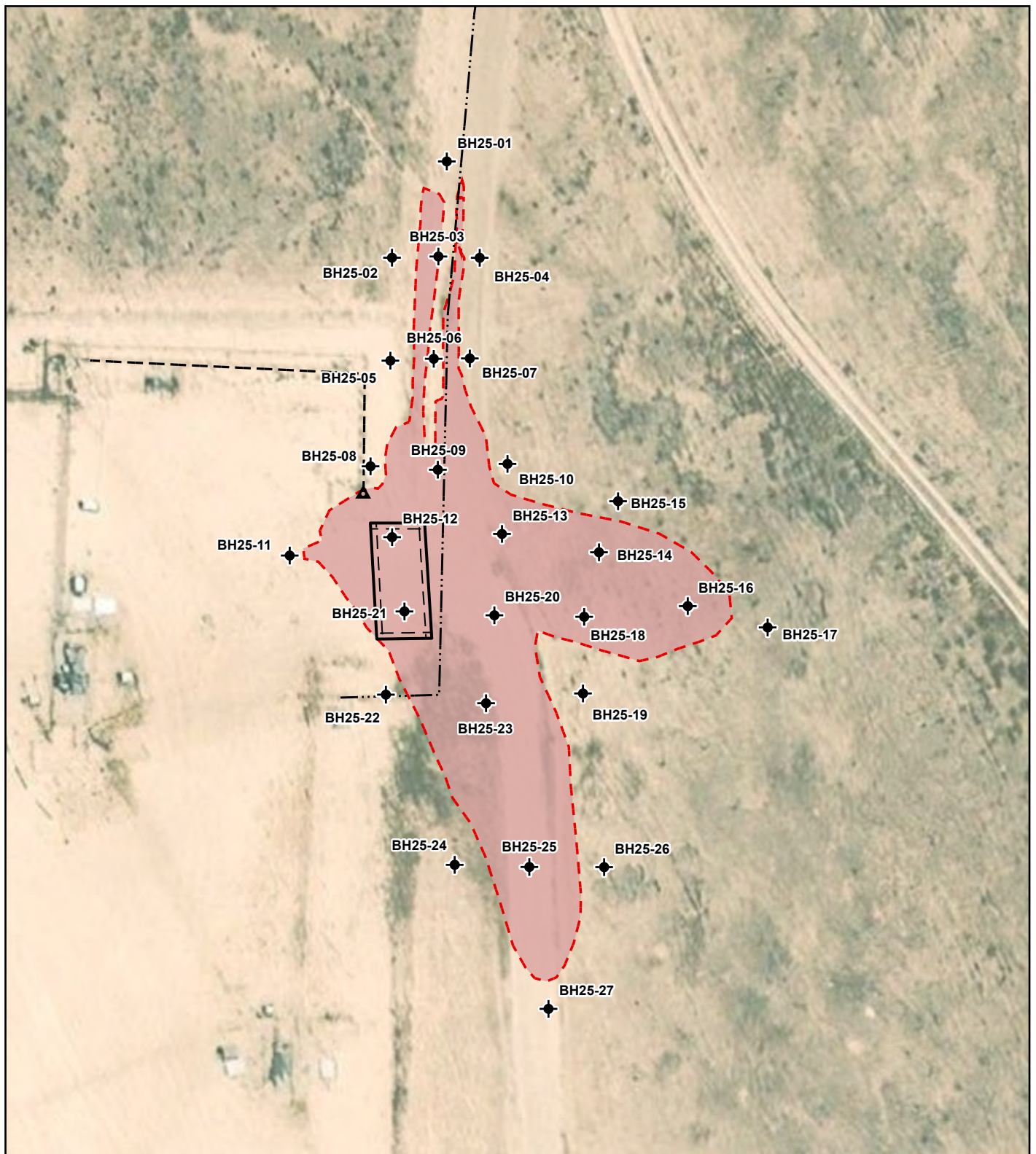
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## 10.0 Limitations

This report has been prepared for the sole benefit of Silverback Operating II, 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 Silverback Operating II, 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**



- ◆ Borehole (Prefixed by "BH25-")    - - Pipeline (Aboveground)    Proposed Excavation to 3' bgs (~1,262 sq.ft. | 140 cuysd.)  
 ▲ Flare Stack    - · - Pipeline (Underground)    Release Area (~20,302 sq.ft.)



0 25 50 ft  
 NAD 1983 UTM Zone 13N  
 Date: Feb 19/25

Map Center:  
 Lat: 32.725047°N,  
 Long: 104.497338°W



### Characterization Sampling Site Schematic Rumble State #4H

FIGURE:  
**1**

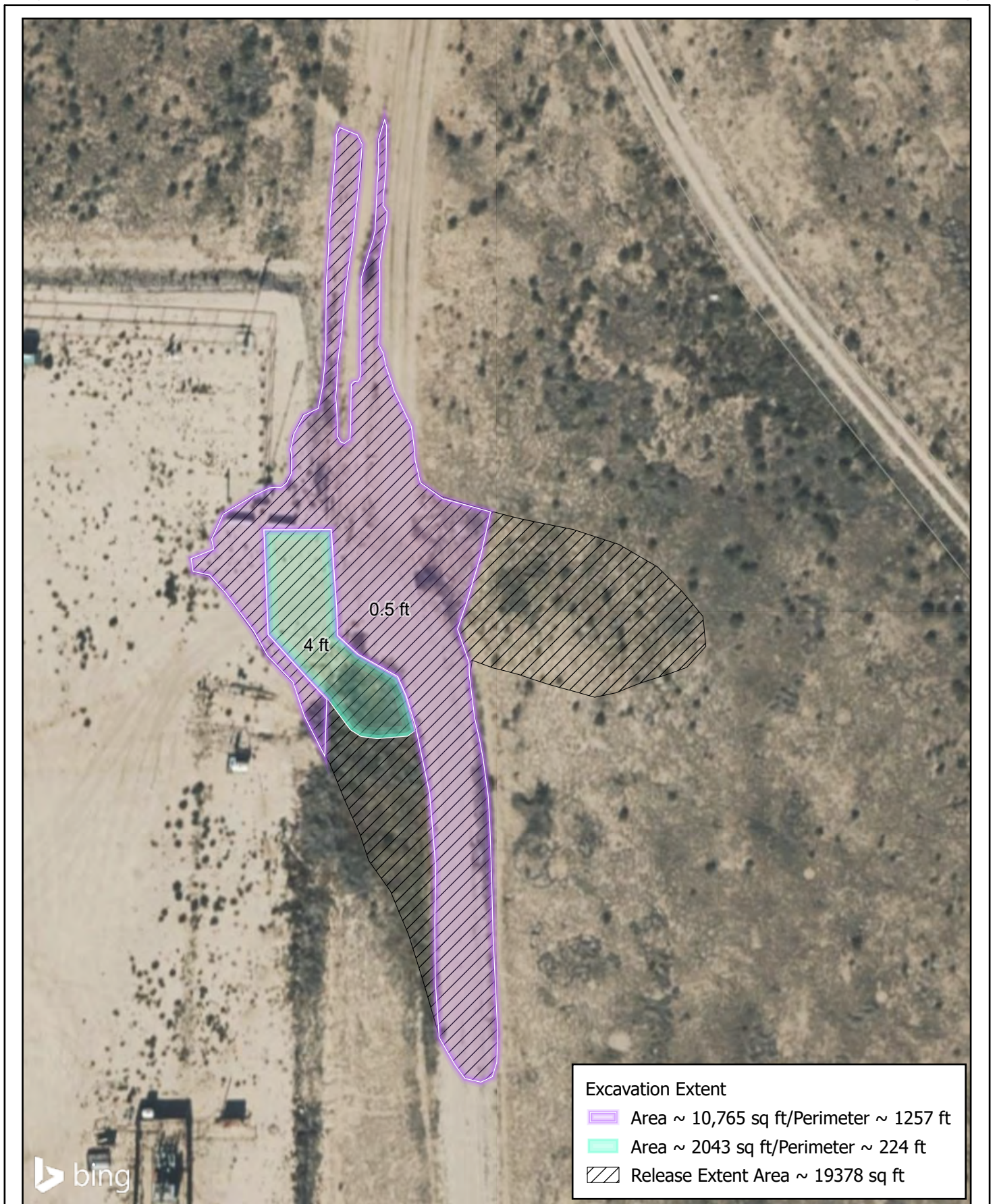


Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Georeferenced image from Esri, 2023. Site Features from GPS by Vertex Professional Services Ltd., 2025.

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0 15 30 ft.

Map Center:  
Lat: 32.725035°N,  
Long: 104.49728°W  
Date: Apr 28/25



NAD 1983 StatePlane New Mexico East FIPS 3001 Feet

### Excavation Site Schematic Rumble State #4H

FIGURE:  
**2**

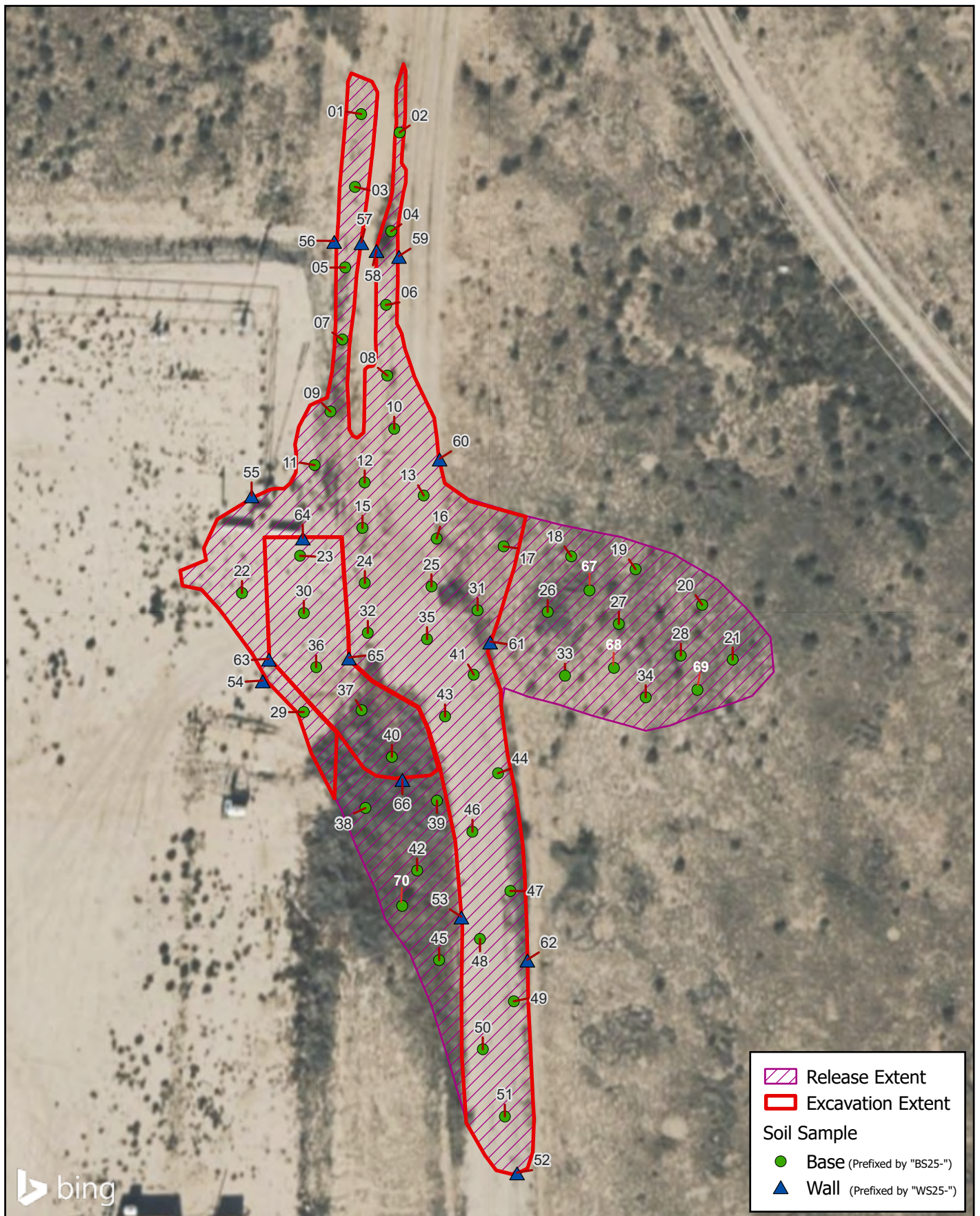


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Note: Georeferenced image from Esri, 2025. Features from GPS. Vertex Professional Services Ltd., 2025.

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0 15 30 ft.

NAD 1983 StatePlane New Mexico East FIPS 3001 Feet

Map Center:  
Lat: 32.724969°N,  
Long: 104.497263°W

Date: Apr 28/25



### Reclamation Areas Site Schematic Rumble State #4H

FIGURE:  
**4**



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. Features from GPS. Vertex Professional Services Ltd., 2025.

