



Incident Number: NAPP2307633795

## Incident Closure

### Shahara Unit State #008 Inj.

Section 16, Township 17 South, Range 33 East  
32.8289002, -103.6706601

County: Lea

Vertex File Number: 24E-04470

#### Prepared for:

J & J Investments, Inc

#### Prepared by:

Vertex Resource Services Inc.

#### Date:

January 23, 2025

**J & J Investments, Inc**  
Shahara Unit State #8 Inj. Line

**Incident Closure**  
January 2025

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**Prepared for:**

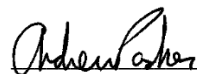
J & J Investments, Inc  
PO Box 39  
Loco Hills, NM 88255-0039

**New Mexico Oil Conservation Division**

1625 N. French Drive  
Hobbs, New Mexico 88240

**Prepared by:**

Vertex Resource Services Inc.  
3101 Boyd Drive  
Carlsbad, New Mexico 88220



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Andrew Parker, MGIS  
Senior Project Manager

January 23, 2025

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Date

J & J Investments, Inc  
Shahara Unit State #8 Inj. Line

Incident Closure  
January 2025

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**J & J Investments, Inc**  
Shahara Unit State #8 Inj. Line

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## 1 Introduction

J & J Investments, Inc (J & J Investments) retained Vertex Resource Services Inc. (Vertex) to conduct an Incident Closure for a produced water release that occurred on March 6, 2023, at Shahara Unit State #8 Inj. Line (hereafter referred to as the "Site"). J & J Investments submitted an initial C-141 Release Notification to New Mexico Oil Conservation Division (NMOCD) District 1 on March 15, 2023. Incident ID number NAPP2307633795 was assigned to this incident.

This report provides a description of remediation 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) and the approved variance (Appendix A) have 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 restoration of the release site will be completed following remediation activities as per NMAC 19.15.29.13.

## 2 Remedial Actions Taken

Remediation efforts began on October 8, 2024 and were finalized on December 18, 2024. Vertex personnel supervised the excavation of impacted soils. Field screening for chlorides and TPH was completed to identify areas requiring additional excavation of impacted soils. Relevant Daily Field Reports (DFRs) documenting various phases of the remediation are presented in Appendix B.

Impacted soils were removed to a depth of 2 to 4.2 feet bgs. 1,530 cubic yards of impacted soil was transported by a licensed waste hauler and disposed of at Lea Land, LLC waste management facility.

Notification that confirmatory samples were being collected was provided to the NMOCD and notice confirmations are included in Appendix C. Confirmatory composite samples were collected from the base and walls of the excavation to not exceed 300 square foot increments per approved variance as presented in the remediation plan. Each sample location is a 5-point composite within the designated grid.

A total of 68 samples, including 2 backfill 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 SM4500CL-B). A Summary of Laboratory results are presented in Table 1, and the laboratory data reports are included in Appendix D. All confirmatory samples collected and analyzed were either below closure criteria or meet closure criteria per approved variance as discussed in Section 3.

- Figure 1 shows remediation excavation extent
- Figure 2 shows base sample grid square footages
- Figure 3 shows confirmation sample locations

Wall sample WS-04 from 0 to 2 ft exceeded closure criteria relative to chloride. Field testing for chloride indicated the impacted soils were along the west walls of base grids BS24-27 and BS24-48. Therefore, the southwest excavation extent in the upper 2-feet was excavated further west. Wall sample WS24-04 was resampled as wall sample WS24-4.1

from 0 to 2 ft. WS24-4.1 at 2.3 ft represents the base of the excavation that was pushed further west and represents a base depth of 2 to 2.3 feet.

### 3 Variance Approval

NMOCD approved a variance request on December 19, 2024 to the Closure Criteria concentrations listed in Table 1 of NMAC 19.15.29 and NMAC 19.15.29.13. The variance approval email is included in Appendix A.

### 4 Reclamation Activities

Following remediation activities, restoration, and reclamation to its current use as a utility right-of-way (ROW) and pasture land took place in accordance with 19.15.29.13 NMAC and per approved SLO-ECO reclamation plan.

The remediated areas were backfilled on January 17, 2025 with 1,600 cu. yds. clean, non-waste containing earthen material, including a minimum of 1 ft of topsoil suitable for revegetation. The portion along the damaged DCP buried pipeline remains an open excavation to facilitate DCP planned repairs. Backfill material was stockpiled adjacent to the open DCP excavation (Exhibits 1 and 2). DCP is scheduled to repair their line by the end of January 2025. Upon DCP's repair, they will push-in the stockpiled backfill and contour.



Exhibit 1: Photo of backfilled excavation (photo right) viewing southeast from the southwest remediation extent. Stockpiled soil for the DCP pipeline repair is photo left. Date: January 17, 2025.



Exhibit 2: Photo of backfilled excavation (photo left) viewing southeast from the north-central remediation extent edge. Stockpiled soil for the DCP pipeline repair is photo right. The DCP pipeline excavation is at the toe of the stockpiled soil. Date: January 17, 2025.

J & J Investments, Inc  
Shahara Unit State #8 Inj. Line

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Final site contouring and seeding will occur late spring 2025 during the next favorable growing season. The remediated area will be seeded with seed mix consistent with SLO Loamy Sites mixture. Seed will be mechanically broadcasted at a rate of 40 PLS per acre and chain-dragged into place. The site will then be monitored for revegetation, soil stability and noxious weeds.

## 5 Closure Request

Confirmatory samples were analyzed by the laboratory analysis and found to be below allowable concentrations as per the NMAC Closure Criteria for soils impacted by a release where groundwater is greater than 100 feet below ground surface and per approved variance. Based on these findings, J & J Investments, Inc requests that this incident be closed.

Should you have any questions or concerns, please do not hesitate to contact Andrew Parker at 575.689.7007 or [aparker@vertexresource.com](mailto:aparker@vertexresource.com).

J & J Investments, Inc  
Shahara Unit State #8 Inj. Line

Incident Closure  
January 2025

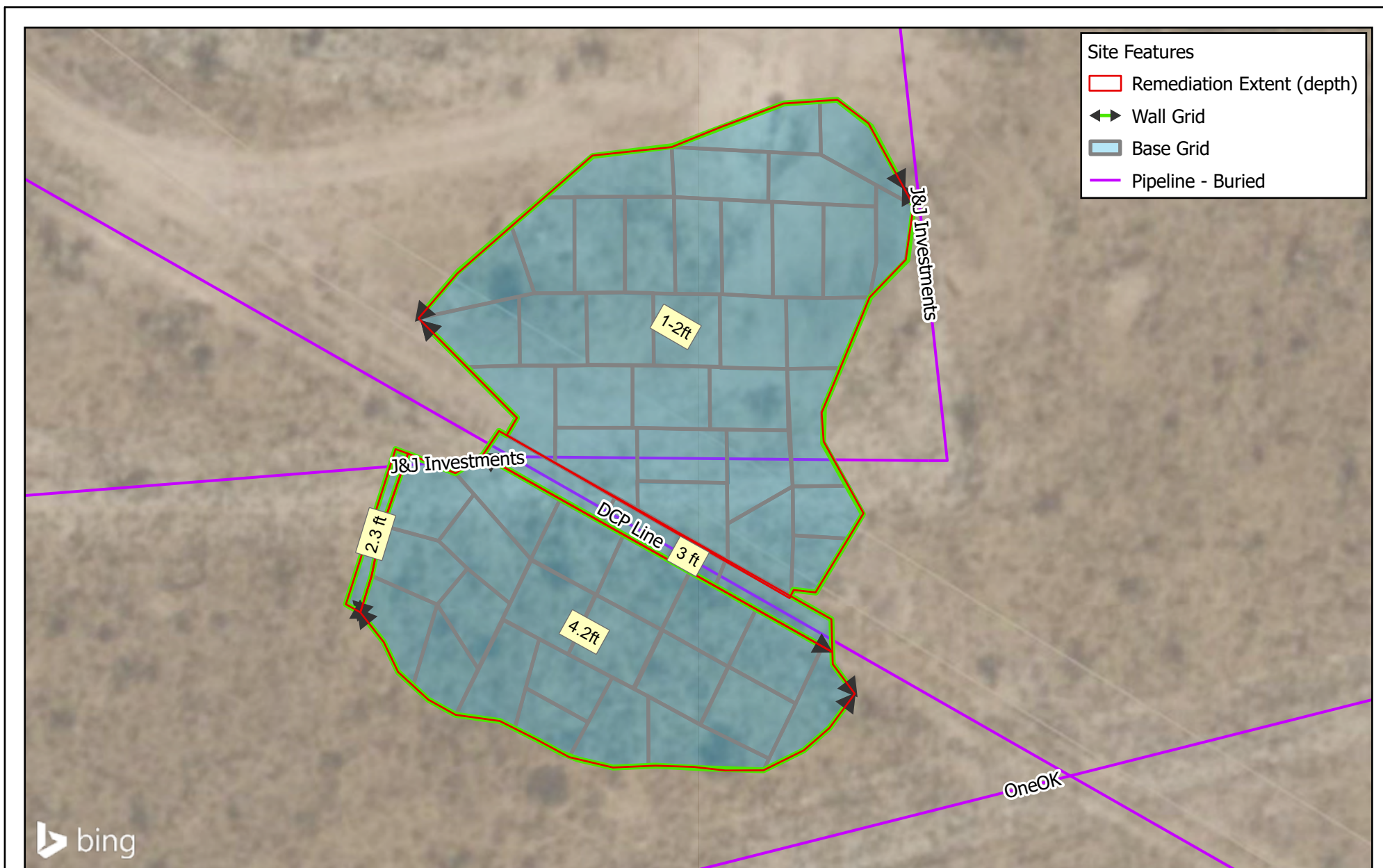
## 7 Limitations

This report has been prepared for the sole benefit of J & J Investments, Inc. This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division and the New Mexico State Land Office, without the express written consent of Vertex Resource Services Inc. (Vertex) and J & J Investments, inc. 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**





0 15 30 ft

NAD 1983 StatePlane New Mexico East FIPS 3001 Feet

Map Center:  
Lat/Long: 32.828929°N, 103.670468°W

Date: Jan 15/25



### Remediation Excavation Extent with Depths Shahara Unit State #8

Figure:

1

J &amp; J Investments

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, 2024. Site features from GPS, Vertex, 2024.

VERSATILITY. EXPERTISE.



