Volume calculator

There was no volume calculator prepared when the spill occurred.

Incident Number: nAB1616056900

Release Assessment and Closure

Aldabra 25 Fed #006H & #007H

Section 25, Township 23 South, Range 31 East

API: 30-015-38602

County: Eddy

Vertex File Number: 23E-04614

Prepared for:

Devon Energy Production Company, LP

Prepared by:

Vertex Resource Services Inc.

Date:

June 2024

Release Assessment and Closure
Aldabra 25 Fed #006H & #007H
Section 25, Township 23 South, Range 31 East
API: 30-015-38602
County: Eddy

Prepared for:
Devon Energy Production Company, LP
6488 Seven Rivers Highway
Artesia, New Mexico 88210

New Mexico Oil Conservation Division – District 2
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Stephanie McCarty, B.Sc.
ENVIRONMENTAL TECHNOLOGIST, REPORTING

May 31, 2024
Date

kent stallings P.G.

Kent Stallings, P.G.
SENIOR GEOLOGIST, REPORT REVIEW

June 07, 2024
Date

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1.0 Introduction

Devon Energy Production Company, LP (Devon) retained Vertex Resource Services Inc. (Vertex) to conduct a Release Assessment and Closure for an oil and produced water release that occurred on June 6, 2016, at Aldabra 25 Fed #006H & #007H API: 30-015-38602 (hereafter referred to as the "site"). Devon submitted initial C-141 Release Notification to New Mexico Oil Conservation Division (NMOCD) District 2 on June 7, 2016. Incident ID number nAB1616056900 was assigned to this incident.

This report provides a description of the release assessment and 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) related to NMOCD has been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NMOCD for closure of this release, with the understanding that restoration of this release site will be completed following remedial activities and reclamation will be deferred until such time as all oil and gas activities are terminated and the site is reclaimed as per NMAC 19.15.29.13.

2.0 Incident Description

The June 6, 2016, release occurred when the horizontal separator manway gasket failed, resulting in a release on pad and as an overspray. The incident was reported on June 7, 2016, and involved the release of approximately 25 barrels (bbl.) of oil. Approximately 15 bbl. of oil were recovered during the initial clean-up.

3.0 Site Characteristics

The site is located approximately 22.3 miles southeast of Malaga, New Mexico, at 32.1607, - 103.4335 (Google Inc., 2023). The legal location for the site is Section 25, Township 23 South and Range 31 East in Eddy County, New Mexico. The release area is located on Bureau of Land Management property. An aerial photograph and site schematic are presented on Figure 1.

The location is typical of oil and gas exploration and production sites in the Permian Basin and is currently used for oil and gas production, and storage. The following sections specifically describe the release area at the site on or in proximity to the constructed pad.

The surrounding landscape is associated with upland landforms with elevations ranging between 2,842 and 4,500 feet. The climate is semiarid with average annual precipitation ranging between 8 and 13 inches. Using information from the United States Department of Agriculture, the dominant vegetation was determined to be grasses with shrubs. The historical plant community is dominated by giant dropseed (*Sporobolus giganteus*) and other dropseeds (*S. flexuosus, S. contractus, S. cryptandrus*), with scattered shinnery oak (*Quercus havardii*) and soapweed yucca (*Yucca glauca*; United States Department of Agriculture, Natural Resources Conservation Service, 2023). Limited to no vegetation is allowed to grow on the compacted production pad, right-of-way and access road.

The surface geology at the site primarily comprises Qep – Eolian and piedmont deposits from the Holocene to middle Pleistocene (New Mexico Bureau of Geology and Mineral Resources, 2023) and the soil at the site is characterized as

fine sand (United States Department of Agriculture, Natural Resources Conservation Service, 2023). Additional soil characteristics include a drainage class of excessively drained with a very negligible runoff class. The karst geology potential for the site is low (United States Department of the Interior, Bureau of Land Management, 2018).

4.0 Closure Criteria Determination

The nearest active well to the site are New Mexico Office of the State Engineer (NMOSE) exploratory borehole C-04790-POD-1, located approximately 0.39 miles west of the site, drilled on February 6, 2024 (United States Geological Survey, 2023). The borehole was advanced to a depth of 55 feet. The borehole was left to recharge as per the requirements on the WR-07 Application for Permit to Drill a Well with No Water Rights, and an Solinst Interface Meter probe model 122 was utilized to determine whether groundwater was present at the conclusion of the 72 hour recharge period. No water was found to be present at that time. The borehole was plugged and abandoned according to the WD-08 permit, Well Plugging Plan of Operations, filed with NMOSE. Documentation related to the exploratory borehole is included in Appendix A.

There is no surface water present at the site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is a riverine located approximately 4.6 miles northwest of the site (United States Fish and Wildlife Service, 2023).

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

Table 1. Closure Criteria Determination			
Site Name: Aldabra 25 Fed #006H & #007H Battery			
Spill Coordinates: 32.2686806,-103.7263489		**X: 619955.295**	**Y: 3570929.433**
Site Specific Conditions		**Value**	**Unit**
1	Depth to Groundwater (nearest reference)	**> 55**	feet
	Distance between release and nearest DTGW reference	**2,054**	feet
		0.39	miles
	Date of nearest DTGW reference measurement	**February 6, 2024**	
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	24,506	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	27,150	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	25,113	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, **or**	NA	feet
	ii) Within 1000 feet of any fresh water well or spring	49,213	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	10,950	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
	Distance between release and nearest registered mine	56,847	feet
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
	Distance between release and nearest unstable area	**37,683**	feet
10	Within a 100-year Floodplain	No	year
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	**34,641**	feet
11	Soil Type	fine sands	
12	Ecological Classification	Kermit-Berino fine sands, 0-3% slopes	
13	Geology	Qep	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	51-100'	<50' 51-100' >100'

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

Table 2. Closure Criteria for Soils Impacted by a Release

Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Limit
51 feet - 100 feet	Chloride	10,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg
	GRO+DRO	1,000 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

TDS – total dissolved solids
TPH – total petroleum hydrocarbons, GRO – gas range organics, DRO – diesel range organics, MRO – motor oil range organics
BTEX – benzene, toluene, ethylbenzene and xylenes

5.0 Remedial Actions Taken

An initial site inspection of the release area was started on August 25, 2023, and completed on April 29, 2024, which identified the area of the releases specified in the initial C-141 Reports and estimated the approximate volume of the release. The impacted area was determined to be approximately 250 feet long and 126 feet wide; the total affected area was 13,552 square feet (Figure 1). Overspray was reported on vegetation to the northeast but no exceedances to criteria were found in the vegetation during characterization. Initial characterization field screening results are presented in Table 3. Laboratory Report Number 2312374 (Appendix D) contains data related to a separate incident from incident nAB1616056900 for sample points BH23-12, BH23-13, BH23-14, BH23-15 and BH23-16. The Daily Field Reports (DFRs) associated with the site inspection are included in Appendix B.

Remediation efforts began on April 9, 2024, and were finalized on April 29, 2024. Vertex personnel supervised the excavation of impacted soils. Field screening was completed on a total of 15 sample points and consisted of analysis using Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons), electrical conductivity meter and silver nitrate titration (chlorides). Field screening results were used to identify areas requiring further remediation. Soils were removed to a depth of 2 to 10 feet below ground surface. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility. Field screening results and DFRs documenting various phases of the remediation are presented in Appendix B

Notification that confirmatory samples were being collected on April 19, 2024, was provided to the NMOCD on April 16, 2024, and is included in Appendix C. Confirmatory composite samples were collected from the base and walls of the excavation in 200 square foot increments. A total of 15 samples were collected for laboratory analysis following NMOCD soil sampling procedures. Samples were submitted to Eurofins Albuquerque, under chain-of-custody protocols and analyzed for BTEX (EPA Method 8021B), total petroleum hydrocarbons (GRO, DRO, MRO – EPA Method 8015D) and total chlorides (EPA Method 300.0). Laboratory results are presented in Table 4, and the laboratory data reports are included in Appendix D. All confirmatory samples collected and analyzed were below closure criteria for the site.

6.0 Closure Request

The release area was fully delineated, remediated, and backfilled with local soils by April 29, 2024. Confirmatory samples were analyzed by the laboratory and found to be below allowable concentrations as per the NMAC Closure Criteria for Soils Impacted by a Release locations “51 - 100 feet to groundwater”. Based on these findings, Devon Energy Production Company, LP requests that this release be closed.

Should you have any questions or concerns, please do not hesitate to contact Kent Stallings at 346.814.1413 or kstallings@vertex.ca.

7.0 References

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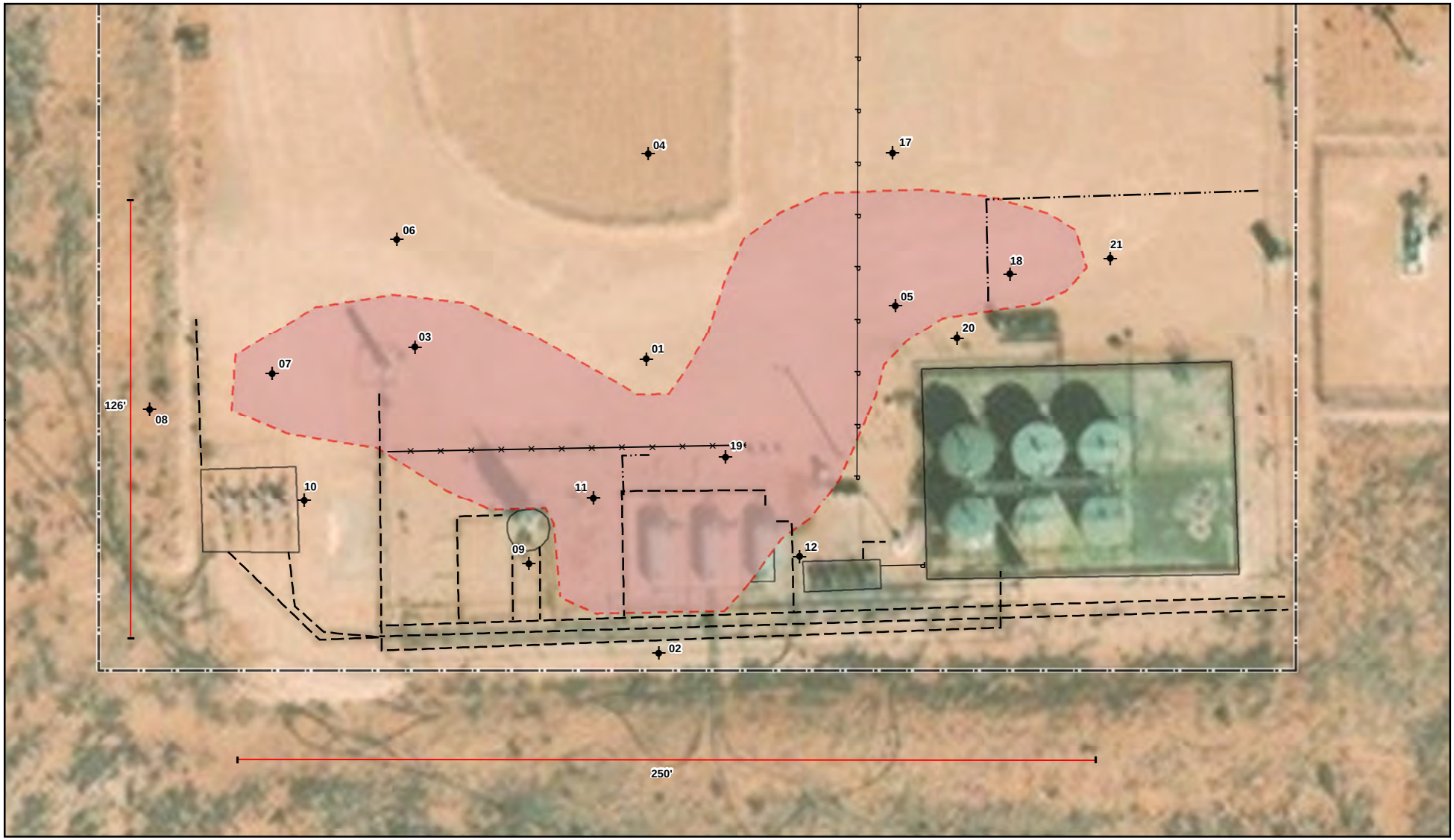
United States Geological Survey. (2023). *National Water Information System: Web Interface*. Retrieved from https://waterdata.usgs.gov/nwis

8.0 Limitations

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

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

FIGURES



Borehole (Prefixed by "BH23- or BH24-")
Pipeline (Aboveground)
Powerline
Approximate Release Area (~ 13,552 sq. ft.)
Fence
Pipeline (Underground)
Approximate Lease Boundary
Infrastructure (Existing)

VERTEX

0 20 40 ft

Map Center:
Lat/Long: 32.268409, -103.726402

NAD 1983 UTM Zone 13N
Date: May 21/24

N

Characterization Sampling Site Schematic
Aldabra 25 Fed #006H & #007H

FIGURE:
1

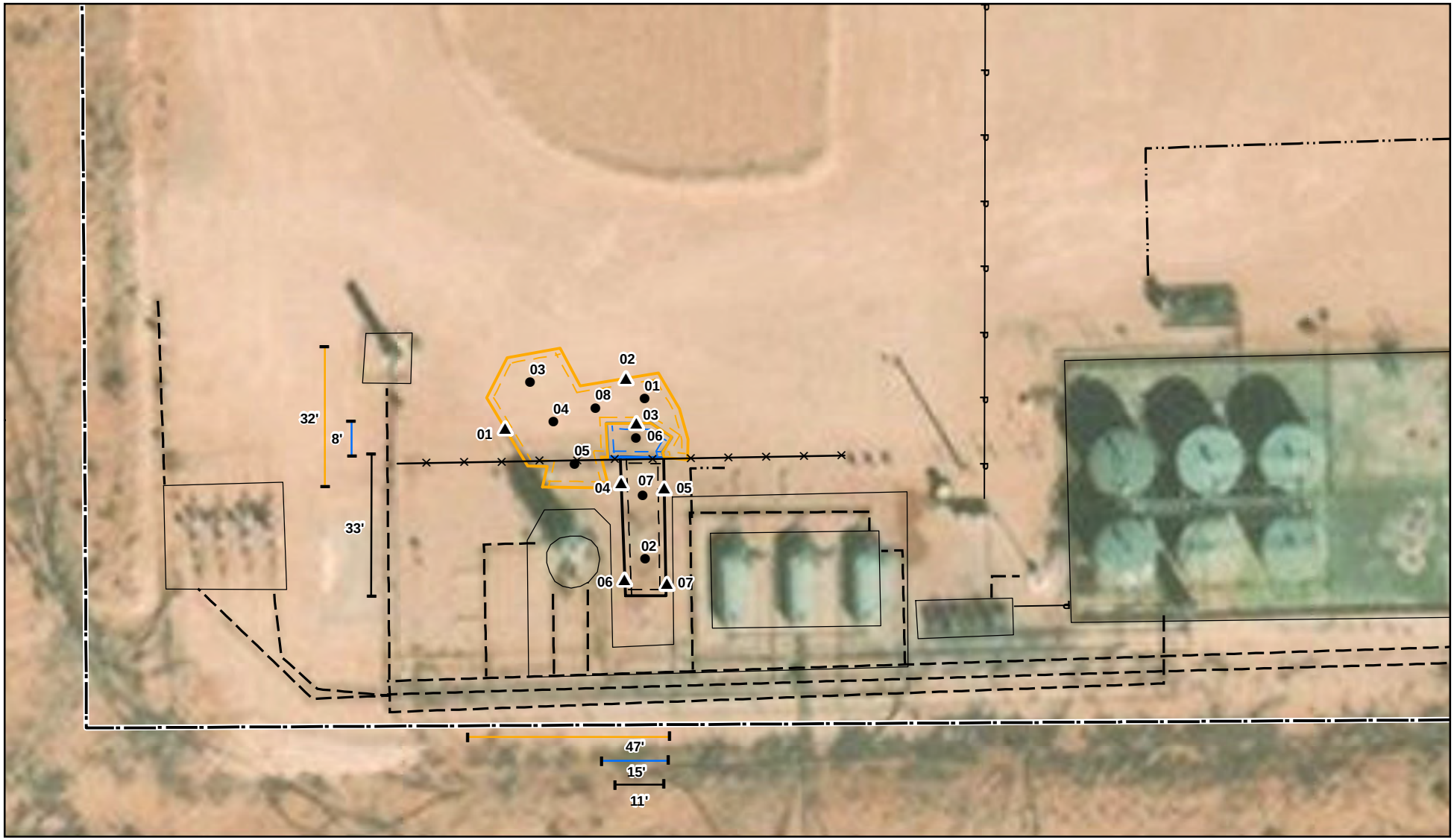
devon

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, 2022. Approximate Lease boundary from imagery by Vertex Professional Services Ltd. (Vertex), 2024. Site features from GPS by Vertex, 2024.

VERSATILITY. EXPERTISE.

Document Path: S:\04 - Geomatics\1-Projects_US PROJECTS\Devon Energy Corporation\2023\23E-04614 - Aldabra 25 Fed #006\Figure 1 Characterization Sampling Site Schematic (23E-04614)D18348.mxd



Base Sample (Prefixed by "BS24-")
Wall Sample (Prefixed by "WS24-")
Fence
Pipeline (Aboveground)
Pipeline (Underground)
Powerline
Approximate Lease Boundary
Infrastructure (Existing)
Excavation to 2' bgs (~853 sq.ft.)
Excavation to 6' bgs (~106 sq.ft.)
Excavation to 10' bgs (~313 sq.ft.)

VERTEX

0 15 30 ft

Map Center:
Lat/Long: 32.268412, -103.726473

NAD 1983 UTM Zone 13N
Date: May 21/24

N

Confirmation Sampling Site Schematic
Aldabra 25 Fed #006H & #007H

FIGURE:
2

devon

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, 2022. Approximate Lease boundary from imagery by Vertex Professional Services Ltd. (Vertex), 2023. Site features from GPS by Vertex, 2024.

VERSATILITY. EXPERTISE.

Document Path: S:\04 - Geomatics\1-Projects_US PROJECTS\Devon Energy Corporation\2023\23E-04614 - Aldabra 25 Fed #006\Figure 2 Confirmation Sampling Site Schematic (23E-04614)ID18345.mxd

TABLES

Client Name: Devon Energy Production Company, LP
Site Name: Aldabra 25 Federal #006H & #007H
NMOCD Tracking #: nAB1616056900
Project #: 23E-04614
Lab Reports: 2308F29, 2312269, 2312374, 2312527, 2402007, 885-2899-1 and 885-3646-1

Table 3. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater 51 - 100 feet bgs

Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
						Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH23-01	0	August 25, 2023	-	0	476	ND	ND	ND	ND	ND	ND	ND	300
	2	August 25, 2023	-	24	0	ND	ND	ND	ND	ND	ND	ND	ND
	4	August 25, 2023	-	12	0	ND	ND	ND	ND	ND	ND	ND	ND
	6	August 25, 2023	-	15	0	ND	ND	ND	ND	ND	ND	ND	ND
BH23-02	0	August 25, 2023	-	0	0	ND	ND	ND	ND	ND	ND	ND	ND
	2	August 25, 2023	-	0	0	ND	ND	ND	ND	ND	ND	ND	ND
BH23-03	0	August 25, 2023	-	63	0	ND	ND	ND	920	820	920	1740	ND
	2	August 25, 2023	0	25	0	ND	ND	ND	ND	ND	ND	ND	ND
BH23-04	0	August 25, 2023	-	8	0	ND	ND	ND	ND	ND	ND	ND	ND
	2	August 25, 2023	-	12	0	ND	ND	ND	ND	ND	ND	ND	ND
BH23-05	0	April 10, 2024	-	-	1,200	ND	ND	ND	ND	ND	ND	ND	1000
	2	April 9, 2024	-	-	1,200	ND	ND	ND	ND	ND	ND	ND	1300
	9	April 11, 2024	-	-	1,655	ND	ND	ND	ND	ND	ND	ND	1600
BH23-06	0	December 5, 2023	0	21	150	ND	ND	ND	ND	ND	ND	ND	ND
	2	December 5, 2023	0	42	57	ND	ND	ND	ND	ND	ND	ND	ND
BH23-07	0	December 4, 2023	0	67	1,506	ND	ND	ND	ND	ND	ND	ND	2200
	2	December 4, 2023	0	42	414	ND	ND	ND	ND	ND	ND	ND	250
BH23-08	0	December 4, 2023	0	89	119	ND	ND	ND	ND	ND	ND	ND	63
	2	December 4, 2023	0	33	144	ND	ND	ND	ND	ND	ND	ND	87
BH23-09	0	December 5, 2023	0	27	116	ND	ND	ND	ND	ND	ND	ND	ND
	2	December 5, 2023	0	30	47	ND	ND	ND	ND	ND	ND	ND	ND
BH23-10	0	December 4, 2023	0	60	187	ND	ND	ND	ND	ND	ND	ND	130
	2	December 4, 2023	0	30	34	ND	ND	ND	ND	ND	ND	ND	ND
BH23-11	0	December 5, 2023	0	28	112	ND	ND	ND	370	870	370	1240	ND
	2	December 5, 2023	0	1,078	69	ND	ND	ND	940	790	940	1730	ND
	4	December 5, 2023	0	8,320	ND	ND	ND	ND	1200	1100	**1200**	**2300**	ND
	5	December 5, 2023	0	7,490	-	ND	ND	ND	1900	1700	**1900**	**3800**	ND
	6	December 6, 2023	1	1,164	ND	ND	ND	ND	3500	2900	**3500**	**6400**	ND
	8	December 6, 2023	6	1,134	40	ND	ND	ND	2200	1600	**2200**	**3800**	97
	9	December 6, 2023	2	1,175	141	ND	ND	ND	2800	1800	**2800**	**4600**	140
	10	January 30, 2024	0	-	1,418	-	-	-	-	-	-	-	-
	12	January 30, 2024	0	-	1,281	ND	ND	ND	ND	ND	ND	ND	1100
	13.5	January 30, 2024	0	11	149	ND	ND	ND	ND	ND	ND	ND	110
BH23-12	0	December 5, 2023	0	32	121	ND	ND	ND	ND	ND	ND	ND	ND
	2	December 5, 2023	0	13	96	ND	ND	ND	ND	ND	ND	ND	ND
BH23-13	0	December 5, 2023	0	-	1,597	ND	ND	ND	11	ND	11	11	2300
	2	December 5, 2023	0	-	421	ND	ND	ND	ND	ND	ND	ND	290
BH23-14	0	December 5, 2023	0	34	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2	December 5, 2023	0	33	43	ND	ND	ND	ND	ND	ND	ND	ND
BH23-15	0	December 5, 2023	0	20	443	ND	ND	ND	ND	ND	ND	ND	480
	2	December 5, 2023	0	1	370	ND	ND	ND	ND	ND	ND	ND	300
BH23-16	0	December 5, 2023	0	44	124	ND	ND	ND	13	ND	13	13	ND
	2	December 5, 2023	0	7	80	ND	ND	ND	ND	ND	ND	ND	ND
BH24-17	0	April 10, 2024	-	115	267	ND	ND	ND	ND	ND	ND	ND	360
	2	April 10, 2024	-	61	466	ND	ND	ND	ND	ND	ND	ND	410
BH24-18	0	April 10, 2024	-	84	84	ND	ND	ND	ND	ND	ND	ND	940
	2	April 10, 2024	-	29	215	ND	ND	ND	ND	ND	ND	ND	370
BH24-19	0	April 10, 2024	-	279	236	-	-	-	-	-	-	-	-
BH24-20	0	April 11, 2024	-	240	616	ND	ND	ND	20	ND	20	20	440
	2	April 11, 2024	-	100	190	ND	ND	ND	ND	ND	ND	ND	120

Client Name: Devon Energy Production Company, LP
Site Name: Aldabra 25 Federal #006H & #007H
NMOCD Tracking #: nAB1616056900
Project #: 23E-04614
Lab Reports: 2308F29, 2312269, 2312374, 2312527, 2402007, 885-2899-1 and 885-3646-1

Table 3. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater 51 - 100 feet bgs

Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
						Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH24-21	0	April 29, 2024	-	43	568	ND	ND	ND	ND	ND	ND	ND	500
	2	April 29, 2024	-	46	575	ND	ND	ND	ND	ND	ND	ND	360

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and grey shaded indicates exceedance outside of NMOCD Closure Criteria (on-pad)

Client Name: Devon Energy Production Company, LP
Site Name: Aldabra 25 Federal #006H & #007H Battery
NMOCD Tracking #: nAB1616056900
Project #: 23E-04614
Lab Report: 885-3291-1

Table 4. Confirmation Sample Field Screen and Laboratory Results - Depth to Groundwater 51 - 100 feet bgs

Sample Description			Field Screening		Petroleum Hydrocarbons							Inorganic
					Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
WS24-01	0 -2'	April 19, 2024	825	157	ND	ND	ND	480	270	480	750	130
WS24-02	0 - 2'	April 19, 2024	155	230	ND	ND	ND	38	ND	38	38	280
WS24-03	2 - 6'	April 19, 2024	120	374	ND	ND	ND	88	53	88	141	290
WS24-04	0 - 10'	April 19, 2024	773	229	ND	ND	ND	780	510	780	1290	110
WS24-05	0 - 10'	April 19, 2024	325	170	ND	ND	ND	190	130	190	320	280
WS24-06	0 - 10'	April 19, 2024	725	355	ND	ND	ND	300	260	300	560	260
WS24-07	0 - 10'	April 19, 2024	381	176	ND	ND	ND	240	190	240	430	94
BS24-01	2'	April 19, 2024	347	447	ND	ND	ND	360	170	360	530	360
BS24-02	10'	April 19, 2024	668	2,856	ND	ND	ND	280	260	280	540	2300
BS24-03	2'	April 19, 2024	573	294	ND	ND	ND	140	110	140	250	180
BS24-04	2'	April 19, 2024	130	83	ND	ND	ND	44	ND	44	44	74
BS24-05	2'	April 19, 2024	23	82	ND	ND	ND	ND	ND	ND	ND	ND
BS24-06	6'	April 19, 2024	325	402	ND	ND	ND	380	180	380	560	290
BS24-07	10'	April 19, 2024	218	780	ND	ND	ND	170	140	170	310	760
BS24-08	2'	April 19, 2024	361	233	ND	ND	ND	250	130	250	380	200

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and grey shaded indicates exceedance outside of NMOCD Closure Criteria (on-pad)

APPENDIX A – Closure Criteria Research Documentation

Closure Criteria Determination			
Site Name: Aldabra 25 Fed #006H & #007H Battery			
Spill Coordinates: 32.2686806,-103.7263489		X: 619955.295	Y: 3570929.433
Site Specific Conditions		Value	Unit
1	Depth to Groundwater (nearest reference)	> 55	feet
	Distance between release and nearest DTGW reference	2,054	feet
		0.39	miles
	Date of nearest DTGW reference measurement	February 6, 2024	
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	24,506	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	27,150	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	25,113	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, **or**	NA	feet
	ii) Within 1000 feet of any fresh water well or spring	49,213	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	10,950	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
	Distance between release and nearest registered mine	56,847	feet
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
	Distance between release and nearest unstable area	**37,683**	feet
10	Within a 100-year Floodplain	No	year
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	**34,641**	feet
11	Soil Type	fine sands	
12	Ecological Classification	Kermit-Berino fine sands, 0-3% slopes	
13	Geology	Qep	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	51-100'	<50' 51-100' >100'

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
C4790-POD1	C4790	C04790

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Devon Energy Resources	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
205 E Bender Road #150	Hobbs	NM	88240

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	16	6.708	N
	LONGITUDE	-103	43	59.556	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1833	Jason Maley	Vision Resources

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
2-6-24	2-6-24	55'	55'	Dry

COMPLETED WELL IS: ☐ ARTESIAN *add Centralizer info below ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): 0'

DATE STATIC MEASURED: 2-10-24

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☐

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	45'	6"	2" PVC SCH40	Thread	2"	SCH40	N/A
45'	55'	6"	2" PVC SCH40	Thread	2"	SCH40	.02

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL *(if using Centralizers for Artesian wells- indicate the spacing below)	AMOUNT (cubic feet)	METHOD OF PLACEMENT
			None Pulled and plugged		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	40'	40'	Red dirt with small rocks	Y ✓ N	
40'	55'	15'	Tan fine sand with small rocks	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY: Dry

TOTAL ESTIMATED WELL YIELD (gpm): 0

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jason Maley

SIGNATURE OF DRILLER / PRINT SIGNEE NAME

6/21/24

DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO.	POD NO.	TRN NO.	
LOCATION		WELL TAG ID NO.	PAGE 2 OF 2

PLUGGING RECORD

NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4790-POD1

Well owner: Devon Energy Resources Phone No.: _____

Mailing address: 205 E Bender Road #150

City: Hobbs State: NM Zip code: 88240

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Vision Resources

2) New Mexico Well Driller License No.: 1833 Expiration Date: 10-7-25

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Jason Maley

4) Date well plugging began: 2-10-24 Date well plugging concluded: 2-10-24

5) GPS Well Location: Latitude: 32 deg, 16 min, 6.708 sec
Longitude: -103 deg, 43 min, 59.556 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 55' ft below ground level (bgl), by the following manner: Tape

7) Static water level measured at initiation of plugging: 0 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12-6-23

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

Version: September 8, 2009
Page 1 of 2

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
0		77.50	77.50	Tremie pipe Open Hole	
	Wyoming Bentonite				
55'					

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

I, Jason Maley, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller — Date: 2/2/24

Version: September 8, 2009
Page 2 of 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
~~C-04712~~ POD 1		C-4712

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Harvard Petroleum Company	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
PO Box 936	Roswell	NM	88202

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	15	46.1	N
	LONGITUDE	-103	42	58.4	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1833	Jason Maley	Vision Resources

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
Mar 9, 2023	3/9/23	55	55	Dry

COMPLETED WELL IS: ☐ ARTESIAN *add Centralizer info below ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): Dry

DATE STATIC MEASURED: Dry

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☐

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	45	6	2" pvc sch 40	Thread	2"	Sch 40	—
45	55	6	2" pvc sch 40	Tread	2"	Sch 40	.02

OSE DIT APR 4 2023 PM 1:22

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL *(if using Centralizers for Artesian wells- indicate the spacing below)	AMOUNT (cubic feet)	METHOD OF PLACEMENT
			None Pulled And Plugged		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO. C-4712-POD1	POD NO. 1	TRN NO. 743189	
LOCATION Mon 23.32.31.141		WELL TAG ID NO. —	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	20	20	White Caliche	Y (N)	
20	45	25	Brown fine Sand	Y (N)	
45	55	10	Red sandy Caliche	Y (N)	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): Dry

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

OSE DII APR 4 2023 PM1:23

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

JMaley Jason Maley 3/24/23

SIGNATURE OF DRILLER / PRINT SIGNEE NAME DATE

FOR OSE INTERNAL USE WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO. C-4712-POD1	POD NO. 1	TRN NO. 743189	
LOCATION Non 23.32.31.141		WELL TAG ID NO. —	PAGE 2 OF 2

Mike A. Hamman, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 743189
File Nbr: C 04712
Well File Nbr: C 04712 POD1

Apr. 04, 2023

VERTEX RESOURCES
P.O. BOX 936
ROSWELL, NM 88202

Greetings:

The above numbered permit was issued in your name on 02/21/2023.