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## **TABLES**

Client Name: Silverback Operating II, LLC  
Site Name: Rumble State #4H  
NMOCD Tracking #: nAPP2433927741  
Project #: 24E-05130  
Lab Reports: H250110, H250549, H250550, H250824

Table 3. 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					
						Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
Depth to Groundwater: <50 feet bgs													
BH25-01	0	January 2, 2025	-	-	21	ND	ND	ND	13.3	ND	13.3	13.3	16
	2	January 2, 2025	-	-	35	ND	ND	ND	ND	ND	ND	ND	32
BH25-02	0	January 2, 2025	-	-	132	ND	ND	ND	ND	ND	ND	ND	16
	2	January 2, 2025	-	-	121	ND	ND	ND	ND	ND	ND	ND	16
BH25-03	0	January 2, 2025	-	-	91	ND	ND	ND	ND	ND	ND	ND	64
	2	January 2, 2025	-	-	101	ND	ND	ND	ND	ND	ND	ND	32
	4	January 2, 2025	-	-	89	ND	ND	ND	ND	ND	ND	ND	112
BH25-04	0	January 2, 2025	-	-	193	ND	ND	ND	ND	ND	ND	ND	16
	2	January 2, 2025	-	-	109	ND	ND	ND	ND	ND	ND	ND	32
BH25-05	0	January 2, 2025	-	-	81	ND	ND	ND	ND	ND	ND	ND	48
	2	January 2, 2025	-	-	105	ND	ND	ND	ND	ND	ND	ND	48
BH25-06	0	January 2, 2025	-	-	121	ND	ND	ND	ND	ND	ND	ND	80
	2	January 2, 2025	-	-	108	ND	ND	ND	ND	ND	ND	ND	64
	4	January 2, 2025	-	-	130	ND	ND	ND	ND	ND	ND	ND	48
BH25-07	0	January 2, 2025	-	-	150	ND	ND	ND	ND	ND	ND	ND	96
	2	January 2, 2025	-	-	193	ND	ND	ND	ND	ND	ND	ND	80
BH25-08	0	January 2, 2025	-	-	38	ND	ND	ND	ND	ND	ND	ND	112
	2	January 2, 2025	-	-	72	ND	ND	ND	ND	ND	ND	ND	32
BH25-09	0	January 2, 2025	-	-	52	ND	ND	ND	27.3	ND	27.3	27.3	112
	2	January 2, 2025	-	-	130	ND	ND	ND	ND	ND	ND	ND	176
	4	January 2, 2025	-	-	80	ND	ND	ND	ND	ND	ND	ND	272
BH25-10	0	January 2, 2025	-	-	32	ND	ND	ND	ND	ND	ND	ND	16
	2	January 2, 2025	-	-	33	ND	ND	ND	ND	ND	ND	ND	80
BH25-11	0	January 29, 2025	-	-	236	ND	ND	ND	15.1	ND	15.1	15.1	16
	1	January 29, 2025	-	-	305	ND	ND	ND	ND	ND	ND	ND	16
BH25-12	0	January 28, 2025	-	ND	2,873	ND	ND	ND	ND	ND	ND	ND	2200
	2	January 28, 2025	-	ND	1,679	ND	ND	ND	ND	ND	ND	ND	960
	4	February 10, 2025	-	10	320	ND	ND	ND	ND	ND	ND	ND	16
BH25-13	0	January 2, 2025	-	-	56	ND	ND	ND	ND	ND	ND	ND	48
	2	January 2, 2025	-	-	150	ND	ND	ND	44.3	ND	44.3	44.3	320
	4	January 2, 2025	-	-	45	ND	ND	ND	ND	ND	ND	ND	112
BH25-14	0	January 28, 2025	-	39	636	ND	ND	ND	ND	ND	ND	ND	320
	2	January 28, 2025	-	3	236	ND	ND	ND	ND	ND	ND	ND	64
BH25-15	0	January 2, 2025	-	-	31	ND	ND	ND	ND	ND	ND	ND	16
	2	January 2, 2025	-	-	45	ND	ND	ND	ND	ND	ND	ND	16
BH25-16	0	January 28, 2025	-	1	311	ND	ND	ND	ND	ND	ND	ND	112
	2	January 28, 2025	-	2	269	ND	ND	ND	ND	ND	ND	ND	16
BH25-17	0	January 28, 2025	-	ND	330	ND	ND	ND	ND	ND	ND	ND	64
	2	January 28, 2025	-	ND	275	ND	ND	ND	ND	ND	ND	ND	48
BH25-18	0	January 28, 2025	-	ND	346	ND	ND	ND	ND	ND	ND	ND	128
	2	January 28, 2025	-	ND	419	ND	ND	ND	ND	ND	ND	ND	64
BH25-19	0	January 28, 2025	-	-	298	ND	ND	ND	ND	ND	ND	ND	32
	2	January 28, 2025	-	-	320	ND	ND	ND	ND	ND	ND	ND	32
BH25-20	0	January 28, 2025	-	-	447	ND	ND	ND	56.6	14.4	56.6	71	160
	2	January 28, 2025	-	-	303	ND	ND	ND	ND	ND	ND	ND	16
BH25-21	0	January 28, 2025	-	950	3,544	ND	1.58	355	12700	1960	13055	15015	5840
	2	January 28, 2025	-	48	637	ND	ND	ND	647	208	647	855	400
	4	February 10, 2025	-	20	136	ND	ND	ND	ND	ND	ND	ND	16
BH25-22	0	January 29, 2025	-	-	443	ND	ND	ND	ND	ND	ND	ND	80
	2	January 29, 2025	-	-	317	ND	ND	ND	ND	ND	ND	ND	48
BH25-23	0	January 29, 2025	-	-	318	ND	ND	ND	20.5	ND	20.5	20.5	240
	2	January 29, 2025	-	-	326	ND	ND	ND	ND	ND	ND	ND	16
BH25-24	0	January 29, 2025	-	-	290	ND	ND	ND	ND	ND	ND	ND	32
	2	January 29, 2025	-	-	372	ND	ND	ND	ND	ND	ND	ND	16
BH25-25	0	January 29, 2025	-	-	349	ND	ND	ND	ND	ND	ND	ND	32
	2	January 29, 2025	-	-	320	ND	ND	ND	ND	ND	ND	ND	16
BH25-26	0	January 29, 2025	-	-	344	ND	ND	ND	ND	ND	ND	ND	16
	2	January 29, 2025	-	-	458	ND	ND	ND	ND	ND	ND	ND	48
BH25-27	0	January 29, 2025	-	-	402	ND	ND	ND	ND	ND	ND	ND	16
	2	January 29, 2025	-	-	410	ND	ND	ND	ND	ND	ND	ND	32

"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)





Client Name: Silverback Exploration  
 Site Name: Rumble State #4H  
 NMOCD Tracking #: nAPP2433927741  
 Project #: 24E-05130  
 Lab Reports: H252203

Table 4. Confirmation Sampling 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													
BS25-01	0.5	April 4, 2025	-	-	103	ND	ND	ND	ND	ND	ND	ND	ND
BS25-02	0.5	April 4, 2025	-	-	120	ND	ND	ND	ND	ND	ND	ND	ND
BS25-03	0.5	April 4, 2025	-	-	144	ND	ND	ND	ND	ND	ND	ND	ND
BS25-04	0.5	April 4, 2025	-	-	467	ND	ND	ND	ND	ND	ND	ND	336
BS25-05	0.5	April 4, 2025	-	-	436	ND	ND	ND	ND	ND	ND	ND	304
BS25-06	0.5	April 4, 2025	-	-	424	ND	ND	ND	ND	ND	ND	ND	304
BS25-07	0.5	April 4, 2025	-	-	300	ND	ND	ND	ND	ND	ND	ND	272
BS25-08	0.5	April 4, 2025	-	-	263	ND	ND	ND	ND	ND	ND	ND	288
BS25-09	0.5	April 4, 2025	-	-	482	ND	ND	ND	ND	ND	ND	ND	304
BS25-10	0.5	April 4, 2025	-	-	331	ND	ND	ND	ND	ND	ND	ND	288
BS25-11	0.5	April 4, 2025	-	-	401	ND	ND	ND	ND	ND	ND	ND	304
BS25-12	0.5	April 4, 2025	-	-	359	ND	ND	ND	ND	ND	ND	ND	288
BS25-13	0.5	April 4, 2025	-	-	405	ND	ND	ND	ND	ND	ND	ND	304
BS25-15	0.5	April 4, 2025	-	-	235	ND	ND	ND	ND	ND	ND	ND	288
BS25-16	0.5	April 4, 2025	-	-	393	ND	ND	ND	ND	ND	ND	ND	304
BS25-17	0.5	April 4, 2025	-	-	379	ND	ND	ND	ND	ND	ND	ND	320
BS25-18	0	April 4, 2025	-	-	124	ND	ND	ND	ND	ND	ND	ND	32
BS25-19	0	April 4, 2025	-	-	195	ND	ND	ND	ND	ND	ND	ND	16
BS25-20	0	April 4, 2025	-	-	116	ND	ND	ND	ND	ND	ND	ND	32
BS25-21	0	April 4, 2025	-	-	126	ND	ND	ND	ND	ND	ND	ND	16
BS25-22	0.5	April 4, 2025	-	-	318	ND	ND	ND	ND	ND	ND	ND	224
BS25-23	4	April 4, 2025	-	-	122	ND	ND	ND	ND	ND	ND	ND	32
BS25-24	0.5	April 4, 2025	-	-	239	ND	ND	ND	ND	ND	ND	ND	224
BS25-25	0.5	April 4, 2025	-	-	329	ND	ND	ND	ND	ND	ND	ND	240
BS25-26	0	April 4, 2025	-	-	145	ND	ND	ND	ND	ND	ND	ND	32
BS25-27	0	April 4, 2025	-	-	195	ND	ND	ND	ND	ND	ND	ND	32
BS25-28	0	April 4, 2025	-	-	160	ND	ND	ND	ND	ND	ND	ND	16
BS25-29	0.5	April 4, 2025	-	-	340	ND	ND	ND	ND	ND	ND	ND	208
BS25-30	4	April 4, 2025	-	-	151	ND	ND	ND	ND	ND	ND	ND	ND
BS25-31	0.5	April 4, 2025	-	-	235	ND	ND	ND	ND	ND	ND	ND	224
BS25-32	0.5	April 4, 2025	-	-	272	ND	ND	ND	ND	ND	ND	ND	224
BS25-33	0	April 4, 2025	-	-	115	ND	ND	ND	ND	ND	ND	ND	16
BS25-34	0	April 4, 2025	-	-	150	ND	ND	ND	ND	ND	ND	ND	ND
BS25-35	0.5	April 4, 2025	-	-	352	ND	ND	ND	ND	ND	ND	ND	256
BS25-36	4	April 4, 2025	-	-	253	ND	ND	ND	ND	ND	ND	ND	32
BS25-37	4	April 5, 2025	-	-	127	ND	ND	ND	ND	ND	ND	ND	16
BS25-38	0	April 5, 2025	-	-	121	ND	ND	ND	ND	ND	ND	ND	32
BS25-39	0	April 5, 2025	-	-	250	ND	ND	ND	ND	ND	ND	ND	208
BS25-40	4	April 5, 2025	-	-	175	ND	ND	ND	ND	ND	ND	ND	32
BS25-41	0.5	April 5, 2025	-	-	347	ND	ND	ND	ND	ND	ND	ND	272
BS25-42	0	April 5, 2025	-	-	185	ND	ND	ND	ND	ND	ND	ND	48
BS25-43	0.5	April 5, 2025	-	-	477	ND	ND	ND	ND	ND	ND	ND	304
BS25-44	0.5	April 5, 2025	-	-	435	ND	ND	ND	ND	ND	ND	ND	304
BS25-45	0	April 5, 2025	-	-	189	ND	ND	ND	ND	ND	ND	ND	32
BS25-46	0.5	April 5, 2025	-	-	360	ND	ND	ND	ND	ND	ND	ND	288
BS25-47	0.5	April 5, 2025	-	-	466	ND	ND	ND	ND	ND	ND	ND	304
BS25-48	0.5	April 5, 2025	-	-	378	ND	ND	ND	ND	ND	ND	ND	288
BS25-49	0.5	April 5, 2025	-	-	395	ND	ND	ND	ND	ND	ND	ND	320
BS25-50	0.5	April 5, 2025	-	-	189	ND	ND	ND	ND	ND	ND	ND	32

"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)**



Client Name: Silverback Exploration  
 Site Name: Rumble State #4H  
 NMOCD Tracking #: nAPP2433927741  
 Project #: 24E-05130  
 Lab Reports: H252203

Table 4. Confirmation Sampling 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					
						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)	
Closure Criteria for Soils Impacted by a Release - Table 1 of 19.15.29.12 NMAC													
BS25-51	0.5	April 5, 2025	-	-	408	ND	ND	ND	ND	ND	ND	ND	320
WS25-52	0.5	April 5, 2025	-	-	109	ND	ND	ND	ND	ND	ND	ND	48
WS25-53	0.5	April 5, 2025	-	-	410	ND	ND	ND	ND	ND	ND	ND	320
WS25-54	0.5	April 5, 2025	-	-	145	ND	ND	ND	ND	ND	ND	ND	32
WS25-55	0.5	April 5, 2025	-	-	349	ND	ND	ND	ND	ND	ND	ND	288
WS25-56	0.5	April 5, 2025	-	-	139	ND	ND	ND	ND	ND	ND	ND	16
WS25-57	0.5	April 5, 2025	-	-	206	ND	ND	ND	ND	ND	ND	ND	144
WS25-58	0.5	April 5, 2025	-	-	124	ND	ND	ND	ND	ND	ND	ND	80
WS25-59	0.5	April 5, 2025	-	-	127	ND	ND	ND	ND	ND	ND	ND	32
WS25-60	0.5	April 5, 2025	-	-	137	ND	ND	ND	ND	ND	ND	ND	144
WS25-61	0.5	April 5, 2025	-	-	232	ND	ND	ND	ND	ND	ND	ND	144
WS25-62	0.5	April 5, 2025	-	-	225	ND	ND	ND	ND	ND	ND	ND	112
WS25-63	0-4	April 5, 2025	-	-	104	ND	ND	ND	ND	ND	ND	ND	32
WS25-64	0-4	April 5, 2025	-	-	139	ND	ND	ND	ND	ND	ND	ND	ND
WS25-65	0-4	April 5, 2025	-	-	187	ND	ND	ND	ND	ND	ND	ND	64
WS25-66	0-4	April 5, 2025	-	-	174	ND	ND	ND	ND	ND	ND	ND	16
BS25-67	0	April 5, 2025	-	-	103	ND	ND	ND	ND	ND	ND	ND	32
BS25-68	0	April 5, 2025	-	-	204	ND	ND	ND	ND	ND	ND	ND	112
BS25-69	0	April 5, 2025	-	-	205	ND	ND	ND	ND	ND	ND	ND	32
BS25-70	0	April 5, 2025	-	-	116	ND	ND	ND	ND	ND	ND	ND	32
Closure Criteria for Materials Used For Backfill - Table 1 of 19.15.29.12 NMAC													
Backfill-01	0	April 7, 2025	-	-	208	ND	ND	ND	ND	ND	ND	ND	96
Backfill-02	0	April 7, 2025	-	-	219	ND	ND	ND	ND	ND	ND	ND	80