Map Center:  
Lat/Long: 32.828934°N, 103.670466°W  
Date: Jan 15/25  
NAD 1983 StatePlane New Mexico East FIPS 3001 Feet



### Base and Wall Grid Areas Shahara Unit State #8

Figure:

2

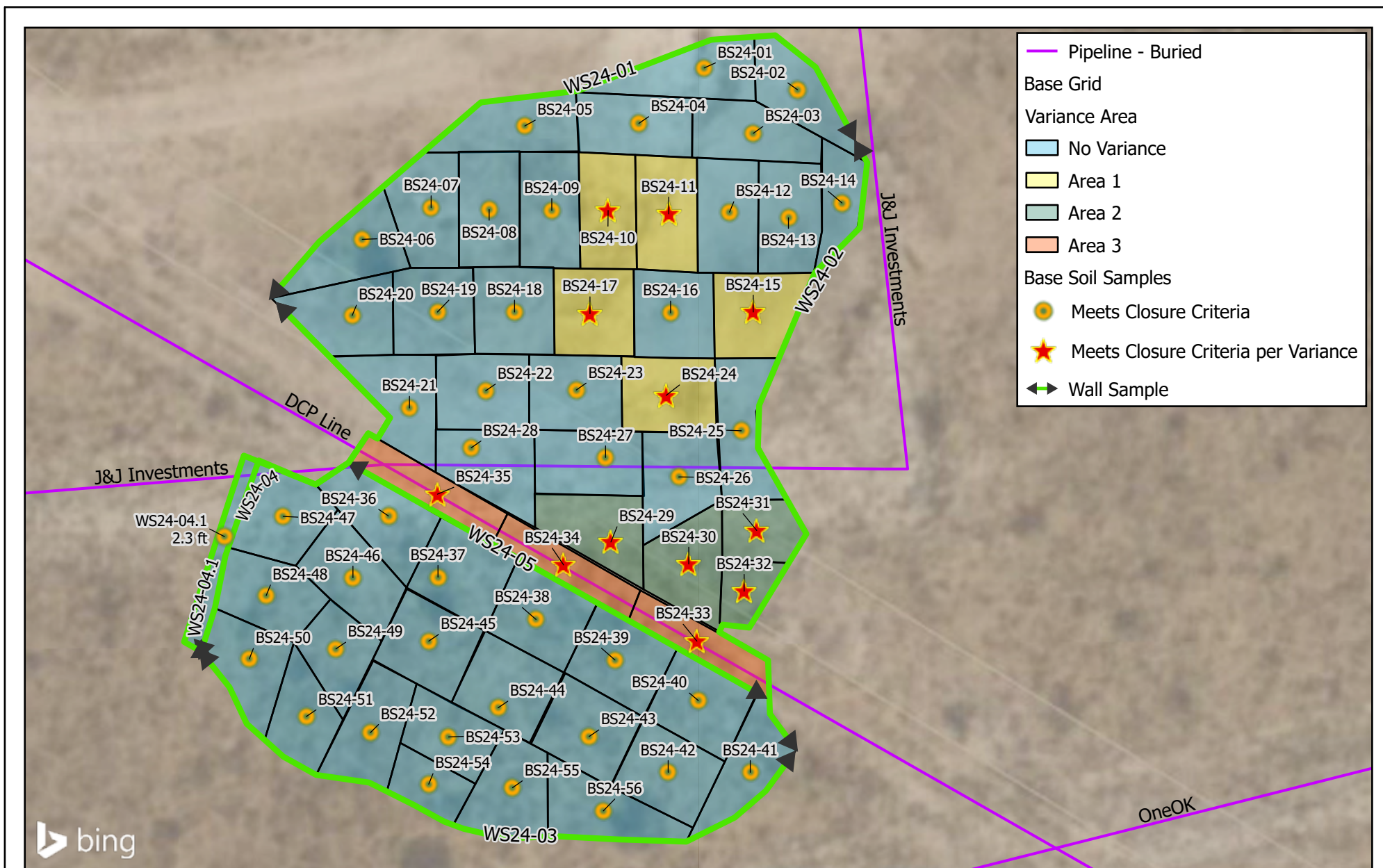
J &amp; J Investments

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, 2024. Site features from GPS, Vertex, 2024.

VERSATILITY. EXPERTISE.





Map Center:  
Lat/Long: 32.828933°N, 103.670407°W  
Date: Jan 16/25  
NAD 1983 StatePlane New Mexico East FIPS 3001 Feet



### Sample Confirmation Locations Shahara Unit State #8

Figure:

3

J &amp; J Investments

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, 2024. Site features from GPS, Vertex, 2024.

VERSATILITY. EXPERTISE.



TABLES

Client Name: J &amp; J Investments, Inc

Site Name: Shahara Unit State #8

Incident ID: NAPP2307633795

Project #: 24E-04470

Lab Report(s): H247442, H247648, H247797

Table 1. Summary of Confirmation Samples

Sample Description			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile		Extractable					
			Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)			
Depth to Groundwater >100'										
BS24 - 01	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	96
BS24 - 02	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	64
BS24 - 03	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	64
BS24 - 04	2'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	80
BS24 - 05	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	128
BS24 - 06	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	64
BS24 - 07	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	32
BS24 - 08	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	80
BS24 - 09	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	272
BS24 - 10	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	1150
BS24 - 11	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	1520
BS24 - 12	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	368
BS24 - 13	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	528
BS24 - 14	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	144
BS24 - 15	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	768
BS24 - 16	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	496
BS24 - 17	2.5'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	1760
BS24 - 18	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	448
BS24 - 19	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	176
BS24 - 20	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	96
BS24 - 21	2.5'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	512
BS24 - 22	2'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	192
BS24 - 23	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	48
BS24 - 24	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	960
BS24 - 25	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	592
BS24 - 26	1'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	592
BS24 - 27	2'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	448
BS24 - 28	2'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	368
BS24 - 29	2'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	1300
BS24 - 30	2'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	668
BS24 - 31	2.5'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	1170
BS24 - 32	2'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	704
BS24 - 33	3'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	992
BS24 - 34	3'	12/4/2024	ND	ND	ND	ND	ND	ND	ND	4360
BS24 - 35	3'	12/4/2024	ND	ND	ND	ND	12.6	ND	12.6	720
BS24 - 36	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	1010
BS24 - 37	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	288
BS24 - 38	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	2000
BS24 - 39	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	2560
BS24 - 40	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	3920
BS24 - 41	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	2760

Client Name: J & J Investments, Inc  
 Site Name: Shahara Unit State #8  
 Incident ID: NAPP2307633795  
 Project #: 24E-04470  
 Lab Report(s): H247442, H247648, H247797

Table 1. Summary of Confirmation Samples

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Sample ID	Depth (ft)	Sample Date	Volatile		Extractable					
			Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)			
Depth to Groundwater >100'										
BS24 - 42	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	1840
BS24 - 43	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	1570
BS24 - 44	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	6400
BS24 - 45	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	4160
BS24 - 46	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	1880
BS24 - 47	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	176
BS24 - 48	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	816
BS24 - 49	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	160
BS24 - 50	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	48
BS24 - 51	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	208
BS24 - 52	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	32
BS24 - 53	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	668
BS24 - 54	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	96
BS24 - 55	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	144
BS24 - 56	4.2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	1250
WS24 - 01	0-1'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	352
WS24 - 02	0-1'	12/5/2024	ND	ND	ND	10.4	27.3	10.4	37.7	192
WS24 - 03	0-2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	48
WS24 - 03	2-4'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	64
WS24 - 04	0-2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	800
WS24 - 04	2-4'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	304
WS24 - 04.1	0-2'	12/18/2024	ND	ND	ND	ND	ND	ND	ND	176
WS24 - 04.1	2.3'	12/18/2024	ND	ND	ND	ND	ND	ND	ND	176
WS24 - 05	0-2'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	8400
WS24 - 05	2-4'	12/5/2024	ND	ND	ND	ND	ND	ND	ND	3160
Backfill - Top Soil		12/27/2024	ND	ND	ND	ND	ND	ND	ND	16
Backfill - Caliche		12/27/2024	ND	ND	ND	ND	ND	ND	ND	48

"ND" Not Detected at the Reporting Limit

"-" indicates not analyzed/assessed

Grey shaded indicates sample excavated

Bold and green shaded indicates exceedance approved per variance approval

## **APPENDIX A – Variance Approvals**

**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)  
**To:** [Andrew Parker](#)  
**Subject:** The Oil Conservation Division (OCD) has approved the application, Application ID: 415899  
**Date:** Monday, December 30, 2024 2:08:51 PM

---

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To whom it may concern (c/o Andrew Parker for J & J Investments, LLC),

The OCD has approved the submitted *Internal Manual Incident File Supporting Documentation (ENV)* (IM-BNF), for incident ID (n#) nAPP2307633795, with the following conditions:

- **Variance request to 19.15.29.13D (1) NMAC limiting the reclamation standards to 2 feet rather than 4 based on physical conditions is approved. Attachment was provided.**

The signed IM-BNF can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,  
Nelson Velez  
Environmental Specialist - Advanced  
505-469-6146  
[Nelson.Velez@emnrd.nm.gov](mailto:Nelson.Velez@emnrd.nm.gov)

**New Mexico Energy, Minerals and Natural Resources Department**  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**From:** [David, Deon W.](#)  
**To:** [Andrew Parker](#)  
**Cc:** [SLO Surface ECO](#)  
**Subject:** NAPP2307633795. J & J Investments LLC - Shahara State Unit #8 Inj. Line. Variance Approved.  
**Date:** Tuesday, January 7, 2025 1:21:57 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)

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**Caution:** This email is from an external sender. Please take care when clicking links or opening attachments. When in doubt, contact your IT Department

The Environmental Compliance Office (ECO) has completed its review of the Variance Request submitted on December 19, 2024. Based on the evaluation, the ECO approves the requested adjustment to the reclamation standard, reducing the required depth from 4 feet below ground surface (bgs) to 2 feet bgs for the areas specified in Table #2. This decision is due to the site specific physical conditions.

We appreciate the efforts being taken to remediation and reclaim State Trust Land and look forward to the remediation closure report.

Thank you,

**Environmental Compliance Office**

*Surface Resources Division*

[eco@nmslo.gov](mailto:eco@nmslo.gov)

[nmstatelands.org](http://nmstatelands.org)

.....

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**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)  
**To:** [Andrew Parker](#)  
**Subject:** The Oil Conservation Division (OCD) has approved the application, Application ID: 369413  
**Date:** Tuesday, August 6, 2024 10:52:11 AM

---

To whom it may concern (c/o Andrew Parker for J & J Investments, LLC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2307633795, with the following conditions:

- **Remediation plan is approved with the following conditions; 1. Variance request to increase the sampling frequency from 200 to 300 square feet per one (1) five (5) point composite sample is approved. 2. J & J Investments has 90 days (November 4, 2024) to submit to OCD its appropriate or final remediation closure report.**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,  
Nelson Velez  
Environmental Specialist - Advanced  
505-469-6146  
[Nelson.Velez@emnrd.nm.gov](mailto:Nelson.Velez@emnrd.nm.gov)

**New Mexico Energy, Minerals and Natural Resources Department**  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**From:** [Knight, Tami C.](#)  
**To:** [Andrew Parker](#)  
**Cc:** [jininvestments@pvtm.net](mailto:jininvestments@pvtm.net); [Dimitry Nikanorov](#); [Bisbey-Kuehn, Elizabeth A.](#); [Griffin, Becky R.](#); [David, Deon W.](#)  
**Subject:** RE: (Remediation/Reclamation Plan) J & J Investments LLC - Shahara State Unit #8 Inj. Line NAPP2307633795 - Approved  
**Date:** Friday, August 23, 2024 10:00:23 AM  
**Attachments:** [image004.png](#)  
[image005.png](#)

---

Andrew

The subject remediation workplan is approved. However, ECO does have comments regarding the workplan that will help with review and approval for future workplans:

The subject workplan does not mention compliance with the Cultural Properties Protection Rule, a Right of Entry for Remediation (release went off the ROW), or applicability of working in a biologically sensitive area. I see that these documents were included as attachments but the narrative made no reference to them. It is helpful for the narrative to reflect documents attached to the workplan, they were almost missed during the review process. Also, the zoomed in site maps make it difficult to see where the release is along the subject ROW.