The Well Record was received in this office on 04/04/2023, stating that it had been completed on 03/09/2023, and was a dry well. The well is to be plugged according to 19.27.4.30 NMAC.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 02/21/2024.

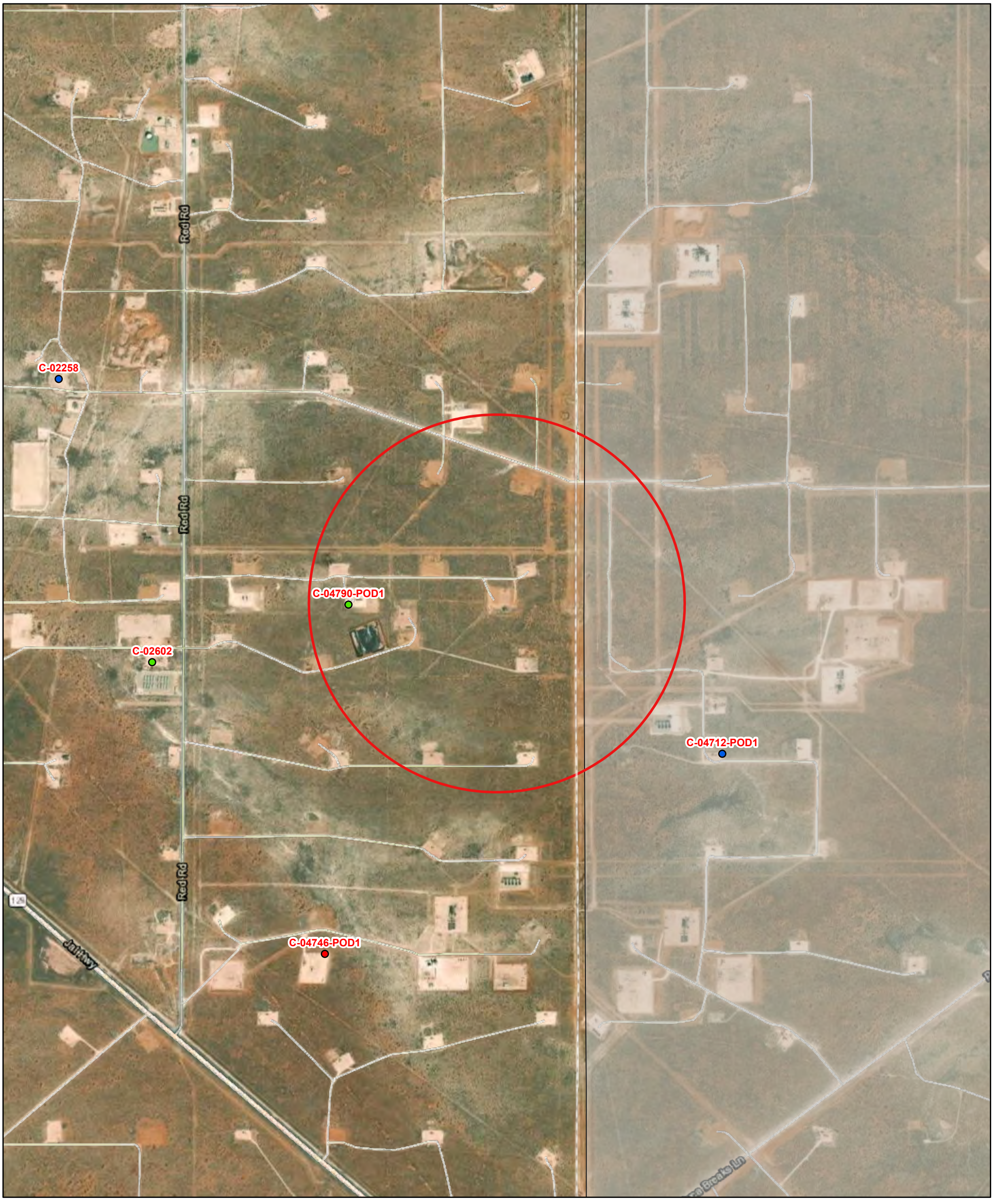
If you have any questions, please feel free to contact us.

Sincerely,

Maret Thompson
(575)622-6521

drywell

OSE POD Location Map



2/19/2024, 2:10:00 PM

Override 1

GIS WATERS PODs

- Active
- Pending
- Plugged

OSE District Boundary

Water Right Regulations

- Closure Area
- Artesian Planning Area

1:18,056

0 0.17 0.35 0.7 mi

0 0.28 0.55 1.1 km

Esri, HERE, iPC, Esri, HERE, Garmin, iPC, Maxar

Online web user

This is an unofficial map from the OSE's online application.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Aldabra 25 Fed #006H - Watercourse - 24,506ft

December 7, 2023

Wetlands

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

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

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

U.S. Fish and Wildlife Service
National Wetlands Inventory

Lakebed - Aldabra 25 Fed 6H - 27,150 feet away

December 7, 2023

Wetlands

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

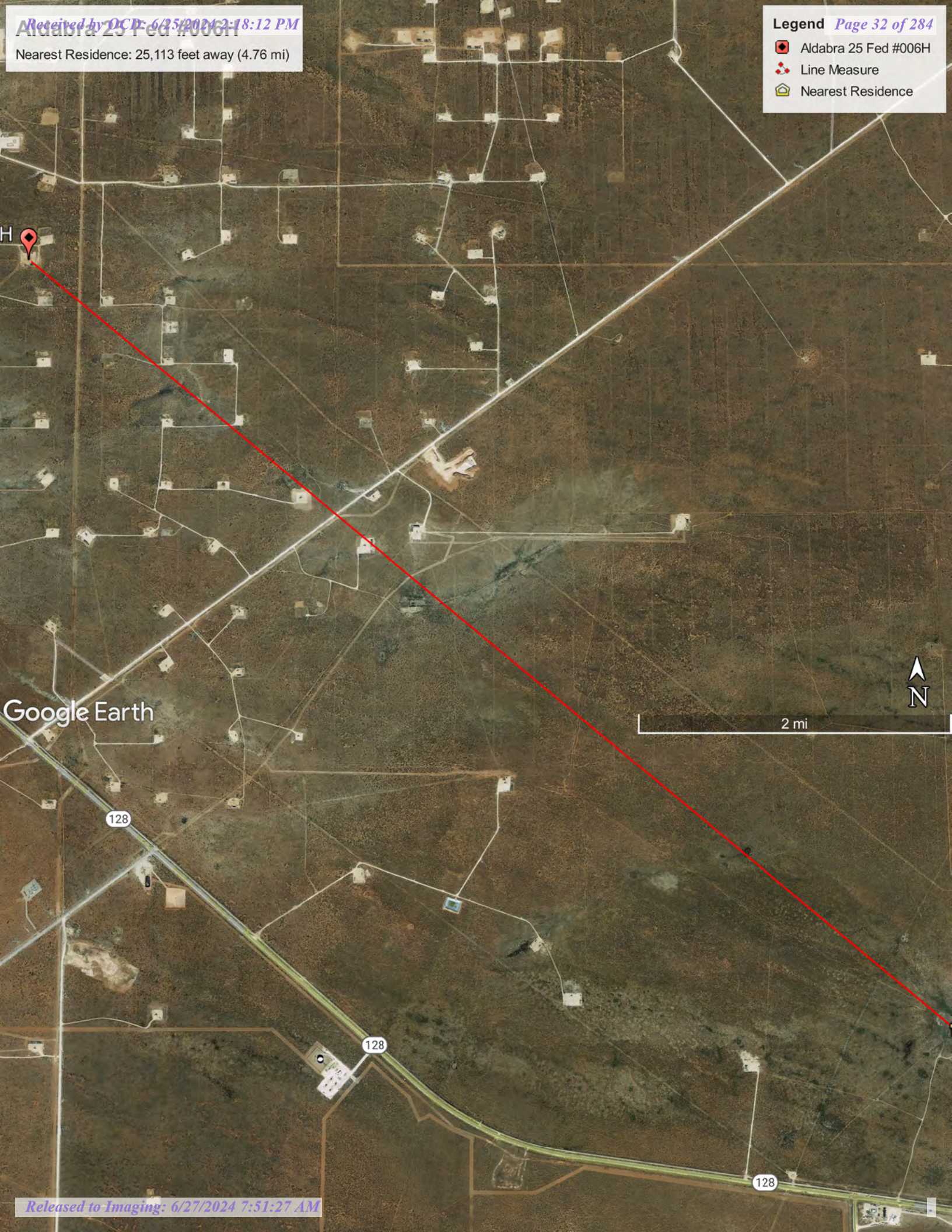
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Aldabra 25 Fed #006H

Nearest Residence: 25,113 feet away (4.76 mi)

Legend

- Aldabra 25 Fed #006H
- Line Measure
- Nearest Residence



Aldabra 25 Fed #006H
Nearest Spring

U.S. Fish and Wildlife Service
National Wetlands Inventory

Aldabra 25 Fed #006H Wetland 10,950 ft

February 2, 2024

Wetlands

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

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

Aldabra 25 Fed #006H Nearest Subsurface Mine10.8 Mi (56,847 ft)

2/19/2024, 3:58:49 PM

1:144,448

Registered Mines

Aggregate, Stone etc.

Aggregate, Stone etc.

Salt

Potash

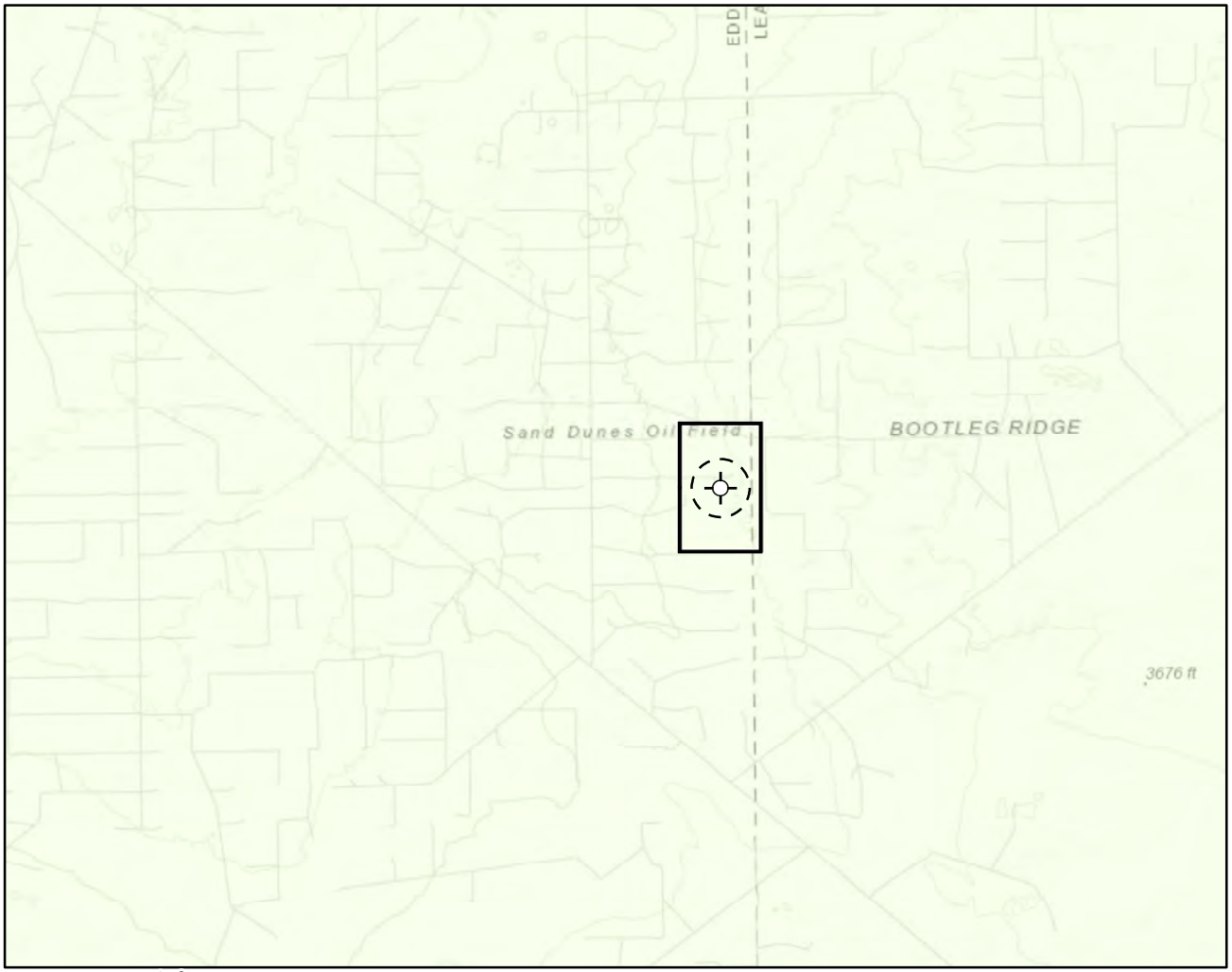
0 1 2 4 mi

0 1.5 3 6 km

Earthstar Geographics

EMNRD MMD GIS Coordinator

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



Karst Potential

- Critical
- High
- Medium
- Low
- Site Location
- Site Buffer (~1,000 ft.)

Overview Map

0 0.25 0.5 1 mi

Detail Map

0 150 300 600 ft

VERTEX

Map Center:
Lat/Long: 32.268681, -103.726349

NAD 1983 UTM Zone 13N
Date: Dec 13/23

N

Karst Potential Map
Aldabra 25 Federal #006H

FIGURE:
X

devon

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: Inset Map, ESRI 2022; Overview Map: ESRI World Topographic. Karst potential data sourced from Roswell Field Office, Bureau of Land Management, 2020 or United States Department of the Interior, Bureau of Land Management. (2018). Karst Potential.

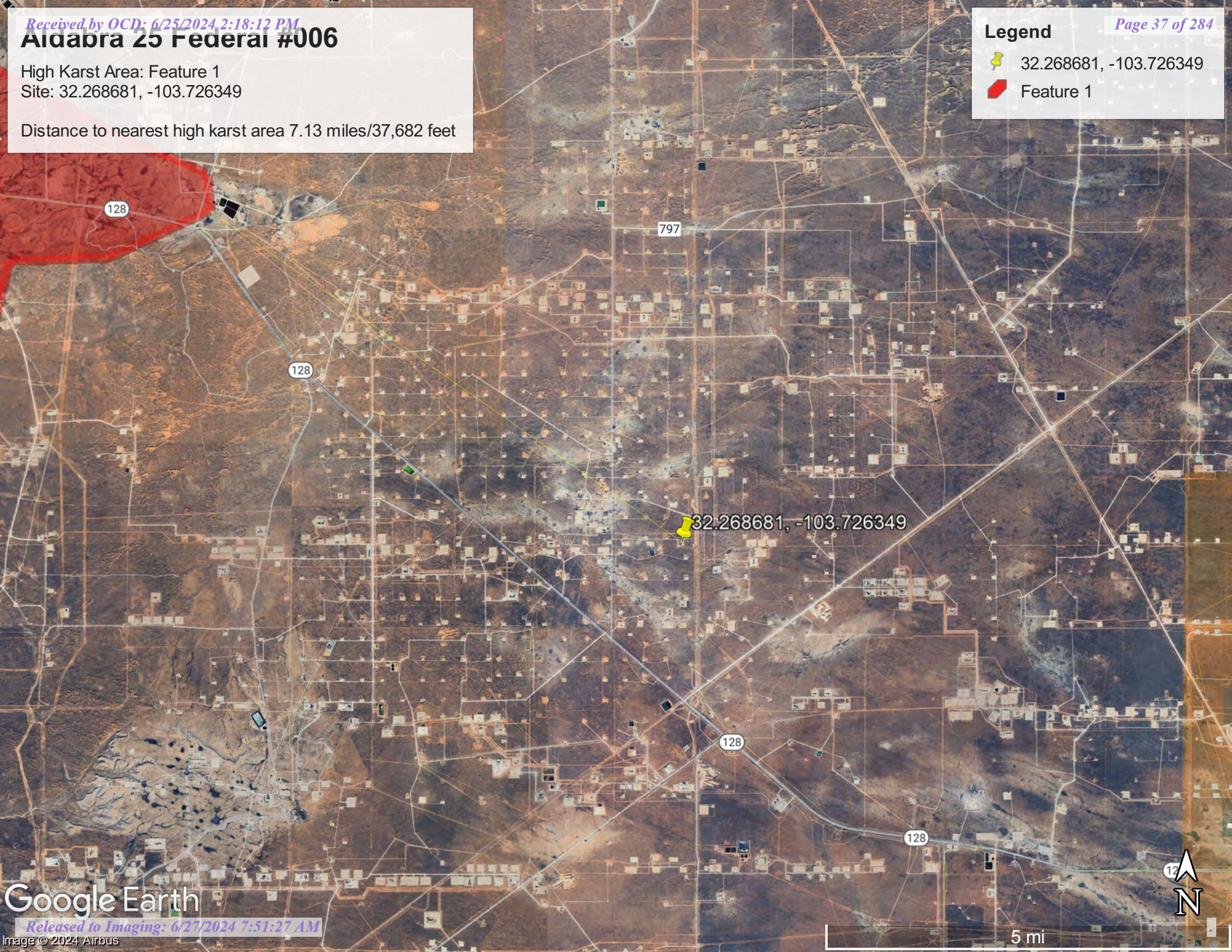
VERSATILITY. EXPERTISE.

Document Path: C:\Users\kmorash\OneDrive - Vertex Resource Group Ltd\Documents\Local Projects\US\Devon\Aldabra 25 Fed #006H\Figure X Karst Potential Map (23E-04614).mxd

Aldabra 25 Federal #006

High Karst Area: Feature 1
Site: 32.268681, -103.726349

Distance to nearest high karst area 7.13 miles/37,682 feet



National Flood Hazard Layer FIRMette

FEMA

103°43'55"W 32°16'21"N

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

1:6,000

103°43'17"W 32°15'51"N

Basemap Imagery Source: USGS National Map 2023

Legend

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

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

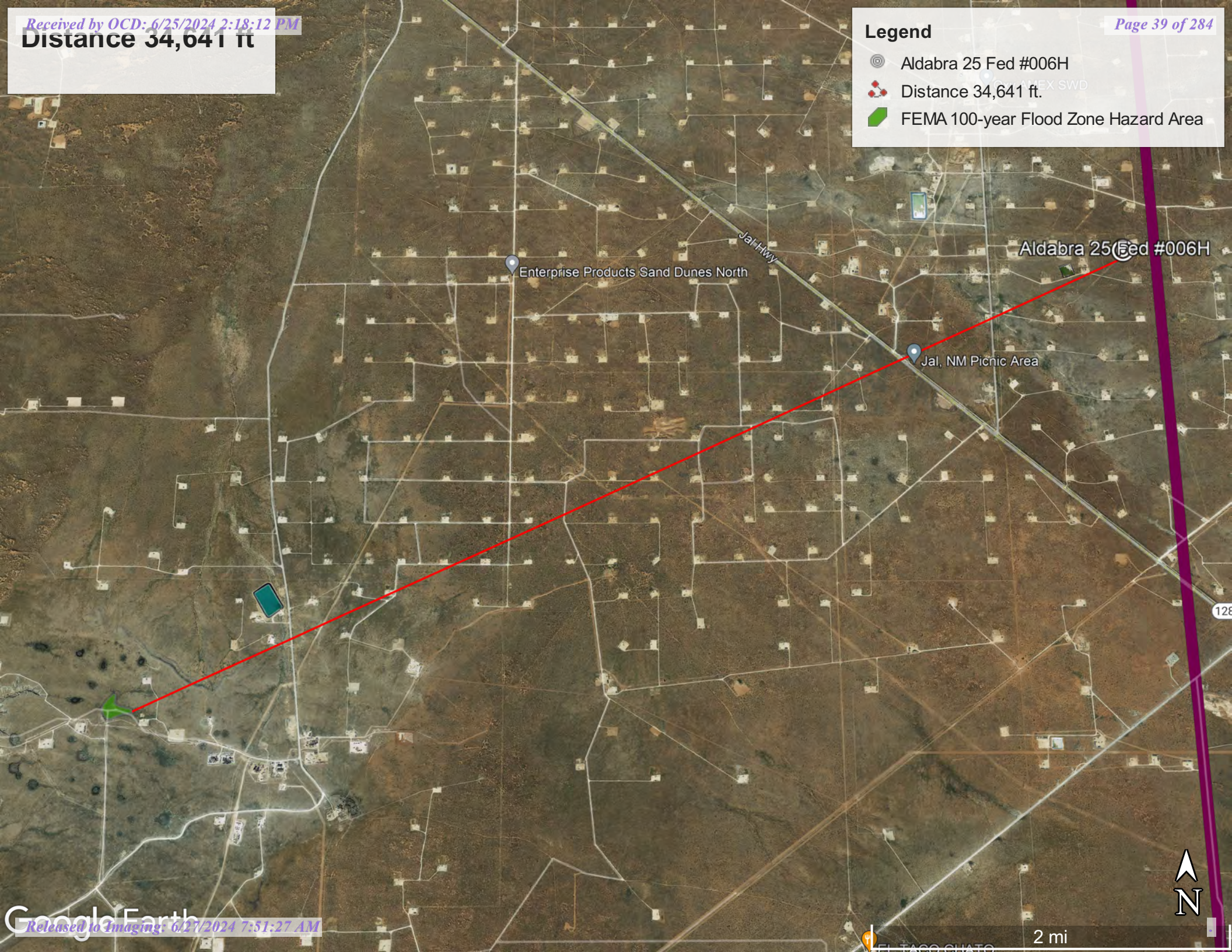
N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/30/2024 at 10:53 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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



United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for Eddy Area, New Mexico, and Lea County, New Mexico

December 7, 2023

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

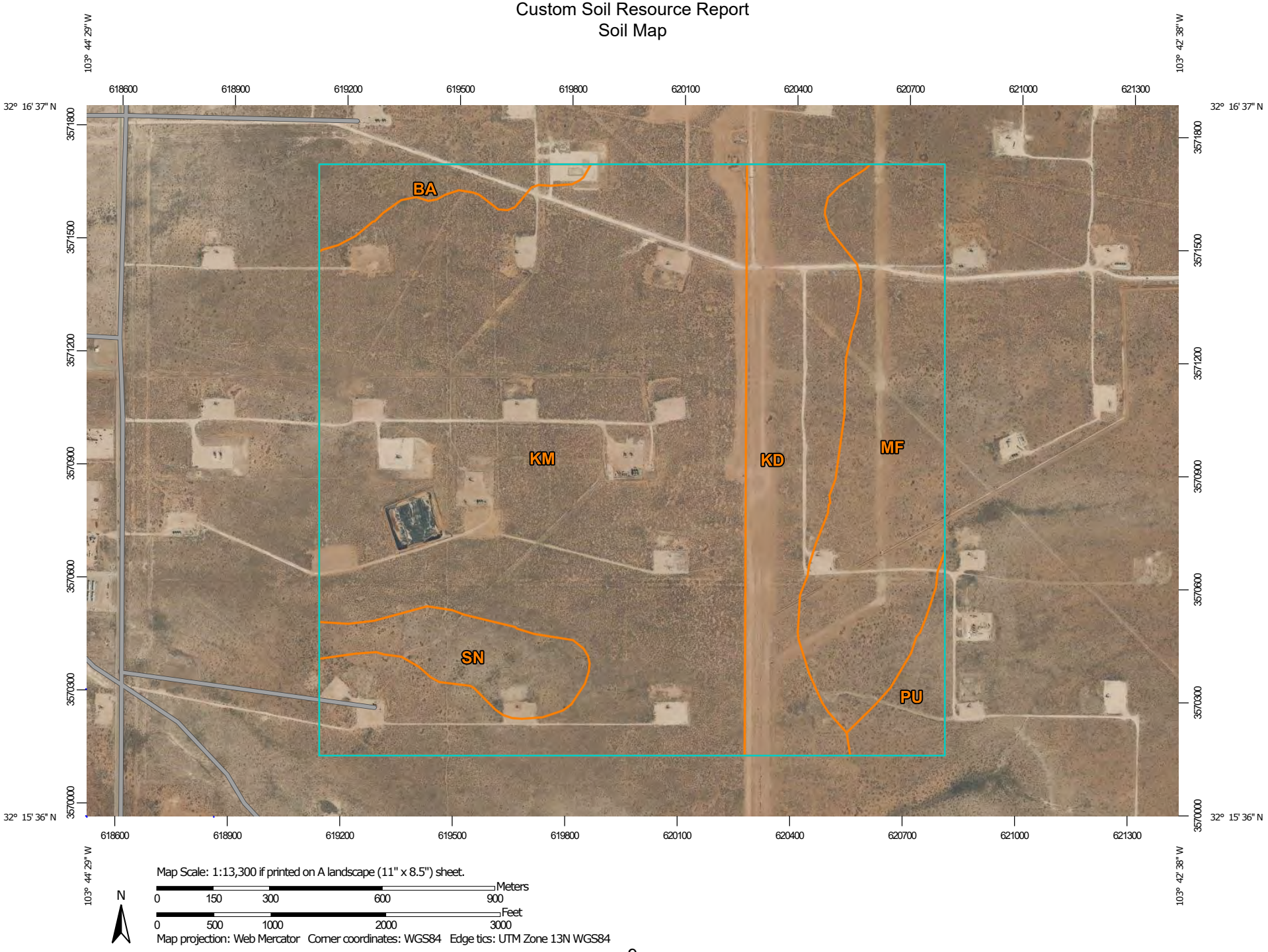
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 20, Sep 6, 2023

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

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

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BA	Berino loamy fine sand, 0 to 3 percent slopes	19.2	3.0%
KM	Kermit-Berino fine sands, 0 to 3 percent slopes	395.3	60.8%
SN	Simona and Wink fine sandy loams, 0 to 3 percent slopes, eroded	28.7	4.4%
Subtotals for Soil Survey Area		**443.2**	**68.2%**
Totals for Area of Interest		**649.9**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KD	Kermit-Palomas fine sands, 0 to 12 percent slopes	89.8	13.8%
MF	Maljamar and Palomas fine sands, 0 to 3 percent slopes	101.6	15.6%
PU	Pyote and Maljamar fine sands	15.3	2.4%
Subtotals for Soil Survey Area		**206.7**	**31.8%**
Totals for Area of Interest		**649.9**	**100.0%**

Map Unit Descriptions

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

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

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

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

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

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

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

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

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

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

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

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

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

Eddy Area, New Mexico

BA—Berino loamy fine sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w42
Elevation: 2,000 to 5,700 feet
Mean annual precipitation: 6 to 14 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 180 to 260 days
Farmland classification: Not prime farmland

Map Unit Composition

Berino and similar soils: 99 percent
Minor components: 1 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Berino

Setting

Landform: Plains, fan piedmonts
Landform position (three-dimensional): Riser
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 12 inches: loamy fine sand
H2 - 12 to 58 inches: sandy clay loam
H3 - 58 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BC007NM - Loamy
Hydric soil rating: No

Minor Components

Pajarito

Percent of map unit: 1 percent
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

KM—Kermit-Berino fine sands, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w4q
Elevation: 3,100 to 4,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 60 to 64 degrees F
Frost-free period: 190 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Kermit and similar soils: 50 percent
Berino and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kermit

Setting

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

Typical profile

H1 - 0 to 7 inches: fine sand
H2 - 7 to 60 inches: fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R070BD005NM - Deep Sand
Hydric soil rating: No

Description of Berino

Setting

Landform: Plains, fan piedmonts
Landform position (three-dimensional): Riser
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 17 inches: fine sand
H2 - 17 to 50 inches: fine sandy loam
H3 - 50 to 58 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Active dune land

Percent of map unit: 15 percent
Hydric soil rating: No

SN—Simona and Wink fine sandy loams, 0 to 3 percent slopes, eroded

Map Unit Setting

National map unit symbol: 1w5y
Elevation: 3,000 to 4,200 feet
Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 60 to 64 degrees F
Frost-free period: 200 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Simona and similar soils: 45 percent
Wink and similar soils: 40 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Simona

Setting

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

Typical profile

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

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 7 to 20 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): 4s
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: R070BD002NM - Shallow Sandy

Hydric soil rating: No

Description of Wink

Setting

Landform: Swales, depressions
Landform position (three-dimensional): Talf
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 8 inches: fine sandy loam
H2 - 8 to 38 inches: fine sandy loam
H3 - 38 to 60 inches: stratified gravelly variable

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Low (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R070BD004NM - Sandy
Hydric soil rating: No

Minor Components

Dune land

Percent of map unit: 15 percent
Hydric soil rating: No

Lea County, New Mexico

KD—Kermit-Palomas fine sands, 0 to 12 percent slopes

Map Unit Setting

National map unit symbol: dmpv
Elevation: 3,000 to 4,400 feet
Mean annual precipitation: 10 to 12 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Kermit and similar soils: 70 percent
Palomas and similar soils: 20 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kermit

Setting

Landform: Dunes
Landform position (two-dimensional): Shoulder, backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex
Parent material: Calcareous sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 8 inches: fine sand
C - 8 to 60 inches: fine sand

Properties and qualities

Slope: 3 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: R070BD005NM - Deep Sand
Hydric soil rating: No

Description of Palomas

Setting

Landform: Dunes

Landform position (two-dimensional): Shoulder, backslope, footslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave, convex, linear
Across-slope shape: Convex
Parent material: Alluvium derived from sandstone

Typical profile

A - 0 to 16 inches: fine sand
Bt - 16 to 60 inches: sandy clay loam
Bk - 60 to 66 inches: sandy loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 50 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Pyote

Percent of map unit: 4 percent
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Maljamar

Percent of map unit: 4 percent
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Palomas

Percent of map unit: 1 percent
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Dune land

Percent of map unit: 1 percent
Hydric soil rating: No

MF—Maljamar and Palomas fine sands, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: dmqb
Elevation: 3,000 to 3,900 feet
Mean annual precipitation: 10 to 15 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Maljamar and similar soils: 46 percent
Palomas and similar soils: 44 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Maljamar

Setting

Landform: Plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 24 inches: fine sand
Bt - 24 to 50 inches: sandy clay loam
Bkm - 50 to 60 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 40 to 60 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): 7e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B

Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Description of Palomas

Setting

Landform: Plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from sandstone

Typical profile

A - 0 to 16 inches: fine sand
Bt - 16 to 60 inches: sandy clay loam
Bk - 60 to 66 inches: sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 45 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Kermit

Percent of map unit: 5 percent
Ecological site: R070BC022NM - Sandhills
Hydric soil rating: No

Wink

Percent of map unit: 5 percent
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

PU—Pyote and Maljamar fine sands

Map Unit Setting

National map unit symbol: dmqq
Elevation: 3,000 to 3,900 feet
Mean annual precipitation: 10 to 12 inches
Mean annual air temperature: 60 to 62 degrees F
Frost-free period: 190 to 205 days
Farmland classification: Not prime farmland

Map Unit Composition

Pyote and similar soils: 46 percent
Maljamar and similar soils: 44 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pyote

Setting

Landform: Plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 30 inches: fine sand
Bt - 30 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A

Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Description of Maljamar

Setting

Landform: Plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 24 inches: fine sand
Bt - 24 to 50 inches: sandy clay loam
Bkm - 50 to 60 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 40 to 60 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R070BD003NM - Loamy Sand
Hydric soil rating: No

Minor Components

Kermit

Percent of map unit: 10 percent
Ecological site: R070BC022NM - Sandhills
Hydric soil rating: No

Soil Information for All Uses

Ecological Sites

Individual soil map unit components can be correlated to a particular ecological site. The Ecological Site Assessment section includes ecological site descriptions, plant growth curves, state and transition models, and selected National Plants database information.