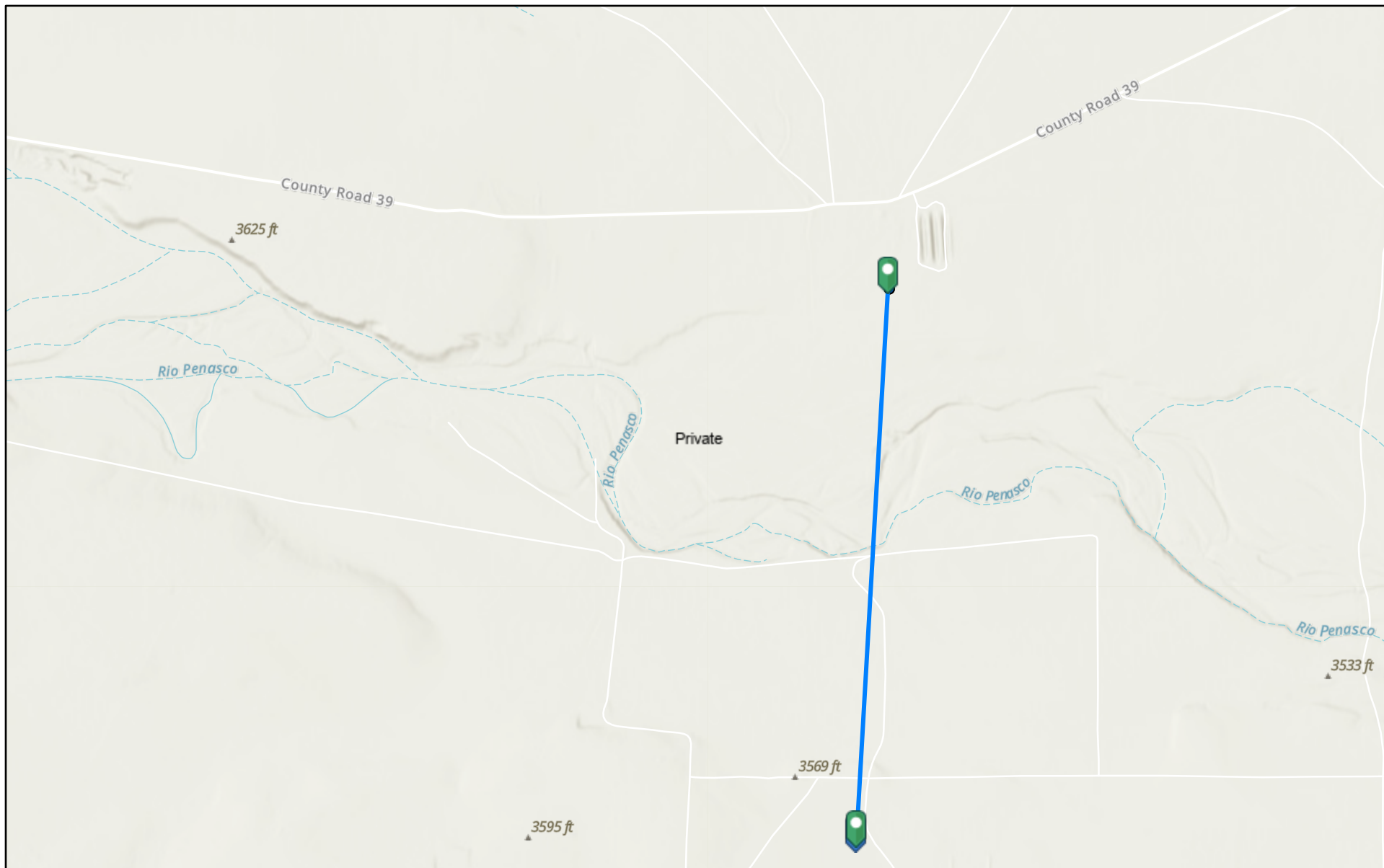
"ND" Not Detected at the Reporting Limit  
 "-" indicates not analyzed/assessed

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



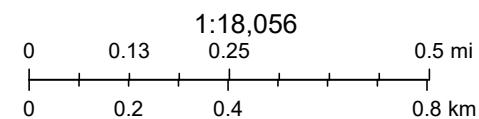
## **APPENDIX A**

# Rumble State #4H - DTGW



1/9/2025, 10:08:10 AM

- OSE Water PODs Land Ownership
- P



U.S. BLM, Esri, NASA, NGA, USGS, FEMA, OCD, Esri Community Maps Contributors, New Mexico State University, Texas Parks & Wildlife, Esri,

New Mexico Oil Conservation Division



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)

POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X	Y	Map	(meters)	(In feet)		
													Distance	Well Depth	Depth Water	Water Column
<a href="#">RA 08146</a>		RA	ED	SE	SE	SW	28	18S	25E	547693.0	3619576.0 *		1487	400		
<a href="#">RA 04344</a>		RA	CH		NW	NW	21	18S	25E	547168.0	3622497.0 *		1567	381	220	161
<a href="#">RA 04365</a>		RA	CH		NW	NW	21	18S	25E	547168.0	3622497.0 *		1567	265	150	115

Average Depth to Water: 185 feet

Minimum Depth: 150 feet

Maximum Depth: 220 feet

Record Count: 3

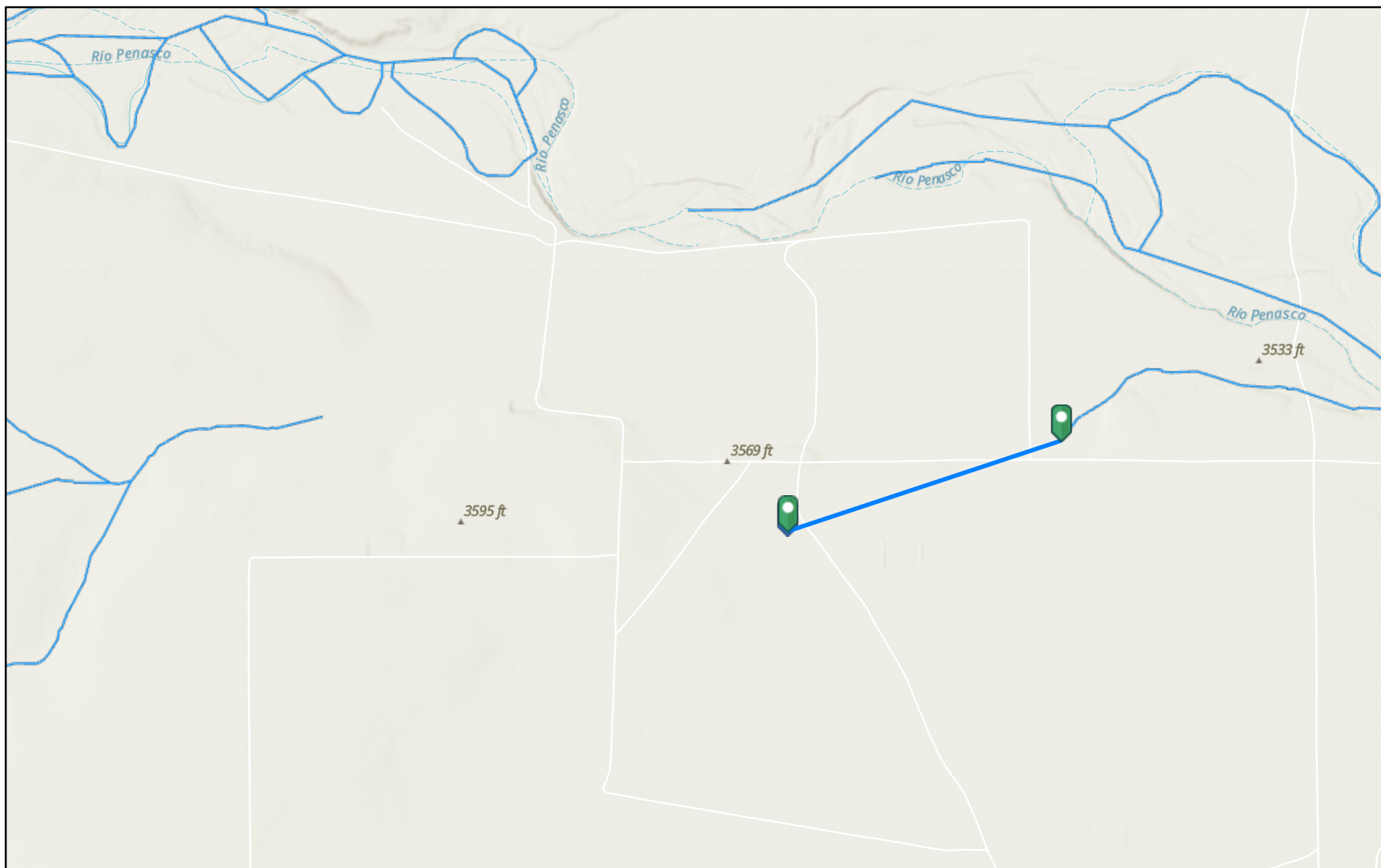
UTM Filters (in meters):

Easting: 547081  
Northing: 3620932  
Radius: 1616.0

\* UTM location was derived from PLSS - see Help

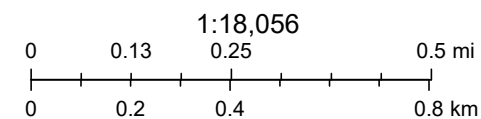
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

## Rumble State #4H - Watercourse



1/9/2025, 10:18:53 AM

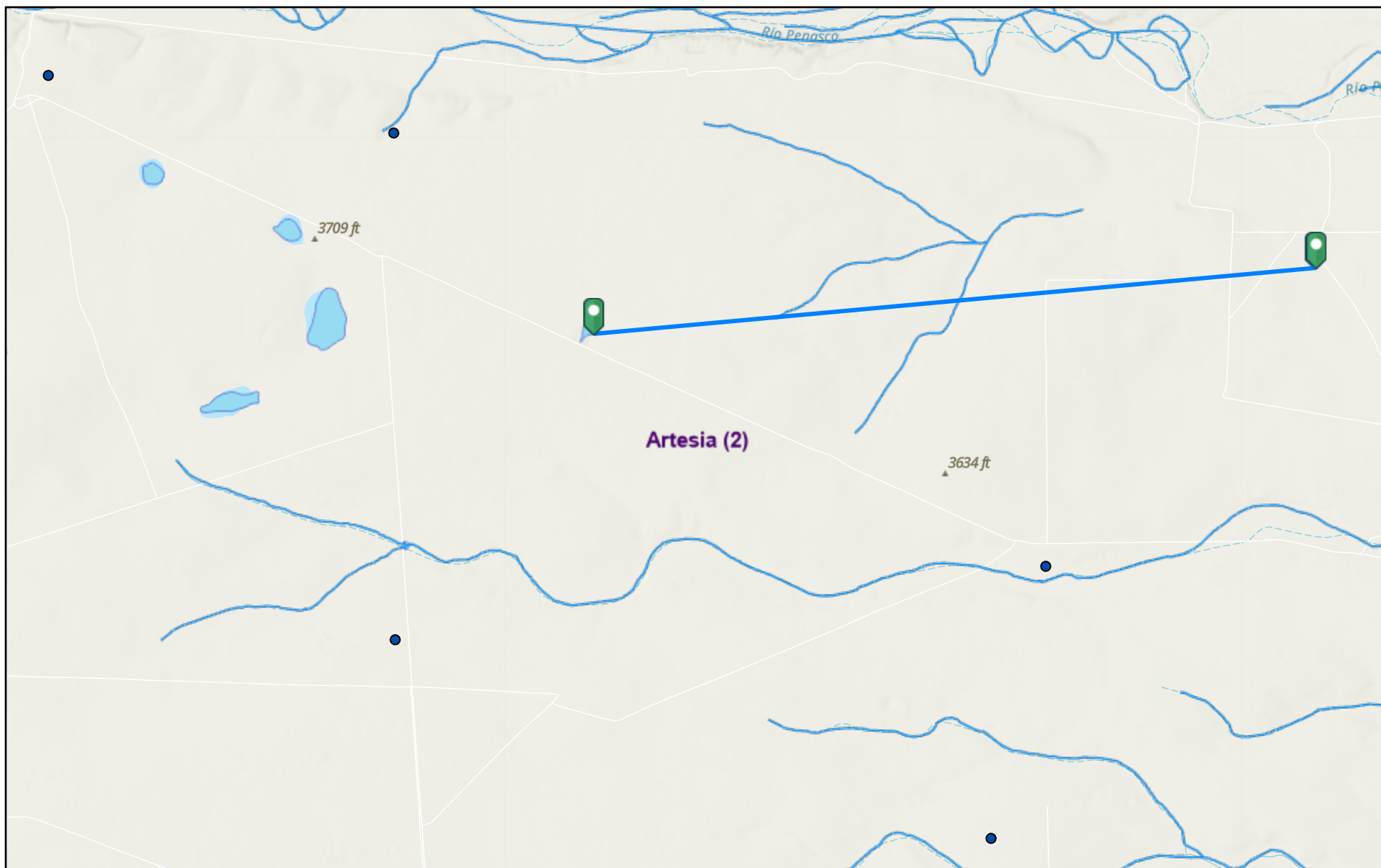
— OSE Streams



Esri, NASA, NGA, USGS, FEMA, OCD, Esri Community Maps Contributors,  
New Mexico State University, Texas Parks & Wildlife, Esri, TomTom, Garmin,

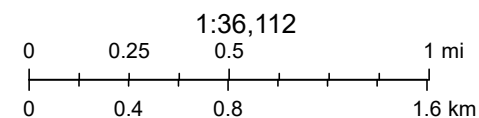
New Mexico Oil Conservation Division

# Rumble State 4H - Lake



1/9/2025, 10:21:28 AM

- OSE Water PODs
- OSE Streams
- OSW Water Bodys
- ▭ OCD Districts

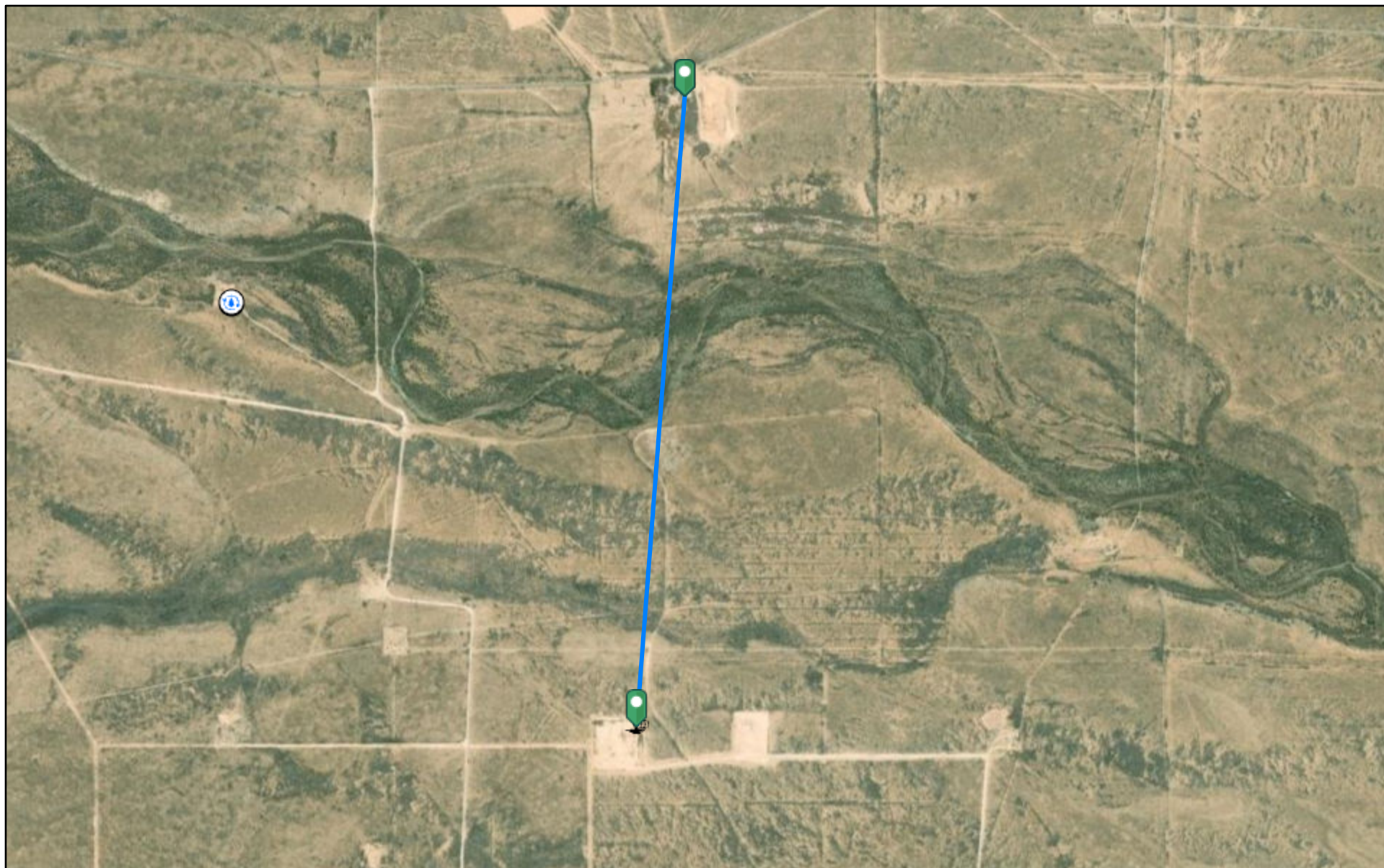


Esri, NASA, NGA, USGS, FEMA, Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,