Please submit the remediation closure report and reclamation activities report to [eco@slo.state.nm.us](mailto:eco@slo.state.nm.us).

Thank you

**Tami Knight, CHMM**  
*Environmental Specialist*  
NMSLO SRD-ECO  
505.670.1638  
[tknight@slo.state.nm.us](mailto:tknight@slo.state.nm.us)  
[nmstatelands.org](http://nmstatelands.org)

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---

**From:** Andrew Parker <[Andrew@mcnabbpartners.com](mailto:Andrew@mcnabbpartners.com)>



## **APPENDIX B – Daily Field and Sampling Report(s)**



## Daily Site Visit Report

Client:	J&J Investments, LLC	Inspection Date:	10/8/2024
Site Location Name:	Shahara State Unit #008 INJ	Report Run Date:	10/9/2024 12:41 AM
Client Contact Name:	Jason Ciempa	API #:	
Client Contact Phone #:	575-677-2148		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

### Summary of Times

Arrived at Site	10/8/2024 7:04 AM
Departed Site	10/8/2024 4:17 PM

### Field Notes

**15:13** Arrive at site at ~7:05 am. On site to begin excavation of the release area. Assessed site, filled out JSA and held safety briefing with J.C Services.

**18:19** I did a walk through of the site with Jason from J & J Investments (J.C. Services) using gps and previous flagged boreholes to determine the perimeter of proposed excavation. We discussed the plan of action for today and I marked perimeter of north half of excavation (3 to 4 ft main excavation) and one proposed 2 ft excavation on the west/southwest corner of excavation and one proposed excavation on the east side of excavation.

**15:10** J.C. Services began to excavate the north, east, and south areas of the proposed excavation.

**14:46** Jason had mentioned he was hitting heavy rocky layer between 1.5-2ft bgs.

We decided to collect a series of samples to see what the chloride levels were at these depths.

**14:49** Collected WS24-01 at ~1' bgs; WS24-02 and -03 at ~1.75' bgs;  
WS24-04 at ~1.5' bgs;  
WS24-05 at ~1' bgs;  
WS24-06 and -07 at 1.5' bgs.



## Daily Site Visit Report

**14:52** Collected BS24-01 and -02 at ~1.75' bgs;  
BS24-03 at ~1.5' bgs; BS24-04 at ~1' bgs;  
BS24-05 and -06 at ~1.5' bgs.

**14:54** All samples did not pass field screening criteria for chlorides except WS24-04 and -07.  
Note: these samples will need to be resampled as the base of the excavation will get deeper near these walls.

**14:56** I informed Jason of the field screening results, he began to attempt to dig the excavation to deeper depths.

**18:20** A total of 4 truck loads of material were hauled off site (~72 cubic yards).

### Next Steps & Recommendations

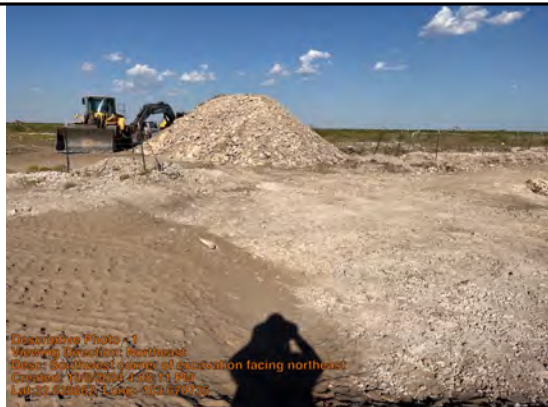
- 1 Continue to excavate the release area.

# Daily Site Visit Report



## Site Photos

Viewing Direction: Northeast



Southwest corner of excavation facing northeast

Viewing Direction: East



Southwest corner of excavation facing east.

Viewing Direction: Northwest



Southeast corner of excavation facing northwest.

Viewing Direction: North



Southeast corner of excavation facing north.



## Daily Site Visit Report

**Viewing Direction: West**



East side of excavation facing west.

**Viewing Direction: Southwest**



Northeast corner of excavation facing southwest.

**Viewing Direction: East**



West side of excavation facing east.

## Daily Site Visit Report



Daily Site Visit Signature

**Inspector:** Andrew Ludvik

**Signature:**

  
Signature



## Daily Site Visit Report

Client:	J&J Investments, LLC	Inspection Date:	10/9/2024
Site Location Name:	Shahara State Unit #008 INJ	Report Run Date:	10/9/2024 8:34 PM
Client Contact Name:	Jason Ciempa	API #:	
Client Contact Phone #:	575-677-2148		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

### Summary of Times

Arrived at Site	10/9/2024 8:20 AM
Departed Site	10/9/2024 1:04 PM

### Field Notes

- 12:44** Completed safety paper work upon arrival
- 12:45** Took a few spot check samples of the southern walls to evaluate whether we should continue excavating out
- 12:53** Broke through the cliché layer 1-2ft deep. However several locations cannot be dug further
- 12:58** Work was ended in mid day in order for the dig crew to experiment with alternative equipment for braking through the cliché

### Next Steps & Recommendations

1





# Daily Site Visit Report

## Site Photos

**Viewing Direction: Southeast**



South east section of excavation at about 4ft

**Viewing Direction: South**



South wall of excavation

**Viewing Direction: West**



South west corner of excavation at about 1ft

**Viewing Direction: Southwest**



Central eastern section of excavation has not been altered today





## Daily Site Visit Report

Viewing Direction: West



Soil piled on what will be the north east section of the excavation

## Daily Site Visit Report



Daily Site Visit Signature

**Inspector:** Katrina Taylor

**Signature:**

A handwritten signature in black ink, appearing to read 'Katrina Taylor', written over a thin horizontal line. Below the line, the word 'Signature' is printed in a small font.



## Daily Site Visit Report

Client:	J&J Investments, LLC	Inspection Date:	10/10/2024
Site Location Name:	Shahara State Unit #008 INJ	Report Run Date:	10/10/2024 6:27 PM
Client Contact Name:	Jason Ciempa	API #:	
Client Contact Phone #:	575-677-2148		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

### Summary of Times

Arrived at Site	10/10/2024 7:30 AM
Departed Site	10/10/2024 10:55 AM

### Field Notes

- 10:39** Completed safety paper work upon arrival
- 10:40** Sampled the walls to the south of the pipeline and found they field screened cleaned
- 10:40** Sampled the bases in the south and East sections of the excavation to find they were still dirty
- 10:42** Was able to get to 4ft in the south east of the excavation. However even with multiple pieces of equipment they were unable to break past two ft in the south west and northern sections

### Next Steps & Recommendations

1

## Daily Site Visit Report



## Site Photos

Viewing Direction: West



Over view of excavation

Viewing Direction: North



North east section of excavation after 4hrs of digging

Viewing Direction: Southwest



South east section of excavation at 4ft

Viewing Direction: West



Soil piled in south western part of excavation



## Daily Site Visit Report

Viewing Direction: Northeast



South western wall and base of the excavation  
at 2 feet

## Daily Site Visit Report



Daily Site Visit Signature

Inspector: Katrina Taylor

Signature:

A handwritten signature in black ink, appearing to be 'KT', written over a horizontal line. Below the line, the word 'Signature' is printed in a small font.



## Daily Site Visit Report

Client:	J&J Investments, LLC	Inspection Date:	12/3/2024
Site Location Name:	Shahara State Unit #008 INJ	Report Run Date:	12/4/2024 12:09 AM
Client Contact Name:	Jason Ciempa	API #:	
Client Contact Phone #:	575-677-2148		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

### Summary of Times

Arrived at Site	12/3/2024 10:15 AM
Departed Site	12/3/2024 3:16 PM

### Field Notes

**15:15** Arrived on site, signed JSA's. Field screening for excavation site.

### Next Steps & Recommendations

1



# Daily Site Visit Report



## Site Photos

Viewing Direction: South



Sample area BS-27

Viewing Direction: North



Sample area BS-23.  
Dark colored thin layer of crust on top of soil.

Viewing Direction: West



Sample area BS- 48.

Viewing Direction: North



Sample area BS - 44.





## Daily Site Visit Report

Viewing Direction: West



Sample area BS -35.

Viewing Direction: North



Sample area, WS - 05 .

Viewing Direction: East



Sample area WS - 02.

Viewing Direction: West



Sample area WS - 04.

## Daily Site Visit Report



Daily Site Visit Signature

Inspector: Meghan Veliz

Signature:

A handwritten signature in black ink, appearing to read 'Meghan Veliz', written over a horizontal line. The word 'Signature' is faintly visible below the line.



## Daily Site Visit Report

Client:	J&J Investments, LLC	Inspection Date:	12/18/2024
Site Location Name:	Shahara State Unit #008 INJ	Report Run Date:	12/19/2024 2:24 PM
Client Contact Name:	Jason Ciempa	API #:	
Client Contact Phone #:	575-677-2148		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

### Summary of Times

Arrived at Site	12/18/2024 8:00 AM
Departed Site	12/18/2024 1:00 PM

### Field Notes

**11:46** West wall was extended 2 feet

**11:47** WS24-04.1 was collected and field screened

**11:47** It was determined that another 2' extension would be necessary

**11:48** WS24-04.1 and base WS24- 04.1 were collected and field screened and were determined to be below criteria

### Next Steps & Recommendations

- 1 Jar and coc samples
- 2 Take to lab for further analysis

# Daily Site Visit Report



## Site Photos

Viewing Direction: South



Composite sample 1 for WS24-04.1 @ 0-1'

Viewing Direction: Southwest



Composite sample 2 for WS24-04.1 @ 0-1'

Viewing Direction: West



Composite sample 3 for WS24-04.1 @ 0-2'

Viewing Direction: Southwest



Composite sample 4 for WS24-04.1 @ 0-2'





## Daily Site Visit Report

Viewing Direction: West



Composite sample 5 for WS24-04.1 @ 0-2'

Viewing Direction: West



Composite 1 for Base WS24-04.1 @ 2.3

Viewing Direction: West



Composite 2 Base WS24-04.1 @ 2.3

Viewing Direction: Southwest



Composite 3 Base WS24-04.1 @ 2.3



## Daily Site Visit Report

Viewing Direction: Northwest



Composite 4 for Base WS24-04.1 @ 2.3

Viewing Direction: North



Composite 5 for Base WS24-04.1 @ 2.3

Viewing Direction: South



West wall extension

## Daily Site Visit Report



Daily Site Visit Signature

**Inspector:** Riley Arnold

**Signature:**

A handwritten signature in black ink, appearing to be 'R. Arnold', written over a thin horizontal line. Below the line, the word 'Signature' is printed in a small font.

## **APPENDIX D – Laboratory Data Report(s) and Chain of Custody Form(s)**



**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)  
**To:** [Andrew Parker](#)  
**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 407469  
**Date:** Monday, December 2, 2024 9:38:54 AM

---

**Caution:** This email is from an external sender. Please take care when clicking links or opening attachments. When in doubt, contact your IT Department

To whom it may concern (c/o Andrew Parker for J & J Investments, LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2307633795.