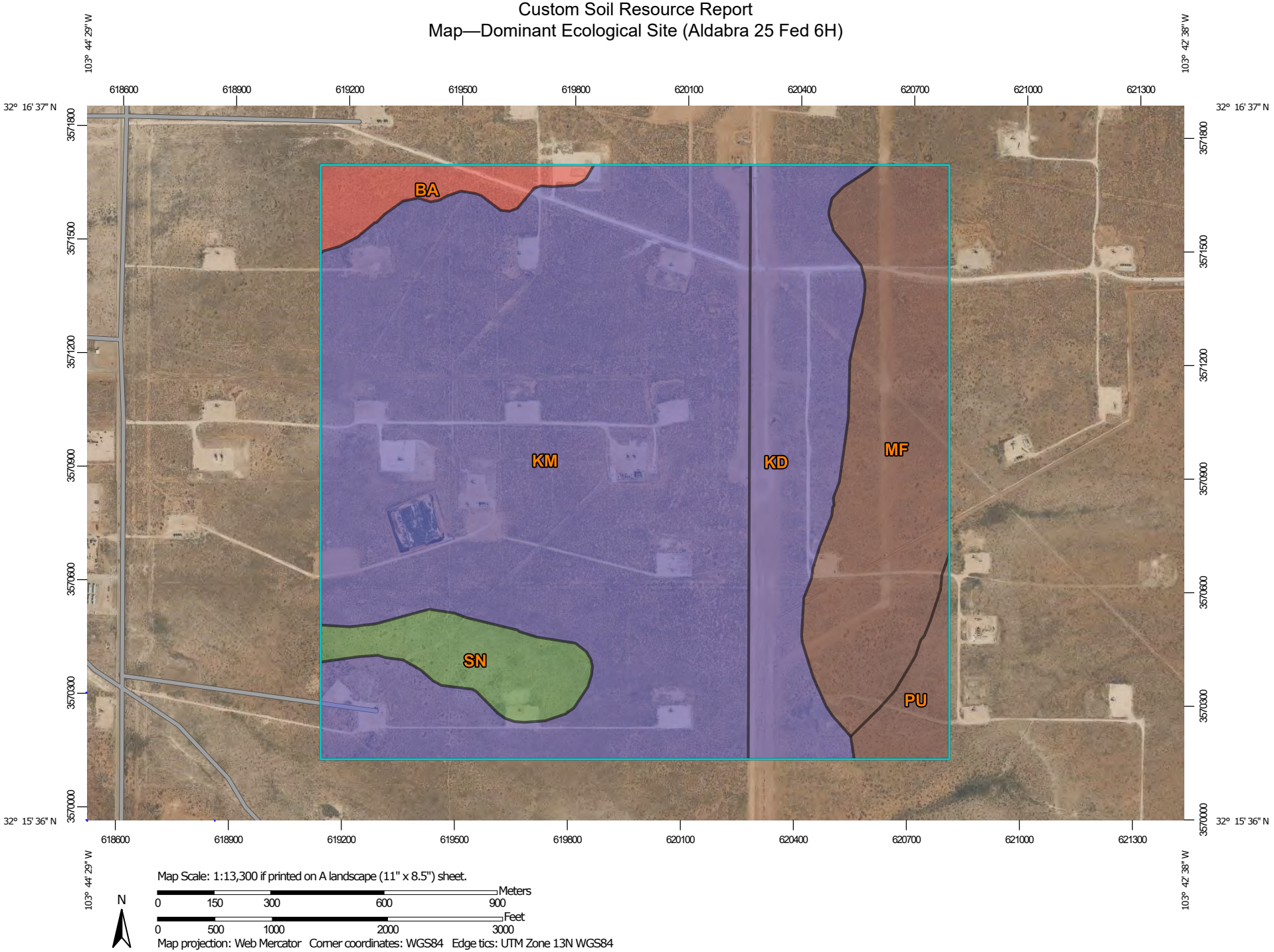
All Ecological Sites — (Aldabra 25 Fed 6H)

An "ecological site" is the product of all the environmental factors responsible for its development. It has characteristic soils that have developed over time; a characteristic hydrology, particularly infiltration and runoff, that has developed over time; and a characteristic plant community (kind and amount of vegetation). The vegetation, soils, and hydrology are all interrelated. Each is influenced by the others and influences the development of the others. For example, the hydrology of the site is influenced by development of the soil and plant community. The plant community on an ecological site is typified by an association of species that differs from that of other ecological sites in the kind and/or proportion of species or in total production.

An ecological site name provides a general description of a particular ecological site. For example, "Loamy Upland" is the name of a rangeland ecological site. An "ecological site ID" is the symbol assigned to a particular ecological site.

The map identifies the dominant ecological site for each map unit, aggregated by dominant condition. Other ecological sites may occur within each map unit. Each map unit typically consists of one or more components (soils and/or miscellaneous areas). Each soil component is associated with an ecological site. Miscellaneous areas, such as rock outcrop, sand dunes, and badlands, have little or no soil material and support little or no vegetation and therefore are not linked to an ecological site. The table below the map lists all of the ecological sites for each map unit component in your area of interest.

Custom Soil Resource Report
Map—Dominant Ecological Site (Aldabra 25 Fed 6H)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- R070BC007NM
- R070BD002NM
- R070BD003NM
- R070BD005NM
- Not rated or not available

Soil Rating Lines
- R070BC007NM
- R070BD002NM
- R070BD003NM
- R070BD005NM
- Not rated or not available

Soil Rating Points
- R070BC007NM
- R070BD002NM
- R070BD003NM
- R070BD005NM
- Not rated or not available

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 20, Sep 6, 2023

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

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

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Ecological Sites by Map Unit Component (Aldabra 25 Fed 6H)

Map unit symbol	Map unit name	Component name (percent)	Ecological site	Acres in AOI	Percent of AOI
BA	Berino loamy fine sand, 0 to 3 percent slopes	Berino (99%)	R070BC007NM — Loamy	19.2	3.0%
		Pajarito (1%)	R070BD003NM — Loamy Sand		
KM	Kermit-Berino fine sands, 0 to 3 percent slopes	Kermit (50%)	R070BD005NM — Deep Sand	395.3	60.8%
		Berino (35%)	R070BD003NM — Loamy Sand		
		Active dune land (15%)			
SN	Simona and Wink fine sandy loams, 0 to 3 percent slopes, eroded	Simona (45%)	R070BD002NM — Shallow Sandy	28.7	4.4%
		Wink (40%)	R070BD004NM — Sandy		
		Dune land (15%)			
Subtotals for Soil Survey Area				**443.2**	**68.2%**
Totals for Area of Interest				**649.9**	**100.0%**

Map unit symbol	Map unit name	Component name (percent)	Ecological site	Acres in AOI	Percent of AOI
KD	Kermit-Palomas fine sands, 0 to 12 percent slopes	Kermit (70%)	R070BD005NM — Deep Sand	89.8	13.8%
		Palomas (20%)	R070BD003NM — Loamy Sand		
		Maljamar (4%)	R070BD003NM — Loamy Sand		
		Pyote (4%)	R070BD003NM — Loamy Sand		
		Dune land (1%)			
		Palomas (1%)	R070BD003NM — Loamy Sand		
MF	Maljamar and Palomas fine sands, 0 to 3 percent slopes	Maljamar (46%)	R070BD003NM — Loamy Sand	101.6	15.6%
		Palomas (44%)	R070BD003NM — Loamy Sand		
		Kermit (5%)	R070BC022NM — Sandhills		
		Wink (5%)	R070BD003NM — Loamy Sand		
PU	Pyote and Maljamar fine sands	Pyote (46%)	R070BD003NM — Loamy Sand	15.3	2.4%

Custom Soil Resource Report

Map unit symbol	Map unit name	Component name (percent)	Ecological site	Acres in AOI	Percent of AOI
		Maljamar (44%)	R070BD003NM — Loamy Sand		
		Kermit (10%)	R070BC022NM — Sandhills		
Subtotals for Soil Survey Area				**206.7**	**31.8%**
Totals for Area of Interest				**649.9**	**100.0%**

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USDA Natural Resources Conservation Service

Ecological site R070BD005NM
Deep Sand

Accessed: 02/23/2024

General information

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

Figure 1. Mapped extent

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

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site occurs on terraces, Piedmonts, dunes fields, or upland plains. Parent material consists of eolian deposits and alluvium derived from sandstone. Slopes range from 0 to 15 percent, usually less than 5 percent. Low, stabilized hummocks or dunes frequently occur. Elevations range from 2,842 to 4,500 feet.

Table 2. Representative physiographic features

Landforms	(1) Dune (2) Parna dune (3) Terrace
Flooding frequency	None
Ponding frequency	None
Elevation	2,842–4,500 ft
Slope	0–15%
Aspect	Aspect is not a significant factor

Climatic features

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

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

The average frost-free season is 207 to 220 days. The last killing frost is in late March or early April, and the first killing frost is in late October or early November.

Both temperature and moisture favor warm season perennial plant growth. During years of abundant winter and early spring moisture, cool season growth and annual forbs, make up an important component of this site. Strong winds blow from the west from January through June, which accelerates soil drying during a critical period for cool

season plant growth.

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

Table 3. Representative climatic features

Frost-free period (average)	221 days
Freeze-free period (average)	240 days
Precipitation total (average)	13 in

Influencing water features

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

Soil features

Soils are deep or very deep. Surface textures are sand loam, fine sand or loamy fine sand, Underlying material textures are loamy fine sand, fine sand, sand or fine sandy loam. Because of the coarse textures and rapid drying of the surface, the soil, if unprotected by plant cover and organic residue, becomes windblown and low hummocks or dunes are formed around shrubs.

Characteristic soils are:
Anthony
Aguena
Kermit
Likes
Pintura
Bluepoint

Table 4. Representative soil features

Surface texture	(1) Sand (2) Fine sand (3) Loamy fine sand
Family particle size	(1) Sandy
Drainage class	Well drained to excessively drained
Permeability class	Moderate to very rapid
Soil depth	60–72 in
Surface fragment cover <=3"	0–5%
Surface fragment cover >3"	0%
Available water capacity (0-40in)	3–5 in
Calcium carbonate equivalent (0-40in)	5–15%
Electrical conductivity (0-40in)	0–4 mmhos/cm
Sodium adsorption ratio (0-40in)	0–2
Soil reaction (1:1 water) (0-40in)	6.6–7.8

Subsurface fragment volume <=3" (Depth not specified)	5–10%
Subsurface fragment volume >3" (Depth not specified)	0%

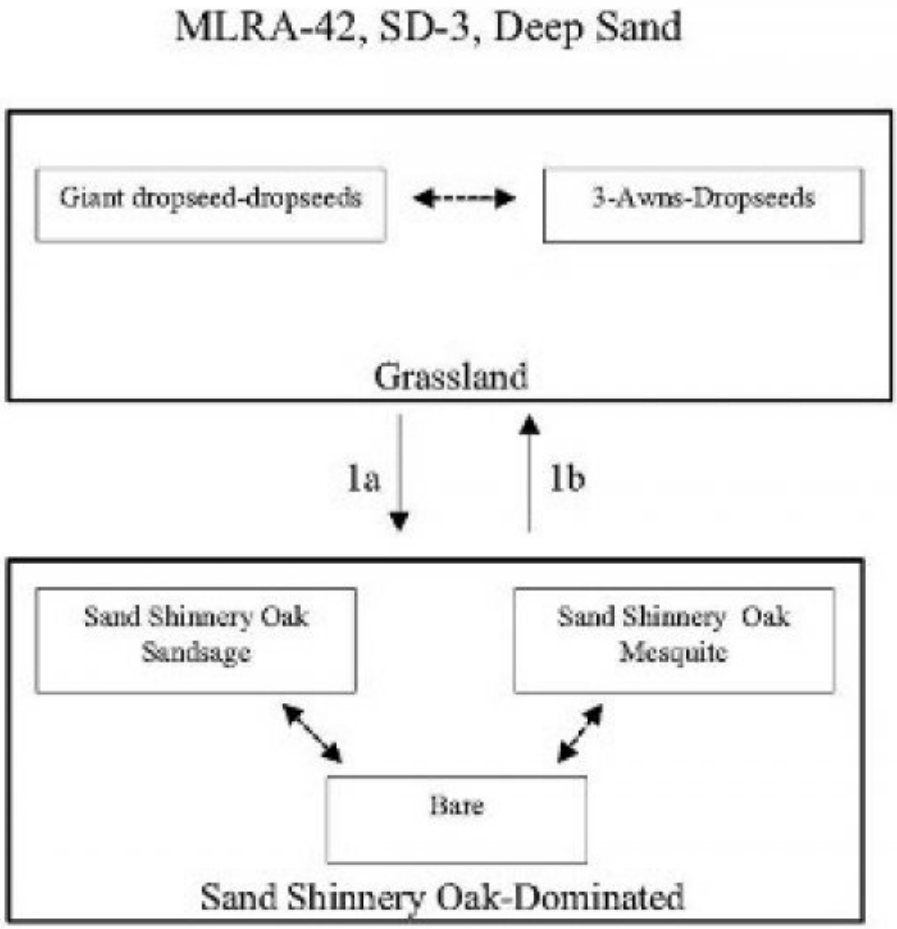
Ecological dynamics

Overview

The Deep Sand site occurs adjacent to and/or intergraded with the Sandhills and Sandy sites (SD-3). The Deep Sand site can be distinguished by slopes less than eight percent (approximately five percent) and textural changes at depths greater than 40 inches. The Deep Sand site has well drained soils with a surface texture of sand or loamy fine sand. The Sandhills site has slopes greater than eight percent and textural depths greater than 60 inches. Conversely, the Sandy site has slopes less than five percent and depths to textural change commonly around 20 inches. The historic plant community of the Deep Sand site is dominated primarily by giant dropseed (*Sporobolus giganteus*) and other dropseeds (*S. flexuosus*, *S. contractus*, *S. cryptandrus*), with scattered shinnery oak (*Quercus havardii*) and soapweed yucca (*Yucca glauca*). Other herbaceous species include threeawns (Aristida spp.), bluestems (*Schizachyrium scoparium* and *Andropogon hallii*), and annual and perennial forbs distributed relative to precipitation occurrences. Bare ground and litter compose a significant proportion of ground cover while grasses are the remainder. Shinnery oak will increase with an associated decrease in dropseed and bluestem abundance possibly due to climatic change, fire suppression, interspecific competition, and excessive grazing. Continued grass cover loss may result in a transition to a shinnery oak dominated state with increases in sand sage (*Artemisia filifolia*) and honey mesquite (*Prosopis glandulosa*). However, brush management may restore the grassland component and reverse the shinnery oak state back toward the historic plant community.

State and transition model

Plant Communities and Transitional Pathways (diagram)



1.a Climate, fire suppression, competition, over grazing

1.b Brush control, Prescribed grazing

State 1
Historic Climax Plant Community

Community 1.1
Historic Climax Plant Community

State Containing Historic Plant Community Grassland: The historic plant community is dominated by giant dropseed, other dropseeds, threeawns, and bluestems. Dominant woody plants include shinnery oak and soapweed yucca. Forb abundance and distribution varies and is dependent on annual rainfall. The Deep Sand site typically exists in sandy plains and dunes (Sosebee 1983). Grass dominance stabilizes the potentially erosive sandy soils. Historical fire suppression, however, may have contributed to increased woody plant abundance, which has reduced grass species. Further, drought conditions compounded with excessive grazing likely has driven most grass species out of competition with shrubs which has resulted in a shinnery oak dominated state with sand sage and mesquite (Young et al. 1948). Diagnosis: Grassland dominated by dropseeds, threeawns, and bluestems. Small shrubs, such as shinnery oak and soapweed yucca, and subshrubs are dispersed throughout the grassland. Other grasses that could appear on this site would include: flatsedge, almejita signalgrass, big bluestem, Indiangrass, fall witchgrass, hairy grama and red lovegrass Other shrubs include: fourwing saltbush, mesquite, ephedra and broom snakeweed. Other forbs include: wooly and scarlet gaura, wooly dalea, phlox heliotrope, scorpionweed, deerstongue, fleabane, nama, hoffmanseggia, lemon beebalm and stickleaf.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	396	858	1320
Shrub/Vine	108	234	360
Forb	96	208	320
Total	**600**	**1300**	**2000**

Table 6. Ground cover

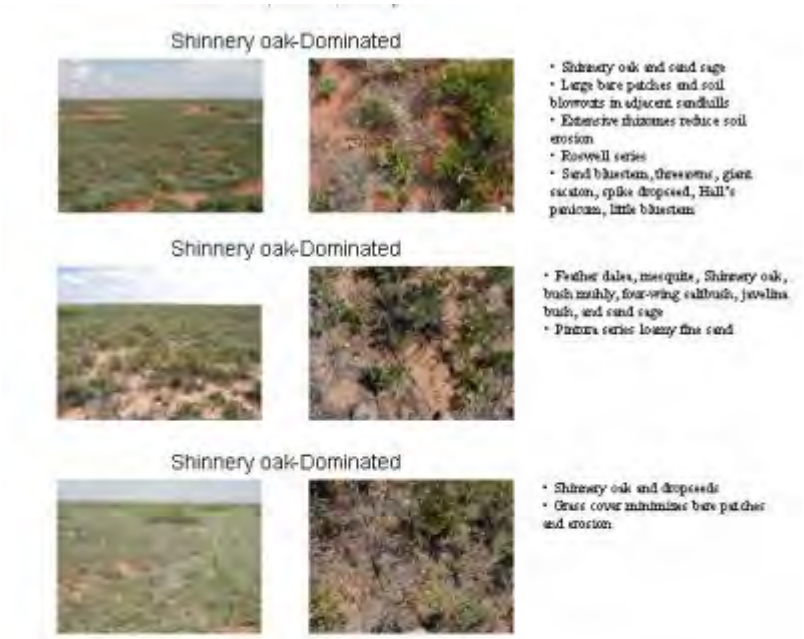
Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	15-20%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	35-40%
Surface fragments >0.25" and <=3"	0%
Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	35-40%

Figure 5. Plant community growth curve (percent production by month). NM2805, HCPC. SD-3 Deep Sand - Warm season plant community .

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

State 2
Shinnery Oak Dominated

Community 2.1
Shinnery Oak Dominated



Shinnery Oak Dominated: This state is dominated by shinnery oak with subdominants of sand sage or mesquite. Bare ground is a significant component in this state as well. shinnery oak is characterized by dense stands in sandy soils; however, as clay percentage increases, shinnery oak decreases. Shinnery oak abundance and distribution increase with disturbances, such as excessive grazing and fire, due to an aggressive rhizome system. As shinnery oak abundance increases, an associated increase of mesquite, sand sage, and soapweed yucca also occurs. Shinnery oak's extensive root system allows the oak to competitively exclude grasses and forbs. Sand sage, however, stabilizes light sandy soils from wind erosion and can co-exist with herbaceous species by protecting them in heavily grazed conditions (Davis and Bonham 1979). Shinnery oak has been found primarily in very deep, excessively drained, and rapidly permeable soils. Shinnery oak is associated with landforms which are gently undulating to rolling uplands, very gently sloping to moderately steep slopes, and upland plains, alluvial fans and valley sideslopes. Shinnery oak and sand sage can be controlled with herbicide if applied in the spring with a subsequent rest from grazing (Herbel et al. 1979, Pettit 1986). In addition, repetitive seasons of goat browsing can also reduce shinnery oak abundance. Patches should be maintained during brush control, however, to prevent erosion and to provide wildlife cover and forage. Further, as shinnery oak and other shrubs increase, bare patches and erosion will increase due to a lack of herbaceous ground cover. Diagnosis: Shinnery oak dominated with subdominant sand sage, honey mesquite, and soapweed yucca with increasing frequency and size of bare patches. Transition to Shinnery oak dominated state (1a): The historic plant community begins to shift toward the shinnery oak dominated state as drivers such as climate change, fire suppression, interspecific competition, and excessive grazing contribute to alterations in soil properties and herbaceous cover. Cover loss and surface soil erosion are initial indicators of transition followed by an increase of shrub species abundance and bare patch expansion. Key indicators of approach to transition: • Loss of grass and forb cover • Surface soil erosion • Bare patch expansion • Increased shrub species abundance and composition Transition to Historic Plant Community (1b): The shinnery oak dominated state may transition back toward the historic plant community as new drivers are introduced such as prescribed grazing, brush control, and discontinued drought conditions.

Additional community tables

Table 7. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)

Grass/Grasslike					
1	**Warm Season**			450–585	
	spike dropseed	SPCO4	*Sporobolus contractus*	450–585	–
	sand dropseed	SPCR	*Sporobolus cryptandrus*	450–585	–
	mesa dropseed	SPFL2	*Sporobolus flexuosus*	450–585	–
	giant dropseed	SPGI	*Sporobolus giganteus*	450–585	–
2	**Warm Season**			65–104	
	sand bluestem	ANHA	*Andropogon hallii*	65–104	–
	little bluestem	SCSC	*Schizachyrium scoparium*	65–104	–
3	**Warm Season**			39–91	
	threeawn	ARIST	*Aristida*	39–91	–
4	**Warm Season**			13–39	
	thin paspalum	PASE5	*Paspalum setaceum*	13–39	–
5	**Warm Season**			13–39	
	black grama	BOER4	*Bouteloua eriopoda*	13–39	–
6	**Warm Season**			13–39	
	mat sandbur	CELO3	*Cenchrus longispinus*	13–39	–
7	**Warm Season**			13–39	
	Havard's panicgrass	PAHA2	*Panicum havardii*	13–39	–
8	**Warm Season**			13–65	
	plains bristlegrass	SEVU2	*Setaria vulpiseta*	13–65	–
9	**Other Annual Grasses**			13–65	
	Grass, annual	2GA	*Grass, annual*	13–65	–
Shrub/Vine					
10	**Shrub**			65–130	
	Havard oak	QUHA3	*Quercus havardii*	65–130	–
11	**Shrub**			13–39	
	sand sagebrush	ARFI2	*Artemisia filifolia*	13–39	–
12	**Shrub**			65–130	
	yucca	YUCCA	*Yucca*	65–130	–
13	**Shrub**			13–39	
	rabbitbrush	CHRYS9	*Chrysothamnus*	13–39	–
14	**Other Shrubs**			13–39	
	Shrub (>.5m)	2SHRUB	*Shrub (>.5m)*	13–39	–
Forb					
15	**Forb**			39–91	
	croton	CROTO	*Croton*	39–91	–
	Indian blanket	GAPU	*Gaillardia pulchella*	39–91	–
16	**Forb**			39–91	
	aster	ASTER	*Aster*	39–91	–
	whitest evening primrose	OEAL	*Oenothera albicaulis*	39–91	–
	beardtongue	PENST	*Penstemon*	39–91	–
17	**Forb**			39–91	
	touristplant	DIWI2	*Dimorphocarpa wislizeni*	39–91	–

	[illegible]	[illegible]	[illegible]	[illegible]	
	buckwheat	ERIOG	*Eriogonum*	39–91	–
	sunflower	HELIA3	*Helianthus*	39–91	–
	spiny false fiddleleaf	HYSP	*Hydrolea spinosa*	39–91	–
	threadleaf ragwort	SEFLF	*Senecio flaccidus var. flaccidus*	39–91	–
18	**Other Forbs**			13–65	
	Forb (herbaceous, not grass nor grass-like)	2FORB	*Forb (herbaceous, not grass nor grass-like)*	13–65	–

Animal community

This site provides habitat which supports a resident animal population characterized by pronghorn, antelope, black-tailed jackrabbit, spotted ground squirrel, Ord's kangaroo rat, northern grasshopper mouse, southern plains woodrat, badger, meadowlark, roadrunner, white-necked raven, cactus wren, lesser prairie chicken, morning dove, scaled quail, Harris hawk, side blotched lizard, marbled whiptail, Texas horned lizard, western diamondback rattlesnake and ornate box turtle. In the area called Mescalero Sands, there are white-tailed and mule deer.

Hydrological functions

The runoff curve numbers are determined by field investigations using hydraulic cover conditions and hydrologic soil groups.
Hydrologic Interpretations
Soil Series Hydrologic Group
Anthony B
Bluepoint A
Kermit A
Aguena A
Likes A
Pintura A

Recreational uses

This site offers limited recreation potential for hiking, horseback riding, nature observation and photography; game bird, predator, antelope, and deer hunting.

Wood products

This site has no potential for wood products.

Other products

This site is suitable for grazing by all kinds and classes of livestock during all seasons of the year. Shinnery oak is toxic in the late bud or early leaf stage. Shinnery oak will increase, as will sand sagebrush following drought. Changes in the fire return interval have also favored an increase in shrub cover. The dropseeds and bluestem will decrease. This site responds very well to brush manangement and deferment. This site is well suited to a grazing system that rotates the season of use. Nesting habitat for lesser prairie chicken can be improved by providing residual cover that is at least 14 inches high.

Other information

Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month

Similarity Index Ac/AUM
100 - 76 2.0 – 3.8
75 – 51 3.0 – 6.0

50 – 26 5.0 – 10.0
25 – 0 10.1 +

Inventory data references

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

Other references

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Contributors

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Quinn Hodgson

Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:**

2. **Presence of water flow patterns:**

3. **Number and height of erosional pedestals or terracettes:**

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):**

5. **Number of gullies and erosion associated with gullies:**

6. **Extent of wind scoured, blowouts and/or depositional areas:**

7. **Amount of litter movement (describe size and distance expected to travel):**

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):**

9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):**

10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:**

11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):**

12. **Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):**

    Dominant:

    Sub-dominant:

    Other:

    Additional:

13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or**

decadence):

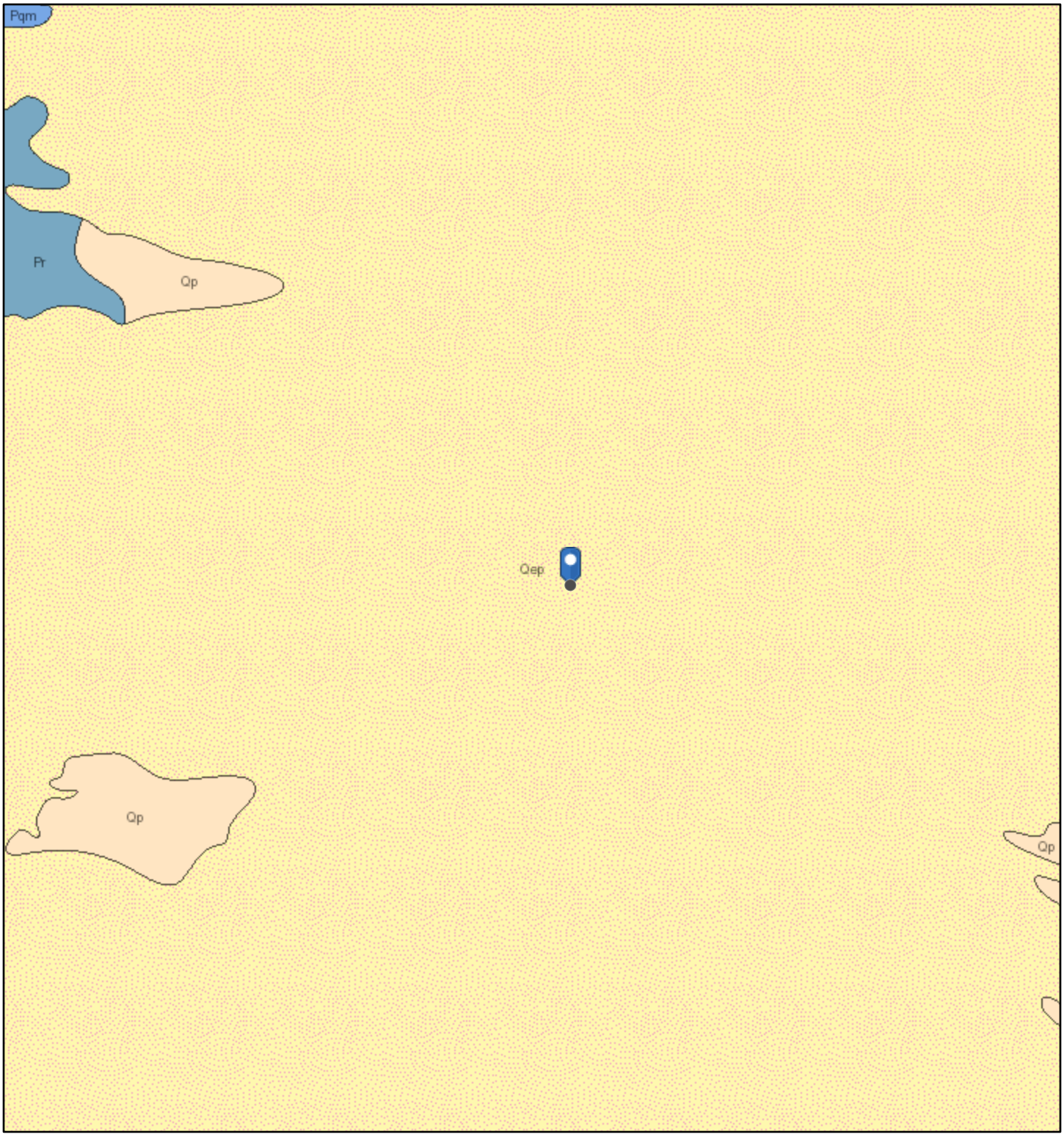
14. **Average percent litter cover (%) and depth (in):**

15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):**

16. **Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:**

17. **Perennial plant reproductive capability:**

Aldabra 25 Fed #006H Geology



1/30/2024, 8:46:22 AM

1:144,448

0 1 2 4 mi

0 1.5 3 6 km

Lithologic Units

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

Esri, NASA, NGA, USGS, NMBGMR, USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS

ArcGIS Web AppBuilder

USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National

APPENDIX B – Daily Field and Sampling Reports

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	8/25/2023
Site Location Name:	Aldabra 25 Federal #006H	Report Run Date:	8/25/2023 10:31 PM
Client Contact Name:	Jim Raley	API #:	30-015-38602
Client Contact Phone #:	575-748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	8/25/2023 10:02 AM
Departed Site	8/25/2023 4:30 PM

Field Notes

14:31 Arrived on site filled out JSA.
Had Deusavan sign JSA.

14:34 A site assessment was conducted to better understand the scope of historical spill and how to approach the site delineation.

14:35 At 10:30 we began marking areas where Boreholes 1 through 5 will be placed to start off the delineation.

14:38 Samples for BH23-01 were collected at 0', 2', 4', and 6' depths

Samples for BH23-02, BH23- 03, BH23-04, and BH23-05 were collected at 0' and 2' depths,

All samples are field screened for Chlorides and TPH.

16:18 All samples except BH23-05 at 0', and 2' are clean on Chlorides and TPH.

BH23-05 is hot on Chlorides at both depths

16:19 All sample's except BH23-05 at 0', and 2' are jarred and sent to lab.

16:20 All work was completed on site at 4:30 for the day.