New Mexico Oil Conservation Division



## Rumble State #4H - Residence



2/17/2025, 12:40:21 PM

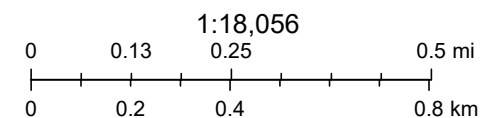
Incident Release



Produced Water Release



Oil Release



Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., Esri, HERE, Garmin, IPC, Maxar

New Mexico Oil Conservation Division



NM OCD Oil and Gas Map. <http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75>: New Mexico Oil Conservation Division





New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(acre ft per annum)					(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)				(meters)		(in feet)		(in feet)
WR File Nbr	Sub basin	Use	Diversion	County	POD Number	Well Tag	Code	Grant	Source	q64	q16	q4	Sec	Tw	Range	X	Y	Map	Distance	Start Date	End Date	Depth Well	Depth Water
<a href="#">RA 04344</a>	RA	DOL	3.000	CH	<a href="#">RA 04344</a>				Shallow		NW	NW	21	18S	25E	547168.0	3622497.0 *		1,567.4	1960-12-02	1960-12-13	381	220
<a href="#">RA 04365</a>	RA	DOL	3.000	CH	<a href="#">RA 04365</a>				Shallow		NW	NW	21	18S	25E	547168.0	3622497.0 *		1,567.4	1961-01-21	1961-02-01	265	150

Record Count: 2

Filters Applied:

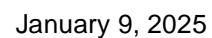
UTM Filters (in meters):

Easting: 547081  
Northing: 3620932  
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.

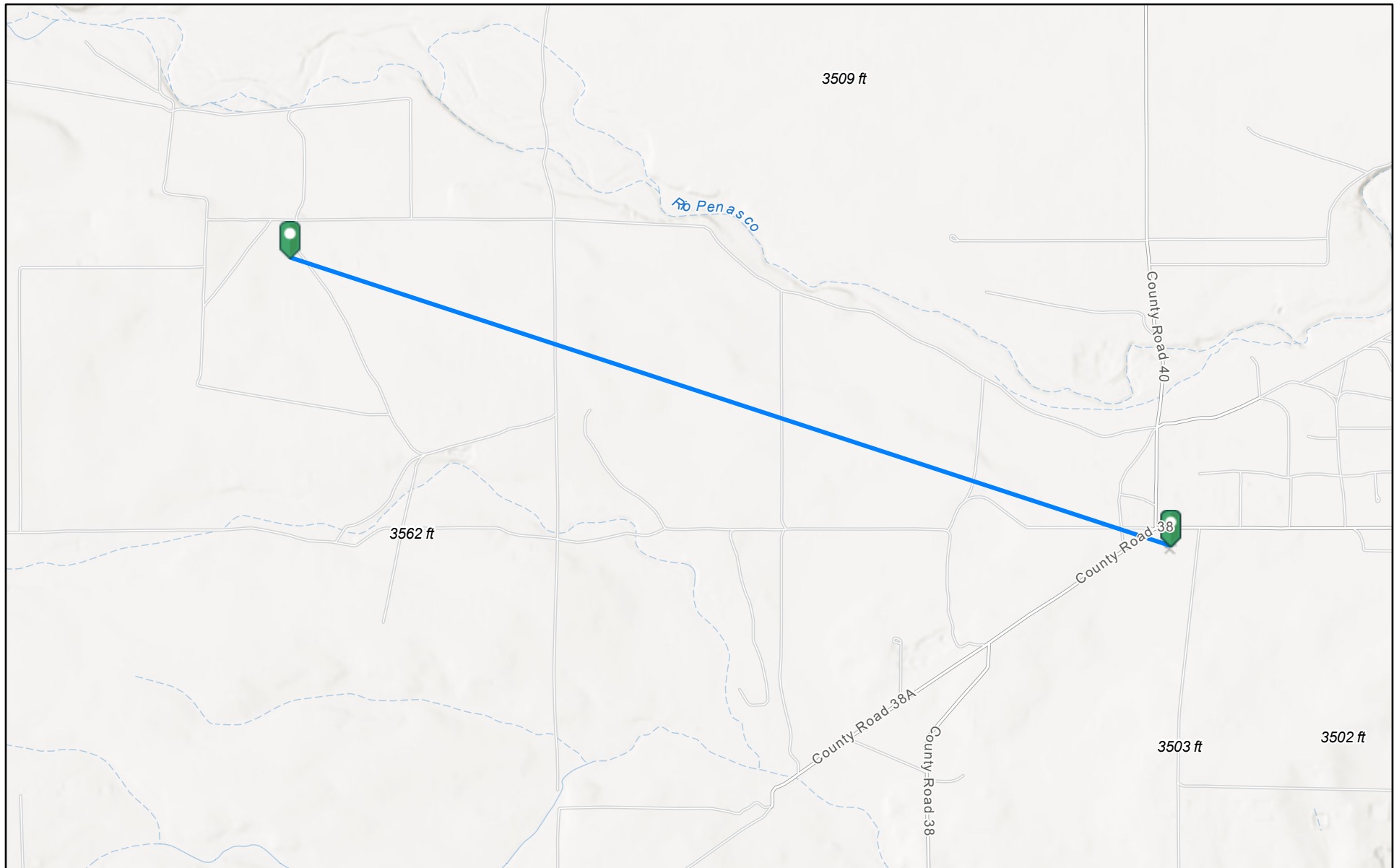


■ Estuarine and Marine Deepwater  
■ Estuarine and Marine Wetland

- |   |                                   |   |          |
|---|-----------------------------------|---|----------|
|  | Freshwater Emergent Wetland       |  | Lake     |
|  | 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.

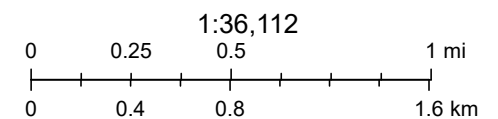
## Rumble State #4H - Mine



2/17/2025, 12:46:17 PM

Registered Mines

✕ Aggregate, Stone etc.

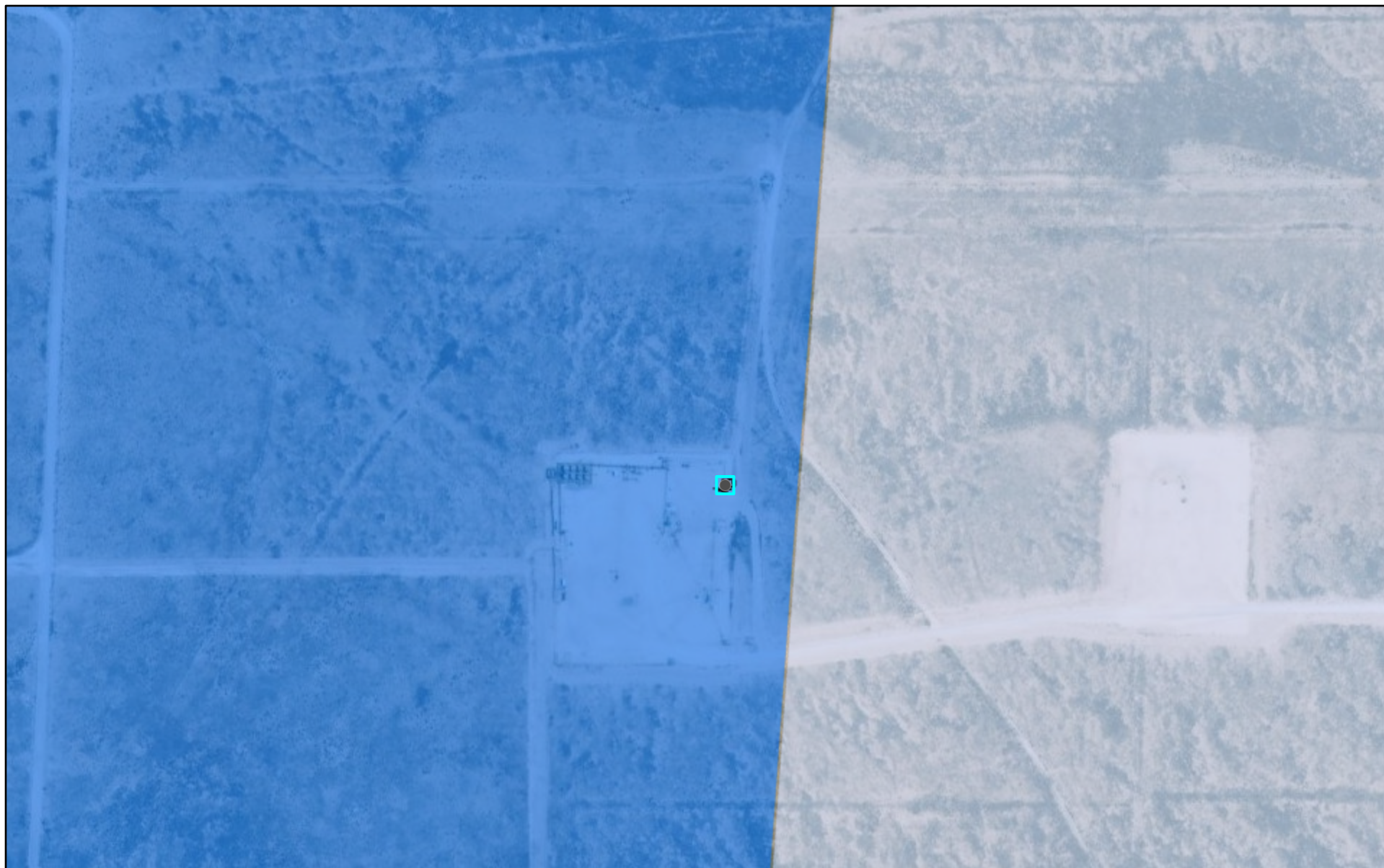


Esri, NASA, NGA, USGS, FEMA, Texas Parks &amp; Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,

EMNRD MMD GIS Coordinator



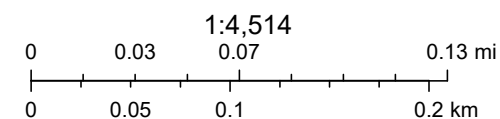
## Rumble State #4H - Karst



2/17/2025, 12:48:39 PM

Incident Release Karst Occurrence Potential  Low

 Oil Release  Medium



BLM, OCD, New Mexico Tech, Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., Esri, HERE, Garmin,

New Mexico Oil Conservation Division



# National Flood Hazard Layer FIRMette



104°30'10"W 32°43'46"N



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

1:6,000

104°29'33"W 32°43'15"N

Released to Imaging: 7/24/2025 3:14:31 PM

Basemap Imagery Source: USGS National Map 2023

## Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
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 1/9/2025 at 6:35 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.



Custom Soil Resource Report  
Soil Map (Rumble State #4H (30-015-45749))



## Custom Soil Resource Report

## MAP LEGEND

## Area of Interest (AOI)

 Area of Interest (AOI)

## Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

## Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole

 Slide or Slip


 Sodic Spot

 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

## Water Features

 Streams and Canals

## Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

## Background

 Aerial Photography

## MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Eddy Area, New Mexico  
Survey Area Data: Version 20, Sep 3, 2024

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

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

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

## Custom Soil Resource Report

**UR—Upton-Reagan complex, 0 to 9 percent slopes****Map Unit Setting**

*National map unit symbol:* 1w65  
*Elevation:* 1,100 to 5,400 feet  
*Mean annual precipitation:* 6 to 15 inches  
*Mean annual air temperature:* 60 to 70 degrees F  
*Frost-free period:* 180 to 240 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Upton and similar soils:* 55 percent  
*Reagan and similar soils:* 35 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Upton****Setting**

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

**Typical profile**

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

**Properties and qualities**

*Slope:* 0 to 9 percent  
*Depth to restrictive feature:* 7 to 20 inches to petrocalcic  
*Drainage class:* Well drained  
*Runoff class:* High  
*Capacity of the most limiting layer to transmit water (Ksat):* Low to moderately high  
(0.01 to 0.60 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 75 percent  
*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 1.0  
*Available water supply, 0 to 60 inches:* Very low (about 1.4 inches)

**Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7s



## Custom Soil Resource Report

*Hydrologic Soil Group:* D  
*Ecological site:* R070BC025NM - Shallow  
*Hydric soil rating:* No

**Description of Reagan****Setting**

*Landform:* Fan remnants, alluvial fans  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Convex, linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium and/or eolian deposits

**Typical profile**

*H1 - 0 to 8 inches:* loam  
*H2 - 8 to 60 inches:* loam

**Properties and qualities**

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.60 to 2.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 40 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:* Moderate (about 8.2 inches)

**Interpretive groups**

*Land capability classification (irrigated):* 2e  
*Land capability classification (nonirrigated):* 6e  
*Hydrologic Soil Group:* B  
*Ecological site:* R070BC007NM - Loamy  
*Hydric soil rating:* No

**Minor Components****Pima**

*Percent of map unit:* 5 percent  
*Ecological site:* R070BC017NM - Bottomland  
*Hydric soil rating:* No

**Reagan**

*Percent of map unit:* 5 percent  
*Ecological site:* R070BC007NM - Loamy  
*Hydric soil rating:* No



# Ecological site R070BC025NM Shallow

Accessed: 02/17/2025

## General information

**Provisional.** A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

Figure 1. Mapped extent

Areas shown in blue indicate the maximum mapped extent of this ecological site. Other ecological sites likely occur within the highlighted areas. It is also possible for this ecological site to occur outside of highlighted areas if detailed soil survey has not been completed or recently updated.

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

## Physiographic features

This site occurs on knolls, ridges, hillslopes alluvial fans and escarpments. Slopes range fro 0 to 25 percent and average about 7 percent. Direction of slope varies and is usually not significant. Elevations range from 2,842 to 4,500 feet.