The sampling event is expected to take place:

**When:** 12/04/2024 @ 09:45

**Where:** M-16-17S-33E 660 FSL 660 FEL (32.828861,-103.670588)

**Additional Information:** Field Tech. Megan Veliz. 575-343-0926.

**Additional Instructions:** Coordinates: 32.8289, -103.67066

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

**New Mexico Energy, Minerals and Natural Resources Department**  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)  
**To:** [Andrew Parker](#)  
**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 407877  
**Date:** Tuesday, December 3, 2024 8:16:28 AM

---

**Caution:** This email is from an external sender. Please take care when clicking links or opening attachments. When in doubt, contact your IT Department

To whom it may concern (c/o Andrew Parker for J & J Investments, LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2307633795.

The sampling event is expected to take place:

**When:** 12/05/2024 @ 08:30

**Where:** M-16-17S-33E 660 FSL 660 FEL (32.828861,-103.670588)

**Additional Information:** Field Tech. Megan Veliz. 575-343-0926.

**Additional Instructions:** Coordinates: 32.8289, -103.67066

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

**New Mexico Energy, Minerals and Natural Resources Department**  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)  
**To:** [Andrew Parker](#)  
**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 408449  
**Date:** Wednesday, December 4, 2024 9:43:17 AM

---

**Caution:** This email is from an external sender. Please take care when clicking links or opening attachments. When in doubt, contact your IT Department

To whom it may concern (c/o Andrew Parker for J & J Investments, LLC),

The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N), for incident ID (n#) nAPP2307633795.

The sampling event is expected to take place:

**When:** 12/06/2024 @ 09:45

**Where:** M-16-17S-33E 660 FSL 660 FEL (32.828861,-103.670588)

**Additional Information:** Field Tech. Megan Veliz. 575-343-0926.

**Additional Instructions:** Coordinates: 32.8289, -103.67066

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

**New Mexico Energy, Minerals and Natural Resources Department**  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**From:** [Velez, Nelson, EMNRD](#)  
**To:** [Andrew Parker](#)  
**Cc:** [jininvestments@pvtm.net](mailto:jininvestments@pvtm.net)  
**Subject:** Re: [EXTERNAL] nAPP2307633795 Shahara State Unit 8 Sampling Variance  
**Date:** Tuesday, December 17, 2024 11:04:04 AM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[Outlook-wv5sq0tx.png](#)

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**Caution:** This email is from an external sender. Please take care when clicking links or opening attachments. When in doubt, contact your IT Department

Good morning Andrew,

Thank you for the notice. Your variance request specifically addressing 19.15.29.12D (1a) NMAC is approved.

If an OCD representative is not on-site on the date &/or time given, please sample per 19.15.29 NMAC or from an OCD pre-approved sampling plan. For whatever reason, if the sampling timeframe is altered, please notify the OCD as soon as possible so we may adjust our schedule(s). Failure to notify the OCD of this change may result in the closure sample(s) not being accepted.

Please keep a copy of this communication for inclusion within the appropriate report submittal.

The OCD requires a copy of all correspondence relative to remedial activities be included in all proposals and/or final closure reports. Correspondence required to be included in reports may include, but not limited to, notifications for liner inspections, sample events, spill/release/fire, and request for time extensions or variances.

Regards,

**Nelson Velez** • Environmental Specialist - Adv  
Environmental Bureau | EMNRD - Oil Conservation Division  
1000 Rio Brazos Road | Aztec, NM 87410  
(505) 469-6146 | [nelson.velez@emnrd.nm.gov](mailto:nelson.velez@emnrd.nm.gov)  
<http://www.emnrd.nm.gov/oecd>



---

**From:** Andrew Parker <aparker@vertexresource.com>  
**Sent:** Tuesday, December 17, 2024 10:19 AM  
**To:** Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>  
**Cc:** jnjinvestments@pvt.n.net <jnjinvestments@pvt.n.net>  
**Subject:** [EXTERNAL] nAPP2307633795 Shahara State Unit 8 Sampling Variance

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

Mr. Velez,

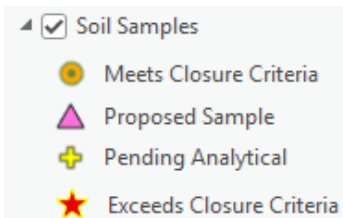
On the behalf of J & J Investments, Vertex Resources respectfully asks for a variance to the 48 hour confirmation sampling notice referenced in the below email. Tomorrow (Wednesday December 18<sup>th</sup>, 2024), we have an opportunity to perform additional horizontal excavation and delineation along the west wall identified as WS24-04, emphasized by the yellow line in the following image. Prior confirmation sampling exceeded Closure Criteria in the upper 2-feet.

Proposed variance sampling:

Date: Wednesday December 17, 2024

Time: 11am.

Number of Samples: 1.





Thank you for your consideration.

**Andrew Parker**

Senior Project Manager  
Vertex Resource Services Inc.  
3101 Boyd Drive,  
Carlsbad, NM 88220

P 575.689.7007

[www.vertex.ca](http://www.vertex.ca)

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---

**From:** OCDOnline@state.nm.us <OCDOnline@state.nm.us>

**Sent:** Tuesday, December 17, 2024 9:59 AM

**To:** Andrew Parker <aparker@vertexresource.com>

**Subject:** The Oil Conservation Division (OCD) has accepted the application, Application ID: 412872

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To whom it may concern (c/o Andrew Parker for J & J Investments, LLC),  
The OCD has received the submitted *Notification for (Final) Sampling of a Release* (C-141N),  
for incident ID (n#) nAPP2307633795.

The sampling event is expected to take place:

**When:** 12/19/2024 @ 10:30

**Where:** M-16-17S-33E 660 FSL 660 FEL (32.828861,-103.670588)

**Additional Information:** Riley Arnold. 575-552-2953

**Additional Instructions:** Coordinates: 32.8289, -103.67066

An OCD representative may be available onsite at the date and time reported. In the absence or presence of an OCD representative, sampling pursuant to 19.15.29.12.D NMAC is required. Sampling must be performed following an approved sampling plan or pursuant to 19.15.29.12.D.(1).(c) NMAC. Should there be a change in the scheduled date and time of the sampling event, then another notification should be resubmitted through OCD permitting as soon as possible.

- **Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.**

If you have any questions regarding this application, or don't know why you have received this email, please contact us.

**New Mexico Energy, Minerals and Natural Resources Department**

1220 South St. Francis Drive

Santa Fe, NM 87505

**Andrew Parker**

Senior Project Manager

Vertex Resource Services Inc.

Carlsbad, NM 88220

P 575.689.7007

C 575.689.7007

F

[www.vertex.ca](http://www.vertex.ca)

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## **APPENDIX D – Laboratory Data Report(s) and Chain of Custody Form(s)**





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

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December 13, 2024

ANDREW PARKER  
VERTEX RESOURCE  
3101 BOYD DRIVE  
CARLSBAD, NM 88220

RE: SHAHARA STATE UNIT #008 INJ

Enclosed are the results of analyses for samples received by the laboratory on 12/09/24 11:30.

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 style with a large, stylized 'C' and 'K'.

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	12/09/2024	Sampling Date:	12/05/2024
Reported:	12/13/2024	Sampling Type:	Soil
Project Name:	SHAHARA STATE UNIT #008 INJ	Sampling Condition:	Cool & Intact
Project Number:	24E-04470	Sample Received By:	Tamara Oldaker
Project Location:	J & J INVESTMENTS		

**Sample ID: WS24 - 01 @ 0-1' (H247442-01)**

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	12/09/2024	ND	2.20	110	2.00	1.58	
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65	
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13	
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14	
Total BTEX	<0.300	0.300	12/09/2024	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	352	16.0	12/09/2024	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 111 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

Cardinal Laboratories

\*=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  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS24 - 02 @ 0-1' (H247442-02)**

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	12/09/2024	ND	2.20	110	2.00	1.58		
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 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	192	16.0	12/09/2024	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	10.4	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	27.3	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 122 % 48.2-134

Surrogate: 1-Chlorooctadecane 127 % 49.1-148

Cardinal Laboratories

\*=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  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS24 - 03 @ 0-2' (H247442-03)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/09/2024	ND	2.20	110	2.00	1.58		
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14		
Total BTEX	<0.300	0.300	12/09/2024	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	48.0	16.0	12/09/2024	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS24 - 03 @ 2-4' (H247442-04)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/09/2024	ND	2.20	110	2.00	1.58		
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14		
Total BTEX	<0.300	0.300	12/09/2024	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	64.0	16.0	12/09/2024	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 120 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS24 - 04 @ 0-2' (H247442-05)**

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	12/09/2024	ND	2.20	110	2.00	1.58		
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14		
Total BTEX	<0.300	0.300	12/09/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	800	16.0	12/09/2024	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 120 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS24 - 04 @ 2-4' (H247442-06)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/09/2024	ND	2.20	110	2.00	1.58	
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65	
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13	
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14	
Total BTEX	<0.300	0.300	12/09/2024	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	12/09/2024	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 129 % 48.2-134

Surrogate: 1-Chlorooctadecane 135 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS24 - 05 @ 0-2' (H247442-07)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/09/2024	ND	2.20	110	2.00	1.58		
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14		
Total BTEX	<0.300	0.300	12/09/2024	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	8400	16.0	12/09/2024	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 121 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: WS24 - 05 @ 2-4' (H247442-08)**

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	12/09/2024	ND	2.20	110	2.00	1.58		
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.7 % 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	3160	16.0	12/09/2024	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 128 % 48.2-134

Surrogate: 1-Chlorooctadecane 134 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 01 @ 1' (H247442-09)**

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	12/09/2024	ND	2.20	110	2.00	1.58		
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 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	96.0	16.0	12/09/2024	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 124 % 48.2-134

Surrogate: 1-Chlorooctadecane 130 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 02 @ 1' (H247442-10)**

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	12/09/2024	ND	2.20	110	2.00	1.58		
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14		
Total BTEx	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 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	64.0	16.0	12/09/2024	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 117 % 48.2-134

Surrogate: 1-Chlorooctadecane 124 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 03 @ 1' (H247442-11)**

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	12/09/2024	ND	2.20	110	2.00	1.58	
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65	
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13	
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14	
Total BTX	<0.300	0.300	12/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 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	64.0	16.0	12/09/2024	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 118 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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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  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 04 @ 2' (H247442-12)**

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	12/09/2024	ND	2.20	110	2.00	1.58		
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14		
Total BTEX	<0.300	0.300	12/09/2024	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	80.0	16.0	12/09/2024	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 05 @ 1' (H247442-13)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/09/2024	ND	2.20	110	2.00	1.58	
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65	
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13	
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14	
Total BTEX	<0.300	0.300	12/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 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	128	16.0	12/09/2024	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 120 % 48.2-134

Surrogate: 1-Chlorooctadecane 126 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 06 @ 1' (H247442-14)**

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	12/09/2024	ND	2.20	110	2.00	1.58	
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65	
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13	
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14	
Total BTX	<0.300	0.300	12/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 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	64.0	16.0	12/09/2024	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 128 % 48.2-134

Surrogate: 1-Chlorooctadecane 135 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 07 @ 1' (H247442-15)**

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	12/09/2024	ND	2.20	110	2.00	1.58		
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 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	12/09/2024	ND	448	112	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 116 % 48.2-134

Surrogate: 1-Chlorooctadecane 121 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 08 @ 1' (H247442-16)**

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	12/09/2024	ND	2.20	110	2.00	1.58		
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14		
Total BTEx	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 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	80.0	16.0	12/09/2024	ND	448	112	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 119 % 48.2-134