Daily Site Visit Report

Next Steps & Recommendations

1. Step out BH23-05
2. Continue site delineation

Daily Site Visit Report

Site Photos

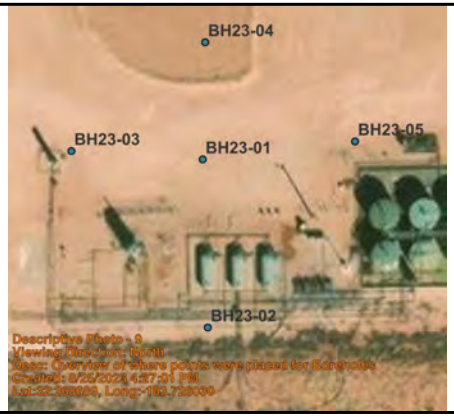
Viewing Direction: South	**Viewing Direction**: North
	
BH23-01 at 0', 2', 4', and 6' depths Facing South	BH23-02 at 0', and 2' depths Facing North

Daily Site Visit Report

Viewing Direction: Southeast	**Viewing Direction**: South
	
BH23-03 at 0', and 2' depths Facing Southeast	BH23-04 at 0', and 2' depths Facing South
Viewing Direction: Southwest	**Viewing Direction**: South
	
BH23-05 at 0', and 2' depths Facing Southwest	Point of release according to 2015 C-141

Daily Site Visit Report

Viewing Direction: Southeast	**Viewing Direction**: Southwest
	
Overview of site Facing Southeast	Overview of site Facing Southwest

Viewing Direction: North

Overview of where points were placed for Boreholes

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Jacob Reta

Signature:

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	12/5/2023
Site Location Name:	Aldabra 25 Federal #006H	Report Run Date:	12/5/2023 11:15 PM
Client Contact Name:	Jim Raley	API #:	30-015-38602
Client Contact Phone #:	575-748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	12/5/2023 7:00 AM
Departed Site	12/5/2023 3:00 PM

Field Notes

14:17 Completed safety paperwork and initial line locate upon arrival to site

14:17 On site to continue characterization sampling.

14:18 Obtained:
BH23-06, 09, 11, 12, 13, 14, 15 and 16.
All samples obtained at 0 and 2’ depths.
Obtained 4 and 5’ depth samples at BH23-11 due to high TPH concentrations.

14:20 BH23-11 still high in TPH concentrations at 5’ depth. Below pad, soil is predominately sand. At surface there is a large dark stain what looks to be solidified oil material. This may be leaching at a high rate through the sand.

Next Steps & Recommendations

1 Need to obtain clean sample at BH23-11 as contamination seems to be percolating through sand at high rate.

Daily Site Visit Report

Site Photos

Viewing Direction: Southeast

BH23-06 north of flare / combuster

Viewing Direction: East

BH23-09

Viewing Direction: Southeast

BH23-11 north of 09

Viewing Direction: South

BH23-12 directly east of separators

Daily Site Visit Report

Viewing Direction: West

BH23-16 directly south of VRUs

Viewing Direction: West

BH23-13 east of 16

Viewing Direction: West

BH23-14 south of 13

Viewing Direction: West

BH23-15 east of 13

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Austin Harris

Signature: 

Signature

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	4/10/2024
Site Location Name:	Aldabra 25 Federal #006H	Report Run Date:	4/10/2024 9:37 PM
Client Contact Name:	Dale Woodall	API #:	30-015-38602
Client Contact Phone #:	405-318-4697		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	4/10/2024 7:35 AM
Departed Site	4/10/2024 3:45 PM

Field Notes

8:29 Arrived on site, examined site for hazards and completed safety assessment for job and documents. Discussed plan for day with SDR excavation crew.

8:40 Excavation to 10 feet proceeded. Collecting samples to delineate around BH23-05 to north and east.

9:12 Collected samples in excavation.
Four dump trucks arrived to haul off soils and bring clean soil in.
Collect soil sample from hauled in backfill for field screening and lab analysis.

10:17 Excavator collected soil sample from base of 10 ft excavation and brought to surface for sampling.
Collected 5 point composite sample from base excavation scrape.

14:59 Collected samples from east wall at 2 and 6 foot area and base at 6 foot area. Collected samples at BH23-05 at 4, 6, and 8 ft, BH24-17 at 0 and 2 ft and BH24- 18 at 0 and 2 ft. Field screened all samples for TPH with Dexsil petroflag and chlorides with EC meter and with titration for quality control.

15:30 Prepared East delineation samples for lab and preserved on ice. Excavation area was fenced off for safety.

15:35 Measured dimensions of excavation with measuring tape.

Daily Site Visit Report

Next Steps & Recommendations

1 Confirmation sampling

Daily Site Visit Report

Site Photos

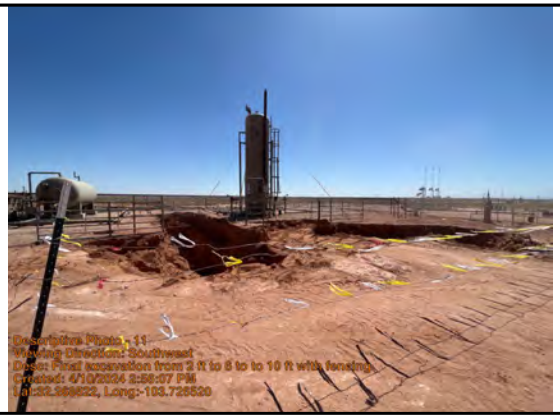
Viewing Direction: Southwest	**Viewing Direction**: North
	
BH24-17 at 0 and 2 ft, north of BH23-05.	Excavation to 10 feet
Viewing Direction: Northwest	**Viewing Direction**: Northeast
	
Excavation to 10 ft	Excavation to 10 ft

Daily Site Visit Report

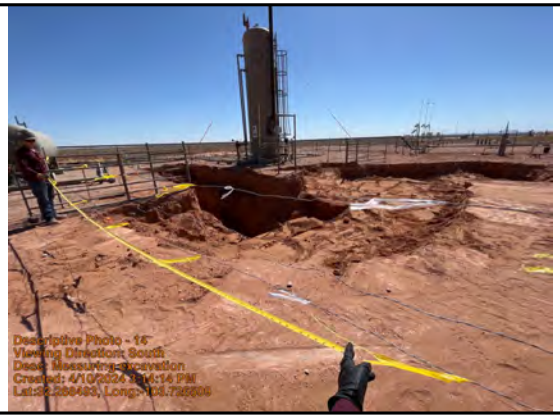
Viewing Direction: Northwest	**Viewing Direction**: North
	
Backfill composite sample	10 ft to 6ft excavation
Viewing Direction: South	**Viewing Direction**: South
	
Site information placard	10 ft to 6 ft excavation area

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: South
	
Composite sample of east wall and base around 6-10 ft area	BH23-05 3 ft

Viewing Direction: Southwest	**Viewing Direction**: South
	
Final excavation from 2 ft to 6 to to 10 ft with fencing.	Final excavation from 2 ft to 6 to to 10 ft with fencing.

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: South
	
Depth of excavation	Measuring excavation
Viewing Direction: South	**Viewing Direction**: Southwest
	
BH23-05 at 8 ft	BH24-18 at 0 and 2 feet, backfilled

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature: 

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	4/19/2024
Site Location Name:	Aldabra 25 Federal #006H	Report Run Date:	4/19/2024 10:04 PM
Client Contact Name:	Dale Woodall	API #:	30-015-38602
Client Contact Phone #:	405-318-4697		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	4/19/2024 8:30 AM
Departed Site	4/19/2024 2:45 PM

Field Notes

8:51 Arrived on site, examined site for hazards and completed safety assessment for job and documents. Assessed area for final sample locations plotted on field maps.

14:07 Collected wall samples WS24-01 through WS24-07 depths of 0 to 2 to 6 to 10 feet, respectively, and base samples BS24-01 through BS24-08 at depths of 2 to 6 to 10 feet, respectively. 10:30 AM

Field screened all samples for TPH with Dexsil petroflag and chlorides with EC meter.

14:37 All samples were collected as 5-point composite samples. Due to excavation depth, extra caution was practiced for safety. Wall samples collected along 10 feet wall were carefully collected along both top and bottom portions of the wall (0-10 ft bgs), the same as the other wall samples. The 6 feet wall was collected were the 2ft and 6 ft areas meet along the 4 feet tall wall of the 6 ft bgs excavation. The 2 ft area was collected along the 2 ft wall (0-2 ft).

14:37 Documented field screenings and excavation. All samples screened below applicable criteria. Prepared samples for lab in jars and preserved on ice.

Next Steps & Recommendations

1 Submit final samples to lab

Daily Site Visit Report

Daily Site Visit Report

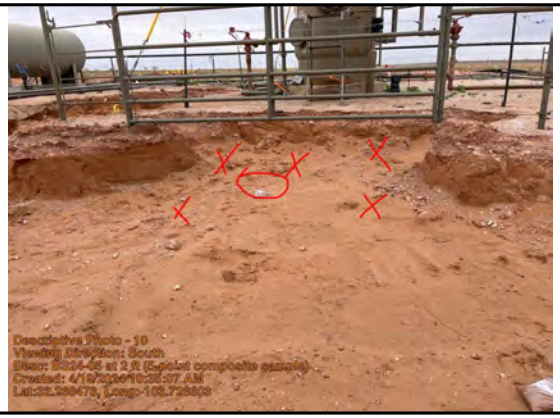
Site Photos

Viewing Direction: South	**Viewing Direction**: South
	
Samples WS24-04 through WS24-07 0-10ft (5-point composite samples)	BS24-02 and BS24-07 at 10 ft (5-point composite samples)
Viewing Direction: East	**Viewing Direction**: Northeast
	
BS24-06 at 6 ft and WS24-03 at 0-6ft (5-point composite samples)	WS24-02 at 0-2 ft (5-point composite sample)

Daily Site Visit Report

Viewing Direction: Northeast	**Viewing Direction**: West
	
BS24-01 at 2 ft (5-point composite sample)	WS24-01 at 0-2 ft (5-point composite sample)
Viewing Direction: West	**Viewing Direction**: Northwest
	
BS24-03 through BS24-05 at 2 ft (5-point composite sample)	BS24-03 at 2 ft (5-point composite sample)

Daily Site Visit Report

Viewing Direction: Northwest	**Viewing Direction**: South
	
BS24-04 at 2 ft (5-point composite sample)	BS24-05 at 2 ft (5-point composite sample)
Viewing Direction: Northeast	**Viewing Direction**: South
	
BS24-08 at 2 ft (5-point composite sample)	Site information placard

Daily Site Visit Report

Viewing Direction: Southwest	**Viewing Direction**: Southeast
	
Excavation from NE most delineated edge	Excavation from NW most delineated edge
Viewing Direction: Northeast	**Viewing Direction**: Northwest
	
Excavation from SW most delineated edge	Excavation from SE most delineated edge

Daily Site Visit Report

Viewing Direction: Southwest

Excavation, entire

Viewing Direction: West

Excavation, entire

Viewing Direction: South

Excavation entire

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature: 

APPENDIX C – Notifications

OCD Permitting

[NOTIFY] Notification Of Sampling (C-141N) Application

Submission Information

Submission ID:	334178	**Districts:**	Artesia
Operator:	[6137] DEVON ENERGY PRODUCTION COMPANY, LP	**Counties:**	Eddy
Description:	DEVON ENERGY PRODUCTION COMPANY, LP [6137] , ALDABRA 25 FEDERAL #006H , nAB1616056900		
Status:	APPROVED		
Status Date:	04/16/2024		
References (2):	30-015-38602, nAB1616056900		

Forms

This application type does not have attachments.

Questions

Prerequisites

Incident ID (n#)	**nAB1616056900**
Incident Name	**NAB1616056900 ALDABRA 25 FEDERAL #006H @ 30-015-38602**
Incident Type	**Oil Release**
Incident Status	**Initial C-141 Approved**
Incident Well	**[30-015-38602] ALDABRA 25 FEDERAL #006H**

Location of Release Source

Site Name	**ALDABRA 25 FEDERAL #006H**
Date Release Discovered	**06/06/2016**
Surface Owner	**Federal**

Sampling Event General Information

Please answer all the questions in this group.

What is the sampling surface area in square feet	1,358
What is the estimated number of samples that will be gathered	15
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	04/19/2024
Time sampling will commence	09:00 AM
Warning: Notification can not be less than two business days prior to conducting final sampling.	
Please provide any information necessary for observers to contact samplers	Kent Stallings P.G. Senior Geologist Vertex Resource Services Inc. 3101 Boyd Drive, Carlsbad, NM 88220 P 5 706 C 346.814.1413

Acknowledgments

This submission type does not have acknowledgments, at this time.

Comments

No comments found for this submission.

Conditions

Summary: *wdale (4/16/2024),* 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.

Reasons

No reasons found for this submission.

Go Back

APPENDIX D – Laboratory Data Reports and Chain of Custody Forms

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

September 12, 2023

Kent Stallings

Vertex Resources Services, Inc.
3101 Boyd Drive
Carlsbad, NM 88220
TEL:
FAX:

RE: Aldabra 2S Fed 006H OrderNo.: 2308F29

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 10 sample(s) on 8/29/2023 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2308F29**
Date Reported: **9/12/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.
Client Sample ID: BH23-01 0'
Project: Aldabra 2S Fed 006H
Collection Date: 8/25/2023 1:05:00 PM
Lab ID: 2308F29-001 **Matrix:** SOIL **Received Date:** 8/29/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/5/2023 5:46:56 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/5/2023 5:46:56 PM
Surr: DNOP	76.5	69-147		%Rec	1	9/5/2023 5:46:56 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/4/2023 10:53:19 PM
Surr: BFB	94.5	15-244		%Rec	1	9/4/2023 10:53:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	9/4/2023 10:53:19 PM
Toluene	ND	0.047		mg/Kg	1	9/4/2023 10:53:19 PM
Ethylbenzene	ND	0.047		mg/Kg	1	9/4/2023 10:53:19 PM
Xylenes, Total	ND	0.094		mg/Kg	1	9/4/2023 10:53:19 PM
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	9/4/2023 10:53:19 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	300	60		mg/Kg	20	9/5/2023 1:16:08 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308F29**
Date Reported: **9/12/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-01 2'
Project: Aldabra 2S Fed 006H **Collection Date:** 8/25/2023 1:10:00 PM
Lab ID: 2308F29-002 **Matrix:** SOIL **Received Date:** 8/29/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/5/2023 5:58:06 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/5/2023 5:58:06 PM
Surr: DNOP	78.7	69-147		%Rec	1	9/5/2023 5:58:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/5/2023 12:03:43 AM
Surr: BFB	95.8	15-244		%Rec	1	9/5/2023 12:03:43 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	9/5/2023 12:03:43 AM
Toluene	ND	0.047		mg/Kg	1	9/5/2023 12:03:43 AM
Ethylbenzene	ND	0.047		mg/Kg	1	9/5/2023 12:03:43 AM
Xylenes, Total	ND	0.094		mg/Kg	1	9/5/2023 12:03:43 AM
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	1	9/5/2023 12:03:43 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	9/5/2023 1:28:33 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308F29**
Date Reported: **9/12/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-01 4'
Project: Aldabra 2S Fed 006H **Collection Date:** 8/25/2023 2:05:00 PM
Lab ID: 2308F29-003 **Matrix:** SOIL **Received Date:** 8/29/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	9/5/2023 6:09:17 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/5/2023 6:09:17 PM
Surr: DNOP	74.3	69-147		%Rec	1	9/5/2023 6:09:17 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/5/2023 1:13:45 AM
Surr: BFB	96.0	15-244		%Rec	1	9/5/2023 1:13:45 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	9/5/2023 1:13:45 AM
Toluene	ND	0.049		mg/Kg	1	9/5/2023 1:13:45 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/5/2023 1:13:45 AM
Xylenes, Total	ND	0.098		mg/Kg	1	9/5/2023 1:13:45 AM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	9/5/2023 1:13:45 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	9/5/2023 1:40:58 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308F29**
Date Reported: **9/12/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-01 6'
Project: Aldabra 2S Fed 006H **Collection Date:** 8/25/2023 2:10:00 PM
Lab ID: 2308F29-004 **Matrix:** SOIL **Received Date:** 8/29/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/5/2023 6:20:24 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/5/2023 6:20:24 PM
Surr: DNOP	86.6	69-147		%Rec	1	9/5/2023 6:20:24 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/5/2023 1:37:05 AM
Surr: BFB	96.9	15-244		%Rec	1	9/5/2023 1:37:05 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	9/5/2023 1:37:05 AM
Toluene	ND	0.047		mg/Kg	1	9/5/2023 1:37:05 AM
Ethylbenzene	ND	0.047		mg/Kg	1	9/5/2023 1:37:05 AM
Xylenes, Total	ND	0.094		mg/Kg	1	9/5/2023 1:37:05 AM
Surr: 4-Bromofluorobenzene	108	39.1-146		%Rec	1	9/5/2023 1:37:05 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	9/5/2023 2:18:12 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308F29**
Date Reported: **9/12/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-02 0'
Project: Aldabra 2S Fed 006H **Collection Date:** 8/25/2023 1:20:00 PM
Lab ID: 2308F29-005 **Matrix:** SOIL **Received Date:** 8/29/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/5/2023 6:31:31 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/5/2023 6:31:31 PM
Surr: DNOP	72.3	69-147		%Rec	1	9/5/2023 6:31:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/5/2023 2:54:16 PM
Surr: BFB	96.1	15-244		%Rec	1	9/5/2023 2:54:16 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	9/5/2023 2:54:16 PM
Toluene	ND	0.048		mg/Kg	1	9/5/2023 2:54:16 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/5/2023 2:54:16 PM
Xylenes, Total	ND	0.096		mg/Kg	1	9/5/2023 2:54:16 PM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	9/5/2023 2:54:16 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	9/5/2023 2:55:25 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308F29**
Date Reported: **9/12/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-02 2'
Project: Aldabra 2S Fed 006H **Collection Date:** 8/25/2023 1:25:00 PM
Lab ID: 2308F29-006 **Matrix:** SOIL **Received Date:** 8/29/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	9/5/2023 6:42:34 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/5/2023 6:42:34 PM
Surr: DNOP	81.4	69-147		%Rec	1	9/5/2023 6:42:34 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/5/2023 3:17:48 PM
Surr: BFB	98.2	15-244		%Rec	1	9/5/2023 3:17:48 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	9/5/2023 3:17:48 PM
Toluene	ND	0.048		mg/Kg	1	9/5/2023 3:17:48 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/5/2023 3:17:48 PM
Xylenes, Total	ND	0.096		mg/Kg	1	9/5/2023 3:17:48 PM
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	1	9/5/2023 3:17:48 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	9/5/2023 3:32:39 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308F29**
Date Reported: **9/12/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-03 0'
Project: Aldabra 2S Fed 006H **Collection Date:** 8/25/2023 1:30:00 PM
Lab ID: 2308F29-007 **Matrix:** SOIL **Received Date:** 8/29/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	920	94		mg/Kg	10	9/6/2023 3:20:23 PM
Motor Oil Range Organics (MRO)	820	470		mg/Kg	10	9/6/2023 3:20:23 PM
Surr: DNOP	0	69-147	S	%Rec	10	9/6/2023 3:20:23 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/5/2023 3:41:21 PM
Surr: BFB	94.6	15-244		%Rec	1	9/5/2023 3:41:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	9/5/2023 3:41:21 PM
Toluene	ND	0.047		mg/Kg	1	9/5/2023 3:41:21 PM
Ethylbenzene	ND	0.047		mg/Kg	1	9/5/2023 3:41:21 PM
Xylenes, Total	ND	0.094		mg/Kg	1	9/5/2023 3:41:21 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	9/5/2023 3:41:21 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	9/5/2023 3:45:04 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308F29**
Date Reported: **9/12/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-03 2'
Project: Aldabra 2S Fed 006H **Collection Date:** 8/25/2023 1:35:00 PM
Lab ID: 2308F29-008 **Matrix:** SOIL **Received Date:** 8/29/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/6/2023 3:09:28 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/6/2023 3:09:28 PM
Surr: DNOP	102	69-147		%Rec	1	9/6/2023 3:09:28 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/5/2023 4:04:55 PM
Surr: BFB	94.6	15-244		%Rec	1	9/5/2023 4:04:55 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	9/5/2023 4:04:55 PM
Toluene	ND	0.048		mg/Kg	1	9/5/2023 4:04:55 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/5/2023 4:04:55 PM
Xylenes, Total	ND	0.096		mg/Kg	1	9/5/2023 4:04:55 PM
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	1	9/5/2023 4:04:55 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	9/5/2023 3:57:29 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308F29**
Date Reported: **9/12/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-04 0'
Project: Aldabra 2S Fed 006H **Collection Date:** 8/25/2023 1:22:00 PM
Lab ID: 2308F29-009 **Matrix:** SOIL **Received Date:** 8/29/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/5/2023 7:15:40 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/5/2023 7:15:40 PM
Surr: DNOP	81.9	69-147		%Rec	1	9/5/2023 7:15:40 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/5/2023 4:28:25 PM
Surr: BFB	99.2	15-244		%Rec	1	9/5/2023 4:28:25 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	9/5/2023 4:28:25 PM
Toluene	ND	0.046		mg/Kg	1	9/5/2023 4:28:25 PM
Ethylbenzene	ND	0.046		mg/Kg	1	9/5/2023 4:28:25 PM
Xylenes, Total	ND	0.093		mg/Kg	1	9/5/2023 4:28:25 PM
Surr: 4-Bromofluorobenzene	109	39.1-146		%Rec	1	9/5/2023 4:28:25 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	9/5/2023 4:09:53 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2308F29**
Date Reported: **9/12/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-04 2'
Project: Aldabra 2S Fed 006H **Collection Date:** 8/25/2023 1:26:00 PM
Lab ID: 2308F29-010 **Matrix:** SOIL **Received Date:** 8/29/2023 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/5/2023 7:26:38 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/5/2023 7:26:38 PM
Surr: DNOP	78.0	69-147		%Rec	1	9/5/2023 7:26:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/5/2023 4:51:54 PM
Surr: BFB	97.1	15-244		%Rec	1	9/5/2023 4:51:54 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	9/5/2023 4:51:54 PM
Toluene	ND	0.049		mg/Kg	1	9/5/2023 4:51:54 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/5/2023 4:51:54 PM
Xylenes, Total	ND	0.097		mg/Kg	1	9/5/2023 4:51:54 PM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	9/5/2023 4:51:54 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	9/5/2023 4:22:18 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2308F29**

12-Sep-23

Client: Vertex Resources Services, Inc.

Project: Aldabra 2S Fed 006H

Sample ID: **MB-77283**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **77283**	RunNo: **99451**
Prep Date: **9/5/2023**	Analysis Date: **9/5/2023**	SeqNo: **3631474** Units: **mg/Kg**

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

Sample ID: **LCS-77283**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **77283**	RunNo: **99451**
Prep Date: **9/5/2023**	Analysis Date: **9/5/2023**	SeqNo: **3631475** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	98.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2308F29**

12-Sep-23

Client: Vertex Resources Services, Inc.

Project: Aldabra 2S Fed 006H

Sample ID: **LCS-77278**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **77278**	RunNo: **99448**
Prep Date: **9/5/2023**	Analysis Date: **9/5/2023**	SeqNo: **3630276** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	100	61.9	130			
Surr: DNOP	4.0		5.000		79.2	69	147			

Sample ID: **MB-77278**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **77278**	RunNo: **99448**
Prep Date: **9/5/2023**	Analysis Date: **9/5/2023**	SeqNo: **3630278** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.2		10.00		81.8	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2308F29**

12-Sep-23

Client: Vertex Resources Services, Inc.

Project: Aldabra 2S Fed 006H

Sample ID: **lcs-77243**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **77243**	RunNo: **99436**
Prep Date: **8/31/2023**	Analysis Date: **9/4/2023**	SeqNo: **3629277** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.9	70	130			
Surr: BFB	2000		1000		195	15	244			

Sample ID: **mb-77243**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **77243**	RunNo: **99436**
Prep Date: **8/31/2023**	Analysis Date: **9/4/2023**	SeqNo: **3629278** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		95.9	15	244			

Sample ID: **2308f29-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH23-01 0'**	Batch ID: **77243**	RunNo: **99436**
Prep Date: **8/31/2023**	Analysis Date: **9/4/2023**	SeqNo: **3629300** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	4.7	23.50	0	75.1	70	130			
Surr: BFB	1700		939.8		183	15	244			

Sample ID: **2308f29-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH23-01 0'**	Batch ID: **77243**	RunNo: **99436**
Prep Date: **8/31/2023**	Analysis Date: **9/4/2023**	SeqNo: **3629301** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	4.7	23.45	0	78.6	70	130	4.34	20	
Surr: BFB	1800		938.1		187	15	244	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2308F29**

12-Sep-23

Client: Vertex Resources Services, Inc.

Project: Aldabra 2S Fed 006H

Sample ID: **LCS-77243**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **77243**	RunNo: **99436**
Prep Date: **8/31/2023**	Analysis Date: **9/4/2023**	SeqNo: **3629357** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	1.000	0	98.2	70	130			
Toluene	0.99	0.050	1.000	0	99.3	70	130			
Ethylbenzene	0.99	0.050	1.000	0	99.2	70	130			
Xylenes, Total	3.0	0.10	3.000	0	101	70	130			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	39.1	146			

Sample ID: **mb-77243**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **77243**	RunNo: **99436**
Prep Date: **8/31/2023**	Analysis Date: **9/4/2023**	SeqNo: **3629358** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0		1.000		0	39.1	146			S

Sample ID: **2308f29-002ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH23-01 2'**	Batch ID: **77243**	RunNo: **99436**
Prep Date: **8/31/2023**	Analysis Date: **9/5/2023**	SeqNo: **3629381** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.023	0.9398	0	99.6	70	130			
Toluene	0.95	0.047	0.9398	0.01480	99.6	70	130			
Ethylbenzene	0.95	0.047	0.9398	0	101	70	130			
Xylenes, Total	2.9	0.094	2.820	0	101	70	130			
Surr: 4-Bromofluorobenzene	1.0		0.9398		107	39.1	146			

Sample ID: **2308f29-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH23-01 2'**	Batch ID: **77243**	RunNo: **99436**
Prep Date: **8/31/2023**	Analysis Date: **9/5/2023**	SeqNo: **3629382** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.024	0.9461	0	96.3	70	130	2.74	20	
Toluene	0.92	0.047	0.9461	0.01480	95.2	70	130	3.83	20	
Ethylbenzene	0.93	0.047	0.9461	0	98.0	70	130	2.78	20	
Xylenes, Total	2.8	0.095	2.838	0	98.5	70	130	2.21	20	
Surr: 4-Bromofluorobenzene	1.0		0.9461		107	39.1	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Vertex Resources Services, Inc.

Work Order Number: 2308F29

RcptNo: 1

Received By: Tracy Casarrubias 8/29/2023 7:55:00 AM

Completed By: Tracy Casarrubias 8/29/2023 10:03:38 AM

Reviewed By: TM 8/29/23

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: JH 8-29-23

Special Handling (if applicable)

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

Person Notified: Date:

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

Regarding:

Client Instructions: Mailing address, phone number, and Email/Fax are missing on COC- TMC 8/29/23

16. Additional remarks:

Client did not relinquish chain of custody

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Vertex | Devon

Mailing Address: Direct bill

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Addabra 25 Fed #006H

Project #: 23E-04614

Project Manager: Kent Stallings

Sampler: Deusavan Costa

On Ice: ☑ Yes ☐ No Yogi

# of Coolers: 1

Cooler Temp(including CF): 0.1 - 0.1 = 0 (°C)

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2308F29
8.25.23	13:05	Soil	BH23-01 0'	4oz		001
	13:10		BH23-01 2'			002
	14:05		BH23-01 4'			003
	14:10		BH23-01 6'			004
	13:20		BH23-02 0'			005
	13:25		BH23-02 2'			006
	13:30		BH23-03 0'			007
	13:35		BH23-03 2'			008
	13:22		BH23-04 0'			009
↓	13:26		BH23-04 2'	↓		010

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
✓	✓					✓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					8/28/23	945
Date: 8/28/23	Time: 1900	Relinquished by:	Received by:	Via: courier	Date 8/29/23	Time 7:55

Remarks:
Work order: 1005986201
cc: smccarty@vertex.ca

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

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 28, 2023

Kent Stallings

Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (505) 350-1336
FAX:

RE: Aldabra 25 Fed 006H OrderNo.: 2312269

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 6 sample(s) on 12/6/2023 for the analyses presented in the following report.