Table 2. Representative physiographic features

Landforms	(1) Hill (2) Ridge (3) Fan piedmont
Flooding frequency	None
Ponding frequency	None
Elevation	2,842–4,500 ft
Slope	0–25%
Aspect	Aspect is not a significant factor

## Climatic features

The average annual precipitation ranges from 8 to 13 inches. Variations of 5 inches, more or less, are common. Over 80 percent of the precipitation falls from April through October. Most of the summer precipitation comes in the form of high intensity – short duration thunderstorms.

Temperatures are characterized by distinct seasonal changes and large annual and diurnal temperature changes. The average annual temperature is 61 degrees with extremes of 25 degrees below zero in the winter to 112 degrees in the summer.

The average frost-free season is 180 to 220 days. The last killing frost is late March or early April, and the first killing frost is in late October or early November.

Temperature and rainfall both favor warm season perennial plant growth. In years of abundant spring moisture, annual forbs and cool season grasses can make up an important component of this site. Because of the shallow soil depth, the vegetation on this site can take advantage of moisture almost anytime it falls. Strong winds that blow from the west and southwest blow from January through June, which accelerates soil drying at a critical time for cool season plant growth.

Climate data was obtained from <http://www.wrcc.sage.dri.edu/summary/climsmnm.html> web site using 50% probability for freeze-free and frost-free seasons using 28.5 degrees F and 32.5 degrees F respectively.

**Table 3. Representative climatic features**

Frost-free period (average)	220 days
Freeze-free period (average)	240 days
Precipitation total (average)	13 in

### Influencing water features

This site is not influenced from water from wetlands or streams.

### Soil features

The soils of this site are shallow to very shallow. Soils are derived from mixed calcareous eolian deposits derived from sedimentary rock. Surface layers are very cobbly loam, very gravelly loam, gravelly loam, cobbly loam, gravelly fine sandy loam or gravelly sandy loam.

There is an indurated caliche layer or limestone bedrock that occurs within 20 inches and averages less than 10 inches. Limestone or caliche layer may be the restrictive layer.

Minimum and maximum values listed below represent the characteristic soils for this site.

Characteristic soils:

Lozier  
Potter  
Tencee  
Upton  
Ector  
Kimbrough

**Table 4. Representative soil features**

Surface texture	(1) Gravelly loam (2) Extremely gravelly loam (3) Extremely cobbly loam
Family particle size	(1) Loamy
Drainage class	Well drained
Permeability class	Very slow to moderately slow
Soil depth	4–20 in
Surface fragment cover <=3"	15–40%
Available water capacity (0–40in)	1 in
Calcium carbonate equivalent (0–40in)	15–60%

Electrical conductivity (0-40in)	0–2 mmhos/cm
Sodium adsorption ratio (0-40in)	0–1
Soil reaction (1:1 water) (0-40in)	7.4–8.4
Subsurface fragment volume <=3" (Depth not specified)	13–42%
Subsurface fragment volume >3" (Depth not specified)	0–1%

## Ecological dynamics

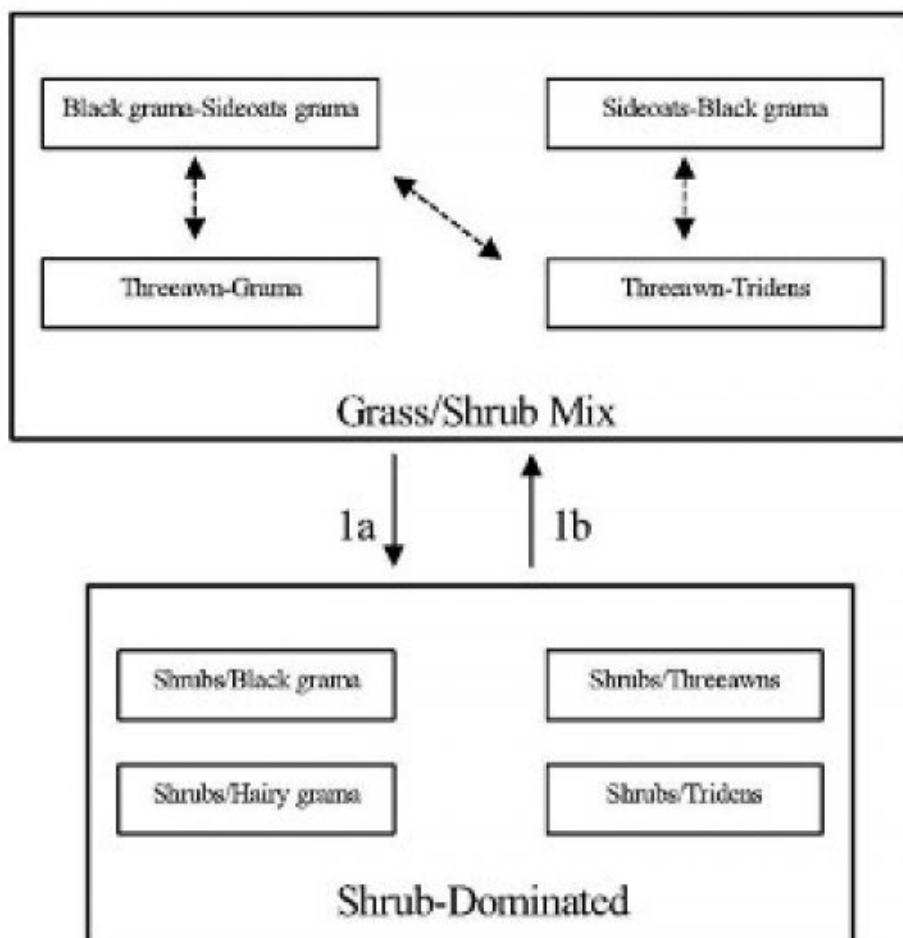
### Overview:

The Shallow site is associated with and Limestone Hills, Loamy, and Shallow Sandy sites. When associated with Limestone Hills, the Shallow site occurs on the summits, foot slopes and toeslopes of hills. Loamy sites often occur as areas between low elongated hills with rounded crests (Shallow site). When the Shallow Sandy site and Shallow site occur in association, the Shallow Sandy soils occupy the tops of low ridges and the Shallow site soils occur on the steeper sideslopes of the ridge. The historic plant community of the Shallow site has the aspect of a grassland/shrub mix, dominated by grasses, but with shrubs common throughout the site. Black grama is the dominant grass species; creosotebush, mesquite, and catclaw mimosa are common shrubs. Overgrazing and or extended drought can reduce grass cover, effect a change in grass species dominance, and may result in a shrub-dominated state. 1

## State and transition model

## Plant Communities and Transitional Pathways (diagram)

### MLRA-42, SD-3, Shallow



1a. Extended drought, overgrazing, no fire

1b. Brush control, Prescribed grazing

#### State 1

#### Grass/Shrub Mix

#### Community 1.1

#### Grass/Shrub Mix

Grassland/Shrub Mix: The historic plant community is dominated by black grama with sideoats grama as the sub-dominant. Blue grama, hairy grama, bush muhly, and sand dropseed also occur in significant amounts. Sideoats grama can occur as the dominant grass with black grama as sub-dominant on the western side of the Land Resource Unit SD-3. This may be due to higher average elevation on the west side. Retrogression within this state due to extended drought or overgrazing will cause a decrease in species such as black grama, sideoats grama, blue grama, and bush muhly. Threeawns may become the dominant grass species due to a decline in more palatable grasses or because of its ability to quickly recover following drought. Continued loss of grass cover and associated increase in amount of bare ground may result in a shrub-dominated state. Decreased fire frequencies may also be

an important component in the cause of this transition. Diagnosis: Grass cover is fairly uniform, however, surface gravel, cobble, and bare ground make up a large percent of total ground cover, and grass production during unfavorable years may only average 150-175 pounds per acre. Shrubs are common with canopy cover averaging five to ten percent. Evidence of erosion such as rills and gullies are rare, but may occur on slopes greater than eight percent.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	168	352	536
Shrub/Vine	63	131	200
Forb	20	42	64
Total	251	525	800

Table 6. Ground cover

Tree foliar cover	0%
Shrub/vine/liana foliar cover	5-10%
Grass/grasslike foliar cover	10-15%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	5-8%
Surface fragments >0.25" and <=3"	0%
Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	40-60%

Figure 5. Plant community growth curve (percent production by month).  
NM2825, R042XC025NM Shallow HCPC. R042XC025NM Shallow HCPC Warm  
Season Plant Community.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	3	5	10	10	25	30	12	5	0	0

State 2  
Shrub-Dominated

Community 2.1  
Shrub-Dominated

Shrub-Dominated: This state is characterized by an increase in shrubs and a decrease in grass cover relative to grassland/shrub mix. As grass cover decreases shrubs increase, especially creosotebush, catclaw mimosa, whitethorn acacia, and mesquite. Each of these shrub species may become dominant in localized areas or across the site, depending on the spatial variability in soil characteristics and landscape position. Black grama, threeawns, hairy grama, or hairy tridens may be the dominant grass species. Fluffgrass, burrograss and broom snakeweed increase in representation. The Shallow site is resistant to state change, due to the natural rock armor of the soil and a shallow impermeable layer. The amount of rock fragments on the soil surface assist in retarding erosion. On Shallow sites with low slope, the shallow depth to either a petrocalcic layer or limestone bedrock helps to keep water perched and available to shallow rooted grasses for extended periods. 2 Diagnosis: Shrubs are the dominant species, especially creosotebush, catclaw mimosa, whitethorn acacia, or mesquite. Grass cover is variable ranging

from patchy with large connected bare areas present to sparse with only a limited amount in shrub inter-spaces. Transition to Shrub-Dominated (1a) Overgrazing and or extended periods of drought, and suppression of natural fire regimes are thought to cause this transition. As grass cover is lost, soil fertility and available soil moisture decline, due to the reduction of organic matter and decreased infiltration.<sup>3</sup> Shrubs have the ability to extract nutrients and water from a greater area of soil than grasses and are better able to utilize limited water. Competition by shrubs for water and nutrients limits grass recruitment and establishment. Fire historically may have played a part in suppressing shrub expansion; fire suppression may therefore facilitate shrub expansion. Key indicators of approach to transition: \*Decrease or change in composition or distribution of grass cover. \*Increase in size and frequency of bare patches. \*Increase in amount of shrub seedlings. Transition back to Grassland/Shrub Mix (1b) Brush control is necessary to re-establish grasses. Prescribed grazing will help to ensure proper forage utilization and sustain grass cover. Once the transition is reversed and grass cover is re-established, periodic use of prescribed fire may assist in maintaining the Grassland/Shrub state.

## Additional community tables

Table 7. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
<b>Grass/Grasslike</b>					
1				105–158	
	black grama	BOER4	<i>Bouteloua eriopoda</i>	105–158	–
2				79–105	
	sideoats grama	BOCU	<i>Bouteloua curtipendula</i>	79–105	–
3				79–105	
	blue grama	BOGR2	<i>Bouteloua gracilis</i>	79–105	–
	hairy grama	BOHI2	<i>Bouteloua hirsuta</i>	79–105	–
4				26–53	
	bush muhly	MUPO2	<i>Muhlenbergia porteri</i>	26–53	–
5				16–26	
	cane bluestem	BOBA3	<i>Bothriochloa barbinodis</i>	16–26	–
6				26–53	
	sand dropseed	SPCR	<i>Sporobolus cryptandrus</i>	26–53	–
7				16–26	
	hairy woollygrass	ERPI5	<i>Erioneuron pilosum</i>	16–26	–
8				5–16	
	ear muhly	MUAR	<i>Muhlenbergia arenacea</i>	5–16	–
9				5–16	
	New Mexico feathergrass	HENE5	<i>Hesperostipa neomexicana</i>	5–16	–
10				5–16	
	low woollygrass	DAPU7	<i>Dasyochloa pulchella</i>	5–16	–
11				16–26	
	Grass, perennial	2GP	<i>Grass, perennial</i>	16–26	–
<b>Forb</b>					
12				11–26	
	stemless four-nerve daisy	TEACE	<i>Tetraneuris acaulis</i> var. <i>epunctata</i>	11–26	–
13				5–16	
	woolly groundsel	PACA15	<i>Packera cana</i>	5–16	–

14				5-16	
	globemallow	SPHAE	<i>Sphaeralcea</i>	5-16	—
15				5-16	
	bladderpod	LESQU	<i>Lesquerella</i>	5-16	—
16				5-16	
	cassia	CASSI	<i>Cassia</i>	5-16	—
17				11-26	
	Forb (herbaceous, not grass nor grass-like)	2FORB	<i>Forb (herbaceous, not grass nor grass-like)</i>	11-26	—
<b>Shrub/Vine</b>					
18				5-16	
	littleleaf sumac	RHMI3	<i>Rhus microphylla</i>	5-16	—
19				5-16	
	creosote bush	LATR2	<i>Larrea tridentata</i>	5-16	—
20				5-16	
	littleleaf ratany	KRER	<i>Krameria erecta</i>	5-16	—
21				5-16	
	javelina bush	COER5	<i>Condalia ericoides</i>	5-16	—
22				5-16	
	American tarwort	FLCE	<i>Flourensia cernua</i>	5-16	—
23				5-16	
	crown of thorns	KOSP	<i>Koeberlinia spinosa</i>	5-16	—
24				11-26	
	honey mesquite	PRGL2	<i>Prosopis glandulosa</i>	11-26	—
	honey mesquite	PRGL2	<i>Prosopis glandulosa</i>	11-26	—
25				5-16	
	catclaw mimosa	MIACB	<i>Mimosa aculeaticarpa var. biuncifera</i>	5-16	—
26				5-16	
	pricklypear	OPUNT	<i>Opuntia</i>	5-16	—
27				11-26	
	mariola	PAIN2	<i>Parthenium incanum</i>	11-26	—
	mariola	PAIN2	<i>Parthenium incanum</i>	11-26	—
28				5-16	
	broom snakeweed	GUSA2	<i>Gutierrezia sarothrae</i>	5-16	—
29				16-26	
	Shrub (>.5m)	2SHRUB	<i>Shrub (&gt;.5m)</i>	16-26	—

## Animal community

This site provides habitats which support a resident animal community that is characterized by desert cottontail, spotted ground squirrel, Merriam's kangaroo rat, cactus mouse, white-throated woodrat, gray fox, spotted skunk, roadrunner, Swainson's hawk, white-necked raven, cactus wren, pyrrhuloxia, lark sparrow, mourning dove, scaled quail, leopard lizard, round-tailed horned lizard, prairie rattlesnake, marbled whiptail, and greater earless lizard. Where associated with limestone hills, mule deer utilize this site.

Where large woody shrubs occur, most resident birds and scissor-tailed flycatcher, morning dove, lark sparrow and



Swainson's hawk nest.

## Hydrological functions

The runoff curve numbers are determined by field investigations using hydraulic cover conditions and hydrologic soil groups.