Surrogate: 1-Chlorooctadecane 125 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 09 @ 1' (H247442-17)**

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	12/09/2024	ND	2.20	110	2.00	1.58		
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 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	12/09/2024	ND	448	112	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 107 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 10 @ 1' (H247442-18)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/09/2024	ND	2.20	110	2.00	1.58		
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 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	1150	16.0	12/09/2024	ND	448	112	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	12/09/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 123 % 48.2-134

Surrogate: 1-Chlorooctadecane 128 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 11 @ 1' (H247442-19)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/09/2024	ND	2.20	110	2.00	1.58		
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 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	1520	16.0	12/09/2024	ND	448	112	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	12/10/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/10/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/10/2024	ND					

Surrogate: 1-Chlorooctane 122 % 48.2-134

Surrogate: 1-Chlorooctadecane 128 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 12 @ 1' (H247442-20)**

BTEx 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/09/2024	ND	2.20	110	2.00	1.58	
Toluene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	1.65	
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.09	105	2.00	2.13	
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.24	104	6.00	2.14	
Total BTEx	<0.300	0.300	12/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	368	16.0	12/09/2024	ND	448	112	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	12/10/2024	ND	216	108	200	3.49	
DRO >C10-C28*	<10.0	10.0	12/10/2024	ND	198	99.2	200	4.17	
EXT DRO >C28-C36	<10.0	10.0	12/10/2024	ND					

Surrogate: 1-Chlorooctane 90.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.2 % 49.1-148

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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  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 13 @ 1' (H247442-21)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/09/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 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	528	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 88.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 14 @ 1' (H247442-22)**

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	12/09/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	144	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 91.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 15 @ 1' (H247442-23)**

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	12/09/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	768	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 85.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 16 @ 1' (H247442-24)**

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	12/09/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	496	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 91.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 17 @ 2.5' (H247442-25)**

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	12/09/2024	ND	2.17	109	2.00	8.10	
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35	
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29	
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19	
Total BTEX	<0.300	0.300	12/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	1760	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 91.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 18 @ 1' (H247442-26)**

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	12/09/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 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	448	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 91.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
ANDREW PARKER  
3101 BOYD DRIVE  
CARLSBAD NM, 88220  
Fax To: NA

Received: 12/09/2024  
Reported: 12/13/2024  
Project Name: SHAHARA STATE UNIT #008 INJ  
Project Number: 24E-04470  
Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 19 @ 1' (H247442-27)**

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	12/09/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	176	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 81.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 20 @ 1' (H247442-28)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/09/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	96.0	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 89.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.1 % 49.1-148

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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  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 21 @ 2.5' (H247442-29)**

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	12/09/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	512	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 92.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 22 @ 2' (H247442-30)**

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	12/09/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 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	192	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 91.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 23 @ 1' (H247442-31)**

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	12/09/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	12/10/2024	ND	448	112	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	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 81.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 24 @ 1' (H247442-32)**

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	12/09/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	960	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 79.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.6 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 25 @ 1' (H247442-33)**

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	12/09/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	592	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 91.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.5 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 26 @ 1' (H247442-34)**

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	12/09/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	592	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 89.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 27 @ 2' (H247442-35)**

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	12/09/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/09/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	448	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 89.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.9 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 28 @ 2' (H247442-36)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/09/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/09/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/09/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 90.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.3 % 49.1-148

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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  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 29 @ 2' (H247442-37)**

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	12/10/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/10/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	1300	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/10/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/10/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/10/2024	ND					

Surrogate: 1-Chlorooctane 80.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 72.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 30 @ 2' (H247442-38)**

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	12/10/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/10/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/10/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	688	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/10/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/10/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/10/2024	ND					

Surrogate: 1-Chlorooctane 82.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.9 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 31 @ 2.5' (H247442-39)**

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	12/10/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/10/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/10/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1170	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/10/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/10/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/10/2024	ND					

Surrogate: 1-Chlorooctane 91.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 32 @ 2' (H247442-40)**

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	12/10/2024	ND	2.17	109	2.00	8.10		
Toluene*	<0.050	0.050	12/10/2024	ND	2.24	112	2.00	5.35		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.19	110	2.00	4.29		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.91	115	6.00	4.19		
Total BTEX	<0.300	0.300	12/10/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	704	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/10/2024	ND	239	120	200	1.47	
DRO >C10-C28*	<10.0	10.0	12/10/2024	ND	221	110	200	1.87	
EXT DRO >C28-C36	<10.0	10.0	12/10/2024	ND					

Surrogate: 1-Chlorooctane 93.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 33 @ 3' (H247442-41)**

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	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTEx	<0.300	0.300	12/10/2024	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	992	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 98.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 34 @ 3' (H247442-42)**

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	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTX	<0.300	0.300	12/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	4360	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/04/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 35 @ 3' (H247442-43)**

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	12/10/2024	ND	2.20	110	2.00	1.60	
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272	
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397	
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854	
Total BTEX	<0.300	0.300	12/10/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	720	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	12.6	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 36 @ 4.2' (H247442-44)**

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	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTEX	<0.300	0.300	12/10/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1010	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 37 @ 4.2' (H247442-45)**

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	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTEX	<0.300	0.300	12/10/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 115 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 38 @ 4.2' (H247442-46)**

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	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTEX	<0.300	0.300	12/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	2000	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 117 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 39 @ 4.2' (H247442-47)**

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	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTEX	<0.300	0.300	12/10/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2560	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 40 @ 4.2' (H247442-48)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTEX	<0.300	0.300	12/10/2024	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	3920	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 97.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 41 @ 4.2' (H247442-49)**

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	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTEX	<0.300	0.300	12/10/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2760	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 42 @ 4.2' (H247442-50)**

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	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTEX	<0.300	0.300	12/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	1840	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 43 @ 4.2' (H247442-51)**

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	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTEX	<0.300	0.300	12/10/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1570	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 84.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 92.8 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 44 @ 4.2' (H247442-52)**

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	12/10/2024	ND	2.20	110	2.00	1.60	
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272	
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397	
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854	
Total BTEX	<0.300	0.300	12/10/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6400	16.0	12/10/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 94.8 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 45 @ 4.2' (H247442-53)**

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	12/10/2024	ND	2.20	110	2.00	1.60	
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272	
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397	
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854	
Total BTEX	<0.300	0.300	12/10/2024	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CT					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4160	16.0	12/10/2024	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 100 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 46 @ 4.2' (H247442-54)**

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	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTEX	<0.300	0.300	12/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	1880	16.0	12/10/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 47 @ 4.2' (H247442-55)**

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	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTEX	<0.300	0.300	12/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	176	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 104 % 48.2-134

Surrogate: 1-Chlorooctadecane 114 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 48 @ 4.2' (H247442-56)**

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	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTEX	<0.300	0.300	12/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	816	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 105 % 48.2-134

Surrogate: 1-Chlorooctadecane 116 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 49 @ 4.2' (H247442-57)**

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	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTEx	<0.300	0.300	12/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	160	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 50 @ 4.2' (H247442-58)**

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	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTEX	<0.300	0.300	12/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 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	48.0	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 101 % 48.2-134

Surrogate: 1-Chlorooctadecane 110 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 51 @ 4.2' (H247442-59)**

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	12/10/2024	ND	2.20	110	2.00	1.60	
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272	
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397	
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854	
Total BTEX	<0.300	0.300	12/10/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	12/10/2024	ND	448	112	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	12/10/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/10/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/10/2024	ND					

Surrogate: 1-Chlorooctane 103 % 48.2-134

Surrogate: 1-Chlorooctadecane 112 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 52 @ 4.2' (H247442-60)**

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	12/10/2024	ND	2.20	110	2.00	1.60		
Toluene*	<0.050	0.050	12/10/2024	ND	2.25	112	2.00	0.272		
Ethylbenzene*	<0.050	0.050	12/10/2024	ND	2.18	109	2.00	0.397		
Total Xylenes*	<0.150	0.150	12/10/2024	ND	6.87	114	6.00	0.0854		
Total BTEX	<0.300	0.300	12/10/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	12/10/2024	ND	448	112	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	12/10/2024	ND	198	99.1	200	2.22	
DRO >C10-C28*	<10.0	10.0	12/10/2024	ND	196	97.9	200	2.09	
EXT DRO >C28-C36	<10.0	10.0	12/10/2024	ND					

Surrogate: 1-Chlorooctane 107 % 48.2-134

Surrogate: 1-Chlorooctadecane 118 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 53 @ 4.2' (H247442-61)**

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	12/09/2024	ND	1.97	98.7	2.00	5.84	
Toluene*	<0.050	0.050	12/09/2024	ND	2.01	101	2.00	4.32	
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.04	102	2.00	3.64	
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.11	102	6.00	3.27	
Total BTX	<0.300	0.300	12/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	688	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	232	116	200	2.96	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	206	103	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 86.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 75.8 % 49.1-148

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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 54 @ 4.2' (H247442-62)**

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	12/09/2024	ND	1.97	98.7	2.00	5.84	
Toluene*	<0.050	0.050	12/09/2024	ND	2.01	101	2.00	4.32	
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.04	102	2.00	3.64	
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.11	102	6.00	3.27	
Total BTEX	<0.300	0.300	12/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 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	96.0	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	232	116	200	2.96	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	206	103	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 89.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 77.9 % 49.1-148

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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  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 55 @ 4.2' (H247442-63)**

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	12/09/2024	ND	1.97	98.7	2.00	5.84	
Toluene*	<0.050	0.050	12/09/2024	ND	2.01	101	2.00	4.32	
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.04	102	2.00	3.64	
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.11	102	6.00	3.27	
Total BTEX	<0.300	0.300	12/09/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	144	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	232	116	200	2.96	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	206	103	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 90.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 81.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/09/2024  
 Reported: 12/13/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/05/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BS24 - 56 @ 4.2' (H247442-64)**

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	12/09/2024	ND	1.97	98.7	2.00	5.84		
Toluene*	<0.050	0.050	12/09/2024	ND	2.01	101	2.00	4.32		
Ethylbenzene*	<0.050	0.050	12/09/2024	ND	2.04	102	2.00	3.64		
Total Xylenes*	<0.150	0.150	12/09/2024	ND	6.11	102	6.00	3.27		
Total BTEx	<0.300	0.300	12/09/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	1250	16.0	12/10/2024	ND	448	112	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	12/09/2024	ND	232	116	200	2.96	
DRO >C10-C28*	<10.0	10.0	12/09/2024	ND	206	103	200	3.26	
EXT DRO >C28-C36	<10.0	10.0	12/09/2024	ND					

Surrogate: 1-Chlorooctane 85.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 76.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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

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Celey D. Keene, Lab Director/Quality Manager





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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Vertex (Bill to J&J Investments)  
Project Manager: Andrew Parker  
Address: 3101 Boyd Dr.  
City: Carlsbad State: NM Zip: 88220  
Phone #: 575-689-7007 Fax #:  
Project #: 24E-04470 Project Owner: Josie Ciempa  
Project Name: Shahara State Unit #1008 INJ  
Project Location:  
Sampler Name: Meghan Veliz

**BILL TO**  
P.O. #:  
Company: J&J Investments  
Attn: Josie Ciempa  
Address:  
City:  
State: Zip:  
Phone #:  
Fax #:

## ANALYSIS REQUEST

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

H247442

		(G)RAB OR (C)CMP.	# CONTAINERS	MATRIX					PRESERV.	SAMPLING	
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE		DATE	TIME
1	WS24-01 @ 0-1'					X			X	12-5-24	12:09pm
2	WS24-02 @ 0-1'									12-5-24	12:14pm
3	WS24-03 @ 0-2'									12-5-24	11:17am
4	WS24-03 @ 2-4'									12-5-24	11:23am
5	WS24-04 @ 0-2'									12-5-24	12:00pm
6	WS24-04 @ 2-4'									12-5-24	12:04pm
7	WS24-05 @ 0-2'									12-5-24	11:31am
8	WS24-05 @ 2-4'									12-5-24	11:37am
9	BS24-01 @ 1'									12-4-24	10:52am
10	BS24-02 @ 1'									12-4-24	10:58am

BTEX (8021)

TPH: 8015D (GRO/DRO/MRO)

Chloride

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Relinquished By:

Relinquished By:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

FORM-000 R 3.3 08/03/24

Date:

Time:

Date:

Time:

Received By:

Received By:

Observed Temp. °C

Corrected Temp. °C

Sample Condition

Cool Intact

Yes Yes

No No

CHECKED BY:

(Initials)

Verbal Result:

All Results are emailed. Please provide Email address:

REMARKS:

Turnaround Time:

Thermometer ID #140

Correction Factor -0.6°C

Standard

Rush

Bacteria (only)

Cool Intact

Yes Yes

No No

Sample Condition

Observed Temp. °C

Corrected Temp. °C

Add'l Phone #:

a.parker@VertexResource.com, mveliz@VertexResource.com

Josie Ciempa - injinvestments@putn.net

No Rush re: 12/9/24

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





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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Vertex (Bill to J&J Investments)  
Project Manager: Andrew Parker  
Address: 310 Boyd Dr.  
City: Carlsbad State: NM Zip: 88220  
Phone #: 575-689-7007 Fax #: \_\_\_\_\_  
Project #: 24E-04470 Project Owner: Josie Ciempa  
Project Name: Shahara State Unit #008 INJ  
Project Location: \_\_\_\_\_  
Sampler Name: Meghan Veliz

**BILL TO**  
P.O. #: \_\_\_\_\_  
Company: J&J Investments  
Attn: Josie Ciempa  
Address: \_\_\_\_\_  
City: \_\_\_\_\_  
State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone #: \_\_\_\_\_  
Fax #: \_\_\_\_\_

## ANALYSIS REQUEST

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

H247442

	Lab I.D.	Sample I.D.
11	BS24-03 @	1'
12	BS24-04 @	2'
13	BS24-05 @	1'
14	BS24-06 @	1'
15	BS24-07 @	1'
16	BS24-08 @	1'
17	BS24-09 @	1'
18	BS24-10 @	1'
19	BS24-11 @	1'
20	BS24-12 @	1'

MATRIX	PRESERV.	SAMPLING	
		DATE	TIME
GROUNDWATER			
WASTEWATER			
SOIL			
OIL			
SLUDGE			
OTHER :			
ACID/BASE:			
ICE / COOL			
OTHER :			

BTEX (8021)  
TPH: 80150 (GRO/DRO/MRO)  
Chloride

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Relinquished By:

Meghan Veliz  
Date: 12-9-24  
Time: 1130

Received By:

Jamara Alda  
Date: \_\_\_\_\_  
Time: \_\_\_\_\_

Delivered By: (Circle One)

Sampler - UPS - Bus - Other: \_\_\_\_\_

Observed Temp. °C

Corrected Temp. °C

Sample Condition

Cool Intact  
☒ Yes ☐ No

CHECKED BY:

(Initials)

Verbal Result: ☐ Yes ☐ No

All Results are emailed. Please provide Email address:

aparker@VertexResource.com, mveliz@VertexResource.com  
REMARKS:  
Josie Ciempa-jnjinvestments@pvtn.net

Turnaround Time:

Thermometer ID #140

Correction Factor -0.6°C

Standard

Rush

Bacteria (only)

Cool Intact

Observed Temp. °C

Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to [celey.keene@cardinallabsnm.com](mailto:celey.keene@cardinallabsnm.com)





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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: **Vertex (Bill to J.J. Investments)**  
Project Manager: **Andrew Parker**  
Address: **3101 Boyd Dr.**  
City: **Carlsbad** State: **NM** Zip: **88220**  
Phone #: **575-689-7007** Fax #:  
Project #: **24E-04470** Project Owner: **Josie Ciempa**  
Project Name: **Shahara State Unit #008 INJ**  
Project Location:  
Sampler Name: **Meghan Veliz**

**BILL TO**  
P.O. #:  
Company: **J.J. Investments**  
Attn: **Josie Ciempa**  
Address:  
City:  
State: Zip:  
Phone #:  
Fax #:

## ANALYSIS REQUEST

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

1247442

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME
31	BS24-13 @	1'				X				X			12-4-24	10:40am
32	BS24-14 @	1'											12-4-24	12:11pm
33	BS24-15 @	1'											12-4-24	12:17pm
34	BS24-16 @	1'											12-4-24	12:58pm
35	BS24-17 @	2.5'											12-4-24	1:03pm
36	BS24-18 @	1'											12-4-24	1:08pm
37	BS24-19 @	1'											12-4-24	1:14pm
38	BS24-20 @	1'											12-4-24	1:21pm
39	BS24-21 @	2.5'											12-4-24	1:27pm
30	BS24-22 @	2'											12-4-24	1:31pm

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Relinquished By:

Megan Veliz

Date:

12-4-24

Time:

1130

Received By:

Josie Ciempa

Date:

Time:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Observed Temp. °C

3.9

Corrected Temp. °C

3.3

Sample Condition

Cool Intact

Yes Yes

No No

CHECKED BY:

(Initials)

JO

Verbal Result: ☐ Yes ☐ No

Add'l Phone #:

All Results are emailed. Please provide Email address:

aparker@VertexResource.com, mveliz@VertexResource.com

REMARKS:

Josie Ciempa-jnjinvestments@putn.net

Turnaround Time:

Standard

Rush

Thermometer ID #140

Correction Factor -0.6°C

Bacteria (only) Sample Condition

Cool Intact

Yes Yes

No No

Observed Temp. °C

Corrected Temp. °C

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





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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Vertex (Bill to J&amp;J Investments)</u>		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>										
Project Manager: <u>Andrew Parker</u>		P.O. #:		<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX (8021)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">MPH: 8015D/GRO/DNO/MRO</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chloride</div> </div>										
Address: <u>3101 Boyd Dr.</u>		Company: <u>J&amp;J Investments</u>												
City: <u>Carlsbad</u> State: <u>NM</u> Zip: <u>88220</u>		Attn: <u>Josie Ciempa</u>												
Phone # <u>575-689-7007</u> Fax #:		Address:												
Project # <u>24E-04470</u> Project Owner: <u>Josie Ciempa</u>		City:												
Project Name: <u>Shahara State Unit #008 INS</u>		State: Zip:												
Project Location:		Phone #:												
Sampler Name: <u>Marghan Veliz</u>		Fax #:												
FOR LAB USE ONLY														
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX			PRESERV.	SAMPLING						
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME
<u>H247442</u>														
<u>31</u>	<u>BS24-23@</u>												<u>12-4-24</u>	<u>1:37pm</u>
<u>32</u>	<u>BS24-24@</u>												<u>12-4-24</u>	<u>1:48pm</u>
<u>33</u>	<u>BS24-25@</u>												<u>12-4-24</u>	<u>1:55pm</u>
<u>34</u>	<u>BS24-26@</u>												<u>12-4-24</u>	<u>2:05pm</u>
<u>35</u>	<u>BS24-27@</u>												<u>12-4-24</u>	<u>2:12pm</u>
<u>36</u>	<u>BS24-28@</u>												<u>12-4-24</u>	<u>2:18pm</u>
<u>37</u>	<u>BS24-29@</u>												<u>12-4-24</u>	<u>2:25pm</u>
<u>38</u>	<u>BS24-30@</u>												<u>12-4-24</u>	<u>2:30pm</u>
<u>39</u>	<u>BS24-31@</u>												<u>12-4-24</u>	<u>2:36pm</u>
<u>40</u>	<u>BS24-32@</u>												<u>12-4-24</u>	<u>2:42pm</u>
<small>PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.</small>														
Relinquished By: <u>Marghan Veliz</u>		Date: <u>12-4-24</u>		Received By: <u>Josie Ciempa</u>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: All Results are emailed. Please provide Email address: <u>aparker@VertexResource.com, mveliz@VertexResource.com</u>								
Relinquished By:		Date: <u>11/30</u>		Received By:		REMARKS: <u>Josie Ciempa-jnjinvestments@pvtn.net</u> <u>NO Rush to 12/9/24</u>								
Delivered By: (Circle One)		Observed Temp. °C <u>3.9</u>		Sample Condition		CHECKED BY: (Initials)		Turnaround Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush						
Sampler - UPS - Bus - Other:		Corrected Temp. °C <u>3.3</u>		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		<u>VO</u>		Thermometer ID #140 Correction Factor -0.6°C						
								Bacteria (only) Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>						
								Observed Temp. °C Corrected Temp. °C						

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



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

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Vertex/Bill to JJJ Investments		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>							
Project Manager: Andrew Parker		P.O. #:									
Address: 3101 Boyd Dr.		Company: JJJ Investments									
City: Carlsbad State: NM Zip: 88220		Attn: Josie Ciempa									
Phone #: 575-689-7007 Fax #:		Address:									
Project #: 24E-04470 Project Owner: Josie Ciempa		City:									
Project Name: Shahara State Unit #008 INS		State: Zip:									
Project Location:		Phone #:									
Sampler Name: Meghan Veliz		Fax #:									
FOR LAB USE ONLY				MATRIX	PRESERV.	SAMPLING					
Lab I.D.	Sample I.D.	(G/RAB OR (C)OMP. # CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :	ACID/BASE: ICE / COOL OTHER :	DATE	TIME					
H2474.42											
41 BS24-33 @ 3'		X		X	12-4-24	2:50pm	X	X	X		
42 BS24-34 @ 3'					12-4-24	2:57pm					
43 BS24-35 @ 3'					12-4-24	3:05pm					
44 BS24-36 @ 4.2'					12-5-24	9:29am					
45 BS24-37 @ 4.2'					12-5-24	9:34am					
46 BS24-38 @ 4.2'					12-5-24	9:39am					
47 BS24-39 @ 4.2'					12-5-24	9:43am					
48 BS24-40 @ 4.2'					12-5-24	9:48am					
49 BS24-41 @ 4.2'					12-5-24	9:55am					
50 BS24-42 @ 4.2'					12-5-24	9:59am					
<small>PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.</small>											
Relinquished By: <i>Meghan Veliz</i>		Date: 12-9-24	Received By: <i>Josie Ciempa</i>		Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:						
Relinquished By:		Date: 1/30	Received By:		All Results are emailed. Please provide Email address: <i>aparker@VertexResource.com, mveliz@VertexResource.com</i>						
Delivered By: (Circle One)		Observed Temp. °C 3.9	Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: (Initials) <i>JS</i>		REMARKS: Josie Ciempa - jjjinvestments@putn.net NO RUSH! 40-12/9/24				
Sampler - UPS - Bus - Other:		Corrected Temp. °C 3.3	Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Thermometer ID #140 Correction Factor -.6°C		Bacteria (only) Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Observed Temp. °C Corrected Temp. °C				





# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Vertex (bill to J&amp;J Investments)</u>		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>																				
Project Manager: <u>Andrew Parker</u>		P.O. #:		<u>BTEX (8021)</u> <u>TPH: 8015D (GRO/DRO/MRO)</u> <u>Chloride</u>																				
Address: <u>3101 Boyd Dr.</u>		Company: <u>J&amp;J Investments</u>																						
City: <u>Carlsbad</u> State: <u>NM</u> Zip: <u>88220</u>		Attn: <u>Josie Ciempa</u>																						
Phone #: <u>575-689-7007</u> Fax #:		Address:																						
Project #: <u>24E-04470</u> Project Owner: <u>Josie Ciempa</u>		City:																						
Project Name: <u>Shahara State Unit #008 INT</u>		State: Zip:																						
Project Location:		Phone #:																						
Sampler Name: <u>Meghan Veliz</u>		Fax #:																						
FOR LAB USE ONLY																								
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX				PRESERV.	SAMPLING															
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE:	ICE / COOL	OTHER	DATE	TIME										
<u>H247442</u>	<u>BS24-43 @ 4.2'</u>	<u>C</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>12-5-24</u>	<u>10:04am</u>										
<u>52</u>	<u>BS24-44 @ 4.2'</u>					<u>X</u>							<u>12-5-24</u>	<u>10:08am</u>										
<u>53</u>	<u>BS24-45 @ 4.2'</u>					<u>X</u>							<u>12-5-24</u>	<u>10:12am</u>										
<u>54</u>	<u>BS24-46 @ 4.2'</u>					<u>X</u>							<u>12-5-24</u>	<u>10:16am</u>										
<u>55</u>	<u>BS24-47 @ 4.2'</u>					<u>X</u>							<u>12-5-24</u>	<u>10:23am</u>										
<u>56</u>	<u>BS24-48 @ 4.2'</u>					<u>X</u>							<u>12-5-24</u>	<u>10:29am</u>										
<u>57</u>	<u>BS24-49 @ 4.2'</u>					<u>X</u>							<u>12-5-24</u>	<u>10:33am</u>										
<u>58</u>	<u>BS24-50 @ 4.2'</u>					<u>X</u>							<u>12-5-24</u>	<u>10:40am</u>										
<u>59</u>	<u>BS24-51 @ 4.2'</u>					<u>X</u>							<u>12-5-24</u>	<u>10:44am</u>										
<u>60</u>	<u>BS24-52 @ 4.2'</u>					<u>X</u>							<u>12-5-24</u>	<u>10:48am</u>										

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <u>Meghan Veliz</u>	Date: <u>12-9-24</u>	Received By: <u>Janara Alda</u>	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Relinquished By:	Date:	Received By:	All Results are emailed. Please provide Email address:
	Time: <u>1130</u>		<u>aparker@VertexResource.com, mveliz@VertexResource.com</u>
	Date:		REMARKS:
	Time:		<u>Josie Ciempa - jnjinvestments@putn.net</u>
Delivered By: (Circle One)	Observed Temp. °C <u>3.9</u>	Sample Condition	Turnaround Time: <input checked="" type="checkbox"/> Standard <input checked="" type="checkbox"/> Rush
Sampler - UPS - Bus - Other:	Corrected Temp. °C <u>3.3</u>	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Bacteria (only) Sample Condition
		<input type="checkbox"/> Yes <input type="checkbox"/> No	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
			Observed Temp. °C
			Corrected Temp. °C
			Thermometer ID #140
			Correction Factor -0.6°C

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



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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Vertex (Bill To J&J Investments) Project Manager: Andrew Parker Address: 3101 Boyd Dr. City: Carlsbad State: NM Zip: 88220 Phone #: 575-689-7007 Fax #: Project # 24E-CH470 Project Owner: Josie Ciempa Project Name: Shahara State Unit #008 INJ Project Location: Sampler Name: Meghan Veliz		<b>BILL TO</b> P.O. #: Company: J&J Investments Attn: Josie Ciempa Address: City: State: Zip: Phone #: Fax #:		<b>ANALYSIS REQUEST</b>											
FOR LAB USE ONLY	Lab I.D.	Sample I.D.	(GRAB OR COMPOUND)	# CONTAINERS	MATRIX	PRESERV.	SAMPLING								
					GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:	ACID/BASE: ICE / COOL OTHER:	DATE	TIME							
H247442	61 BS24-S3 @ 4.2'	C1		X		X	12-5-24	10:53am	BTX (BTEX) X TPH: BTEX (GRO/DRO/MRO) X Chloride X						
62	BS24-S4 @ 4.2'						12-5-24	10:58am							
63	BS24-S5 @ 4.2'						12-5-24	11:02am							
64	BS24-S6 @ 4.2'						12-5-24	11:07am							
<small>PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.</small>															
Relinquished By: Meghan Veliz			Date: 12-9-24	Received By: [Signature]			Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:								
Relinquished By:			Date:	Received By:			All Results are emailed. Please provide Email address:								
			Time: 11:30				REMARKS: aparker@VertexResource.com, mveliz@VertexResource.com								
							Josie Ciempa - jininvestments@putn.net Rush! +0. 12/9/24								
Delivered By: (Circle One)			Observed Temp. °C 3.9	Sample Condition Cool Intact		CHECKED BY: (Initials)		Turnaround Time: Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Bacteria (only) Sample Condition					
Sampler - UPS - Bus - Other:			Corrected Temp. °C 3.3	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Thermometer ID #140 Correction Factor -0.6°C		<input type="checkbox"/> Cool <input type="checkbox"/> Intact <input type="checkbox"/> Observed Temp. °C					
				<input type="checkbox"/> Yes <input type="checkbox"/> No						<input type="checkbox"/> Yes <input type="checkbox"/> No			Corrected Temp. °C		

FORM-000 R 3.3 08/03/24



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

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December 26, 2024

ANDREW PARKER  
VERTEX RESOURCE  
3101 BOYD DRIVE  
CARLSBAD, NM 88220

RE: SHAHARA STATE UNIT #008 INJ

Enclosed are the results of analyses for samples received by the laboratory on 12/18/24 13:30.

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".

Celey D. Keene  
Lab Director/Quality Manager



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

**Analytical Results For:**

VERTEX RESOURCE  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received:	12/18/2024	Sampling Date:	12/18/2024
Reported:	12/26/2024	Sampling Type:	Soil
Project Name:	SHAHARA STATE UNIT #008 INJ	Sampling Condition:	Cool & Intact
Project Number:	24E-04470	Sample Received By:	Shalyn Rodriguez
Project Location:	J & J INVESTMENTS		

**Sample ID: WS 24 - 04.1 @ 0-2' (H247648-01)**

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	12/18/2024	ND	1.60	79.8	2.00	0.117	
Toluene*	<0.050	0.050	12/18/2024	ND	1.61	80.6	2.00	0.594	
Ethylbenzene*	<0.050	0.050	12/18/2024	ND	1.62	81.0	2.00	0.228	
Total Xylenes*	<0.150	0.150	12/18/2024	ND	4.87	81.2	6.00	0.717	
Total BTEX	<0.300	0.300	12/18/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 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	176	16.0	12/18/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/18/2024	ND	207	104	200	1.43	
DRO >C10-C28*	<10.0	10.0	12/18/2024	ND	211	106	200	0.667	
EXT DRO >C28-C36	<10.0	10.0	12/18/2024	ND					

Surrogate: 1-Chlorooctane 114 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

Cardinal Laboratories

\*=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  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/18/2024  
 Reported: 12/26/2024  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/18/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Shalyn Rodriguez

**Sample ID: WS 24 - 04.1 @ 2.3' (H247648-02)**

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	12/18/2024	ND	1.60	79.8	2.00	0.117		
Toluene*	<0.050	0.050	12/18/2024	ND	1.61	80.6	2.00	0.594		
Ethylbenzene*	<0.050	0.050	12/18/2024	ND	1.62	81.0	2.00	0.228		
Total Xylenes*	<0.150	0.150	12/18/2024	ND	4.87	81.2	6.00	0.717		
Total BTEX	<0.300	0.300	12/18/2024	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.0 % 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	176	16.0	12/18/2024	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/18/2024	ND	207	104	200	1.43	
DRO >C10-C28*	<10.0	10.0	12/18/2024	ND	211	106	200	0.667	
EXT DRO >C28-C36	<10.0	10.0	12/18/2024	ND					

Surrogate: 1-Chlorooctane 115 % 48.2-134

Surrogate: 1-Chlorooctadecane 111 % 49.1-148

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Cardinal Laboratories

\*=Accredited Analyte

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

---

Celey D. Keene, Lab Director/Quality Manager



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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <b>Vertex (Bill to JJJ Investments)</b>				<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>																	
Project Manager: <b>Andrew Parker</b>				P.O. #:		<b>BTEX (8021)</b> <b>TPH: 8015D (GRODRO/MRO)</b> <b>chloride</b>																	
Address: <b>3101 Boyd Dr.</b>				Company: <b>JJJ Investments</b>																			
City: <b>Carlsbad</b> State: <b>NM</b> Zip: <b>88220</b>				Attn: <b>Josie Ciempa</b>																			
Phone #: <b>575-689-7007</b> Fax #:				Address:																			
Project #: <b>24E-04470</b> Project Owner:				City:																			
Project Name: <b>Shahara State Unit #008 INJ</b>				State: Zip:																			
Project Location:				Phone #:																			
Sampler Name: <b>Riley Arnold</b>				Fax #:																			
FOR LAB USE ONLY		Lab I.D.		Sample I.D.		GRAB OR (C)OMP.		MATRIX		PRESERV.		SAMPLING											
						# CONTAINERS		GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :		ACID/BASE: ICE / COOL OTHER :		DATE TIME											
<b>H2471648</b>																							
<b>1</b>		<b>WS24-04.1 @ 0-2'</b>		<b>C 1</b>				<b>X</b>		<b>X</b>		<b>12-18-24 11:05</b>		<b>X X X</b>									
<b>2</b>		<b>WS24-04.1 @ 2.3'</b>		<b>C 1</b>				<b>X</b>		<b>X</b>		<b>12-18-24 11:15</b>		<b>X X X</b>									

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <b>[Signature]</b>		Date: <b>12-18-24</b>	Received By: <b>[Signature]</b>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
Time: <b>1:30</b>		Time:		All Results are emailed. Please provide Email address:		
Relinquished By:		Date:	Received By:		REMARKS: <b>aparker@vertexresource.com</b> <b>jjjinvestments@puta.net</b>	
Time:		Time:				
Delivered By: (Circle One)		Observed Temp. °C: <b>2.1C</b>	Sample Condition		CHECKED BY: (Initials) <b>[Signature]</b>	
Sampler - UPS - Bus - Other:		Corrected Temp. °C: <b>1.5C</b>	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Turnaround Time: <b>Standard</b> <input checked="" type="checkbox"/> <b>Rush</b> <input type="checkbox"/>	
			<input type="checkbox"/> Yes <input type="checkbox"/> No		Bacteria (only) Sample Condition	
			<input type="checkbox"/> Yes <input type="checkbox"/> No		Cool Intact Observed Temp. °C	
			<input type="checkbox"/> No <input type="checkbox"/> No		Corrected Temp. °C	

FORM-000-R 3.3 08/03/24

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



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

---

January 07, 2025

ANDREW PARKER  
VERTEX RESOURCE  
3101 BOYD DRIVE  
CARLSBAD, NM 88220

RE: SHAHARA STATE UNIT #008 INJ

Enclosed are the results of analyses for samples received by the laboratory on 12/31/24 10:27.