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

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2312269**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Aldabra 25 Fed 006H
Lab ID: 2312269-001 **Matrix:** SOIL

Client Sample ID: BH23-07 0.0'
Collection Date: 12/4/2023 12:00:00 PM
Received Date: 12/6/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	12/14/2023 1:15:36 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/14/2023 1:15:36 PM
Surr: DNOP	93.4	69-147		%Rec	1	12/14/2023 1:15:36 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/13/2023 2:53:07 PM
Surr: BFB	97.8	15-244		%Rec	1	12/13/2023 2:53:07 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	12/13/2023 2:53:07 PM
Toluene	ND	0.048		mg/Kg	1	12/13/2023 2:53:07 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/13/2023 2:53:07 PM
Xylenes, Total	ND	0.097		mg/Kg	1	12/13/2023 2:53:07 PM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	1	12/13/2023 2:53:07 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	2200	150		mg/Kg	50	12/13/2023 3:59:40 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312269**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-07 2.0'
Project: Aldabra 25 Fed 006H
Collection Date: 12/4/2023 12:10:00 PM
Lab ID: 2312269-002 **Matrix:** SOIL **Received Date:** 12/6/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/14/2023 1:39:20 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/14/2023 1:39:20 PM
Surr: DNOP	91.1	69-147		%Rec	1	12/14/2023 1:39:20 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/13/2023 3:17:18 PM
Surr: BFB	99.2	15-244		%Rec	1	12/13/2023 3:17:18 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	12/13/2023 3:17:18 PM
Toluene	ND	0.050		mg/Kg	1	12/13/2023 3:17:18 PM
Ethylbenzene	ND	0.050		mg/Kg	1	12/13/2023 3:17:18 PM
Xylenes, Total	ND	0.10		mg/Kg	1	12/13/2023 3:17:18 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	12/13/2023 3:17:18 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	250	60		mg/Kg	20	12/12/2023 8:27:08 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312269**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-08 0.0'
Project: Aldabra 25 Fed 006H
Collection Date: 12/4/2023 12:20:00 PM
Lab ID: 2312269-003 **Matrix:** SOIL **Received Date:** 12/6/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/14/2023 2:03:08 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/14/2023 2:03:08 PM
Surr: DNOP	92.5	69-147		%Rec	1	12/14/2023 2:03:08 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/13/2023 3:41:05 PM
Surr: BFB	99.1	15-244		%Rec	1	12/13/2023 3:41:05 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	12/13/2023 3:41:05 PM
Toluene	ND	0.048		mg/Kg	1	12/13/2023 3:41:05 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/13/2023 3:41:05 PM
Xylenes, Total	ND	0.096		mg/Kg	1	12/13/2023 3:41:05 PM
Surr: 4-Bromofluorobenzene	99.4	39.1-146		%Rec	1	12/13/2023 3:41:05 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	63	61		mg/Kg	20	12/12/2023 9:04:21 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312269**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-08 2.0'
Project: Aldabra 25 Fed 006H
Collection Date: 12/4/2023 12:30:00 PM
Lab ID: 2312269-004 **Matrix:** SOIL **Received Date:** 12/6/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/14/2023 2:26:54 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/14/2023 2:26:54 PM
Surr: DNOP	93.3	69-147		%Rec	1	12/14/2023 2:26:54 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/13/2023 4:04:47 PM
Surr: BFB	99.1	15-244		%Rec	1	12/13/2023 4:04:47 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	12/13/2023 4:04:47 PM
Toluene	ND	0.050		mg/Kg	1	12/13/2023 4:04:47 PM
Ethylbenzene	ND	0.050		mg/Kg	1	12/13/2023 4:04:47 PM
Xylenes, Total	ND	0.10		mg/Kg	1	12/13/2023 4:04:47 PM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	1	12/13/2023 4:04:47 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	87	60		mg/Kg	20	12/12/2023 9:16:45 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312269**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-10 0.0'
Project: Aldabra 25 Fed 006H
Collection Date: 12/4/2023 12:40:00 PM
Lab ID: 2312269-005 **Matrix:** SOIL **Received Date:** 12/6/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	12/14/2023 2:50:36 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/14/2023 2:50:36 PM
Surr: DNOP	90.7	69-147		%Rec	1	12/14/2023 2:50:36 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/13/2023 4:52:14 PM
Surr: BFB	99.6	15-244		%Rec	1	12/13/2023 4:52:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	12/13/2023 4:52:14 PM
Toluene	ND	0.049		mg/Kg	1	12/13/2023 4:52:14 PM
Ethylbenzene	ND	0.049		mg/Kg	1	12/13/2023 4:52:14 PM
Xylenes, Total	ND	0.097		mg/Kg	1	12/13/2023 4:52:14 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	12/13/2023 4:52:14 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	130	60		mg/Kg	20	12/12/2023 9:29:10 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312269**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH23-10 2.0'
Project: Aldabra 25 Fed 006H
Collection Date: 12/4/2023 12:50:00 PM
Lab ID: 2312269-006 **Matrix:** SOIL **Received Date:** 12/6/2023 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	12/14/2023 3:14:20 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/14/2023 3:14:20 PM
Surr: DNOP	90.5	69-147		%Rec	1	12/14/2023 3:14:20 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/13/2023 5:16:03 PM
Surr: BFB	104	15-244		%Rec	1	12/13/2023 5:16:03 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	12/13/2023 5:16:03 PM
Toluene	ND	0.048		mg/Kg	1	12/13/2023 5:16:03 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/13/2023 5:16:03 PM
Xylenes, Total	ND	0.096		mg/Kg	1	12/13/2023 5:16:03 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	12/13/2023 5:16:03 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	12/12/2023 9:41:34 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312269**

28-Dec-23

Client: Devon Energy

Project: Aldabra 25 Fed 006H

Sample ID:	**MB-79333**	SampType:	**MBLK**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**79333**	RunNo:	**101808**					
Prep Date:	**12/12/2023**	Analysis Date:	**12/12/2023**	SeqNo:	**3752837**	Units:	**mg/Kg**			

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

Sample ID:	**LCS-79333**	SampType:	**LCS**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**79333**	RunNo:	**101808**					
Prep Date:	**12/12/2023**	Analysis Date:	**12/12/2023**	SeqNo:	**3752838**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312269**

28-Dec-23

Client: Devon Energy

Project: Aldabra 25 Fed 006H

Sample ID: **MB-79324**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **79324**	RunNo: **101809**							
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3752938**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		105	69	147			

Sample ID: **LCS-79324**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **79324**	RunNo: **101809**							
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3752939**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		86.5	69	147			

Sample ID: **MB-79326**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **79326**	RunNo: **101809**							
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3754791**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.2		10.00		82.3	69	147			

Sample ID: **LCS-79326**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **79326**	RunNo: **101809**							
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3754792**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.7		5.000		73.1	69	147			

Sample ID: **MB-79381**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **79381**	RunNo: **101809**							
Prep Date: **12/14/2023**	Analysis Date: **12/14/2023**	SeqNo: **3754826**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	6.9		10.00		68.7	69	147			S

Sample ID: **LCS-79381**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **79381**	RunNo: **101809**							
Prep Date: **12/14/2023**	Analysis Date: **12/14/2023**	SeqNo: **3754827**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.6	61.9	130			
Surr: DNOP	3.5		5.000		69.0	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312269**

28-Dec-23

Client: Devon Energy

Project: Aldabra 25 Fed 006H

Sample ID: **MB-79381**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **79381**	RunNo: **101864**
Prep Date: **12/14/2023**	Analysis Date: **12/15/2023**	SeqNo: **3756007** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.0		10.00		89.9	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312269**

28-Dec-23

Client: Devon Energy

Project: Aldabra 25 Fed 006H

Sample ID: **lcs-79322**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **79322**	RunNo: **101798**
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3752581** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	70	130			
Surr: BFB	2100		1000		211	15	244			

Sample ID: **mb-79322**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **79322**	RunNo: **101798**
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3752582** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		100	15	244			

Sample ID: **2312269-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH23-07 0.0'**	Batch ID: **79322**	RunNo: **101798**
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3753453** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	4.8	24.06	0	128	70	130			
Surr: BFB	2300		962.5		243	15	244			

Sample ID: **2312269-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH23-07 0.0'**	Batch ID: **79322**	RunNo: **101798**
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3753455** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.9	24.27	0	109	70	130	15.3	20	
Surr: BFB	2200		970.9		223	15	244	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312269**

28-Dec-23

Client: Devon Energy

Project: Aldabra 25 Fed 006H

Sample ID: **LCS-79322**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **79322**	RunNo: **101798**
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3752600** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.2	70	130			
Toluene	0.97	0.050	1.000	0	97.0	70	130			
Ethylbenzene	0.98	0.050	1.000	0	98.3	70	130			
Xylenes, Total	3.0	0.10	3.000	0	99.6	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	39.1	146			

Sample ID: **mb-79322**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **79322**	RunNo: **101798**
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3752602** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	39.1	146			

Sample ID: **2312269-002AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH23-07 2.0'**	Batch ID: **79322**	RunNo: **101798**
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3753476** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	0.9940	0	96.7	70	130			
Toluene	0.98	0.050	0.9940	0	98.7	70	130			
Ethylbenzene	1.0	0.050	0.9940	0	100	70	130			
Xylenes, Total	3.0	0.099	2.982	0	102	70	130			
Surr: 4-Bromofluorobenzene	1.0		0.9940		103	39.1	146			

Sample ID: **2312269-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH23-07 2.0'**	Batch ID: **79322**	RunNo: **101798**
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3753477** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	0.9911	0	99.8	70	130	2.88	20	
Toluene	1.0	0.050	0.9911	0	101	70	130	1.64	20	
Ethylbenzene	1.0	0.050	0.9911	0	103	70	130	1.99	20	
Xylenes, Total	3.1	0.099	2.973	0	103	70	130	1.18	20	
Surr: 4-Bromofluorobenzene	1.0		0.9911		102	39.1	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

eurofins | Environment Testing

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Devon Energy | Work Order Number: 2312269 | RcptNo: 1

Received By: Tracy Casarrubias 12/6/2023 7:45:00 AM

Completed By: Tracy Casarrubias 12/6/2023 10:16:52 AM

Reviewed By: JN 12/6/23

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐	
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐	
5. Sample(s) in proper container(s)?	Yes ☑	No ☐		
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐		
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐		
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐	
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑	
10. Were any sample containers received broken?	Yes ☐	No ☑		
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐		
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐		
13. Is it clear what analyses were requested?	Yes ☑	No ☐		
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐		

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

Adjusted?

Checked by: JN 12-6-23

Special Handling (if applicable)

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

Person Notified: Date:

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

Regarding:

Client Instructions: Mailing address, phone number and Email/Fax are missing on COC- TMC 12/6/23

16. Additional remarks:

Client did not relinquish chain of custody

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.7	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Devon

On File

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☑ Rush 5 Day

Project Name: Aldabra 25 Fed #006H

Project #: 23E-04614

Project Manager: Kent Stallings

Sampler: AH

On Ice: ☑ Yes ☐ No yog

# of Coolers: 1

Cooler Temp(including CF): 2.9-0.2=2.7 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2312269	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
12-4-23	1200	Soil	BH23-07 0.0'	4 oz	ICE	001	↓	↓					↓									
↓	1210	↓	BH23-07 2.0'	↓	↓	002	↓	↓					↓									
↓	1220	↓	BH23-08 0.0'	↓	↓	003	↓	↓					↓									
↓	1230	↓	BH23-08 2.0'	↓	↓	004	↓	↓					↓									
↓	1240	↓	BH23-10 0.0'	↓	↓	005	↓	↓					↓									
↓	1250	↓	BH23-10 2.0'	↓	↓	006	↓	↓					↓									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
			[signature]		12/5/23	
12/5/23	1900	[signature]		Courier	12/6/23	7:45

Remarks: CC: kstallings@vertex.ca

aharris@vertex.ca

Work Order #1005986201

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

eurofins | Environment Testing

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

February 13, 2024

Kent Stallings

Vertex Resources Services, Inc.
3101 Boyd Drive
Carlsbad, NM 88220
TEL:
FAX:

RE: Aldabra 25 Federal 6 H OrderNo.: 2402007

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 2 sample(s) on 2/1/2024 for the analyses presented in the following report.

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

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2402007**
Date Reported: **2/13/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.
Client Sample ID: BH23-11 12'
Project: Aldabra 25 Federal 6 H
Collection Date: 1/30/2024 10:00:00 AM
Lab ID: 2402007-001 **Matrix:** SOIL **Received Date:** 2/1/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/2/2024 10:56:48 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/2/2024 10:56:48 PM
Surr: DNOP	128	61.2-134		%Rec	1	2/2/2024 10:56:48 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/5/2024 8:12:50 PM
Surr: BFB	101	15-244		%Rec	1	2/5/2024 8:12:50 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	2/5/2024 8:12:50 PM
Toluene	ND	0.046		mg/Kg	1	2/5/2024 8:12:50 PM
Ethylbenzene	ND	0.046		mg/Kg	1	2/5/2024 8:12:50 PM
Xylenes, Total	ND	0.091		mg/Kg	1	2/5/2024 8:12:50 PM
Surr: 4-Bromofluorobenzene	88.5	39.1-146		%Rec	1	2/5/2024 8:12:50 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	1100	60		mg/Kg	20	2/3/2024 4:43:08 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2402007**
Date Reported: **2/13/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.
Client Sample ID: BH23-11 13.5'
Project: Aldabra 25 Federal 6 H
Collection Date: 1/30/2024 11:00:00 AM
Lab ID: 2402007-002 **Matrix:** SOIL **Received Date:** 2/1/2024 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **DGH**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	2/2/2024 11:20:06 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/2/2024 11:20:06 PM
Surr: DNOP	103	61.2-134		%Rec	1	2/2/2024 11:20:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/5/2024 8:36:33 PM
Surr: BFB	99.7	15-244		%Rec	1	2/5/2024 8:36:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	2/5/2024 8:36:33 PM
Toluene	ND	0.047		mg/Kg	1	2/5/2024 8:36:33 PM
Ethylbenzene	ND	0.047		mg/Kg	1	2/5/2024 8:36:33 PM
Xylenes, Total	ND	0.094		mg/Kg	1	2/5/2024 8:36:33 PM
Surr: 4-Bromofluorobenzene	87.5	39.1-146		%Rec	1	2/5/2024 8:36:33 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	110	60		mg/Kg	20	2/3/2024 4:56:00 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2402007**

13-Feb-24

Client: Vertex Resources Services, Inc.

Project: Aldabra 25 Federal 6 H

Sample ID: **MB-80236**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **80236**	RunNo: **102858**
Prep Date: **2/2/2024**	Analysis Date: **2/3/2024**	SeqNo: **3800520** Units: **mg/Kg**

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

Sample ID: **LCS-80236**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **80236**	RunNo: **102858**
Prep Date: **2/2/2024**	Analysis Date: **2/3/2024**	SeqNo: **3800521** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2402007**

13-Feb-24

Client: Vertex Resources Services, Inc.

Project: Aldabra 25 Federal 6 H

Sample ID: **MB-80224**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **80224**	RunNo: **102843**
Prep Date: **2/1/2024**	Analysis Date: **2/2/2024**	SeqNo: **3800103** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	12		10.00		123	61.2	134			

Sample ID: **LCS-80224**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **80224**	RunNo: **102843**
Prep Date: **2/1/2024**	Analysis Date: **2/2/2024**	SeqNo: **3800104** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	6.4		5.000		127	69	147			

Sample ID: **MB-80220**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **80220**	RunNo: **102843**
Prep Date: **2/1/2024**	Analysis Date: **2/2/2024**	SeqNo: **3800108** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		110	61.2	134			

Sample ID: **LCS-80220**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **80220**	RunNo: **102843**
Prep Date: **2/1/2024**	Analysis Date: **2/2/2024**	SeqNo: **3800109** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	59	10	50.00	0	117	61.9	130			
Surr: DNOP	5.9		5.000		119	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2402007**

13-Feb-24

Client: Vertex Resources Services, Inc.

Project: Aldabra 25 Federal 6 H

Sample ID: **lcs-80203**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **80203**	RunNo: **102873**
Prep Date: **2/1/2024**	Analysis Date: **2/5/2024**	SeqNo: **3800986** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	70	130			
Surr: BFB	2100		1000		206	15	244			

Sample ID: **mb-80203**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **80203**	RunNo: **102873**
Prep Date: **2/1/2024**	Analysis Date: **2/5/2024**	SeqNo: **3800987** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	990		1000		99.1	15	244			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2402007**

13-Feb-24

Client: Vertex Resources Services, Inc.

Project: Aldabra 25 Federal 6 H

Sample ID: **LCS-80203**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **80203**	RunNo: **102873**
Prep Date: **2/1/2024**	Analysis Date: **2/5/2024**	SeqNo: **3800993** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.025	1.000	0	84.4	70	130			
Toluene	0.84	0.050	1.000	0	84.2	70	130			
Ethylbenzene	0.85	0.050	1.000	0	85.4	70	130			
Xylenes, Total	2.6	0.10	3.000	0	85.8	70	130			
Surr: 4-Bromofluorobenzene	0.91		1.000		91.1	39.1	146			

Sample ID: **mb-80203**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **80203**	RunNo: **102873**
Prep Date: **2/1/2024**	Analysis Date: **2/5/2024**	SeqNo: **3800994** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		88.6	39.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

eurofins | Environment Testing

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Vertex Resources Work Order Number: 2402007 RcptNo: 1

Received By: Tracy Casarrubias 2/1/2024 7:30:00 AM

Completed By: Desiree Dominguez 2/1/2024 8:31:18 AM DD

Reviewed By: JH 2-1-24

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

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

Adjusted? _____

Checked by: 2/1/24

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

Mailing address, phone number and Email/Fax are missing on COC- DAD 2/1/24

17. **Cooler Information**

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

Chain-of-Custody Record

Client: Vertex / Devon

Mailing Address: On file

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush 5 day

Project Name: Aldabra 25 Federal #6H

Project #: 23E-04614

Project Manager: Kent Stallings

Sampler: ~~SMG~~ E

On Ice: ☑ Yes ☐ No 4 oz

# of Coolers: 1

Cooler Temp(including CF): 2.1 - 0.1 = 2.0 (°C)

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2401007	~~BTEX~~ MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
1/30/24	10:00	Soil	BH23-11 12'	4 oz jar	Ice	-001	✓	✓					✓			
↓	11:00	↓	BH23-11 13.5'	↓	↓	-002	↓	↓					↓			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
1/31/24	1130				1/31/24	1130
1/31/24	1900			courier	2/1/24	7:30

Remarks: Direct bill to: Devon
W/O #: 100598 0201
cc. kstallings@vertex.ca
smccarty@vertex.ca

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 28, 2023

Kent Stallings

Vertex Resources Services, Inc.
3101 Boyd Drive
Carlsbad, NM 88220
TEL:
FAX:

RE: Aldabra 25 Fed 6 OrderNo.: 2312374

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 18 sample(s) on 12/7/2023 for the analyses presented in the following report.

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

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-06 0'
Project: Aldabra 25 Fed 6 **Collection Date:** 12/5/2023 9:00:00 AM
Lab ID: 2312374-001 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	12/15/2023 11:01:50 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/15/2023 11:01:50 AM
Surr: DNOP	90.4	69-147		%Rec	1	12/15/2023 11:01:50 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/14/2023 4:46:43 AM
Surr: BFB	103	15-244		%Rec	1	12/14/2023 4:46:43 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	12/14/2023 4:46:43 AM
Toluene	ND	0.049		mg/Kg	1	12/14/2023 4:46:43 AM
Ethylbenzene	ND	0.049		mg/Kg	1	12/14/2023 4:46:43 AM
Xylenes, Total	ND	0.097		mg/Kg	1	12/14/2023 4:46:43 AM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	12/14/2023 4:46:43 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	12/13/2023 12:35:19 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.
Client Sample ID: BH23-06 2'
Project: Aldabra 25 Fed 6
Collection Date: 12/5/2023 9:10:00 AM
Lab ID: 2312374-002 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/15/2023 11:12:19 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/15/2023 11:12:19 AM
Surr: DNOP	93.1	69-147		%Rec	1	12/15/2023 11:12:19 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/14/2023 5:10:51 AM
Surr: BFB	99.8	15-244		%Rec	1	12/14/2023 5:10:51 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.023		mg/Kg	1	12/14/2023 5:10:51 AM
Toluene	ND	0.046		mg/Kg	1	12/14/2023 5:10:51 AM
Ethylbenzene	ND	0.046		mg/Kg	1	12/14/2023 5:10:51 AM
Xylenes, Total	ND	0.093		mg/Kg	1	12/14/2023 5:10:51 AM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	12/14/2023 5:10:51 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	12/13/2023 12:47:44 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-09 0'
Project: Aldabra 25 Fed 6 **Collection Date:** 12/5/2023 9:20:00 AM
Lab ID: 2312374-003 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/15/2023 11:22:49 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/15/2023 11:22:49 AM
Surr: DNOP	92.3	69-147		%Rec	1	12/15/2023 11:22:49 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/14/2023 5:34:48 AM
Surr: BFB	102	15-244		%Rec	1	12/14/2023 5:34:48 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	12/14/2023 5:34:48 AM
Toluene	ND	0.049		mg/Kg	1	12/14/2023 5:34:48 AM
Ethylbenzene	ND	0.049		mg/Kg	1	12/14/2023 5:34:48 AM
Xylenes, Total	ND	0.097		mg/Kg	1	12/14/2023 5:34:48 AM
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	12/14/2023 5:34:48 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	12/13/2023 1:00:09 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-09 2'
Project: Aldabra 25 Fed 6 **Collection Date:** 12/5/2023 9:30:00 AM
Lab ID: 2312374-004 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/15/2023 11:33:19 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/15/2023 11:33:19 AM
Surr: DNOP	84.2	69-147		%Rec	1	12/15/2023 11:33:19 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/14/2023 5:58:47 AM
Surr: BFB	101	15-244		%Rec	1	12/14/2023 5:58:47 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	12/14/2023 5:58:47 AM
Toluene	ND	0.047		mg/Kg	1	12/14/2023 5:58:47 AM
Ethylbenzene	ND	0.047		mg/Kg	1	12/14/2023 5:58:47 AM
Xylenes, Total	ND	0.094		mg/Kg	1	12/14/2023 5:58:47 AM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	12/14/2023 5:58:47 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	12/13/2023 1:12:34 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-11 0'
Project: Aldabra 25 Fed 6 **Collection Date:** 12/5/2023 9:40:00 AM
Lab ID: 2312374-005 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	370	97		mg/Kg	10	12/15/2023 10:40:51 AM
Motor Oil Range Organics (MRO)	870	480		mg/Kg	10	12/15/2023 10:40:51 AM
Surr: DNOP	0	69-147	S	%Rec	10	12/15/2023 10:40:51 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/14/2023 6:22:43 AM
Surr: BFB	97.3	15-244		%Rec	1	12/14/2023 6:22:43 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	12/14/2023 6:22:43 AM
Toluene	ND	0.050		mg/Kg	1	12/14/2023 6:22:43 AM
Ethylbenzene	ND	0.050		mg/Kg	1	12/14/2023 6:22:43 AM
Xylenes, Total	ND	0.10		mg/Kg	1	12/14/2023 6:22:43 AM
Surr: 4-Bromofluorobenzene	97.7	39.1-146		%Rec	1	12/14/2023 6:22:43 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	12/13/2023 1:24:58 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.
Client Sample ID: BH23-11 2'
Project: Aldabra 25 Fed 6
Collection Date: 12/5/2023 9:50:00 AM
Lab ID: 2312374-006 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	940	93		mg/Kg	10	12/15/2023 10:09:28 AM
Motor Oil Range Organics (MRO)	790	460		mg/Kg	10	12/15/2023 10:09:28 AM
Surr: DNOP	0	69-147	S	%Rec	10	12/15/2023 10:09:28 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/14/2023 6:46:33 AM
Surr: BFB	98.1	15-244		%Rec	1	12/14/2023 6:46:33 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	12/14/2023 6:46:33 AM
Toluene	ND	0.048		mg/Kg	1	12/14/2023 6:46:33 AM
Ethylbenzene	ND	0.048		mg/Kg	1	12/14/2023 6:46:33 AM
Xylenes, Total	ND	0.097		mg/Kg	1	12/14/2023 6:46:33 AM
Surr: 4-Bromofluorobenzene	99.8	39.1-146		%Rec	1	12/14/2023 6:46:33 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	59		mg/Kg	20	12/13/2023 2:02:11 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-12 0'
Project: Aldabra 25 Fed 6 **Collection Date:** 12/5/2023 10:00:00 AM
Lab ID: 2312374-007 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	12/15/2023 11:43:52 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/15/2023 11:43:52 AM
Surr: DNOP	97.5	69-147		%Rec	1	12/15/2023 11:43:52 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/14/2023 7:10:22 AM
Surr: BFB	103	15-244		%Rec	1	12/14/2023 7:10:22 AM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	12/14/2023 7:10:22 AM
Toluene	ND	0.048		mg/Kg	1	12/14/2023 7:10:22 AM
Ethylbenzene	ND	0.048		mg/Kg	1	12/14/2023 7:10:22 AM
Xylenes, Total	ND	0.095		mg/Kg	1	12/14/2023 7:10:22 AM
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	12/14/2023 7:10:22 AM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	59		mg/Kg	20	12/13/2023 2:14:36 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-12 2'
Project: Aldabra 25 Fed 6 **Collection Date:** 12/5/2023 10:10:00 AM
Lab ID: 2312374-008 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	12/15/2023 11:54:24 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/15/2023 11:54:24 AM
Surr: DNOP	95.0	69-147		%Rec	1	12/15/2023 11:54:24 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/14/2023 5:20:00 PM
Surr: BFB	103	15-244		%Rec	1	12/14/2023 5:20:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	12/14/2023 5:20:00 PM
Toluene	ND	0.048		mg/Kg	1	12/14/2023 5:20:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/14/2023 5:20:00 PM
Xylenes, Total	ND	0.095		mg/Kg	1	12/14/2023 5:20:00 PM
Surr: 4-Bromofluorobenzene	98.8	39.1-146		%Rec	1	12/14/2023 5:20:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	12/14/2023 1:05:18 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-13 0'
Project: Aldabra 25 Fed 6 **Collection Date:** 12/5/2023 10:20:00 AM
Lab ID: 2312374-009 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	11	9.3		mg/Kg	1	12/15/2023 12:04:57 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/15/2023 12:04:57 PM
Surr: DNOP	76.6	69-147		%Rec	1	12/15/2023 12:04:57 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/14/2023 6:26:00 PM
Surr: BFB	97.8	15-244		%Rec	1	12/14/2023 6:26:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	12/14/2023 6:26:00 PM
Toluene	ND	0.048		mg/Kg	1	12/14/2023 6:26:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/14/2023 6:26:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	12/14/2023 6:26:00 PM
Surr: 4-Bromofluorobenzene	97.1	39.1-146		%Rec	1	12/14/2023 6:26:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	2300	60		mg/Kg	20	12/14/2023 1:20:26 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-13 2'
Project: Aldabra 25 Fed 6 **Collection Date:** 12/5/2023 10:30:00 AM
Lab ID: 2312374-010 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/15/2023 12:15:31 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/15/2023 12:15:31 PM
Surr: DNOP	76.3	69-147		%Rec	1	12/15/2023 12:15:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/14/2023 6:48:00 PM
Surr: BFB	103	15-244		%Rec	1	12/14/2023 6:48:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.023		mg/Kg	1	12/14/2023 6:48:00 PM
Toluene	ND	0.046		mg/Kg	1	12/14/2023 6:48:00 PM
Ethylbenzene	ND	0.046		mg/Kg	1	12/14/2023 6:48:00 PM
Xylenes, Total	ND	0.092		mg/Kg	1	12/14/2023 6:48:00 PM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	1	12/14/2023 6:48:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	290	60		mg/Kg	20	12/14/2023 1:36:15 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-14 0'
Project: Aldabra 25 Fed 6 **Collection Date:** 12/5/2023 10:40:00 AM
Lab ID: 2312374-011 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	12/15/2023 12:26:10 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/15/2023 12:26:10 PM
Surr: DNOP	97.8	69-147		%Rec	1	12/15/2023 12:26:10 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/14/2023 7:10:00 PM
Surr: BFB	98.6	15-244		%Rec	1	12/14/2023 7:10:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.023		mg/Kg	1	12/14/2023 7:10:00 PM
Toluene	ND	0.046		mg/Kg	1	12/14/2023 7:10:00 PM
Ethylbenzene	ND	0.046		mg/Kg	1	12/14/2023 7:10:00 PM
Xylenes, Total	ND	0.093		mg/Kg	1	12/14/2023 7:10:00 PM
Surr: 4-Bromofluorobenzene	98.9	39.1-146		%Rec	1	12/14/2023 7:10:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	12/14/2023 1:50:51 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-14 2'
Project: Aldabra 25 Fed 6 **Collection Date:** 12/5/2023 10:50:00 AM
Lab ID: 2312374-012 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/15/2023 12:36:46 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/15/2023 12:36:46 PM
Surr: DNOP	99.0	69-147		%Rec	1	12/15/2023 12:36:46 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/14/2023 7:32:00 PM
Surr: BFB	97.8	15-244		%Rec	1	12/14/2023 7:32:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	12/14/2023 7:32:00 PM
Toluene	ND	0.049		mg/Kg	1	12/14/2023 7:32:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	12/14/2023 7:32:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	12/14/2023 7:32:00 PM
Surr: 4-Bromofluorobenzene	97.3	39.1-146		%Rec	1	12/14/2023 7:32:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	12/14/2023 2:06:00 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-15 0'
Project: Aldabra 25 Fed 6 **Collection Date:** 12/5/2023 11:00:00 AM
Lab ID: 2312374-013 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	12/15/2023 12:47:22 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	12/15/2023 12:47:22 PM
Surr: DNOP	94.4	69-147		%Rec	1	12/15/2023 12:47:22 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/14/2023 7:54:00 PM
Surr: BFB	101	15-244		%Rec	1	12/14/2023 7:54:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.025		mg/Kg	1	12/14/2023 7:54:00 PM
Toluene	ND	0.050		mg/Kg	1	12/14/2023 7:54:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	12/14/2023 7:54:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	12/14/2023 7:54:00 PM
Surr: 4-Bromofluorobenzene	99.5	39.1-146		%Rec	1	12/14/2023 7:54:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	480	60		mg/Kg	20	12/14/2023 2:21:11 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-15 2'
Project: Aldabra 25 Fed 6 **Collection Date:** 12/5/2023 11:10:00 AM
Lab ID: 2312374-014 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/15/2023 12:57:59 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/15/2023 12:57:59 PM
Surr: DNOP	99.0	69-147		%Rec	1	12/15/2023 12:57:59 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/14/2023 8:16:00 PM
Surr: BFB	99.2	15-244		%Rec	1	12/14/2023 8:16:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.023		mg/Kg	1	12/14/2023 8:16:00 PM
Toluene	ND	0.046		mg/Kg	1	12/14/2023 8:16:00 PM
Ethylbenzene	ND	0.046		mg/Kg	1	12/14/2023 8:16:00 PM
Xylenes, Total	ND	0.093		mg/Kg	1	12/14/2023 8:16:00 PM
Surr: 4-Bromofluorobenzene	99.9	39.1-146		%Rec	1	12/14/2023 8:16:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	300	60		mg/Kg	20	12/14/2023 2:36:21 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-16 0'
Project: Aldabra 25 Fed 6 **Collection Date:** 12/5/2023 11:20:00 AM
Lab ID: 2312374-015 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	13	9.2		mg/Kg	1	12/15/2023 1:08:38 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	12/15/2023 1:08:38 PM
Surr: DNOP	111	69-147		%Rec	1	12/15/2023 1:08:38 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/14/2023 8:38:00 PM
Surr: BFB	102	15-244		%Rec	1	12/14/2023 8:38:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.023		mg/Kg	1	12/14/2023 8:38:00 PM
Toluene	ND	0.047		mg/Kg	1	12/14/2023 8:38:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	12/14/2023 8:38:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	12/14/2023 8:38:00 PM
Surr: 4-Bromofluorobenzene	98.8	39.1-146		%Rec	1	12/14/2023 8:38:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	12/14/2023 2:51:30 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-16 2'
Project: Aldabra 25 Fed 6 **Collection Date:** 12/5/2023 11:30:00 AM
Lab ID: 2312374-016 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	12/15/2023 1:19:17 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/15/2023 1:19:17 PM
Surr: DNOP	104	69-147		%Rec	1	12/15/2023 1:19:17 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/14/2023 9:00:00 PM
Surr: BFB	101	15-244		%Rec	1	12/14/2023 9:00:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	12/14/2023 9:00:00 PM
Toluene	ND	0.048		mg/Kg	1	12/14/2023 9:00:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/14/2023 9:00:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	12/14/2023 9:00:00 PM
Surr: 4-Bromofluorobenzene	100	39.1-146		%Rec	1	12/14/2023 9:00:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	12/14/2023 3:36:56 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix
E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
P	Sample pH Not In Range
PQL	Practical Quanitative Limit
RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BH23-11 4'
Project: Aldabra 25 Fed 6 **Collection Date:** 12/5/2023 11:40:00 AM
Lab ID: 2312374-017 **Matrix:** SOIL **Received Date:** 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	1200	93		mg/Kg	10	12/15/2023 10:19:54 AM
Motor Oil Range Organics (MRO)	1100	470		mg/Kg	10	12/15/2023 10:19:54 AM
Surr: DNOP	0	69-147	S	%Rec	10	12/15/2023 10:19:54 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/14/2023 12:52:52 PM
Surr: BFB	101	15-244		%Rec	1	12/14/2023 12:52:52 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	12/14/2023 12:52:52 PM
Toluene	ND	0.048		mg/Kg	1	12/14/2023 12:52:52 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/14/2023 12:52:52 PM
Xylenes, Total	ND	0.097		mg/Kg	1	12/14/2023 12:52:52 PM
Surr: 4-Bromofluorobenzene	102	39.1-146		%Rec	1	12/14/2023 12:52:52 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	12/14/2023 3:52:05 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312374**
Date Reported: **12/28/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.
Client Sample ID: BH23-11 5'
Project: Aldabra 25 Fed 6
Collection Date: 12/5/2023 11:50:00 AM
Lab ID: 2312374-018 **Matrix:** SOIL
Received Date: 12/7/2023 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	1900	94		mg/Kg	10	12/15/2023 10:30:22 AM
Motor Oil Range Organics (MRO)	1700	470		mg/Kg	10	12/15/2023 10:30:22 AM
Surr: DNOP	0	69-147	S	%Rec	10	12/15/2023 10:30:22 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/14/2023 1:16:34 PM
Surr: BFB	98.6	15-244		%Rec	1	12/14/2023 1:16:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	12/14/2023 1:16:34 PM
Toluene	ND	0.049		mg/Kg	1	12/14/2023 1:16:34 PM
Ethylbenzene	ND	0.049		mg/Kg	1	12/14/2023 1:16:34 PM
Xylenes, Total	ND	0.099		mg/Kg	1	12/14/2023 1:16:34 PM
Surr: 4-Bromofluorobenzene	101	39.1-146		%Rec	1	12/14/2023 1:16:34 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	12/14/2023 4:07:14 AM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312374**

28-Dec-23

Client: Vertex Resources Services, Inc.