### Hydrologic Interpretations

Soil Series----- Hydrologic Group

Lozier----- D

Potter----- C

Tencee----- D

Upton----- C

Kimbrough----- D

Upton----- D

Ector----- D

## Recreational uses

This site offers recreation potential for hiking, horseback riding, rock hunting, nature photography and bird hunting and birding. During years of abundant spring moisture, a colorful array of wild flowers is displayed during May and June. A few summer and fall flowers also occur.

## Wood products

This site has no potential for wood production.

## Other products

This site is suited for grazing by all kinds and classes of livestock during all seasons of the year. Missmanagement will cause a decrease in black grama, sideoats grama, and blue grama, bush muhly and New Mexico feathergrass. A corresponding increase in bare ground will occur. There will also be an increase in muhlys, fluffgrass, creosotebush, javalinabush, catclaw, and mesquite. This site will respond best to a system of management that rotates the season of use.

## Other information

Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month

Similarity Index----- Ac/AUM

100 - 76----- 3.7 – 4.5

75 – 51----- 4.3 – 5.5

50 – 26----- 5.3 – 10.0

25 – 0----- 10.1 +

## Inventory data references

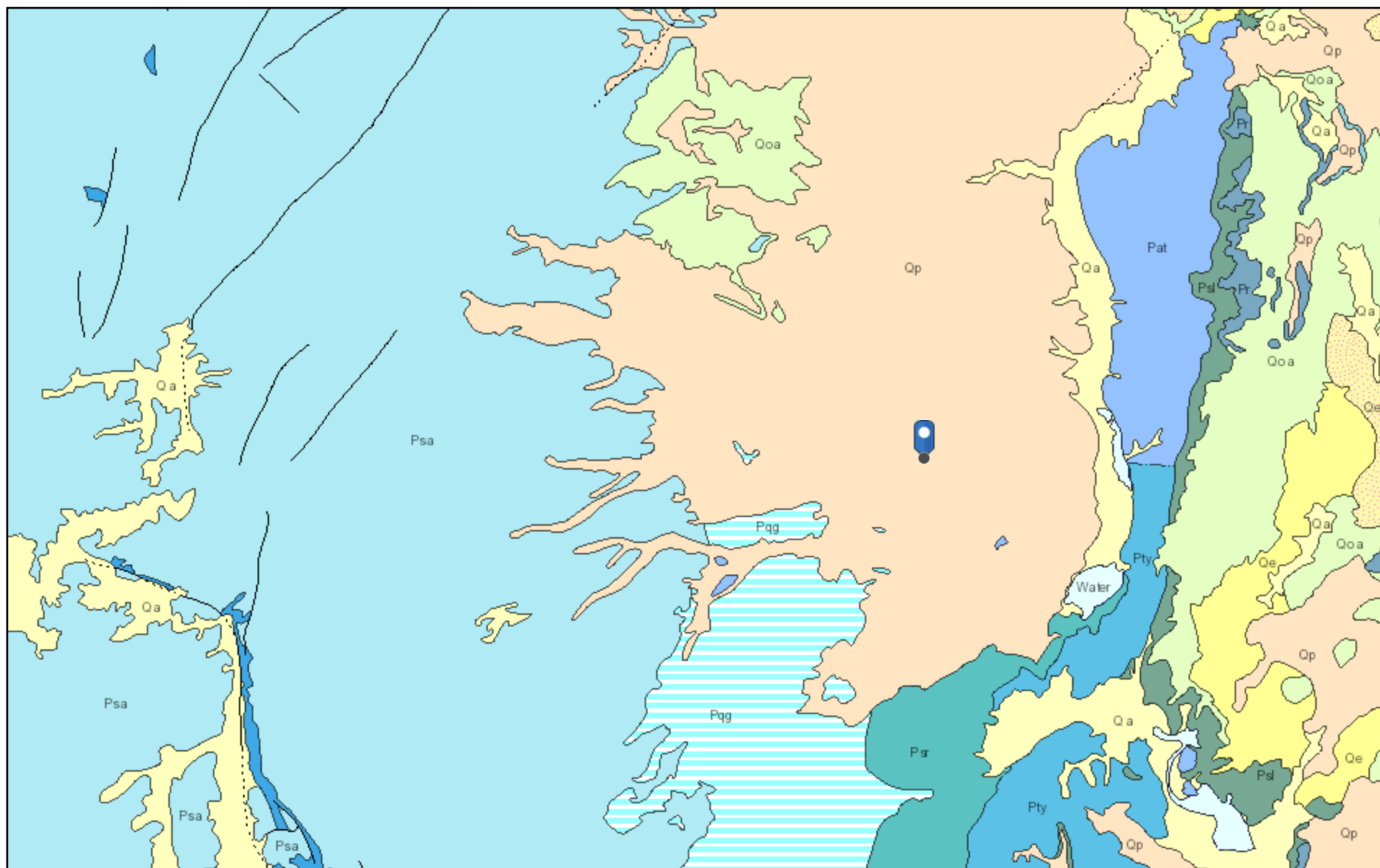
Data collection for this site was done in conjunction with the progressive soil surveys within the Southern Desertic Basins, Plains and Mountains, Major Land Resource Areas of New Mexico (SD-3). This site has been mapped and correlated with soils in the following soil surveys. Eddy County, Lea County, and Chaves County.

## Other references

Literature Cited:

1. Humphrey, R.R. 1974. Fire in the deserts and desert grassland of North America. In: Kozlowski, T. T.; Ahlgren, C. E., eds. Fire and ecosystems. New York: Academic Press: 365-400.

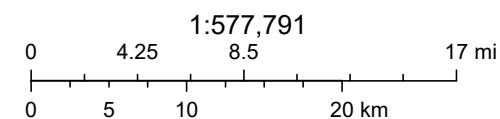
## Rumble State #4H - Geology



1/9/2025, 12:05:11 PM

## Lithologic Units

- Playa—Alluvium and evaporite deposits (Holocene)
- Water—Perennial standing water
- Qa—Alluvium (Holocene to upper Pleistocene)



Esri, CGIAR, USGS, NMBGMR, USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names

ArcGIS Web AppBuilder

## **APPENDIX B**



Outlook

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**RE: [EXTERNAL] Variance Request Submission – Rumble State #4H (30-015-45749): nAPP2433927741**

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**From** Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>

**Date** Mon 4/7/2025 11:05 AM

**To** Fernando Rodriguez <frodriguez@silverbackexp.com>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>

**Cc** Boone Bajgier <bbajgier@novooog.com>; Wade Chapman <wchapman@silverbackexp.com>; Rafael Alvizo <ralvizo@silverbackexp.com>; Justin Carter <jcarter@novooog.com>; Fatma Abdallah <fabdallah@silverbackexp.com>

Good morning,

The variance request to complete confirmation sampling every 400 square feet is approved. The request to use delineation samples as confirmation samples is denied. Confirmation soil samples must consist of five-point composite samples from the side wall and base of the entire spill area and individual grab samples from any wet or discolored areas. Prior to starting confirmation sampling, please provide two business day Sampling Notification pursuant to 19.15.29.12.D.(1).(a) NMAC. Please submit the closure report to the OCD by 06/09/2025.

Thank you,  
Scott

**Scott Rodgers** • Environmental Specialist – Adv.

Environmental Bureau

EMNRD - Oil Conservation Division

5200 Oakland NE, Suite B | Albuquerque, NM 87113

505.469.1830 | [scott.rodgers@emnrd.nm.gov](mailto:scott.rodgers@emnrd.nm.gov)

<http://www.emnrd.nm.gov/oed>



---

**From:** Fernando Rodriguez <frodriguez@silverbackexp.com>

**Sent:** Monday, March 31, 2025 9:52 AM

**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Rodgers, Scott, EMNRD <Scott.Rodgers@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>

**Cc:** Boone Bajgier <bbajgier@novooog.com>; Wade Chapman <wchapman@silverbackexp.com>; Rafael Alvizo <ralvizo@silverbackexp.com>; Justin Carter <jcarter@novooog.com>; Fatma Abdallah <fabdallah@silverbackexp.com>

**Subject:** [EXTERNAL] Variance Request Submission – Rumble State #4H (30-015-45749): nAPP2433927741

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good morning,

Please find attached a formal variance request for the confirmation sampling at the Rumble State #4H (30-015-45749) - nAPP2433927741. Please review the attached letter and let us know if you need any additional information or if a Teams meeting would be beneficial. We appreciate your time and consideration.

Thank you,

**Fernando Rodriguez** B.Sc.  
Environmental Consultant

Silverback Operating II, LLC.  
108 South 4th Street,  
Artesia, New Mexico 88210

**P 575.725.5001 ext.714**

**C 575.361.4509**

**F 403.299.3969**

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## **APPENDIX C**

## Daily Field Report



Client	Silverback Operating II, LLC	Inspection Date	4/4-7/2025
Site Location Name	Rumble State #4H	API #	30-015-45749
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

- Excavation and remediated areas prior to backfill activities (Pages 2-7)
- Restored/reclaimed areas after backfill activities (Pages 8-12)

### Next Steps & Recommendations

1



## Daily Field Report



### Excavation/Remediated Areas Prior to Backfill

**Viewing Direction: Northeast**



4ft Excavation Areas

**Viewing Direction: South**



4ft Excavation Areas

**Viewing Direction: East**



4ft Excavation Areas

**Viewing Direction: North**



4ft Excavation Areas

# Daily Field Report



## Excavation/Remediated Areas Prior to Backfill

**Viewing Direction: Northwest**



Overview of excavation/scrape areas

**Viewing Direction: Northeast**



Overview of excavation/scrape areas

**Viewing Direction: Southeast**



Overview of excavation/scrape areas

**Viewing Direction: Northwest**



Overview of excavation/scrape areas



# Daily Field Report



## Excavation/Remediated Areas Prior to Backfill

**Viewing Direction: Southeast**



Overview of excavation/scrape areas

**Viewing Direction: Southeast**



Overview of excavation/scrape areas

**Viewing Direction: North**



Overview of excavation/scrape areas

**Viewing Direction: Southwest**



Overview of excavation/scrape areas

## Daily Field Report



### Excavation/Remediated Areas Prior to Backfill

**Viewing Direction: North**



Overview of excavation/scrape areas

**Viewing Direction: North**



Overview of excavation/scrape areas

**Viewing Direction: North**



Overview of excavation/scrape areas

**Viewing Direction: North**



Overview of excavation/scrape areas



## Daily Field Report



### Excavation/Remediated Areas Prior to Backfill

**Viewing Direction: South**



Overview of excavation/scrape areas

**Viewing Direction: South**



Overview of excavation/scrape areas

**Viewing Direction: South**



Overview of excavation/scrape areas

**Viewing Direction: South**



Overview of excavation/scrape areas

## Daily Field Report



### Excavation/Remediated Areas Prior to Backfill

**Viewing Direction: Northwest**



Overview of excavation/scrape areas

**Viewing Direction: West**



Overview of excavation/scrape areas

**Viewing Direction: Northwest**



Overview of excavation/scrape areas

# Daily Field Report



## Restored/Reclaimed Areas After Backfill Activities

**Viewing Direction: East**



Overview of backfilled/reclaimed areas

**Viewing Direction: Northeast**



Overview of backfilled/reclaimed areas

**Viewing Direction: Southeast**



Overview of backfilled/reclaimed areas

**Viewing Direction: South**



Overview of backfilled/reclaimed areas



## Daily Field Report



### Restored/Reclaimed Areas After Backfill Activities

**Viewing Direction: Northwest**



Overview of backfilled/reclaimed areas

**Viewing Direction: Northeast**



Overview of backfilled/reclaimed areas

**Viewing Direction: North**



Overview of backfilled/reclaimed areas

**Viewing Direction: North**



Overview of backfilled/reclaimed areas



## Daily Field Report



### Restored/Reclaimed Areas After Backfill Activities

**Viewing Direction: North**



Overview of backfilled/reclaimed areas

**Viewing Direction: Northwest**



Overview of backfilled/reclaimed areas

**Viewing Direction: East**



Overview of backfilled/reclaimed areas

**Viewing Direction: Northeast**



Overview of backfilled/reclaimed areas

## Daily Field Report



### Restored/Reclaimed Areas After Backfill Activities

**Viewing Direction: North**



Overview of backfilled/reclaimed areas

**Viewing Direction: Southwest**



Overview of backfilled/reclaimed areas

**Viewing Direction: South**



Overview of backfilled/reclaimed areas

**Viewing Direction: South**



Overview of backfilled/reclaimed areas

## Daily Field Report



### Restored/Reclaimed Areas After Backfill Activities

**Viewing Direction: South**



Overview of backfilled/reclaimed areas

**Viewing Direction: Southeast**



Overview of backfilled/reclaimed areas

**Viewing Direction: South**



Overview of backfilled/reclaimed areas

**Viewing Direction: South**



Overview of backfilled/reclaimed areas

## Daily Field Report



Daily Site Visit Signature

**Inspector:** Fernando Rodriguez

**Signature:**

  
Signature



## **APPENDIX D**



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

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April 17, 2025

CHANCE DIXON

VERTEX RESOURCE

3101 BOYD DRIVE

CARLSBAD, NM 88220

RE: RUMBLE STATE #4H

Enclosed are the results of analyses for samples received by the laboratory on 04/14/25 11:48.