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  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/31/2024  
 Reported: 01/07/2025  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/27/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BACKFILL - TOP SOIL (H247797-01)**

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	12/31/2024	ND	2.08	104	2.00	10.3	
Toluene*	<0.050	0.050	12/31/2024	ND	2.40	120	2.00	2.89	
Ethylbenzene*	<0.050	0.050	12/31/2024	ND	2.65	133	2.00	1.92	
Total Xylenes*	<0.150	0.150	12/31/2024	ND	8.09	135	6.00	1.88	
Total BTEX	<0.300	0.300	12/31/2024	ND					

Surrogate: 4-Bromofluorobenzene (PID) 136 % 71.5-134

Chloride, SM4500Cl-B			mg/kg					Analyzed By: HM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	12/31/2024	ND	416	104	400	7.41	

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	12/31/2024	ND	233	117	200	2.08	
DRO >C10-C28*	<10.0	10.0	12/31/2024	ND	214	107	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	12/31/2024	ND					

Surrogate: 1-Chlorooctane 86.4 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.0 % 49.1-148

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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  
 ANDREW PARKER  
 3101 BOYD DRIVE  
 CARLSBAD NM, 88220  
 Fax To: NA

Received: 12/31/2024  
 Reported: 01/07/2025  
 Project Name: SHAHARA STATE UNIT #008 INJ  
 Project Number: 24E-04470  
 Project Location: J & J INVESTMENTS

Sampling Date: 12/27/2024  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: BACKFILL - CALICHE (H247797-02)**

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	12/31/2024	ND	2.08	104	2.00	10.3		
Toluene*	<0.050	0.050	12/31/2024	ND	2.40	120	2.00	2.89		
Ethylbenzene*	<0.050	0.050	12/31/2024	ND	2.65	133	2.00	1.92		
Total Xylenes*	<0.150	0.150	12/31/2024	ND	8.09	135	6.00	1.88		
Total BTEX	<0.300	0.300	12/31/2024	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	12/31/2024	ND	416	104	400	7.41		

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	12/31/2024	ND	233	117	200	2.08	
DRO >C10-C28*	<10.0	10.0	12/31/2024	ND	214	107	200	2.69	
EXT DRO >C28-C36	<10.0	10.0	12/31/2024	ND					

Surrogate: 1-Chlorooctane 80.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 71.3 % 49.1-148

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### Notes and Definitions

S-05	The surrogate recovery is outside of lab established statistical control limits but still within method limits. Data is not adversely affected.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
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 "C. D. Keene".

Celey D. Keene, Lab Director/Quality Manager





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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Vertex Resource				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>											
Project Manager: Andrew Parker				P.O. #:				<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTEX (8021)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH 8015 D (GRO/DROMRO)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chloride</div> </div>											
Address: 3101 Boyd Dr				Company: J & J Investments															
City: Carlsbad		State: NM Zip: 88220		Attn: Josie Ciempa															
Phone #: 575-689-7007		Fax #:		Address: Call															
Project #: 24E-04470		Project Owner:		City:															
Project Name: Shahara State Unit #8				State: Zip:															
Project Location:				Phone #: 575-706-0041															
Sampler Name: Riley Arnold				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.		Sample I.D.		(GRAB OR (C)OMP.)		# CONTAINERS		MATRIX		PRESERV.		SAMPLING							
				GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER:					
										ACID/BASE:		ICE / COOL		OTHER:					
												DATE		TIME					
H247797																			
1		Backfill - Top Soil		G				X		X		12/27/24		13:00					
2		Backfill - Caliche		G				X		X		12/27/24		13:15					

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Relinquished By:		Date: 12/31		Received By:		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
		Time: 10:27				All Results are emailed. Please provide Email address:	
Relinquished By:		Date:		Received By:		aparker@vertexresource.com jnjinvestments@pvtm.net	
		Time:				REMARKS:	
Delivered By: (Circle One)		Observed Temp. °C 2.0		Sample Condition		Turnaround Time:	
Sampler - UPS - Bus - Other:		Corrected Temp. °C 1.4		Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Bacteria (only) <input type="checkbox"/> Sample Condition	
				CHECKED BY: (Initials)		Thermometer ID #113	
						Correction Factor: 0.5°C	
						TO: 12/31/24	

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

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

QUESTIONS

Action 424290

**QUESTIONS**

Operator: J & J Investments, LLC 132257 Lovington Hwy Loco Hills, NM 88255	OGRID: 331241
	Action Number: 424290
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

<b>Prerequisites</b>	
Incident ID (n#)	nAPP2307633795
Incident Name	NAPP2307633795 SHAHARA STATE UNIT # 008 INJ. @ 30-025-01438
Incident Type	Produced Water Release
Incident Status	Reclamation Report Received
Incident Well	[30-025-01438] SHAHARA STATE UNIT #008

**Location of Release Source***Please answer all the questions in this group.*

Site Name	SHAHARA STATE UNIT # 008 INJ.
Date Release Discovered	03/06/2023
Surface Owner	State

**Incident Details***Please answer all the questions in this group.*

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

**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	Not answered.
Produced Water Released (bbls) Details	Cause: Other   Flow Line - Injection   Produced Water   Released: 100 BBL   Recovered: 0 BBL   Lost: 100 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)	Injection line leak. Going to Shahara State Unit # 008 Injection Well. This line was cut in 2021 when DCP installed their Pipeline. Pipeline had been cut into. DCP had their contractor repair cut line. They did not get a good repair on the line. This all occurred before J & J Investments, LLC acquired the Property.

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QUESTIONS, Page 2

Action 424290

**QUESTIONS (continued)**

Operator: J & J Investments, LLC 132257 Lovington Hwy Loco Hills, NM 88255	OGRID: 331241
	Action Number: 424290
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**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: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

**Initial Response**

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

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

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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

I hereby agree and sign off to the above statement	Name: Josie Ciempa Title: Vice President Email: jnjinvestments@pvtn.net Date: 02/26/2024
--	---

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QUESTIONS, Page 3

Action 424290

**QUESTIONS (continued)**

Operator: J & J Investments, LLC 132257 Lovington Hwy Loco Hills, NM 88255	OGRID: 331241
	Action Number: 424290
	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 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 500 and 1000 (ft.)
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 1000 (ft.) and ½ (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 5 (mi.)
A wetland	Between 500 and 1000 (ft.)
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	Low
A 100-year floodplain	Greater than 5 (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)	16000
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	0
GRO+DRO (EPA SW-846 Method 8015M)	0
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
<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	09/15/2024
On what date will (or did) the final sampling or liner inspection occur	10/15/2024
On what date will (or was) the remediation complete(d)	10/15/2024
What is the estimated surface area (in square feet) that will be reclaimed	9769
What is the estimated volume (in cubic yards) that will be reclaimed	1520
What is the estimated surface area (in square feet) that will be remediated	9769
What is the estimated volume (in cubic yards) that will be remediated	1520
<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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QUESTIONS, Page 4

Action 424290

**QUESTIONS (continued)**

Operator: J & J Investments, LLC 132257 Lovington Hwy Loco Hills, NM 88255	OGRID: 331241
	Action Number: 424290
	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.)	<b>Yes</b>
Which OCD approved facility will be used for <b>off-site</b> disposal	<i>Not answered.</i>
<b>OR</b> which OCD approved well (API) will be used for <b>off-site</b> disposal	<i>Not answered.</i>
<b>OR</b> is the <b>off-site</b> disposal site, to be used, out-of-state	<b>No</b>
<b>OR</b> is the <b>off-site</b> disposal site, to be used, an NMED facility	<b>Yes</b>
What is the name of the NMED facility	Lea Land LLC
(Ex Situ) Excavation and <b>on-site</b> remediation (i.e. On-Site Land Farms)	<b>No</b>
(In Situ) Soil Vapor Extraction	<b>No</b>
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	<b>No</b>
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	<b>No</b>
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	<b>No</b>
Ground Water Abatement pursuant to 19.15.30 NMAC	<b>No</b>
OTHER (Non-listed remedial process)	<b>No</b>
<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: Andrew Parker Title: Consultant Email: <a href="mailto:andrew@mcnabbpartners.com">andrew@mcnabbpartners.com</a> Date: 08/01/2024
<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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QUESTIONS, Page 5  
  
Action 424290

QUESTIONS (continued)

Operator:  J & J Investments, LLC 132257 Lovington Hwy Loco Hills, NM 88255	OGRID:  331241
	Action Number:  424290
	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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QUESTIONS, Page 6

Action 424290

**QUESTIONS (continued)**

Operator: J & J Investments, LLC 132257 Lovington Hwy Loco Hills, NM 88255	OGRID: 331241
	Action Number: 424290
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

**QUESTIONS**

Sampling Event Information	
Last sampling notification (C-141N) recorded	412872
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	12/19/2024
What was the (estimated) number of samples that were to be gathered	1
What was the sampling surface area in square feet	300

**Remediation Closure Request**

*Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.*

Requesting a remediation closure approval with this submission	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	15836
What was the total volume (cubic yards) remediated	1530
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	15836
What was the total volume (in cubic yards) reclaimed	1530
Summarize any additional remediation activities not included by answers (above)	The OCD has approved the submitted Internal Manual Incident File Supporting Documentation (ENV) (IM-BNF), for incident ID (n#) nAPP2307633795, with the following conditions: • Variance request to 19.15.29.13D (1) NMAC limiting the reclamation standards to 2 feet rather than 4 based on physical conditions is approved. Attachment was provided.

*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 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: Andrew Parker Title: Consultant Email: <a href="mailto:aparker@vertexresource.com">aparker@vertexresource.com</a> Date: 01/23/2025
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Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

QUESTIONS, Page 7

Action 424290

**QUESTIONS (continued)**

Operator: J & J Investments, LLC 132257 Lovington Hwy Loco Hills, NM 88255	OGRID: 331241
	Action Number: 424290
	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	15836
What was the total volume of replacement material (in cubic yards) for this site	1600
<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 reseeded commence(d)	03/31/2025
Summarize any additional reclamation activities not included by answers (above)	The portion along the damaged DCP buried pipeline remains an open excavation to facilitate DCP planned repairs. Backfill material was stockpiled adjacent to the open DCP excavation. DCP is scheduled to repair their line by the end of January 2025. Upon DCP's repair, they will push-in the stockpiled backfill and contour. Final site contouring and seeding will occur late spring 2025 during the next favorable growing season.
<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 reseeded 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: Andrew Parker Title: Consultant Email: <a href="mailto:aparker@vertexresource.com">aparker@vertexresource.com</a> Date: 01/23/2025

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QUESTIONS, Page 8  
  
Action 424290

QUESTIONS (continued)

Operator:  J & J Investments, LLC 132257 Lovington Hwy Loco Hills, NM 88255	OGRID:  331241
	Action Number:  424290
	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 424290

CONDITIONS

Operator: J & J Investments, LLC 132257 Lovington Hwy Loco Hills, NM 88255	OGRID: 331241
	Action Number: 424290
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

CONDITIONS

Created By	Condition	Condition Date
nvez	None	4/30/2025