Project: Aldabra 25 Fed 6

Sample ID: **MB-79333**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **79333**	RunNo: **101808**							
Prep Date: **12/12/2023**	Analysis Date: **12/12/2023**	SeqNo: **3752837**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-79333**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **79333**	RunNo: **101808**							
Prep Date: **12/12/2023**	Analysis Date: **12/12/2023**	SeqNo: **3752838**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	90	110			

Sample ID: **MB-79375**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **79375**	RunNo: **101822**							
Prep Date: **12/13/2023**	Analysis Date: **12/14/2023**	SeqNo: **3754047**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-79375**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **79375**	RunNo: **101822**							
Prep Date: **12/13/2023**	Analysis Date: **12/14/2023**	SeqNo: **3754048**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312374**

28-Dec-23

Client: Vertex Resources Services, Inc.

Project: Aldabra 25 Fed 6

Sample ID: **LCS-79391**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **79391**	RunNo: **101872**
Prep Date: **12/14/2023**	Analysis Date: **12/15/2023**	SeqNo: **3756380** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.6	61.9	130			
Surr: DNOP	4.8		5.000		96.5	69	147			

Sample ID: **LCS-79406**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **79406**	RunNo: **101872**
Prep Date: **12/15/2023**	Analysis Date: **12/15/2023**	SeqNo: **3756382** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.0		5.000		100	69	147			

Sample ID: **MB-79391**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **79391**	RunNo: **101872**
Prep Date: **12/14/2023**	Analysis Date: **12/15/2023**	SeqNo: **3756383** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.3		10.00		93.3	69	147			

Sample ID: **MB-79406**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **79406**	RunNo: **101872**
Prep Date: **12/15/2023**	Analysis Date: **12/15/2023**	SeqNo: **3756385** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.5		10.00		94.9	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312374**

28-Dec-23

Client: Vertex Resources Services, Inc.

Project: Aldabra 25 Fed 6

Sample ID: **lcs-79322**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **79322**	RunNo: **101798**
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3752581** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	70	130			
Surr: BFB	2100		1000		211	15	244			

Sample ID: **mb-79322**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **79322**	RunNo: **101798**
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3752582** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		100	15	244			

Sample ID: **lcs-79347**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **79347**	RunNo: **101840**
Prep Date: **12/13/2023**	Analysis Date: **12/14/2023**	SeqNo: **3754833** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	70	130			
Surr: BFB	2100		1000		211	15	244			

Sample ID: **mb-79347**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **79347**	RunNo: **101840**
Prep Date: **12/13/2023**	Analysis Date: **12/14/2023**	SeqNo: **3754834** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		99.9	15	244			

Sample ID: **lcs-79332**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **79332**	RunNo: **101852**
Prep Date: **12/12/2023**	Analysis Date: **12/14/2023**	SeqNo: **3755274** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	106	70	130			
Surr: BFB	2300		1000		228	15	244			

Sample ID: **mb-79332**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **79332**	RunNo: **101852**
Prep Date: **12/12/2023**	Analysis Date: **12/14/2023**	SeqNo: **3755275** Units: **mg/Kg**

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312374**

28-Dec-23

Client: Vertex Resources Services, Inc.

Project: Aldabra 25 Fed 6

Sample ID: **mb-79332**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **79332**	RunNo: **101852**
Prep Date: **12/12/2023**	Analysis Date: **12/14/2023**	SeqNo: **3755275** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		101	15	244			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312374**

28-Dec-23

Client: Vertex Resources Services, Inc.

Project: Aldabra 25 Fed 6

Sample ID: **LCS-79322**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **79322**	RunNo: **101798**
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3752600** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.2	70	130			
Toluene	0.97	0.050	1.000	0	97.0	70	130			
Ethylbenzene	0.98	0.050	1.000	0	98.3	70	130			
Xylenes, Total	3.0	0.10	3.000	0	99.6	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	39.1	146			

Sample ID: **mb-79322**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **79322**	RunNo: **101798**
Prep Date: **12/12/2023**	Analysis Date: **12/13/2023**	SeqNo: **3752602** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	39.1	146			

Sample ID: **LCS-79347**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **79347**	RunNo: **101840**
Prep Date: **12/13/2023**	Analysis Date: **12/14/2023**	SeqNo: **3754843** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.1	70	130			
Toluene	0.98	0.050	1.000	0	98.0	70	130			
Ethylbenzene	1.0	0.050	1.000	0	99.9	70	130			
Xylenes, Total	3.0	0.10	3.000	0	101	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	39.1	146			

Sample ID: **mb-79347**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **79347**	RunNo: **101840**
Prep Date: **12/13/2023**	Analysis Date: **12/14/2023**	SeqNo: **3754844** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		102	39.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312374**

28-Dec-23

Client: Vertex Resources Services, Inc.

Project: Aldabra 25 Fed 6

Sample ID: **2312374-008ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH23-12 2'**	Batch ID: **79332**	RunNo: **101852**
Prep Date: **12/12/2023**	Analysis Date: **12/14/2023**	SeqNo: **3755327** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.024	0.9569	0	103	70	130			
Toluene	0.99	0.048	0.9569	0	104	70	130			
Ethylbenzene	1.0	0.048	0.9569	0	106	70	130			
Xylenes, Total	3.1	0.096	2.871	0	106	70	130			
Surr: 4-Bromofluorobenzene	0.96		0.9569		100	39.1	146			

Sample ID: **2312374-008amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH23-12 2'**	Batch ID: **79332**	RunNo: **101852**
Prep Date: **12/12/2023**	Analysis Date: **12/14/2023**	SeqNo: **3755328** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.024	0.9579	0	99.2	70	130	3.60	20	
Toluene	0.96	0.048	0.9579	0	99.9	70	130	3.79	20	
Ethylbenzene	0.98	0.048	0.9579	0	102	70	130	3.33	20	
Xylenes, Total	3.0	0.096	2.874	0	103	70	130	2.66	20	
Surr: 4-Bromofluorobenzene	0.95		0.9579		98.8	39.1	146	0	0	

Sample ID: **mb-79332**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **79332**	RunNo: **101852**
Prep Date: **12/12/2023**	Analysis Date: **12/14/2023**	SeqNo: **3757815** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		99.7	39.1	146			

Sample ID: **lcs-79332**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **79332**	RunNo: **101852**
Prep Date: **12/12/2023**	Analysis Date: **12/14/2023**	SeqNo: **3757877** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	70	130			
Toluene	1.0	0.050	1.000	0	102	70	130			
Ethylbenzene	1.0	0.050	1.000	0	104	70	130			
Xylenes, Total	3.1	0.10	3.000	0	104	70	130			
Surr: 4-Bromofluorobenzene	0.99		1.000		98.6	39.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

eurofins | Environment Testing

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Vertex Resources Work Order Number: 2312374 RcptNo: 1

Received By: Tracy Casarrubias 12/7/2023 8:05:00 AM

Completed By: Tracy Casarrubias 12/7/2023 8:42:30 AM

Reviewed By: JH 12/7/23

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

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

Adjusted? _____

Checked by: JH 12-7-23

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: Mailing address,phone number and Email/Fax are missing on COC- TMC 12/7/23

16. Additional remarks:

Client did not relinquish chain of custody

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Yes	Yogi		

Chain-of-Custody Record

Client: Vertex (Deron)

Mailing Address: on file

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☒ Rush 5 DAY

Project Name: Aldabra 25 Fed 6

Project #: 23E-04614

Project Manager: Kent Stallings

Sampler: Zach Englebert

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 8.2 -0.1 = 2.6 (°C)

400

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2312374	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
12-5-23	9:00	soil	BH23-06 0'	1 4oz jar	ice	001	X	X					X			
	9:10		BH23-06 2'			002										
	9:20		BH23-09 0'			003										
	9:30		BH23-09 2'			004										
	9:40		BH23-11 0'			005										
	9:50		BH23-11 2'			006										
	10:00		BH23-12 0'			007										
	10:10		BH23-12 2'			008										
	10:20		BH23-13 0'			009										
	10:30		BH23-13 2'			010										
	10:40		BH23-14 0'			011										
	10:50		BH23-14 2'			012										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					12/6/23	935
Date: 12/6/23	Time: 1900	Relinquished by:	Received by:	Via: courier	Date 12/7/23	Time 8:05

Remarks: Direct bill to Devon
cc Kstallings@vertex.ca

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

1 of 2

Chain-of-Custody Record

Client: Vertex (Devon)

Mailing Address: on file

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☑ Rush 5 day

Project Name: Aldabra 25 Fed 6

Project #: 23E-04614

Project Manager: Kent Stallings

Sampler: Zach Englebert

On Ice: ☑ Yes ☐ No Yogi

# of Coolers: 1

Cooler Temp(including CF): 2.7-0.1=2.6 (°C)

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 7312374	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
12-5-23	1100	soil	BH23-15 0'	1 4oz. jar	ice	013										
12-5-23	1110		BH23-15 2'			014										
	1120		BH23-16 0'			015										
	1130		BH23-16 2'			016										
	1140		BH23-11 4'			017										
	1150		BH23-11 5'			018										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					12/6/23	930
12/6/23	1900		Via: courier		12/7/23	8:05

Remarks: Direct bill to Devon
cc Kstallings @vertex.ca

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

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 24, 2024

Kent Stallings

Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (575) 748-0176
FAX:

RE: Aldabra 25 Federal 006H OrderNo.: 2312527

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 3 sample(s) on 12/8/2023 for the analyses presented in the following report.

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

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2312527**
Date Reported: **1/24/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Aldabra 25 Federal 006H
Lab ID: 2312527-001 **Matrix:** SOIL

Client Sample ID: BH23-11 6 feet
Collection Date: 12/6/2023 9:00:00 AM
Received Date: 12/8/2023 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	3500	94		mg/Kg	10	12/15/2023 2:23:44 PM
Motor Oil Range Organics (MRO)	2900	470		mg/Kg	10	12/15/2023 2:23:44 PM
Surr: DNOP	0	69-147	S	%Rec	10	12/15/2023 2:23:44 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/15/2023 2:15:00 PM
Surr: BFB	97.7	15-244		%Rec	1	12/15/2023 2:15:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	12/15/2023 2:15:00 PM
Toluene	ND	0.048		mg/Kg	1	12/15/2023 2:15:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/15/2023 2:15:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	12/15/2023 2:15:00 PM
Surr: 4-Bromofluorobenzene	98.1	39.1-146		%Rec	1	12/15/2023 2:15:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	ND	60		mg/Kg	20	12/15/2023 6:09:15 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312527**
Date Reported: **1/24/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Aldabra 25 Federal 006H
Lab ID: 2312527-002 **Matrix:** SOIL

Client Sample ID: BH23-11 8 feet
Collection Date: 12/6/2023 9:10:00 AM
Received Date: 12/8/2023 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	2200	97		mg/Kg	10	12/15/2023 2:34:31 PM
Motor Oil Range Organics (MRO)	1600	490		mg/Kg	10	12/15/2023 2:34:31 PM
Surr: DNOP	0	69-147	S	%Rec	10	12/15/2023 2:34:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/15/2023 2:37:00 PM
Surr: BFB	97.0	15-244		%Rec	1	12/15/2023 2:37:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.024		mg/Kg	1	12/15/2023 2:37:00 PM
Toluene	ND	0.048		mg/Kg	1	12/15/2023 2:37:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/15/2023 2:37:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	12/15/2023 2:37:00 PM
Surr: 4-Bromofluorobenzene	95.6	39.1-146		%Rec	1	12/15/2023 2:37:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	97	60		mg/Kg	20	12/15/2023 6:24:24 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2312527**
Date Reported: **1/24/2024**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Aldabra 25 Federal 006H
Lab ID: 2312527-003 **Matrix:** SOIL

Client Sample ID: BH23-11 9 feet
Collection Date: 12/6/2023 9:20:00 AM
Received Date: 12/8/2023 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **PRD**
Diesel Range Organics (DRO)	2800	92		mg/Kg	10	12/15/2023 2:45:18 PM
Motor Oil Range Organics (MRO)	1800	460		mg/Kg	10	12/15/2023 2:45:18 PM
Surr: DNOP	0	69-147	S	%Rec	10	12/15/2023 2:45:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/15/2023 2:59:00 PM
Surr: BFB	99.7	15-244		%Rec	1	12/15/2023 2:59:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**
Benzene	ND	0.025		mg/Kg	1	12/15/2023 2:59:00 PM
Toluene	ND	0.049		mg/Kg	1	12/15/2023 2:59:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	12/15/2023 2:59:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	12/15/2023 2:59:00 PM
Surr: 4-Bromofluorobenzene	97.5	39.1-146		%Rec	1	12/15/2023 2:59:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **SNS**
Chloride	140	60		mg/Kg	20	12/15/2023 6:39:33 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312527**

24-Jan-24

Client: Devon Energy

Project: Aldabra 25 Federal 006H

Sample ID: **MB-79418**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **79418**	RunNo: **101893**
Prep Date: **12/15/2023**	Analysis Date: **12/15/2023**	SeqNo: **3757679** Units: **mg/Kg**

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

Sample ID: **LCS-79418**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **79418**	RunNo: **101893**
Prep Date: **12/15/2023**	Analysis Date: **12/15/2023**	SeqNo: **3757680** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	96.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312527**

24-Jan-24

Client: Devon Energy

Project: Aldabra 25 Federal 006H

Sample ID: **LCS-79405** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **79405** RunNo: **101872**

Prep Date: **12/15/2023** Analysis Date: **12/15/2023** SeqNo: **3756381** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.9	61.9	130			
Surr: DNOP	5.0		5.000		101	69	147			

Sample ID: **MB-79405** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **79405** RunNo: **101872**

Prep Date: **12/15/2023** Analysis Date: **12/15/2023** SeqNo: **3756384** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		119	69	147			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312527**

24-Jan-24

Client: Devon Energy

Project: Aldabra 25 Federal 006H

Sample ID: **lcs-79361** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **79361** RunNo: **101891**

Prep Date: **12/13/2023** Analysis Date: **12/15/2023** SeqNo: **3757528** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.5	70	130			
Surr: BFB	2100		1000		211	15	244			

Sample ID: **mb-79361** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **79361** RunNo: **101891**

Prep Date: **12/13/2023** Analysis Date: **12/15/2023** SeqNo: **3757529** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	980		1000		98.1	15	244			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2312527**

24-Jan-24

Client: Devon Energy

Project: Aldabra 25 Federal 006H

Sample ID: **lcs-79361** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **79361** RunNo: **101891**

Prep Date: **12/13/2023** Analysis Date: **12/15/2023** SeqNo: **3757581** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.0	70	130			
Toluene	0.94	0.050	1.000	0	94.4	70	130			
Ethylbenzene	0.96	0.050	1.000	0	96.5	70	130			
Xylenes, Total	2.9	0.10	3.000	0	97.1	70	130			
Surr: 4-Bromofluorobenzene	1.0		1.000		100	39.1	146			

Sample ID: **mb-79361** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **79361** RunNo: **101891**

Prep Date: **12/13/2023** Analysis Date: **12/15/2023** SeqNo: **3757582** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.3	39.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

eurofins | Environment Testing

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Devon Energy | Work Order Number: 2312527 | RcptNo: 1

Received By: Cheyenne Cason 12/8/2023 8:00:00 AM

Completed By: Cheyenne Cason 12/8/2023 10:00:11 AM

Reviewed By: JH 12-8-23

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

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

Adjusted? _____

Checked by: JH 12/8/23

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.7	Good	Not Present	Morty		
2	1.2	Good	Not Present	Morty		

Chain-of-Custody Record

Client: Vertex (Devon)

Mailing Address: On file

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☑ Rush 5 day

Project Name: Aldabra 25 Federal #006H

Project #: 23E-04614

Project Manager: Kent Stallings

Sampler: Zach Englert

On Ice: ☑ Yes ☐ No Many

# of Coolers: 2 2.8-0.1=2.7

Cooler Temp(including CF): 1.3-0.1=1.2 (°C)

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2312527	BTEX / MTBE / TMB's (8021)	TPH 8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
12-6-23	9:00	soil	BH23-11	1 4oz. jar	ice	001	X	X					X			
	9:10		BH23-11			002										
	9:20		BH23-11			003										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					12/7/23	1023
Date: 12/7/23	Time: 1900	Relinquished by:	Received by: CMC	Via: Courier	Date 12/8/23	Time 0800

Remarks: Direct bill to Vertex
cc KStallings@vertex.ca

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Kent Stallings
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 4/22/2024 11:53:06 AM

JOB DESCRIPTION

Aldabra 25 Federal #006

JOB NUMBER

885-2899-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

Generated
4/22/2024 11:53:06 AM

Authorized for release by
Andy Freeman, Business Unit Manager
andy.freeman@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Laboratory Job ID: 885-2899-1

Table of Contents

Definitions/Glossary

Client: Vertex Job ID: 885-2899-1
Project/Site: Aldabra 25 Federal #006

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-2899-1
Project: Aldabra 25 Federal #006

Job ID: 885-2899-1 Eurofins Albuquerque

Job Narrative
885-2899-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/16/2024 7:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.7°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D - Soluble: Due to the high concentration of Chloride, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 880-78732 and analytical batch 880-78778 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Client Sample ID: BH24-05 0'

Date Collected: 04/10/24 12:25
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-1

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		04/16/24 15:31	04/17/24 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*15 - 244*	*04/16/24 15:31*	*04/17/24 17:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/16/24 15:31	04/17/24 17:22	1
Ethylbenzene	ND		0.047		mg/Kg		04/16/24 15:31	04/17/24 17:22	1
Toluene	ND		0.047		mg/Kg		04/16/24 15:31	04/17/24 17:22	1
Xylenes, Total	ND		0.094		mg/Kg		04/16/24 15:31	04/17/24 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*39 - 146*	*04/16/24 15:31*	*04/17/24 17:22*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0		mg/Kg		04/17/24 11:31	04/17/24 20:07	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		04/17/24 11:31	04/17/24 20:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*	*04/17/24 11:31*	*04/17/24 20:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1000**		5.0		mg/Kg			04/19/24 22:41	1

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Client Sample ID: BH24-05 2;
Date Collected: 04/09/24 07:45
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-2
Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		04/16/24 15:31	04/17/24 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*15 - 244*	*04/16/24 15:31*	*04/17/24 17:45*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/16/24 15:31	04/17/24 17:45	1
Ethylbenzene	ND		0.050		mg/Kg		04/16/24 15:31	04/17/24 17:45	1
Toluene	ND		0.050		mg/Kg		04/16/24 15:31	04/17/24 17:45	1
Xylenes, Total	ND		0.10		mg/Kg		04/16/24 15:31	04/17/24 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*39 - 146*	*04/16/24 15:31*	*04/17/24 17:45*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1		mg/Kg		04/17/24 11:31	04/17/24 20:20	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		04/17/24 11:31	04/17/24 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*115*		*62 - 134*	*04/17/24 11:31*	*04/17/24 20:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1300**		5.0		mg/Kg			04/19/24 22:55	1

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Client Sample ID: BH24-05 9'
Date Collected: 04/11/24 12:00
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-3
Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		04/16/24 15:31	04/17/24 18:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*15 - 244*	*04/16/24 15:31*	*04/17/24 18:09*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/16/24 15:31	04/17/24 18:09	1
Ethylbenzene	ND		0.048		mg/Kg		04/16/24 15:31	04/17/24 18:09	1
Toluene	ND		0.048		mg/Kg		04/16/24 15:31	04/17/24 18:09	1
Xylenes, Total	ND		0.095		mg/Kg		04/16/24 15:31	04/17/24 18:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*39 - 146*	*04/16/24 15:31*	*04/17/24 18:09*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0		mg/Kg		04/17/24 11:31	04/17/24 20:33	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		04/17/24 11:31	04/17/24 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*118*		*62 - 134*	*04/17/24 11:31*	*04/17/24 20:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1600**		25		mg/Kg			04/19/24 23:00	5

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Client Sample ID: BH24-17 0'
Date Collected: 04/10/24 08:30
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-4
Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		04/16/24 15:31	04/17/24 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*15 - 244*	*04/16/24 15:31*	*04/17/24 18:32*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/16/24 15:31	04/17/24 18:32	1
Ethylbenzene	ND		0.048		mg/Kg		04/16/24 15:31	04/17/24 18:32	1
Toluene	ND		0.048		mg/Kg		04/16/24 15:31	04/17/24 18:32	1
Xylenes, Total	ND		0.096		mg/Kg		04/16/24 15:31	04/17/24 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*39 - 146*	*04/16/24 15:31*	*04/17/24 18:32*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		04/17/24 11:31	04/17/24 20:46	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		04/17/24 11:31	04/17/24 20:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*115*		*62 - 134*	*04/17/24 11:31*	*04/17/24 20:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**360**		5.0		mg/Kg			04/19/24 09:05	1

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Client Sample ID: BH24-17 2'

Date Collected: 04/10/24 08:35
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-5

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		04/16/24 15:31	04/17/24 18:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*15 - 244*	*04/16/24 15:31*	*04/17/24 18:56*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/16/24 15:31	04/17/24 18:56	1
Ethylbenzene	ND		0.048		mg/Kg		04/16/24 15:31	04/17/24 18:56	1
Toluene	ND		0.048		mg/Kg		04/16/24 15:31	04/17/24 18:56	1
Xylenes, Total	ND		0.096		mg/Kg		04/16/24 15:31	04/17/24 18:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*39 - 146*	*04/16/24 15:31*	*04/17/24 18:56*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		04/17/24 11:31	04/17/24 20:59	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		04/17/24 11:31	04/17/24 20:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*	*04/17/24 11:31*	*04/17/24 20:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**410**		5.0		mg/Kg			04/19/24 09:19	1

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Client Sample ID: BH24-18 0'

Date Collected: 04/10/24 14:20
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-6

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		04/16/24 15:31	04/17/24 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*15 - 244*	*04/16/24 15:31*	*04/17/24 19:19*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/16/24 15:31	04/17/24 19:19	1
Ethylbenzene	ND		0.049		mg/Kg		04/16/24 15:31	04/17/24 19:19	1
Toluene	ND		0.049		mg/Kg		04/16/24 15:31	04/17/24 19:19	1
Xylenes, Total	ND		0.097		mg/Kg		04/16/24 15:31	04/17/24 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*39 - 146*	*04/16/24 15:31*	*04/17/24 19:19*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.9		mg/Kg		04/17/24 11:31	04/17/24 21:12	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		04/17/24 11:31	04/17/24 21:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*81*		*62 - 134*	*04/17/24 11:31*	*04/17/24 21:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**940**		5.0		mg/Kg			04/19/24 09:24	1

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Client Sample ID: BH24-18 2'
Date Collected: 04/10/24 14:25
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-7
Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		04/16/24 15:31	04/17/24 19:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*15 - 244*	*04/16/24 15:31*	*04/17/24 19:42*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/16/24 15:31	04/17/24 19:42	1
Ethylbenzene	ND		0.049		mg/Kg		04/16/24 15:31	04/17/24 19:42	1
Toluene	ND		0.049		mg/Kg		04/16/24 15:31	04/17/24 19:42	1
Xylenes, Total	ND		0.098		mg/Kg		04/16/24 15:31	04/17/24 19:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*39 - 146*	*04/16/24 15:31*	*04/17/24 19:42*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		04/17/24 11:31	04/17/24 21:25	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		04/17/24 11:31	04/17/24 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*84*		*62 - 134*	*04/17/24 11:31*	*04/17/24 21:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**370**		5.0		mg/Kg			04/19/24 09:29	1

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Client Sample ID: BH24-20 0'

Date Collected: 04/11/24 14:00
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-8

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		04/16/24 17:07	04/17/24 23:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*15 - 244*	*04/16/24 17:07*	*04/17/24 23:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/16/24 17:07	04/17/24 23:22	1
Ethylbenzene	ND		0.050		mg/Kg		04/16/24 17:07	04/17/24 23:22	1
Toluene	ND		0.050		mg/Kg		04/16/24 17:07	04/17/24 23:22	1
Xylenes, Total	ND		0.099		mg/Kg		04/16/24 17:07	04/17/24 23:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*39 - 146*	*04/16/24 17:07*	*04/17/24 23:22*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**20**		9.3		mg/Kg		04/17/24 09:56	04/18/24 21:55	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		04/17/24 09:56	04/18/24 21:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*04/17/24 09:56*	*04/18/24 21:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**440**		5.0		mg/Kg			04/19/24 09:34	1

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Client Sample ID: BH24-20 2'

Date Collected: 04/11/24 14:15
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-9

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		04/16/24 17:07	04/18/24 00:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*15 - 244*	*04/16/24 17:07*	*04/18/24 00:27*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/16/24 17:07	04/18/24 00:27	1
Ethylbenzene	ND		0.050		mg/Kg		04/16/24 17:07	04/18/24 00:27	1
Toluene	ND		0.050		mg/Kg		04/16/24 17:07	04/18/24 00:27	1
Xylenes, Total	ND		0.099		mg/Kg		04/16/24 17:07	04/18/24 00:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*39 - 146*	*04/16/24 17:07*	*04/18/24 00:27*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.4		mg/Kg		04/17/24 09:56	04/18/24 22:07	1
Motor Oil Range Organics [C28-C40]	ND		42		mg/Kg		04/17/24 09:56	04/18/24 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*04/17/24 09:56*	*04/18/24 22:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		5.0		mg/Kg			04/19/24 09:48	1

QC Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-3391/1-A
Matrix: Solid
Analysis Batch: 3497

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3391

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		04/16/24 15:31	04/17/24 11:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*15 - 244*	*04/16/24 15:31*	*04/17/24 11:27*	*1*

Lab Sample ID: LCS 885-3391/2-A
Matrix: Solid
Analysis Batch: 3497

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3391

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	27.4		mg/Kg		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*229*		*15 - 244*

Lab Sample ID: MB 885-3420/1-A
Matrix: Solid
Analysis Batch: 3503

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3420

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		04/16/24 17:07	04/17/24 23:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*15 - 244*	*04/16/24 17:07*	*04/17/24 23:00*	*1*

Lab Sample ID: LCS 885-3420/2-A
Matrix: Solid
Analysis Batch: 3503

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3420

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	25.9		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*222*		*15 - 244*

Lab Sample ID: 885-2899-8 MS
Matrix: Solid
Analysis Batch: 3503

Client Sample ID: BH24-20 0'
Prep Type: Total/NA
Prep Batch: 3420

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.6	27.7		mg/Kg		113	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*236*		*15 - 244*

QC Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Method: 8015D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: 885-2899-8 MSD
Matrix: Solid
Analysis Batch: 3503

Client Sample ID: BH24-20 0'
Prep Type: Total/NA
Prep Batch: 3420

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.6	27.0		mg/Kg		110	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*225*		*15 - 244*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-3391/1-A
Matrix: Solid
Analysis Batch: 3498

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3391

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/16/24 15:31	04/17/24 11:27	1
Ethylbenzene	ND		0.050		mg/Kg		04/16/24 15:31	04/17/24 11:27	1
Toluene	ND		0.050		mg/Kg		04/16/24 15:31	04/17/24 11:27	1
Xylenes, Total	ND		0.10		mg/Kg		04/16/24 15:31	04/17/24 11:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*39 - 146*	*04/16/24 15:31*	*04/17/24 11:27*	*1*

Lab Sample ID: LCS 885-3391/3-A
Matrix: Solid
Analysis Batch: 3498

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3391

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.825		mg/Kg		82	70 - 130		
Ethylbenzene			1.00	0.857		mg/Kg		86	70 - 130		
m,p-Xylene			2.00	1.74		mg/Kg		87	70 - 130		
o-Xylene			1.00	0.859		mg/Kg		86	70 - 130		
Toluene			1.00	0.840		mg/Kg		84	70 - 130		
Xylenes, Total			3.00	2.60		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*39 - 146*

Lab Sample ID: MB 885-3420/1-A
Matrix: Solid
Analysis Batch: 3505

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3420

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/16/24 17:07	04/17/24 23:00	1
Ethylbenzene	ND		0.050		mg/Kg		04/16/24 17:07	04/17/24 23:00	1
Toluene	ND		0.050		mg/Kg		04/16/24 17:07	04/17/24 23:00	1
Xylenes, Total	ND		0.10		mg/Kg		04/16/24 17:07	04/17/24 23:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*39 - 146*	*04/16/24 17:07*	*04/17/24 23:00*	*1*

QC Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: LCS 885-3420/3-A
Matrix: Solid
Analysis Batch: 3505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3420

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.969		mg/Kg		97	70 - 130		
Ethylbenzene			1.00	0.972		mg/Kg		97	70 - 130		
m,p-Xylene			2.00	1.95		mg/Kg		97	70 - 130		
o-Xylene			1.00	0.972		mg/Kg		97	70 - 130		
Toluene			1.00	0.970		mg/Kg		97	70 - 130		
Xylenes, Total			3.00	2.92		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*39 - 146*

Lab Sample ID: 885-2899-9 MS
Matrix: Solid
Analysis Batch: 3505

Client Sample ID: BH24-20 2'
Prep Type: Total/NA
Prep Batch: 3420

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.985	0.983		mg/Kg		100	70 - 130		
Ethylbenzene	ND		0.985	0.993		mg/Kg		101	70 - 130		
m,p-Xylene	ND		1.97	1.99		mg/Kg		101	70 - 130		
o-Xylene	ND		0.985	0.995		mg/Kg		101	70 - 130		
Toluene	ND		0.985	0.987		mg/Kg		100	70 - 130		
Xylenes, Total	ND		2.96	2.98		mg/Kg		101	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*39 - 146*

Lab Sample ID: 885-2899-9 MSD
Matrix: Solid
Analysis Batch: 3505

Client Sample ID: BH24-20 2'
Prep Type: Total/NA
Prep Batch: 3420

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.989	0.975		mg/Kg		99	70 - 130	1	20
Ethylbenzene	ND		0.989	0.994		mg/Kg		100	70 - 130	0	20
m,p-Xylene	ND		1.98	1.99		mg/Kg		101	70 - 130	0	20
o-Xylene	ND		0.989	0.989		mg/Kg		100	70 - 130	1	20
Toluene	ND		0.989	0.979		mg/Kg		99	70 - 130	1	20
Xylenes, Total	ND		2.97	2.98		mg/Kg		100	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*39 - 146*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-3421/1-A
Matrix: Solid
Analysis Batch: 3573