Cardinal Laboratories is accredited through Texas NELAP under certificate number TX-C24-00112. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 01 0.5FT (H252203-01)**

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	04/15/2025	ND	1.99	99.7	2.00	1.98		
Toluene*	<0.050	0.050	04/15/2025	ND	2.12	106	2.00	4.49		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.34	117	2.00	4.34		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.12	119	6.00	2.69		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	04/15/2025	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	04/15/2025	ND	188	94.2	200	4.12	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.1	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 78.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 72.9 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 02 0.5FT (H252203-02)**

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	04/15/2025	ND	1.99	99.7	2.00	1.98		
Toluene*	<0.050	0.050	04/15/2025	ND	2.12	106	2.00	4.49		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.34	117	2.00	4.34		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.12	119	6.00	2.69		
Total BTEX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	04/15/2025	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	04/15/2025	ND	188	94.2	200	4.12	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.1	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 77.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 72.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 03 0.5FT (H252203-03)**

BTX 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	04/15/2025	ND	1.99	99.7	2.00	1.98		
Toluene*	<0.050	0.050	04/15/2025	ND	2.12	106	2.00	4.49		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.34	117	2.00	4.34		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.12	119	6.00	2.69		
Total BTX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	04/15/2025	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	04/15/2025	ND	188	94.2	200	4.12	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.1	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 75.5 % 44.4-145

Surrogate: 1-Chlorooctadecane 70.7 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 04 0.5FT (H252203-04)**

BTX 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	04/15/2025	ND	1.99	99.7	2.00	1.98		
Toluene*	<0.050	0.050	04/15/2025	ND	2.12	106	2.00	4.49		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.34	117	2.00	4.34		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.12	119	6.00	2.69		
Total BTX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	336	16.0	04/15/2025	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	04/15/2025	ND	188	94.2	200	4.12	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.1	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 78.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 72.9 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 05 0.5FT (H252203-05)**

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	04/15/2025	ND	1.99	99.7	2.00	1.98		
Toluene*	<0.050	0.050	04/15/2025	ND	2.12	106	2.00	4.49		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.34	117	2.00	4.34		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.12	119	6.00	2.69		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 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	304	16.0	04/15/2025	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	04/15/2025	ND	188	94.2	200	4.12	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.1	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 74.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 69.4 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 06 0.5FT (H252203-06)**

BTX 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	04/15/2025	ND	1.99	99.7	2.00	1.98		
Toluene*	<0.050	0.050	04/15/2025	ND	2.12	106	2.00	4.49		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.34	117	2.00	4.34		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.12	119	6.00	2.69		
Total BTX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 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	304	16.0	04/15/2025	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	04/15/2025	ND	188	94.2	200	4.12	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.1	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 79.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 74.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 07 0.5FT (H252203-07)**

BTX 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	04/15/2025	ND	1.99	99.7	2.00	1.98		
Toluene*	<0.050	0.050	04/15/2025	ND	2.12	106	2.00	4.49		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.34	117	2.00	4.34		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.12	119	6.00	2.69		
Total BTX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	272	16.0	04/15/2025	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	04/15/2025	ND	188	94.2	200	4.12	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.1	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 83.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.8 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 08 0.5FT (H252203-08)**

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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	04/15/2025	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	04/15/2025	ND	188	94.2	200	4.12	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.1	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 75.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 70.0 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 09 0.5FT (H252203-09)**

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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	04/15/2025	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	04/15/2025	ND	188	94.2	200	4.12	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.1	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 78.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 73.5 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 10 0.5FT (H252203-10)**

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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTEX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	04/15/2025	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	04/15/2025	ND	188	94.2	200	4.12	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.1	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 82.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 77.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 11 0.5FT (H252203-11)**

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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	04/15/2025	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	04/15/2025	ND	188	94.2	200	4.12	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.1	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 79.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 74.0 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 12 0.5FT (H252203-12)**

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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTEX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	04/15/2025	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	04/15/2025	ND	188	94.2	200	4.12	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.1	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 81.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.1 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 13 0.5FT (H252203-13)**

BTX 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	04/15/2025	ND	2.11	105	2.00	0.667	
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516	
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974	
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945	
Total BTX	<0.300	0.300	04/15/2025	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	04/15/2025	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	04/15/2025	ND	188	94.2	200	4.12	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.1	200	2.84	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 79.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 73.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 15 0.5FT (H252203-15)**

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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTEX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 82.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.3 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 16 0.5FT (H252203-16)**

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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 84.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 17 0.5FT (H252203-17)**

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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 84.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.7 % 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  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 18 OFT (H252203-18)**

BTX 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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.8 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 80.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.8 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 19 OFT (H252203-19)**

BTX 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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.5 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 77.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 73.2 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 20 OFT (H252203-20)**

BTX 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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 85.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.3 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 21 OFT (H252203-21)**

BTX 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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 86.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.8 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 22 0.5FT (H252203-22)**

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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.9 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 79.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 75.4 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 23 4FT (H252203-23)**

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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTEX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 84.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.8 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 24 0.5FT (H252203-24)**

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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTEX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 83.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.5 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 25 0.5FT (H252203-25)**

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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 81.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.6 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 26 OFT (H252203-26)**

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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTEX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 83.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 79.5 % 40.6-153

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 27 OFT (H252203-27)**

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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTEX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 86.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 28 OFT (H252203-28)**

BTX 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	04/15/2025	ND	2.11	105	2.00	0.667		
Toluene*	<0.050	0.050	04/15/2025	ND	2.15	107	2.00	0.516		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.10	105	2.00	0.974		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.20	103	6.00	0.945		
Total BTX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.1 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 87.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.7 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 29 0.5FT (H252203-29)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 82.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 78.6 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 30 4FT (H252203-30)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEx	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 88.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.7 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 31 0.5FT (H252203-31)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 128 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 91.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 87.6 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 32 0.5FT (H252203-32)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 87.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.2 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 33 OFT (H252203-33)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 129 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 87.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 83.4 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 34 OFT (H252203-34)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEx	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 129 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	04/15/2025	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	04/15/2025	ND	168	83.9	200	2.14	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	169	84.3	200	1.62	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 81.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 77.3 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 35 0.5FT (H252203-35)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 129 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	04/15/2025	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 72.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 72.3 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 36 4FT (H252203-36)**

BTX 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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/15/2025	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 80.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.0 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 37 4FT (H252203-37)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 129 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	04/15/2025	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 79.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.0 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 38 OFT (H252203-38)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 129 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/15/2025	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 86.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 87.5 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 39 OFT (H252203-39)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 130 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	04/15/2025	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 79.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 81.1 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 40 4FT (H252203-40)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 131 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/15/2025	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 87.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.2 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 41 0.5FT (H252203-41)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 127 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	04/15/2025	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 81.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.1 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 42 OFT (H252203-42)**

BTEx 8021B		mg/kg		Analyzed By: JH				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 140 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	04/15/2025	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 85.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 86.5 % 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  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 43 0.5FT (H252203-43)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 130 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	04/15/2025	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 79.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.9 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 44 0.5FT (H252203-44)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 129 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	04/15/2025	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 87.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 90.7 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 45 OFT (H252203-45)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEx	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 128 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/15/2025	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 58.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 57.5 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 46 0.5FT (H252203-46)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 128 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	04/15/2025	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 76.6 % 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  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 47 0.5FT (H252203-47)**

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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTEX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	304	16.0	04/15/2025	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 75.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 75.6 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 48 0.5FT (H252203-48)**

BTX 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	04/15/2025	ND	1.82	90.8	2.00	1.03		
Toluene*	<0.050	0.050	04/15/2025	ND	1.91	95.3	2.00	1.78		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	1.88	94.1	2.00	2.06		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.37	106	6.00	0.253		
Total BTX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 129 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: KV						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	04/15/2025	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 80.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.7 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/04/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 49 0.5FT (H252203-49)**

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	04/15/2025	ND	2.00	100	2.00	0.126		
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	04/15/2025	ND	400	100	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 67.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 67.6 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 50 0.5FT (H252203-50)**

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	04/15/2025	ND	2.00	100	2.00	0.126	
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57	
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49	
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67	
Total BTEX	<0.300	0.300	04/15/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/15/2025	ND	400	100	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 67.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 67.9 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 51 0.5FT (H252203-51)**

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	04/15/2025	ND	2.00	100	2.00	0.126		
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	04/15/2025	ND	400	100	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 82.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.8 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS25 - 52 0.5FT (H252203-52)**

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	04/15/2025	ND	2.00	100	2.00	0.126		
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	04/15/2025	ND	400	100	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 82.4 % 44.4-145

Surrogate: 1-Chlorooctadecane 82.9 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS25 - 53 0.5FT (H252203-53)**

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	04/15/2025	ND	2.00	100	2.00	0.126		
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67		
Total BTEX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	04/15/2025	ND	400	100	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 73.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 74.0 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS25 - 54 0.5FT (H252203-54)**

BTX 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	04/15/2025	ND	2.00	100	2.00	0.126		
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67		
Total BTX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 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	04/15/2025	ND	400	100	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	04/15/2025	ND	182	91.0	200	0.315	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	178	89.0	200	0.864	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 79.7 % 44.4-145

Surrogate: 1-Chlorooctadecane 80.4 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS25 - 55 0.5FT (H252203-55)**

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	04/15/2025	ND	2.00	100	2.00	0.126		
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	04/15/2025	ND	400	100	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 76.2 % 44.4-145

Surrogate: 1-Chlorooctadecane 76.4 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS25 - 56 0.5FT (H252203-56)**

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	04/15/2025	ND	2.00	100	2.00	0.126		
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67		
Total BTEX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	04/15/2025	ND	400	100	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 93.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 92.3 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS25 - 57 0.5FT (H252203-57)**

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	04/15/2025	ND	2.00	100	2.00	0.126		
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	04/15/2025	ND	400	100	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 101 % 44.4-145

Surrogate: 1-Chlorooctadecane 100 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS25 - 58 0.5FT (H252203-58)**

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	04/15/2025	ND	2.00	100	2.00	0.126		
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	04/15/2025	ND	400	100	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 97.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 96.0 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS25 - 59 0.5FT (H252203-59)**

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	04/15/2025	ND	2.00	100	2.00	0.126	
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57	
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49	
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67	
Total BTEX	<0.300	0.300	04/15/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/15/2025	ND	400	100	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 98.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 98.4 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS25 - 60 0.5FT (H252203-60)**

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	04/15/2025	ND	2.00	100	2.00	0.126	
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57	
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49	
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67	
Total BTEX	<0.300	0.300	04/15/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	04/15/2025	ND	400	100	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 100 % 44.4-145

Surrogate: 1-Chlorooctadecane 99.0 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS25 - 61 0.5FT (H252203-61)**

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	04/15/2025	ND	2.00	100	2.00	0.126		
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67		
Total BTEX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 115 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	04/15/2025	ND	400	100	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 98.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 96.9 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS25 - 62 0.5FT (H252203-62)**

BTX 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	04/15/2025	ND	2.00	100	2.00	0.126		
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67		
Total BTX	<0.300	0.300	04/15/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 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	04/15/2025	ND	400	100	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 86.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 84.7 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS25 - 63 0-4FT (H252203-63)**

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	04/15/2025	ND	2.00	100	2.00	0.126		
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67		
Total BTEX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/15/2025	ND	400	100	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 103 % 44.4-145

Surrogate: 1-Chlorooctadecane 102 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS25 - 64 0-4FT (H252203-64)**

BTX 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	04/15/2025	ND	2.00	100	2.00	0.126	
Toluene*	<0.050	0.050	04/15/2025	ND	2.09	105	2.00	2.57	
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.32	116	2.00	2.49	
Total Xylenes*	<0.150	0.150	04/15/2025	ND	7.11	118	6.00	2.67	
Total BTX	<0.300	0.300	04/15/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 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	04/15/2025	ND	400	100	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 98.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 96.7 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS25 - 65 0-4FT (H252203-65)**

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	04/16/2025	ND	2.00	100	2.00	0.126	
Toluene*	<0.050	0.050	04/16/2025	ND	2.09	105	2.00	2.57	
Ethylbenzene*	<0.050	0.050	04/16/2025	ND	2.32	116	2.00	2.49	
Total Xylenes*	<0.150	0.150	04/16/2025	ND	7.11	118	6.00	2.67	
Total BTEX	<0.300	0.300	04/16/2025	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	04/15/2025	ND	400	100	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 88.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 87.3 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS25 - 66 0-4FT (H252203-66)**

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	04/16/2025	ND	2.00	100	2.00	0.126	
Toluene*	<0.050	0.050	04/16/2025	ND	2.09	105	2.00	2.57	
Ethylbenzene*	<0.050	0.050	04/16/2025	ND	2.32	116	2.00	2.49	
Total Xylenes*	<0.150	0.150	04/16/2025	ND	7.11	118	6.00	2.67	
Total BTEx	<0.300	0.300	04/16/2025	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 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	04/15/2025	ND	400	100	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 89.8 % 44.4-145

Surrogate: 1-Chlorooctadecane 87.1 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 67 OFT (H252203-67)**

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	04/16/2025	ND	2.00	100	2.00	0.126		
Toluene*	<0.050	0.050	04/16/2025	ND	2.09	105	2.00	2.57		
Ethylbenzene*	<0.050	0.050	04/16/2025	ND	2.32	116	2.00	2.49		
Total Xylenes*	<0.150	0.150	04/16/2025	ND	7.11	118	6.00	2.67		
Total BTEX	<0.300	0.300	04/16/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/15/2025	ND	400	100	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 96.3 % 44.4-145

Surrogate: 1-Chlorooctadecane 93.2 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 68 OFT (H252203-68)**

BTX 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	04/16/2025	ND	2.00	100	2.00	0.126		
Toluene*	<0.050	0.050	04/16/2025	ND	2.09	105	2.00	2.57		
Ethylbenzene*	<0.050	0.050	04/16/2025	ND	2.32	116	2.00	2.49		
Total Xylenes*	<0.150	0.150	04/16/2025	ND	7.11	118	6.00	2.67		
Total BTX	<0.300	0.300	04/16/2025	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 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	04/15/2025	ND	400	100	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 95.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 92.6 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 69 OFT (H252203-69)**

BTX 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	04/15/2025	ND	2.17	109	2.00	1.20		
Toluene*	<0.050	0.050	04/15/2025	ND	2.27	113	2.00	0.920		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.13	106	2.00	0.876		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.43	107	6.00	0.883		
Total BTX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/15/2025	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 99.9 % 44.4-145

Surrogate: 1-Chlorooctadecane 98.2 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/05/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BS25 - 70 OFT (H252203-70)**

BTX 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	04/15/2025	ND	2.17	109	2.00	1.20		
Toluene*	<0.050	0.050	04/15/2025	ND	2.27	113	2.00	0.920		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.13	106	2.00	0.876		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.43	107	6.00	0.883		
Total BTX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	04/15/2025	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 98.1 % 44.4-145

Surrogate: 1-Chlorooctadecane 94.8 % 40.6-153

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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/07/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BACKFILL - 01 (H252203-71)**

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	04/15/2025	ND	2.17	109	2.00	1.20		
Toluene*	<0.050	0.050	04/15/2025	ND	2.27	113	2.00	0.920		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.13	106	2.00	0.876		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.43	107	6.00	0.883		
Total BTEX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	04/15/2025	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 98.0 % 44.4-145

Surrogate: 1-Chlorooctadecane 97.0 % 40.6-153

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
 CHANCE DIXON  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 04/14/2025  
 Reported: 04/17/2025  
 Project Name: RUMBLE STATE #4H  
 Project Number: 24E-05130  
 Project Location: SILVERBACK - EDDY CO., NM

Sampling Date: 04/07/2025  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: BACKFILL - 02 (H252203-72)**

BTX 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	04/15/2025	ND	2.17	109	2.00	1.20		
Toluene*	<0.050	0.050	04/15/2025	ND	2.27	113	2.00	0.920		
Ethylbenzene*	<0.050	0.050	04/15/2025	ND	2.13	106	2.00	0.876		
Total Xylenes*	<0.150	0.150	04/15/2025	ND	6.43	107	6.00	0.883		
Total BTX	<0.300	0.300	04/15/2025	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	04/15/2025	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	04/15/2025	ND	190	94.9	200	2.03	
DRO >C10-C28*	<10.0	10.0	04/15/2025	ND	181	90.7	200	4.34	
EXT DRO >C28-C36	<10.0	10.0	04/15/2025	ND					

Surrogate: 1-Chlorooctane 89.6 % 44.4-145

Surrogate: 1-Chlorooctadecane 88.4 % 40.6-153

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### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