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3421

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		04/17/24 09:56	04/18/24 20:42	1

QC Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Method: 8015D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-3421/1-A
Matrix: Solid
Analysis Batch: 3573

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3421

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		04/17/24 09:56	04/18/24 20:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*04/17/24 09:56*	*04/18/24 20:42*	*1*

Lab Sample ID: LCS 885-3421/2-A
Matrix: Solid
Analysis Batch: 3573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3421

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	51.8		mg/Kg		104	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*

Lab Sample ID: MB 885-3441/1-A
Matrix: Solid
Analysis Batch: 3463

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3441

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		04/17/24 11:31	04/17/24 16:40	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		04/17/24 11:31	04/17/24 16:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*04/17/24 11:31*	*04/17/24 16:40*	*1*

Lab Sample ID: LCS 885-3441/2-A
Matrix: Solid
Analysis Batch: 3463

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3441

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	42.2		mg/Kg		84	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*

Lab Sample ID: 885-2899-7 MS
Matrix: Solid
Analysis Batch: 3463

Client Sample ID: BH24-18 2'
Prep Type: Total/NA
Prep Batch: 3441

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		47.0	41.5		mg/Kg		88	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*

QC Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: 885-2899-7 MSD
Matrix: Solid
Analysis Batch: 3463

Client Sample ID: BH24-18 2'
Prep Type: Total/NA
Prep Batch: 3441

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		45.2	38.4		mg/Kg		85	44 - 136	8	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-78599/1-A
Matrix: Solid
Analysis Batch: 78704

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		5.0		mg/Kg			04/19/24 08:50	1

Lab Sample ID: LCS 880-78599/2-A
Matrix: Solid
Analysis Batch: 78704

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	248		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-78599/3-A
Matrix: Solid
Analysis Batch: 78704

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	248		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 885-2899-4 MS
Matrix: Solid
Analysis Batch: 78704

Client Sample ID: BH24-17 0'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	360		251	607		mg/Kg		99	90 - 110		

Lab Sample ID: 885-2899-4 MSD
Matrix: Solid
Analysis Batch: 78704

Client Sample ID: BH24-17 0'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	360		251	607		mg/Kg		99	90 - 110	0	20

Lab Sample ID: MB 880-78732/1-A
Matrix: Solid
Analysis Batch: 78778

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		5.0		mg/Kg			04/19/24 21:18	1

QC Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-78732/2-A
Matrix: Solid
Analysis Batch: 78778

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	250		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-78732/3-A
Matrix: Solid
Analysis Batch: 78778

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	249		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 885-2899-1 MS
Matrix: Solid
Analysis Batch: 78778

Client Sample ID: BH24-05 0'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1000		250	1240	4	mg/Kg		83	90 - 110		

Lab Sample ID: 885-2899-1 MSD
Matrix: Solid
Analysis Batch: 78778

Client Sample ID: BH24-05 0'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1000		250	1240	4	mg/Kg		84	90 - 110	0	20

QC Association Summary

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

GC VOA

Prep Batch: 3391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2899-1	BH24-05 0'	Total/NA	Solid	5030C	
885-2899-2	BH24-05 2;	Total/NA	Solid	5030C	
885-2899-3	BH24-05 9'	Total/NA	Solid	5030C	
885-2899-4	BH24-17 0'	Total/NA	Solid	5030C	
885-2899-5	BH24-17 2'	Total/NA	Solid	5030C	
885-2899-6	BH24-18 0'	Total/NA	Solid	5030C	
885-2899-7	BH24-18 2'	Total/NA	Solid	5030C	
MB 885-3391/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-3391/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-3391/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 3420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2899-8	BH24-20 0'	Total/NA	Solid	5030C	
885-2899-9	BH24-20 2'	Total/NA	Solid	5030C	
MB 885-3420/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-3420/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-3420/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-2899-8 MS	BH24-20 0'	Total/NA	Solid	5030C	
885-2899-8 MSD	BH24-20 0'	Total/NA	Solid	5030C	
885-2899-9 MS	BH24-20 2'	Total/NA	Solid	5030C	
885-2899-9 MSD	BH24-20 2'	Total/NA	Solid	5030C	

Analysis Batch: 3497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2899-1	BH24-05 0'	Total/NA	Solid	8015D	3391
885-2899-2	BH24-05 2;	Total/NA	Solid	8015D	3391
885-2899-3	BH24-05 9'	Total/NA	Solid	8015D	3391
885-2899-4	BH24-17 0'	Total/NA	Solid	8015D	3391
885-2899-5	BH24-17 2'	Total/NA	Solid	8015D	3391
885-2899-6	BH24-18 0'	Total/NA	Solid	8015D	3391
885-2899-7	BH24-18 2'	Total/NA	Solid	8015D	3391
MB 885-3391/1-A	Method Blank	Total/NA	Solid	8015D	3391
LCS 885-3391/2-A	Lab Control Sample	Total/NA	Solid	8015D	3391

Analysis Batch: 3498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2899-1	BH24-05 0'	Total/NA	Solid	8021B	3391
885-2899-2	BH24-05 2;	Total/NA	Solid	8021B	3391
885-2899-3	BH24-05 9'	Total/NA	Solid	8021B	3391
885-2899-4	BH24-17 0'	Total/NA	Solid	8021B	3391
885-2899-5	BH24-17 2'	Total/NA	Solid	8021B	3391
885-2899-6	BH24-18 0'	Total/NA	Solid	8021B	3391
885-2899-7	BH24-18 2'	Total/NA	Solid	8021B	3391
MB 885-3391/1-A	Method Blank	Total/NA	Solid	8021B	3391
LCS 885-3391/3-A	Lab Control Sample	Total/NA	Solid	8021B	3391

Analysis Batch: 3503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2899-8	BH24-20 0'	Total/NA	Solid	8015D	3420
885-2899-9	BH24-20 2'	Total/NA	Solid	8015D	3420

QC Association Summary

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

GC VOA (Continued)

Analysis Batch: 3503 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-3420/1-A	Method Blank	Total/NA	Solid	8015D	3420
LCS 885-3420/2-A	Lab Control Sample	Total/NA	Solid	8015D	3420
885-2899-8 MS	BH24-20 0'	Total/NA	Solid	8015D	3420
885-2899-8 MSD	BH24-20 0'	Total/NA	Solid	8015D	3420

Analysis Batch: 3505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2899-8	BH24-20 0'	Total/NA	Solid	8021B	3420
885-2899-9	BH24-20 2'	Total/NA	Solid	8021B	3420
MB 885-3420/1-A	Method Blank	Total/NA	Solid	8021B	3420
LCS 885-3420/3-A	Lab Control Sample	Total/NA	Solid	8021B	3420
885-2899-9 MS	BH24-20 2'	Total/NA	Solid	8021B	3420
885-2899-9 MSD	BH24-20 2'	Total/NA	Solid	8021B	3420

GC Semi VOA

Prep Batch: 3421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2899-8	BH24-20 0'	Total/NA	Solid	SHAKE	
885-2899-9	BH24-20 2'	Total/NA	Solid	SHAKE	
MB 885-3421/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-3421/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Prep Batch: 3441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2899-1	BH24-05 0'	Total/NA	Solid	SHAKE	
885-2899-2	BH24-05 2;	Total/NA	Solid	SHAKE	
885-2899-3	BH24-05 9'	Total/NA	Solid	SHAKE	
885-2899-4	BH24-17 0'	Total/NA	Solid	SHAKE	
885-2899-5	BH24-17 2'	Total/NA	Solid	SHAKE	
885-2899-6	BH24-18 0'	Total/NA	Solid	SHAKE	
885-2899-7	BH24-18 2'	Total/NA	Solid	SHAKE	
MB 885-3441/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-3441/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-2899-7 MS	BH24-18 2'	Total/NA	Solid	SHAKE	
885-2899-7 MSD	BH24-18 2'	Total/NA	Solid	SHAKE	

Analysis Batch: 3463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2899-1	BH24-05 0'	Total/NA	Solid	8015D	3441
885-2899-2	BH24-05 2;	Total/NA	Solid	8015D	3441
885-2899-3	BH24-05 9'	Total/NA	Solid	8015D	3441
885-2899-4	BH24-17 0'	Total/NA	Solid	8015D	3441
885-2899-5	BH24-17 2'	Total/NA	Solid	8015D	3441
885-2899-6	BH24-18 0'	Total/NA	Solid	8015D	3441
885-2899-7	BH24-18 2'	Total/NA	Solid	8015D	3441
MB 885-3441/1-A	Method Blank	Total/NA	Solid	8015D	3441
LCS 885-3441/2-A	Lab Control Sample	Total/NA	Solid	8015D	3441
885-2899-7 MS	BH24-18 2'	Total/NA	Solid	8015D	3441
885-2899-7 MSD	BH24-18 2'	Total/NA	Solid	8015D	3441

QC Association Summary

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

GC Semi VOA

Analysis Batch: 3573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2899-8	BH24-20 0'	Total/NA	Solid	8015D	3421
885-2899-9	BH24-20 2'	Total/NA	Solid	8015D	3421
MB 885-3421/1-A	Method Blank	Total/NA	Solid	8015D	3421
LCS 885-3421/2-A	Lab Control Sample	Total/NA	Solid	8015D	3421

HPLC/IC

Leach Batch: 78599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2899-4	BH24-17 0'	Soluble	Solid	DI Leach	
885-2899-5	BH24-17 2'	Soluble	Solid	DI Leach	
885-2899-6	BH24-18 0'	Soluble	Solid	DI Leach	
885-2899-7	BH24-18 2'	Soluble	Solid	DI Leach	
885-2899-8	BH24-20 0'	Soluble	Solid	DI Leach	
885-2899-9	BH24-20 2'	Soluble	Solid	DI Leach	
MB 880-78599/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-78599/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-78599/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
885-2899-4 MS	BH24-17 0'	Soluble	Solid	DI Leach	
885-2899-4 MSD	BH24-17 0'	Soluble	Solid	DI Leach	

Analysis Batch: 78704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2899-4	BH24-17 0'	Soluble	Solid	300.0	78599
885-2899-5	BH24-17 2'	Soluble	Solid	300.0	78599
885-2899-6	BH24-18 0'	Soluble	Solid	300.0	78599
885-2899-7	BH24-18 2'	Soluble	Solid	300.0	78599
885-2899-8	BH24-20 0'	Soluble	Solid	300.0	78599
885-2899-9	BH24-20 2'	Soluble	Solid	300.0	78599
MB 880-78599/1-A	Method Blank	Soluble	Solid	300.0	78599
LCS 880-78599/2-A	Lab Control Sample	Soluble	Solid	300.0	78599
LCSD 880-78599/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	78599
885-2899-4 MS	BH24-17 0'	Soluble	Solid	300.0	78599
885-2899-4 MSD	BH24-17 0'	Soluble	Solid	300.0	78599

Leach Batch: 78732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2899-1	BH24-05 0'	Soluble	Solid	DI Leach	
885-2899-2	BH24-05 2;	Soluble	Solid	DI Leach	
885-2899-3	BH24-05 9'	Soluble	Solid	DI Leach	
MB 880-78732/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-78732/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-78732/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
885-2899-1 MS	BH24-05 0'	Soluble	Solid	DI Leach	
885-2899-1 MSD	BH24-05 0'	Soluble	Solid	DI Leach	

Analysis Batch: 78778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2899-1	BH24-05 0'	Soluble	Solid	300.0	78732
885-2899-2	BH24-05 2;	Soluble	Solid	300.0	78732
885-2899-3	BH24-05 9'	Soluble	Solid	300.0	78732

QC Association Summary

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

HPLC/IC (Continued)

Analysis Batch: 78778 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-78732/1-A	Method Blank	Soluble	Solid	300.0	78732
LCS 880-78732/2-A	Lab Control Sample	Soluble	Solid	300.0	78732
LCSD 880-78732/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	78732
885-2899-1 MS	BH24-05 0'	Soluble	Solid	300.0	78732
885-2899-1 MSD	BH24-05 0'	Soluble	Solid	300.0	78732

Lab Chronicle

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Client Sample ID: BH24-05 0'
Date Collected: 04/10/24 12:25
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3391	JP	EET ALB	04/16/24 15:31
Total/NA	Analysis	8015D		1	3497	JP	EET ALB	04/17/24 17:22
Total/NA	Prep	5030C			3391	JP	EET ALB	04/16/24 15:31
Total/NA	Analysis	8021B		1	3498	JP	EET ALB	04/17/24 17:22
Total/NA	Prep	SHAKE			3441	JU	EET ALB	04/17/24 11:31
Total/NA	Analysis	8015D		1	3463	JU	EET ALB	04/17/24 20:07
Soluble	Leach	DI Leach			78732	SMC	EET MID	04/19/24 11:37
Soluble	Analysis	300.0		1	78778	SMC	EET MID	04/19/24 22:41

Client Sample ID: BH24-05 2;
Date Collected: 04/09/24 07:45
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3391	JP	EET ALB	04/16/24 15:31
Total/NA	Analysis	8015D		1	3497	JP	EET ALB	04/17/24 17:45
Total/NA	Prep	5030C			3391	JP	EET ALB	04/16/24 15:31
Total/NA	Analysis	8021B		1	3498	JP	EET ALB	04/17/24 17:45
Total/NA	Prep	SHAKE			3441	JU	EET ALB	04/17/24 11:31
Total/NA	Analysis	8015D		1	3463	JU	EET ALB	04/17/24 20:20
Soluble	Leach	DI Leach			78732	SMC	EET MID	04/19/24 11:37
Soluble	Analysis	300.0		1	78778	SMC	EET MID	04/19/24 22:55

Client Sample ID: BH24-05 9'
Date Collected: 04/11/24 12:00
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3391	JP	EET ALB	04/16/24 15:31
Total/NA	Analysis	8015D		1	3497	JP	EET ALB	04/17/24 18:09
Total/NA	Prep	5030C			3391	JP	EET ALB	04/16/24 15:31
Total/NA	Analysis	8021B		1	3498	JP	EET ALB	04/17/24 18:09
Total/NA	Prep	SHAKE			3441	JU	EET ALB	04/17/24 11:31
Total/NA	Analysis	8015D		1	3463	JU	EET ALB	04/17/24 20:33
Soluble	Leach	DI Leach			78732	SMC	EET MID	04/19/24 11:37
Soluble	Analysis	300.0		5	78778	SMC	EET MID	04/19/24 23:00

Client Sample ID: BH24-17 0'
Date Collected: 04/10/24 08:30
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3391	JP	EET ALB	04/16/24 15:31
Total/NA	Analysis	8015D		1	3497	JP	EET ALB	04/17/24 18:32

Lab Chronicle

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-2899-1

Client Sample ID: BH24-17 0'
Date Collected: 04/10/24 08:30
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3391	JP	EET ALB	04/16/24 15:31
Total/NA	Analysis	8021B		1	3498	JP	EET ALB	04/17/24 18:32
Total/NA	Prep	SHAKE			3441	JU	EET ALB	04/17/24 11:31
Total/NA	Analysis	8015D		1	3463	JU	EET ALB	04/17/24 20:46
Soluble	Leach	DI Leach			78599	SMC	EET MID	04/18/24 11:05
Soluble	Analysis	300.0		1	78704	SMC	EET MID	04/19/24 09:05

Client Sample ID: BH24-17 2'
Date Collected: 04/10/24 08:35
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3391	JP	EET ALB	04/16/24 15:31
Total/NA	Analysis	8015D		1	3497	JP	EET ALB	04/17/24 18:56
Total/NA	Prep	5030C			3391	JP	EET ALB	04/16/24 15:31
Total/NA	Analysis	8021B		1	3498	JP	EET ALB	04/17/24 18:56
Total/NA	Prep	SHAKE			3441	JU	EET ALB	04/17/24 11:31
Total/NA	Analysis	8015D		1	3463	JU	EET ALB	04/17/24 20:59
Soluble	Leach	DI Leach			78599	SMC	EET MID	04/18/24 11:05
Soluble	Analysis	300.0		1	78704	SMC	EET MID	04/19/24 09:19

Client Sample ID: BH24-18 0'
Date Collected: 04/10/24 14:20
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3391	JP	EET ALB	04/16/24 15:31
Total/NA	Analysis	8015D		1	3497	JP	EET ALB	04/17/24 19:19
Total/NA	Prep	5030C			3391	JP	EET ALB	04/16/24 15:31
Total/NA	Analysis	8021B		1	3498	JP	EET ALB	04/17/24 19:19
Total/NA	Prep	SHAKE			3441	JU	EET ALB	04/17/24 11:31
Total/NA	Analysis	8015D		1	3463	JU	EET ALB	04/17/24 21:12
Soluble	Leach	DI Leach			78599	SMC	EET MID	04/18/24 11:05
Soluble	Analysis	300.0		1	78704	SMC	EET MID	04/19/24 09:24

Client Sample ID: BH24-18 2'
Date Collected: 04/10/24 14:25
Date Received: 04/16/24 07:55

Lab Sample ID: 885-2899-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3391	JP	EET ALB	04/16/24 15:31
Total/NA	Analysis	8015D		1	3497	JP	EET ALB	04/17/24 19:42
Total/NA	Prep	5030C			3391	JP	EET ALB	04/16/24 15:31
Total/NA	Analysis	8021B		1	3498	JP	EET ALB	04/17/24 19:42

Lab Chronicle

Client: Vertex
Job ID: 885-2899-1
Project/Site: Aldabra 25 Federal #006

Client Sample ID: BH24-18 2'
Lab Sample ID: 885-2899-7
Date Collected: 04/10/24 14:25
Matrix: Solid
Date Received: 04/16/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			3441	JU	EET ALB	04/17/24 11:31
Total/NA	Analysis	8015D		1	3463	JU	EET ALB	04/17/24 21:25
Soluble	Leach	DI Leach			78599	SMC	EET MID	04/18/24 11:05
Soluble	Analysis	300.0		1	78704	SMC	EET MID	04/19/24 09:29

Client Sample ID: BH24-20 0'
Lab Sample ID: 885-2899-8
Date Collected: 04/11/24 14:00
Matrix: Solid
Date Received: 04/16/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3420	JP	EET ALB	04/16/24 17:07
Total/NA	Analysis	8015D		1	3503	RA	EET ALB	04/17/24 23:22
Total/NA	Prep	5030C			3420	JP	EET ALB	04/16/24 17:07
Total/NA	Analysis	8021B		1	3505	RA	EET ALB	04/17/24 23:22
Total/NA	Prep	SHAKE			3421	PD	EET ALB	04/17/24 09:56
Total/NA	Analysis	8015D		1	3573	JU	EET ALB	04/18/24 21:55
Soluble	Leach	DI Leach			78599	SMC	EET MID	04/18/24 11:05
Soluble	Analysis	300.0		1	78704	SMC	EET MID	04/19/24 09:34

Client Sample ID: BH24-20 2'
Lab Sample ID: 885-2899-9
Date Collected: 04/11/24 14:15
Matrix: Solid
Date Received: 04/16/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3420	JP	EET ALB	04/16/24 17:07
Total/NA	Analysis	8015D		1	3503	RA	EET ALB	04/18/24 00:27
Total/NA	Prep	5030C			3420	JP	EET ALB	04/16/24 17:07
Total/NA	Analysis	8021B		1	3505	RA	EET ALB	04/18/24 00:27
Total/NA	Prep	SHAKE			3421	PD	EET ALB	04/17/24 09:56
Total/NA	Analysis	8015D		1	3573	JU	EET ALB	04/18/24 22:07
Soluble	Leach	DI Leach			78599	SMC	EET MID	04/18/24 11:05
Soluble	Analysis	300.0		1	78704	SMC	EET MID	04/19/24 09:48

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Vertex Job ID: 885-2899-1
Project/Site: Aldabra 25 Federal #006

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Laboratory: Eurofins Midland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

Chain-of-Custody Record

Client: Vertex / Devon

Mailing Address: on file

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5 day

Project Name: Aldabra 25 Federal #006

Project #: 23E-04614

Project Manager: Kent Stallings

Sampler: SM, WW

On Ice: ~~☐ Yes~~ ☐ No

# of Coolers: 1 40z.

Cooler Temp(including CF): 1.6+0.1=1.7 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107
885-2899 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
4/10/24	12:25	Soil	BH24-05 0'	4oz jar	Ice	-1	✓	✓					✓			
4/9/24	7:45		BH24-05 2'			-2										
4/11/24	12:00		BH24-05 9'			-3										
4/10/24	8:30		BH24-17 0'			-4										
4/10/24	8:35		BH24-17 2'			-5										
4/10/24	14:20		BH24-18 0'			-6										
4/10/24	14:25		BH24-18 2'			-7										
4/11/24	14:00		BH24-20 0'			-8										
4/11/24	14:15		BH24-20 2'			-9										

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
			[signature]		4/15/24	1045
4/15/24	1900	[signature]	[signature]	courier	4/16/24	9:55

Remarks: Direct bill to: Devon W/O#: 1005486201

cc: kstallings@vertexa.com
cc: smccarty@vertexa.com

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

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109
Phone 505-345-3975 Fax 505-345-4107

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Freeman, Andy	Carrier Tracking No(s)	COC No: 885-432 1
Client Contact: Shipping/Receiving	Phone	E-Mail: andy freeman@et.eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Oregon State - New Mexico		Job #: 885-2899-1
Address: 1211 W Florida Ave	Due Date Requested: 4/22/2024			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Aldabra 25 Federal #006	Project #: 88501278			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
BH24-05 0' (885-2899-1)	4/10/24	12 25 Mountain		Solid			X	1	
BH24-05 2, (885-2899-2)	4/9/24	07 45 Mountain		Solid			X	1	
BH24-05 9' (885-2899-3)	4/11/24	12 00 Mountain		Solid			X	1	
BH24-17 0' (885-2899-4)	4/10/24	08 30 Mountain		Solid			X	1	
BH24-17 2' (885-2899-5)	4/10/24	08 35 Mountain		Solid			X	1	
BH24-18 0' (885-2899-6)	4/10/24	14 20 Mountain		Solid			X	1	
BH24-18 2' (885-2899-7)	4/10/24	14 25 Mountain		Solid			X	1	
BH24-20 0' (885-2899-8)	4/11/24	14 00 Mountain		Solid			X	1	
BH24-20 2' (885-2899-9)	4/11/24	14 15 Mountain		Solid			X	1	

Analysis Requested

Preservation Codes

Other:

Note: Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II, III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company
	4/17/24 1430				
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-2899-1

Login Number: 2899 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Lowman, Nick

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-2899-1

Login Number: 2899
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 04/18/24 11:59 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Kent Stallings
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 5/19/2024 9:11:15 AM

JOB DESCRIPTION

Aldabra 25 Federal #6

JOB NUMBER

885-3646-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

Generated
5/19/2024 9:11:15 AM

Authorized for release by
Andy Freeman, Business Unit Manager
andy.freeman@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Aldabra 25 Federal #6

Laboratory Job ID: 885-3646-1

Table of Contents

Definitions/Glossary

Client: Vertex Job ID: 885-3646-1
Project/Site: Aldabra 25 Federal #6

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-3646-1
Project: Aldabra 25 Federal #6

Job ID: 885-3646-1 Eurofins Albuquerque

Job Narrative
885-3646-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 5/1/2024 7:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.9°C.

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #6

Job ID: 885-3646-1

Client Sample ID: BH24-21 0'

Date Collected: 04/29/24 13:00
Date Received: 05/01/24 07:35

Lab Sample ID: 885-3646-1

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		05/01/24 16:33	05/02/24 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*05/01/24 16:33*	*05/02/24 18:00*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		05/01/24 16:33	05/02/24 18:00	1
Ethylbenzene	ND		0.048		mg/Kg		05/01/24 16:33	05/02/24 18:00	1
Toluene	ND		0.048		mg/Kg		05/01/24 16:33	05/02/24 18:00	1
Xylenes, Total	ND		0.096		mg/Kg		05/01/24 16:33	05/02/24 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*05/01/24 16:33*	*05/02/24 18:00*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		05/02/24 10:08	05/03/24 00:05	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		05/02/24 10:08	05/03/24 00:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*	*05/02/24 10:08*	*05/03/24 00:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**500**		5.0		mg/Kg			05/05/24 01:58	1

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #6

Job ID: 885-3646-1

Client Sample ID: BH24-21 2'

Date Collected: 04/29/24 13:15
Date Received: 05/01/24 07:35

Lab Sample ID: 885-3646-2

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		05/01/24 16:33	05/02/24 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*35 - 166*	*05/01/24 16:33*	*05/02/24 18:21*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		05/01/24 16:33	05/02/24 18:21	1
Ethylbenzene	ND		0.050		mg/Kg		05/01/24 16:33	05/02/24 18:21	1
Toluene	ND		0.050		mg/Kg		05/01/24 16:33	05/02/24 18:21	1
Xylenes, Total	ND		0.10		mg/Kg		05/01/24 16:33	05/02/24 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*05/01/24 16:33*	*05/02/24 18:21*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		05/02/24 10:08	05/03/24 00:17	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		05/02/24 10:08	05/03/24 00:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*05/02/24 10:08*	*05/03/24 00:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**360**		5.1		mg/Kg			05/05/24 02:17	1

QC Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #6

Job ID: 885-3646-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-4219/1-A
Matrix: Solid
Analysis Batch: 4359

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4219

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		05/01/24 16:33	05/02/24 14:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*35 - 166*	*05/01/24 16:33*	*05/02/24 14:22*	*1*

Lab Sample ID: LCS 885-4219/2-A
Matrix: Solid
Analysis Batch: 4359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4219

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*217*	*S1+*	*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-4219/1-A
Matrix: Solid
Analysis Batch: 4360

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4219

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		05/01/24 16:33	05/02/24 14:22	1
Ethylbenzene	ND		0.050		mg/Kg		05/01/24 16:33	05/02/24 14:22	1
Toluene	ND		0.050		mg/Kg		05/01/24 16:33	05/02/24 14:22	1
Xylenes, Total	ND		0.10		mg/Kg		05/01/24 16:33	05/02/24 14:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*05/01/24 16:33*	*05/02/24 14:22*	*1*

Lab Sample ID: LCS 885-4219/3-A
Matrix: Solid
Analysis Batch: 4360

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4219

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*48 - 145*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-4246/1-A
Matrix: Solid
Analysis Batch: 4310

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4246

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		05/02/24 10:08	05/02/24 22:39	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		05/02/24 10:08	05/02/24 22:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*78*		*62 - 134*	*05/02/24 10:08*	*05/02/24 22:39*	*1*

QC Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #6

Job ID: 885-3646-1

Method: 8015D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 885-4246/2-A
Matrix: Solid
Analysis Batch: 4310

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4246

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	44.1		mg/Kg		88	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-79938/1-A
Matrix: Solid
Analysis Batch: 79958

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		5.0		mg/Kg			05/05/24 01:02	1

Lab Sample ID: LCS 880-79938/2-A
Matrix: Solid
Analysis Batch: 79958

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	236		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-79938/3-A
Matrix: Solid
Analysis Batch: 79958

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	235		mg/Kg		94	90 - 110	0	20

QC Association Summary

Client: Vertex
Project/Site: Aldabra 25 Federal #6

Job ID: 885-3646-1

GC VOA

Prep Batch: 4219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3646-1	BH24-21 0'	Total/NA	Solid	5030C	
885-3646-2	BH24-21 2'	Total/NA	Solid	5030C	
MB 885-4219/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-4219/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-4219/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 4359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3646-1	BH24-21 0'	Total/NA	Solid	8015D	4219
885-3646-2	BH24-21 2'	Total/NA	Solid	8015D	4219
MB 885-4219/1-A	Method Blank	Total/NA	Solid	8015D	4219
LCS 885-4219/2-A	Lab Control Sample	Total/NA	Solid	8015D	4219

Analysis Batch: 4360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3646-1	BH24-21 0'	Total/NA	Solid	8021B	4219
885-3646-2	BH24-21 2'	Total/NA	Solid	8021B	4219
MB 885-4219/1-A	Method Blank	Total/NA	Solid	8021B	4219
LCS 885-4219/3-A	Lab Control Sample	Total/NA	Solid	8021B	4219

GC Semi VOA

Prep Batch: 4246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3646-1	BH24-21 0'	Total/NA	Solid	SHAKE	
885-3646-2	BH24-21 2'	Total/NA	Solid	SHAKE	
MB 885-4246/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-4246/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 4310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3646-1	BH24-21 0'	Total/NA	Solid	8015D	4246
885-3646-2	BH24-21 2'	Total/NA	Solid	8015D	4246
MB 885-4246/1-A	Method Blank	Total/NA	Solid	8015D	4246
LCS 885-4246/2-A	Lab Control Sample	Total/NA	Solid	8015D	4246

HPLC/IC

Leach Batch: 79938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3646-1	BH24-21 0'	Soluble	Solid	DI Leach	
885-3646-2	BH24-21 2'	Soluble	Solid	DI Leach	
MB 880-79938/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-79938/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-79938/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 79958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3646-1	BH24-21 0'	Soluble	Solid	300.0	79938
885-3646-2	BH24-21 2'	Soluble	Solid	300.0	79938
MB 880-79938/1-A	Method Blank	Soluble	Solid	300.0	79938
LCS 880-79938/2-A	Lab Control Sample	Soluble	Solid	300.0	79938

QC Association Summary

Client: Vertex
Project/Site: Aldabra 25 Federal #6

Job ID: 885-3646-1

HPLC/IC (Continued)

Analysis Batch: 79958 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-79938/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	79938

Lab Chronicle

Client: Vertex
Project/Site: Aldabra 25 Federal #6

Job ID: 885-3646-1

Client Sample ID: BH24-21 0'
Date Collected: 04/29/24 13:00
Date Received: 05/01/24 07:35

Lab Sample ID: 885-3646-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			4219	JP	EET ALB	05/01/24 16:33
Total/NA	Analysis	8015D		1	4359	RA	EET ALB	05/02/24 18:00
Total/NA	Prep	5030C			4219	JP	EET ALB	05/01/24 16:33
Total/NA	Analysis	8021B		1	4360	RA	EET ALB	05/02/24 18:00
Total/NA	Prep	SHAKE			4246	DH	EET ALB	05/02/24 10:08
Total/NA	Analysis	8015D		1	4310	JU	EET ALB	05/03/24 00:05
Soluble	Leach	DI Leach			79938	SA	EET MID	05/03/24 13:23
Soluble	Analysis	300.0		1	79958	SMC	EET MID	05/05/24 01:58

Client Sample ID: BH24-21 2'
Date Collected: 04/29/24 13:15
Date Received: 05/01/24 07:35

Lab Sample ID: 885-3646-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			4219	JP	EET ALB	05/01/24 16:33
Total/NA	Analysis	8015D		1	4359	RA	EET ALB	05/02/24 18:21
Total/NA	Prep	5030C			4219	JP	EET ALB	05/01/24 16:33
Total/NA	Analysis	8021B		1	4360	RA	EET ALB	05/02/24 18:21
Total/NA	Prep	SHAKE			4246	DH	EET ALB	05/02/24 10:08
Total/NA	Analysis	8015D		1	4310	JU	EET ALB	05/03/24 00:17
Soluble	Leach	DI Leach			79938	SA	EET MID	05/03/24 13:23
Soluble	Analysis	300.0		1	79958	SMC	EET MID	05/05/24 02:17

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Vertex Job ID: 885-3646-1
Project/Site: Aldabra 25 Federal #6

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Laboratory: Eurofins Midland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

Chain-of-Custody Record

Client: Vertex / Devon

Mailing Address: On file

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☑ Rush 5 Day

Project Name: Alabra 25 Federal #6

Project #: 23E-04614

Project Manager: Kent Stallings

Sampler: SM

On Ice: ~~☐~~ Yes ☐ No

# of Coolers: 1 4oz

Cooler Temp(including CF): 3.8+0.1=3.9(°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 8710

Tel. 505-345-3975 Fax 505-345-4107

885-3646 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
4/29/24	13:00	Soil	BH24-21 0'	4oz jar	Ice		✓	✓					✓			
↓	13:15	↓	BH24-21 2'	↓	↓		✓	✓					✓			

Date	Time	Relinquished by	Received by:	Via.	Date	Time
4/30/24	850				4/30/24	850

Date	Time	Relinquished by	Received by	Via	Date	Time
4/30/24	1900			courier	5/1/24	7:35

Remarks: Direct bill to Devon. WO#: 100598620

cc. KStallings@vertex.ca
smccarty@vertex.ca

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

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-3646-1

Login Number: 3646 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Dominguez, Desiree

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-3646-1

Login Number: 3646
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 05/03/24 11:32 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Kent Stallings
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 5/7/2024 12:54:27 PM

JOB DESCRIPTION

Aldabra 25 Federal #006

JOB NUMBER

885-3291-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

my EOL

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

Generated
5/7/2024 12:54:27 PM

Authorized for release by
Andy Freeman, Business Unit Manager
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(505)345-3975

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Laboratory Job ID: 885-3291-1

Table of Contents

Definitions/Glossary

Client: Vertex Job ID: 885-3291-1
Project/Site: Aldabra 25 Federal #006

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-3291-1
Project: Aldabra 25 Federal #006

Job ID: 885-3291-1 Eurofins Albuquerque

Job Narrative
885-3291-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/24/2024 7:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.1°C and 1.6°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: The continuing calibration verification (CCV) associated with batch 885-3939 recovered above the upper control limit for Di-n-octyl phthalate (Surr). Percent recovery for DRO is acceptable. The samples associated with this had passing surrogate or high surrogate/ND results; therefore, the data have been reported. Re-running any samples with high surrogate and hits. The associated samples are impacted: WS24-01 0-2' (885-3291-1), WS24-02 0-2' (885-3291-2), WS24-03 2-6' (885-3291-3), WS24-04 0-10' (885-3291-4), WS24-05 0-10' (885-3291-5), WS24-06 0-10' (885-3291-6), WS24-07 0-10' (885-3291-7), BS24-01 2' (885-3291-8), BS24-02 10 (885-3291-9), BS24-03 2' (885-3291-10), BS24-04 2' (885-3291-11), BS24-05 2' (885-3291-12), BS24-06 6' (885-3291-13), BS24-07 10' (885-3291-14), BS24-08 2' (885-3291-15), (CCV 885-3939/42), (LCS 885-3839/2-A), (MB 885-3839/1-A), (885-3300-A-23-B), (885-3300-A-23-C MS) and (885-3300-A-23-D MSD).