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**Vertex Resource Services**

FOR LAB USE ONLY																			
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :	PRESERV. ACID/BASE: ICE / COOL ✓ OTHER :	SAMPLING DATE TIME	TPH: (8015) EXT	BTEX (8021B)	Chloride (SM 4500)										
BS25-01 0.5ft	C	1	X			X	4/4/25	12:00	X	X	X								
BS25-02 0.5ft	C	1	X			X	4/4/25	12:05	X	X	X								
BS25-03 0.5ft	C	1	X			X	4/4/25	12:10	X	X	X								
BS25-04 0.5ft	C	1	X			X	4/4/25	12:15	X	X	X								
BS25-05 0.5ft	C	1	X			X	4/4/25	12:20	X	X	X								
BS25-06 0.5ft	C	1	X			X	4/4/25	12:25	X	X	X								
BS25-07 0.5ft	C	1	X			X	4/4/25	12:30	X	X	X								
BS25-08 0.5ft	C	1	X			X	4/4/25	12:35	X	X	X								
BS25-09 0.5ft	C	1	X			X	4/4/25	12:40	X	X	X								
BS25-10 0.5ft	C	1	X			X	4/4/25	12:45	X	X	X								
BS25-11 0.5ft	C	1	X			X	4/4/25	12:50	X	X	X								
BS25-12 0.5ft	C	1	X			X	4/4/25	12:55	X	X	X								
BS25-13 0.5ft	C	1	X			X	4/4/25	13:00	X	X	X								

otherwise

Fax Result:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Add'l Fax #:
-------------	------------------------------	-----------------------------	--------------

Email results to: [fronduque@comcast.net](mailto:fronduque@comcast.net)

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100





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

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> Vertex Resource Services		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>																						
<b>Project Manager:</b> Chance Dixon		<b>P.O. #:</b>																								
<b>Address:</b> 3101 Boyd Dr		<b>Company:</b> Silverback Exploration																								
<b>City:</b> Carlsbad		<b>Attn:</b> Rafael Alvizo																								
<b>State:</b> NM <b>Zip:</b> 88220		<b>Address:</b> 108 S. 4th St.																								
<b>Phone #:</b> 575-988-2681		<b>City:</b> Artesia																								
<b>Fax #:</b>		<b>State:</b> NM <b>Zip:</b> 88210																								
<b>Project #:</b> 24E-05130		<b>Project Owner:</b>																								
<b>Project Location:</b> Rumble State #4H		<b>Phone #:</b>																								
<b>Sampler Name:</b> F. Rodriguez		<b>Fax #:</b>																								
<b>FOR LAB USE ONLY</b>																										
<b>Lab I.D.</b>	<b>Sample I.D.</b>	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING															
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			ACID/BASE:	ICE / COOL	OTHER :												
27	BS25-27 0ft	C	1	X								DATE	TIME	TPH: (8015) EXT	BTEX (8021B)	Chloride (SM 4500)										
28	BS25-28 0ft	C	1	X								4/4/25	14:10	X	X	X										
29	BS25-29 0.5ft	C	1	X								4/4/25	14:15	X	X	X										
30	BS25-30 4ft	C	1	X								4/4/25	14:20	X	X	X										
31	BS25-30 4ft	C	1	X								4/4/25	14:25	X	X	X										
32	BS25-31 0.5ft	C	1	X								4/4/25	14:30	X	X	X										
33	BS25-32 0.5ft	C	1	X								4/4/25	14:35	X	X	X										
34	BS25-33 0ft	C	1	X								4/4/25	14:40	X	X	X										
35	BS25-34 0ft	C	1	X								4/4/25	14:45	X	X	X										
36	BS25-35 0.5ft	C	1	X								4/4/25	14:50	X	X	X										
37	BS25-36 4ft	C	1	X								4/4/25	14:55	X	X	X										
38	BS25-37 4ft	C	1	X								4/5/25	8:00	X	X	X										
39	BS25-38 0ft	C	1	X								4/5/25	8:05	X	X	X										
40	BS25-39 0ft	C	1	X								4/5/25	8:10	X	X	X										
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<b>Relinquished By:</b> <i>[Signature]</i>		<b>Date:</b> 4/14/25		<b>Received By:</b> <i>[Signature]</i>		<b>Date:</b> 4/14/25		<b>Phone Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>Add'l Phone #:</b>																
<b>Relinquished By:</b>		<b>Time:</b> 11:48		<b>Received By:</b>		<b>Time:</b>		<b>Fax Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>Add'l Fax #:</b>																
<b>Delivered By: (Circle One)</b> -0.3: <i>[Signature]</i>		<b>Sample Condition</b>		<b>CHECKED BY:</b> <i>[Signature]</i>																						
<b>Sampler - UPS - Bus - Other:</b> 0.0: <i>[Signature]</i>		<input type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact																								
		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																								
		<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes																								
<b>REMARKS:</b> Direct bill to Silverback Exploration Email results to: frodriguez@vertex.ca & mmoffitt@vertex.ca																										

3. Please email any changes to 575-393-2476





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]





Vertex Resource Services

[illegible]

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Relinquished By: 1  
Date: 8/14/25  
Received By: 1

RE	Received By:	Modirigun
	Date:	11/48
	Time:	11:18
	Relinquished By:	[Signature]

10

Time:

Delivered By: (Circle One) 0-31/17 th. z.

CHECKED BY:

**Sampler - UPS - Bus - Other:**

0.3: C70.3:  
0.0: #140

Sample Condition	Cool	Intact
<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No

CHECKED  
(Initials)  
SZ

Phone Result:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Add'l Phone #
Fax Result:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Add'l Fax #:
REMARKS:			

Direct bill to Silverback Exploration  
Email results to: [fr Rodriguez@vertex.ca](mailto:fr Rodriguez@vertex.ca) &  
[mmoffitt@vertex.ca](mailto:mmoffitt@vertex.ca)



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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

## **APPENDIX E**



# SLO Seed Mix

# SM Series

## 1 REVEGETATION PLANS

The following Revegetation Plans were developed for revegetation of sites in southeastern New Mexico. To determine which revegetation plan is appropriate follow procedures in the section titled Determining the Revegetation Plan.

Revegetation Plans contain seed mixtures, as well as seed bed preparation and planting requirements. The detailed instructions for seedbed preparation and planting can be found in the section Revegetation Techniques.

**Table 3 - Revegetation Plans, Codes, and Soil Types for Southeastern New Mexico**

REVEGETATION PLANS	CODE	SOIL TEXTURES
<b>Clay</b>	C	Clay, Silty Clay, Stony Silty Clay, Clay Loam, Silty Clay Loam (including saline and sodic Clay soils)
<b>Loam</b>	L	Silty Loam, Cobbly Silt Loam, Stony Silt Loam, Silt, Loam, Sandy, Clay Loam
<b>Sandy Loam</b>	SL	Very Fine Sandy Loam, Fine Sandy Loam, Cobbly Fine Sandy Loam, Sandy Loam, Cobbly Sandy Loam, Gravelly Fine Sandy Loam, Very Gravelly Fine Sand Loam, Stony Fine Sandy Loam, Stony Sandy Loam
<b>Shallow</b>	SH	Rocky Loam, Cobbly Loam
<b>Course</b>	CS	Gravelly Loam, very Gravelly Loam, Gravelly Sandy Loam, Very Gravelly Sandy Loam, Stony Loam, Stony Sandy Loam
<b>Sandy</b>	S	Loamy Fine Sand, Loam Sand, Very Gravelly Loamy Fine Sand
<b>Blow Sand</b>	BS	Fine Sand, Sand, Coarse Sand
<b>Mountain Meadow</b>	MM	Clay, Loam
<b>Mountain Upland</b>	MU	Clay Loam, Loam



**NMSLO Seed Mix****Loamy (L)****LOAMY (L) SITES SEED MIXTURE:**

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
<b>Grasses:</b>			
Black grama	VNS, Southern	1.0	D
Blue grama	Lovington	1.0	D
Sideoats grama	Vaughn, El Reno	4.0	F
Sand dropseed	VNS, Southern	2.0	S
Alkali sacaton	VNS, Southern	1.0	
Little bluestem	Cimarron, Pastura	1.5	F
<b>Forbs:</b>			
Firewheel ( <i>Gaillardia</i> )	VNS, Southern	1.0	D
<b>Shrubs:</b>			
Fourwing saltbush	Marana, Santa Rita	1.0	D
Common winterfat	VNS, Southern	0.5	F
<b>Total PLS/acre</b>		<b>18.0</b>	

S = Small seed drill box, D = Standard seed drill box, F = Fluffy seed drill box

VNS = Variety Not Stated, PLS = Pure Live Seed

- Seed mixes should be provided in bags separating seed types into the three categories: small (S), standard (D) and fluffy (F).
- VNS, Southern – Seed should be from a southern latitude collection of this species.
- Double seed application rate for broadcast or hydroseeding.
- If one species is not available, contact the SLO for an approved substitute; alternatively the SLO may require other species proportionately increased.
- Additional information on these seed species can be found on the USDA Plants Database website at <http://plants.usda.gov>.



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QUESTIONS

Action 468001

**QUESTIONS**

Operator: Silverback Operating II, LLC 1001 W. Wilshire Blvd Oklahoma City, OK 73112	OGRID: 330968
	Action Number: 468001
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

Prerequisites	
Incident ID (n#)	nAPP2433927741
Incident Name	NAPP2433927741 RUMBLE STATE #4H @ 30-015-45749
Incident Type	Oil Release
Incident Status	Reclamation Report Received
Incident Well	[30-015-45749] RUMBLE STATE #004H

Location of Release Source	
Please answer all the questions in this group.	
Site Name	RUMBLE STATE #4H
Date Release Discovered	11/23/2024
Surface Owner	Private

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Equipment Failure   Other (Specify)   Crude Oil   Released: 15 BBL   Recovered: 0 BBL   Lost: 15 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure   Other (Specify)   Produced Water   Released: 5 BBL   Recovered: 0 BBL   Lost: 5 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)	Power outage on the PLC for the air compressor overfilled separator and gas scrubber and routed fluids to the high-pressure flare, which then over sprayed surrounding areas of the pad and pasture. The standing oil caught fire and extinguished itself.



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Action 468001

**QUESTIONS (continued)**

Operator: Silverback Operating II, LLC 1001 W. Wilshire Blvd Oklahoma City, OK 73112	OGRID: 330968
	Action Number: 468001
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**QUESTIONS**

<b>Nature and Volume of Release (continued)</b>	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (2) an unauthorized release of a volume that: (a) results in a fire or is the result of a fire.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

**Initial Response**

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

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

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: Justin Carter Title: Landman Email: jcarter@novooog.com Date: 12/04/2024
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Action 468001

**QUESTIONS (continued)**

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	Action Number: 468001
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Site Characterization</b>	
<i>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.</i>	
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	NM OSE iWaters Database Search
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	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (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	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Between 1 and 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between ½ and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

<b>Remediation Plan</b>	
<i>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.</i>	
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
<b>Soil Contamination Sampling:</b> (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	5840
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	15015
GRO+DRO (EPA SW-846 Method 8015M)	13055
BTEX (EPA SW-846 Method 8021B or 8260B)	1.6
Benzene (EPA SW-846 Method 8021B or 8260B)	0
<i>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>	
On what estimated date will the remediation commence	04/01/2025
On what date will (or did) the final sampling or liner inspection occur	04/01/2025
On what date will (or was) the remediation complete(d)	04/15/2025
What is the estimated surface area (in square feet) that will be reclaimed	16500
What is the estimated volume (in cubic yards) that will be reclaimed	203
What is the estimated surface area (in square feet) that will be remediated	1262
What is the estimated volume (in cubic yards) that will be remediated	140
<i>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.</i>	
<i>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.</i>	

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Action 468001

**QUESTIONS (continued)**

Operator: Silverback Operating II, LLC 1001 W. Wilshire Blvd Oklahoma City, OK 73112	OGRID: 330968
	Action Number: 468001
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Remediation Plan (continued)</b>	
<i>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.</i>	
<b>This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:</b>	
<i>(Select all answers below that apply.)</i>	
(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	HALFWAY DISPOSAL AND LANDFILL [FEEM0112334510]
<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	No
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	No
(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
<i>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>	
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: Fatma Abdallah Title: Regulatory Manager Email: FAbdallah@silverbackexp.com Date: 02/21/2025
<i>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.</i>	

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Action 468001

QUESTIONS (continued)

Operator:  Silverback Operating II, LLC 1001 W. Wilshire Blvd Oklahoma City, OK 73112	OGRID:  330968
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	Action Type:  [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

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

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Action 468001

**QUESTIONS (continued)**

Operator: Silverback Operating II, LLC 1001 W. Wilshire Blvd Oklahoma City, OK 73112	OGRID: 330968
	Action Number: 468001
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

Sampling Event Information	
Last sampling notification (C-141N) recorded	448060
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	04/05/2025
What was the (estimated) number of samples that were to be gathered	55
What was the sampling surface area in square feet	11000

Remediation Closure Request	
<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	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	19378
What was the total volume (cubic yards) remediated	503
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	21493
What was the total volume (in cubic yards) reclaimed	560
Summarize any additional remediation activities not included by answers (above)	NA
<p><i>The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.</i></p>	
<p>I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.</p>	
I hereby agree and sign off to the above statement	Name: Justin Carter Title: Landman Email: <a href="mailto:jcarter@novoog.com">jcarter@novoog.com</a> Date: 05/28/2025

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Action 468001

**QUESTIONS (continued)**

Operator: Silverback Operating II, LLC 1001 W. Wilshire Blvd Oklahoma City, OK 73112	OGRID: 330968
	Action Number: 468001
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Reclamation Report</b>	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	21493
What was the total volume of replacement material (in cubic yards) for this site	560
<i>Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.</i>	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseedling commence(d)	04/08/2025
Summarize any additional reclamation activities not included by answers (above)	The site was seeded with NMSLO Loamy Sites Seed Mixture @ 18PLS/acre and included all areas disturbed by the site remediation activities.
<i>The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseedling plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.	
I hereby agree and sign off to the above statement	Name: Justin Carter Title: Landman Email: jcarter@novooog.com Date: 05/28/2025



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Action 468001

QUESTIONS (continued)

Operator:  Silverback Operating II, LLC 1001 W. Wilshire Blvd Oklahoma City, OK 73112	OGRID:  330968
	Action Number:  468001
	Action Type:  [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

<b>Revegetation Report</b>	
<i>Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.</i>	
Requesting a restoration complete approval with this submission	No
<i>Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.</i>	

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CONDITIONS

Action 468001

CONDITIONS

Operator: Silverback Operating II, LLC 1001 W. Wilshire Blvd Oklahoma City, OK 73112	OGRID: 330968
	Action Number: 468001
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	The reclamation report has been approved pursuant to 19.15.29.13 E. NMAC. The acceptance of this 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; or if the location fails to revegetate properly. In addition, the OCD approval does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.	7/24/2025