Method 8015D_DRO: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 885-4160 and analytical batch 885-4196 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

Client Sample ID: WS24-01 0-2'

Date Collected: 04/19/24 10:20
Date Received: 04/24/24 07:45

Lab Sample ID: 885-3291-1

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		04/24/24 09:40	04/25/24 20:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*15 - 244*	*04/24/24 09:40*	*04/25/24 20:06*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/24/24 09:40	04/25/24 20:06	1
Ethylbenzene	ND		0.049		mg/Kg		04/24/24 09:40	04/25/24 20:06	1
Toluene	ND		0.049		mg/Kg		04/24/24 09:40	04/25/24 20:06	1
Xylenes, Total	ND		0.098		mg/Kg		04/24/24 09:40	04/25/24 20:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*39 - 146*	*04/24/24 09:40*	*04/25/24 20:06*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**480**		8.7		mg/Kg		04/24/24 15:00	04/25/24 17:41	1
Motor Oil Range Organics [C28-C40]	**270**		44		mg/Kg		04/24/24 15:00	04/25/24 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*124*		*62 - 134*	*04/24/24 15:00*	*04/25/24 17:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**130**		60		mg/Kg		04/24/24 14:12	04/24/24 19:38	20

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

Client Sample ID: WS24-02 0-2'

Date Collected: 04/19/24 10:08
Date Received: 04/24/24 07:45

Lab Sample ID: 885-3291-2

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		04/24/24 09:40	04/25/24 21:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*15 - 244*	*04/24/24 09:40*	*04/25/24 21:16*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/24/24 09:40	04/25/24 21:16	1
Ethylbenzene	ND		0.048		mg/Kg		04/24/24 09:40	04/25/24 21:16	1
Toluene	ND		0.048		mg/Kg		04/24/24 09:40	04/25/24 21:16	1
Xylenes, Total	ND		0.096		mg/Kg		04/24/24 09:40	04/25/24 21:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*39 - 146*	*04/24/24 09:40*	*04/25/24 21:16*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**38**		9.0		mg/Kg		04/24/24 15:00	04/26/24 12:06	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		04/24/24 15:00	04/26/24 12:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*99*		*62 - 134*	*04/24/24 15:00*	*04/26/24 12:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**280**		60		mg/Kg		04/24/24 14:12	04/24/24 20:17	20

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

Client Sample ID: WS24-03 2-6'

Date Collected: 04/19/24 09:05
Date Received: 04/24/24 07:45

Lab Sample ID: 885-3291-3

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		04/24/24 09:40	04/25/24 22:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*15 - 244*	*04/24/24 09:40*	*04/25/24 22:49*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		04/24/24 09:40	04/25/24 22:49	1
Ethylbenzene	ND		0.046		mg/Kg		04/24/24 09:40	04/25/24 22:49	1
Toluene	ND		0.046		mg/Kg		04/24/24 09:40	04/25/24 22:49	1
Xylenes, Total	ND		0.092		mg/Kg		04/24/24 09:40	04/25/24 22:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*39 - 146*	*04/24/24 09:40*	*04/25/24 22:49*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**88**		8.8		mg/Kg		04/24/24 15:00	04/26/24 12:30	1
Motor Oil Range Organics [C28-C40]	**53**		44		mg/Kg		04/24/24 15:00	04/26/24 12:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*131*		*62 - 134*	*04/24/24 15:00*	*04/26/24 12:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**290**		60		mg/Kg		04/24/24 14:12	04/24/24 20:29	20

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

Client Sample ID: WS24-04 0-10'

Date Collected: 04/19/24 09:15
Date Received: 04/24/24 07:45

Lab Sample ID: 885-3291-4

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		04/24/24 09:40	04/25/24 23:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*15 - 244*	*04/24/24 09:40*	*04/25/24 23:12*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/24/24 09:40	04/25/24 23:12	1
Ethylbenzene	ND		0.048		mg/Kg		04/24/24 09:40	04/25/24 23:12	1
Toluene	ND		0.048		mg/Kg		04/24/24 09:40	04/25/24 23:12	1
Xylenes, Total	ND		0.096		mg/Kg		04/24/24 09:40	04/25/24 23:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*39 - 146*	*04/24/24 09:40*	*04/25/24 23:12*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**780**		18		mg/Kg		04/24/24 15:00	04/26/24 12:54	2
Motor Oil Range Organics [C28-C40]	**510**		90		mg/Kg		04/24/24 15:00	04/26/24 12:54	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*116*		*62 - 134*	*04/24/24 15:00*	*04/26/24 12:54*	*2*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		60		mg/Kg		04/24/24 14:12	04/24/24 20:42	20

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

Client Sample ID: WS24-05 0-10'

Date Collected: 04/19/24 09:30
Date Received: 04/24/24 07:45

Lab Sample ID: 885-3291-5

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		04/24/24 09:40	04/25/24 23:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*15 - 244*	*04/24/24 09:40*	*04/25/24 23:36*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/24/24 09:40	04/25/24 23:36	1
Ethylbenzene	ND		0.048		mg/Kg		04/24/24 09:40	04/25/24 23:36	1
Toluene	ND		0.048		mg/Kg		04/24/24 09:40	04/25/24 23:36	1
Xylenes, Total	ND		0.097		mg/Kg		04/24/24 09:40	04/25/24 23:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*39 - 146*	*04/24/24 09:40*	*04/25/24 23:36*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**190**		9.3		mg/Kg		04/24/24 15:00	04/26/24 13:42	1
Motor Oil Range Organics [C28-C40]	**130**		47		mg/Kg		04/24/24 15:00	04/26/24 13:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*120*		*62 - 134*	*04/24/24 15:00*	*04/26/24 13:42*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**280**		60		mg/Kg		04/24/24 14:12	04/24/24 20:55	20

Client Sample Results

Client: Vertex
Job ID: 885-3291-1
Project/Site: Aldabra 25 Federal #006

Client Sample ID: WS24-06 0-10'
Lab Sample ID: 885-3291-6
Date Collected: 04/19/24 09:50
Matrix: Solid
Date Received: 04/24/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		04/24/24 09:40	04/25/24 23:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*15 - 244*	*04/24/24 09:40*	*04/25/24 23:59*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/24/24 09:40	04/25/24 23:59	1
Ethylbenzene	ND		0.050		mg/Kg		04/24/24 09:40	04/25/24 23:59	1
Toluene	ND		0.050		mg/Kg		04/24/24 09:40	04/25/24 23:59	1
Xylenes, Total	ND		0.10		mg/Kg		04/24/24 09:40	04/25/24 23:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*39 - 146*	*04/24/24 09:40*	*04/25/24 23:59*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**300**		9.8		mg/Kg		04/24/24 15:00	04/25/24 18:45	1
Motor Oil Range Organics [C28-C40]	**260**		49		mg/Kg		04/24/24 15:00	04/25/24 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*122*		*62 - 134*	*04/24/24 15:00*	*04/25/24 18:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**260**		60		mg/Kg		04/24/24 14:12	04/24/24 21:34	20

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

Client Sample ID: WS24-07 0-10'

Date Collected: 04/19/24 10:00
Date Received: 04/24/24 07:45

Lab Sample ID: 885-3291-7

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		04/24/24 09:40	04/26/24 00:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*15 - 244*	*04/24/24 09:40*	*04/26/24 00:23*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		04/24/24 09:40	04/26/24 00:23	1
Ethylbenzene	ND		0.047		mg/Kg		04/24/24 09:40	04/26/24 00:23	1
Toluene	ND		0.047		mg/Kg		04/24/24 09:40	04/26/24 00:23	1
Xylenes, Total	ND		0.094		mg/Kg		04/24/24 09:40	04/26/24 00:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*39 - 146*	*04/24/24 09:40*	*04/26/24 00:23*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**240**		8.8		mg/Kg		04/24/24 15:00	04/26/24 14:06	1
Motor Oil Range Organics [C28-C40]	**190**		44		mg/Kg		04/24/24 15:00	04/26/24 14:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*120*		*62 - 134*	*04/24/24 15:00*	*04/26/24 14:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**94**		60		mg/Kg		04/24/24 14:12	04/24/24 21:47	20

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

Client Sample ID: BS24-01 2'

Date Collected: 04/19/24 10:05
Date Received: 04/24/24 07:45

Lab Sample ID: 885-3291-8

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		04/24/24 09:40	04/26/24 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*15 - 244*	*04/24/24 09:40*	*04/26/24 00:46*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		04/24/24 09:40	04/26/24 00:46	1
Ethylbenzene	ND		0.046		mg/Kg		04/24/24 09:40	04/26/24 00:46	1
Toluene	ND		0.046		mg/Kg		04/24/24 09:40	04/26/24 00:46	1
Xylenes, Total	ND		0.093		mg/Kg		04/24/24 09:40	04/26/24 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*39 - 146*	*04/24/24 09:40*	*04/26/24 00:46*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**360**		9.9		mg/Kg		05/01/24 08:32	05/01/24 10:47	1
Motor Oil Range Organics [C28-C40]	**170**		50		mg/Kg		05/01/24 08:32	05/01/24 10:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*05/01/24 08:32*	*05/01/24 10:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**360**		60		mg/Kg		04/24/24 14:12	04/24/24 21:59	20

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

Client Sample ID: BS24-02 10

Date Collected: 04/19/24 09:45
Date Received: 04/24/24 07:45

Lab Sample ID: 885-3291-9

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		04/24/24 09:40	04/26/24 01:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*15 - 244*	*04/24/24 09:40*	*04/26/24 01:10*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/24/24 09:40	04/26/24 01:10	1
Ethylbenzene	ND		0.049		mg/Kg		04/24/24 09:40	04/26/24 01:10	1
Toluene	ND		0.049		mg/Kg		04/24/24 09:40	04/26/24 01:10	1
Xylenes, Total	ND		0.098		mg/Kg		04/24/24 09:40	04/26/24 01:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*39 - 146*	*04/24/24 09:40*	*04/26/24 01:10*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**280**		9.0		mg/Kg		04/24/24 15:00	04/25/24 19:23	1
Motor Oil Range Organics [C28-C40]	**260**		45		mg/Kg		04/24/24 15:00	04/25/24 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*133*		*62 - 134*	*04/24/24 15:00*	*04/25/24 19:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2300**		150		mg/Kg		04/24/24 14:12	04/27/24 16:11	50

Client Sample Results

Client: Vertex
Job ID: 885-3291-1
Project/Site: Aldabra 25 Federal #006

Client Sample ID: BS24-03 2'
Lab Sample ID: 885-3291-10
Date Collected: 04/19/24 10:10
Matrix: Solid
Date Received: 04/24/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7		mg/Kg		04/24/24 09:40	04/26/24 01:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*15 - 244*	*04/24/24 09:40*	*04/26/24 01:33*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/24/24 09:40	04/26/24 01:33	1
Ethylbenzene	ND		0.047		mg/Kg		04/24/24 09:40	04/26/24 01:33	1
Toluene	ND		0.047		mg/Kg		04/24/24 09:40	04/26/24 01:33	1
Xylenes, Total	ND		0.095		mg/Kg		04/24/24 09:40	04/26/24 01:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*39 - 146*	*04/24/24 09:40*	*04/26/24 01:33*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**140**		9.0		mg/Kg		04/24/24 15:00	04/26/24 15:43	1
Motor Oil Range Organics [C28-C40]	**110**		45		mg/Kg		04/24/24 15:00	04/26/24 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*130*		*62 - 134*	*04/24/24 15:00*	*04/26/24 15:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		60		mg/Kg		04/24/24 14:12	04/24/24 22:25	20

Client Sample Results

Client: Vertex
Job ID: 885-3291-1
Project/Site: Aldabra 25 Federal #006

Client Sample ID: BS24-04 2'
Lab Sample ID: 885-3291-11
Date Collected: 04/19/24 10:12
Matrix: Solid
Date Received: 04/24/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		04/24/24 09:40	04/26/24 02:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*15 - 244*	*04/24/24 09:40*	*04/26/24 02:20*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/24/24 09:40	04/26/24 02:20	1
Ethylbenzene	ND		0.049		mg/Kg		04/24/24 09:40	04/26/24 02:20	1
Toluene	ND		0.049		mg/Kg		04/24/24 09:40	04/26/24 02:20	1
Xylenes, Total	ND		0.099		mg/Kg		04/24/24 09:40	04/26/24 02:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*39 - 146*	*04/24/24 09:40*	*04/26/24 02:20*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**44**		9.1		mg/Kg		04/24/24 15:00	04/26/24 16:07	1
Motor Oil Range Organics [C28-C40]	ND		45		mg/Kg		04/24/24 15:00	04/26/24 16:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*129*		*62 - 134*	*04/24/24 15:00*	*04/26/24 16:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**74**		60		mg/Kg		04/24/24 14:12	04/24/24 22:38	20

Client Sample Results

Client: Vertex
Job ID: 885-3291-1
Project/Site: Aldabra 25 Federal #006

Client Sample ID: BS24-05 2'
Lab Sample ID: 885-3291-12
Date Collected: 04/19/24 10:15
Matrix: Solid
Date Received: 04/24/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9		mg/Kg		04/24/24 09:40	04/26/24 02:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*15 - 244*	*04/24/24 09:40*	*04/26/24 02:43*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/24/24 09:40	04/26/24 02:43	1
Ethylbenzene	ND		0.049		mg/Kg		04/24/24 09:40	04/26/24 02:43	1
Toluene	ND		0.049		mg/Kg		04/24/24 09:40	04/26/24 02:43	1
Xylenes, Total	ND		0.099		mg/Kg		04/24/24 09:40	04/26/24 02:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*39 - 146*	*04/24/24 09:40*	*04/26/24 02:43*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.8		mg/Kg		04/24/24 15:00	04/25/24 20:14	1
Motor Oil Range Organics [C28-C40]	ND		44		mg/Kg		04/24/24 15:00	04/25/24 20:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*123*		*62 - 134*	*04/24/24 15:00*	*04/25/24 20:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**70**		60		mg/Kg		04/25/24 16:33	04/25/24 19:29	20

Client Sample Results

Client: Vertex
Job ID: 885-3291-1
Project/Site: Aldabra 25 Federal #006

Client Sample ID: BS24-06 6'
Lab Sample ID: 885-3291-13
Date Collected: 04/19/24 09:00
Matrix: Solid
Date Received: 04/24/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		04/24/24 09:40	04/26/24 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*15 - 244*	*04/24/24 09:40*	*04/26/24 03:07*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/24/24 09:40	04/26/24 03:07	1
Ethylbenzene	ND		0.050		mg/Kg		04/24/24 09:40	04/26/24 03:07	1
Toluene	ND		0.050		mg/Kg		04/24/24 09:40	04/26/24 03:07	1
Xylenes, Total	ND		0.10		mg/Kg		04/24/24 09:40	04/26/24 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*39 - 146*	*04/24/24 09:40*	*04/26/24 03:07*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**380**		9.7		mg/Kg		04/24/24 15:00	04/25/24 20:27	1
Motor Oil Range Organics [C28-C40]	**180**		49		mg/Kg		04/24/24 15:00	04/25/24 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*127*		*62 - 134*	*04/24/24 15:00*	*04/25/24 20:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**290**		60		mg/Kg		04/25/24 16:33	04/25/24 19:44	20

Client Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

Client Sample ID: BS24-07 10'

Date Collected: 04/19/24 09:40
Date Received: 04/24/24 07:45

Lab Sample ID: 885-3291-14

Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6		mg/Kg		04/24/24 09:40	04/26/24 03:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*15 - 244*	*04/24/24 09:40*	*04/26/24 03:31*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		04/24/24 09:40	04/26/24 03:31	1
Ethylbenzene	ND		0.046		mg/Kg		04/24/24 09:40	04/26/24 03:31	1
Toluene	ND		0.046		mg/Kg		04/24/24 09:40	04/26/24 03:31	1
Xylenes, Total	ND		0.092		mg/Kg		04/24/24 09:40	04/26/24 03:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*39 - 146*	*04/24/24 09:40*	*04/26/24 03:31*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**170**		8.5		mg/Kg		04/24/24 15:00	04/26/24 16:31	1
Motor Oil Range Organics [C28-C40]	**140**		42		mg/Kg		04/24/24 15:00	04/26/24 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*119*		*62 - 134*	*04/24/24 15:00*	*04/26/24 16:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**760**		60		mg/Kg		04/25/24 16:33	04/25/24 19:59	20

Client Sample Results

Client: Vertex
Job ID: 885-3291-1
Project/Site: Aldabra 25 Federal #006

Client Sample ID: BS24-08 2'
Lab Sample ID: 885-3291-15
Date Collected: 04/19/24 10:30
Matrix: Solid
Date Received: 04/24/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		04/24/24 09:40	04/26/24 03:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*15 - 244*	*04/24/24 09:40*	*04/26/24 03:54*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		04/24/24 09:40	04/26/24 03:54	1
Ethylbenzene	ND		0.048		mg/Kg		04/24/24 09:40	04/26/24 03:54	1
Toluene	ND		0.048		mg/Kg		04/24/24 09:40	04/26/24 03:54	1
Xylenes, Total	ND		0.096		mg/Kg		04/24/24 09:40	04/26/24 03:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*39 - 146*	*04/24/24 09:40*	*04/26/24 03:54*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**250**		8.6		mg/Kg		05/01/24 08:32	05/01/24 12:14	1
Motor Oil Range Organics [C28-C40]	**130**		43		mg/Kg		05/01/24 08:32	05/01/24 12:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*05/01/24 08:32*	*05/01/24 12:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**200**		60		mg/Kg		04/25/24 16:33	04/25/24 20:15	20

QC Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-3800/1-A
Matrix: Solid
Analysis Batch: 3943

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3800

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		04/24/24 09:40	04/25/24 19:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*15 - 244*	*04/24/24 09:40*	*04/25/24 19:42*	*1*

Lab Sample ID: LCS 885-3800/2-A
Matrix: Solid
Analysis Batch: 3943

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3800

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	25.7		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*213*		*15 - 244*

Lab Sample ID: 885-3291-1 MS
Matrix: Solid
Analysis Batch: 3943

Client Sample ID: WS24-01 0-2'
Prep Type: Total/NA
Prep Batch: 3800

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]	ND		24.4	26.1		mg/Kg		107	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*218*		*15 - 244*

Lab Sample ID: 885-3291-1 MSD
Matrix: Solid
Analysis Batch: 3943

Client Sample ID: WS24-01 0-2'
Prep Type: Total/NA
Prep Batch: 3800

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.5	24.1		mg/Kg		98	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*205*		*15 - 244*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-3800/1-A
Matrix: Solid
Analysis Batch: 3944

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3800

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		04/24/24 09:40	04/25/24 19:42	1
Ethylbenzene	ND		0.050		mg/Kg		04/24/24 09:40	04/25/24 19:42	1
Toluene	ND		0.050		mg/Kg		04/24/24 09:40	04/25/24 19:42	1

QC Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-3800/1-A
Matrix: Solid
Analysis Batch: 3944

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3800

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		04/24/24 09:40	04/25/24 19:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*39 - 146*	*04/24/24 09:40*	*04/25/24 19:42*	*1*

Lab Sample ID: LCS 885-3800/3-A
Matrix: Solid
Analysis Batch: 3944

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3800

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.00		mg/Kg		100	70 - 130		
Ethylbenzene			1.00	0.976		mg/Kg		98	70 - 130		
m,p-Xylene			2.00	1.97		mg/Kg		98	70 - 130		
o-Xylene			1.00	0.968		mg/Kg		97	70 - 130		
Toluene			1.00	0.959		mg/Kg		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*39 - 146*

Lab Sample ID: 885-3291-2 MS
Matrix: Solid
Analysis Batch: 3944

Client Sample ID: WS24-02 0-2'
Prep Type: Total/NA
Prep Batch: 3800

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.970	0.945		mg/Kg		97	70 - 130		
Ethylbenzene	ND		0.970	0.931		mg/Kg		96	70 - 130		
m,p-Xylene	ND		1.94	1.90		mg/Kg		97	70 - 130		
o-Xylene	ND		0.970	0.931		mg/Kg		96	70 - 130		
Toluene	ND		0.970	0.904		mg/Kg		93	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*39 - 146*

Lab Sample ID: 885-3291-2 MSD
Matrix: Solid
Analysis Batch: 3944

Client Sample ID: WS24-02 0-2'
Prep Type: Total/NA
Prep Batch: 3800

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.972	0.995		mg/Kg		102	70 - 130	5	20
Ethylbenzene	ND		0.972	0.973		mg/Kg		100	70 - 130	4	20
m,p-Xylene	ND		1.94	1.95		mg/Kg		99	70 - 130	2	20
o-Xylene	ND		0.972	0.962		mg/Kg		99	70 - 130	3	20
Toluene	ND		0.972	0.957		mg/Kg		98	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*39 - 146*

QC Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-3839/1-A
Matrix: Solid
Analysis Batch: 3939

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3839

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		04/24/24 15:00	04/25/24 17:15	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		04/24/24 15:00	04/25/24 17:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*111*		*62 - 134*	*04/24/24 15:00*	*04/25/24 17:15*	*1*

Lab Sample ID: LCS 885-3839/2-A
Matrix: Solid
Analysis Batch: 3939

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3839

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	46.0		mg/Kg		92	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*113*		*62 - 134*

Lab Sample ID: MB 885-4160/1-A
Matrix: Solid
Analysis Batch: 4196

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4160

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		05/01/24 08:32	05/01/24 10:10	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		05/01/24 08:32	05/01/24 10:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*05/01/24 08:32*	*05/01/24 10:10*	*1*

Lab Sample ID: LCS 885-4160/2-A
Matrix: Solid
Analysis Batch: 4196

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4160

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	44.6		mg/Kg		89	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*103*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-3838/1-A
Matrix: Solid
Analysis Batch: 3852

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3838

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5		mg/Kg		04/24/24 14:12	04/24/24 16:14	1

QC Sample Results

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-3838/2-A
Matrix: Solid
Analysis Batch: 3852

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3838

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			15.0	13.9		mg/Kg		93	90 - 110		

Lab Sample ID: 885-3291-1 MS
Matrix: Solid
Analysis Batch: 3852

Client Sample ID: WS24-01 0-2'
Prep Type: Total/NA
Prep Batch: 3838

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	130		29.8	158	4	mg/Kg		82	50 - 150		

Lab Sample ID: 885-3291-1 MSD
Matrix: Solid
Analysis Batch: 3852

Client Sample ID: WS24-01 0-2'
Prep Type: Total/NA
Prep Batch: 3838

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	130		30.0	154	4	mg/Kg		71	50 - 150	2	20

Lab Sample ID: MB 885-3924/1-A
Matrix: Solid
Analysis Batch: 3930

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3924

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5		mg/Kg		04/25/24 16:33	04/25/24 18:59	1

Lab Sample ID: LCS 885-3924/2-A
Matrix: Solid
Analysis Batch: 3930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3924

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			15.0	14.2		mg/Kg		95	90 - 110		

Lab Sample ID: MB 885-3930/5
Matrix: Solid
Analysis Batch: 3930

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/Kg			04/25/24 09:11	1

Lab Sample ID: MRL 885-3930/4
Matrix: Solid
Analysis Batch: 3930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			0.500	0.519		mg/L		104	50 - 150		

Lab Sample ID: MRL 885-4015/3
Matrix: Solid
Analysis Batch: 4015

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			0.500	0.517		mg/L		103	50 - 150		

QC Association Summary

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

GC VOA

Prep Batch: 3800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-1	WS24-01 0-2'	Total/NA	Solid	5030C	
885-3291-2	WS24-02 0-2'	Total/NA	Solid	5030C	
885-3291-3	WS24-03 2-6'	Total/NA	Solid	5030C	
885-3291-4	WS24-04 0-10'	Total/NA	Solid	5030C	
885-3291-5	WS24-05 0-10'	Total/NA	Solid	5030C	
885-3291-6	WS24-06 0-10'	Total/NA	Solid	5030C	
885-3291-7	WS24-07 0-10'	Total/NA	Solid	5030C	
885-3291-8	BS24-01 2'	Total/NA	Solid	5030C	
885-3291-9	BS24-02 10	Total/NA	Solid	5030C	
885-3291-10	BS24-03 2'	Total/NA	Solid	5030C	
885-3291-11	BS24-04 2'	Total/NA	Solid	5030C	
885-3291-12	BS24-05 2'	Total/NA	Solid	5030C	
885-3291-13	BS24-06 6'	Total/NA	Solid	5030C	
885-3291-14	BS24-07 10'	Total/NA	Solid	5030C	
885-3291-15	BS24-08 2'	Total/NA	Solid	5030C	
MB 885-3800/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-3800/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-3800/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-3291-1 MS	WS24-01 0-2'	Total/NA	Solid	5030C	
885-3291-1 MSD	WS24-01 0-2'	Total/NA	Solid	5030C	
885-3291-2 MS	WS24-02 0-2'	Total/NA	Solid	5030C	
885-3291-2 MSD	WS24-02 0-2'	Total/NA	Solid	5030C	

Analysis Batch: 3943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-1	WS24-01 0-2'	Total/NA	Solid	8015D	3800
885-3291-2	WS24-02 0-2'	Total/NA	Solid	8015D	3800
885-3291-3	WS24-03 2-6'	Total/NA	Solid	8015D	3800
885-3291-4	WS24-04 0-10'	Total/NA	Solid	8015D	3800
885-3291-5	WS24-05 0-10'	Total/NA	Solid	8015D	3800
885-3291-6	WS24-06 0-10'	Total/NA	Solid	8015D	3800
885-3291-7	WS24-07 0-10'	Total/NA	Solid	8015D	3800
885-3291-8	BS24-01 2'	Total/NA	Solid	8015D	3800
885-3291-9	BS24-02 10	Total/NA	Solid	8015D	3800
885-3291-10	BS24-03 2'	Total/NA	Solid	8015D	3800
885-3291-11	BS24-04 2'	Total/NA	Solid	8015D	3800
885-3291-12	BS24-05 2'	Total/NA	Solid	8015D	3800
885-3291-13	BS24-06 6'	Total/NA	Solid	8015D	3800
885-3291-14	BS24-07 10'	Total/NA	Solid	8015D	3800
885-3291-15	BS24-08 2'	Total/NA	Solid	8015D	3800
MB 885-3800/1-A	Method Blank	Total/NA	Solid	8015D	3800
LCS 885-3800/2-A	Lab Control Sample	Total/NA	Solid	8015D	3800
885-3291-1 MS	WS24-01 0-2'	Total/NA	Solid	8015D	3800
885-3291-1 MSD	WS24-01 0-2'	Total/NA	Solid	8015D	3800

Analysis Batch: 3944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-1	WS24-01 0-2'	Total/NA	Solid	8021B	3800
885-3291-2	WS24-02 0-2'	Total/NA	Solid	8021B	3800
885-3291-3	WS24-03 2-6'	Total/NA	Solid	8021B	3800
885-3291-4	WS24-04 0-10'	Total/NA	Solid	8021B	3800

QC Association Summary

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

GC VOA (Continued)

Analysis Batch: 3944 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-5	WS24-05 0-10'	Total/NA	Solid	8021B	3800
885-3291-6	WS24-06 0-10'	Total/NA	Solid	8021B	3800
885-3291-7	WS24-07 0-10'	Total/NA	Solid	8021B	3800
885-3291-8	BS24-01 2'	Total/NA	Solid	8021B	3800
885-3291-9	BS24-02 10	Total/NA	Solid	8021B	3800
885-3291-10	BS24-03 2'	Total/NA	Solid	8021B	3800
885-3291-11	BS24-04 2'	Total/NA	Solid	8021B	3800
885-3291-12	BS24-05 2'	Total/NA	Solid	8021B	3800
885-3291-13	BS24-06 6'	Total/NA	Solid	8021B	3800
885-3291-14	BS24-07 10'	Total/NA	Solid	8021B	3800
885-3291-15	BS24-08 2'	Total/NA	Solid	8021B	3800
MB 885-3800/1-A	Method Blank	Total/NA	Solid	8021B	3800
LCS 885-3800/3-A	Lab Control Sample	Total/NA	Solid	8021B	3800
885-3291-2 MS	WS24-02 0-2'	Total/NA	Solid	8021B	3800
885-3291-2 MSD	WS24-02 0-2'	Total/NA	Solid	8021B	3800

GC Semi VOA

Prep Batch: 3839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-1	WS24-01 0-2'	Total/NA	Solid	SHAKE	
885-3291-2	WS24-02 0-2'	Total/NA	Solid	SHAKE	
885-3291-3	WS24-03 2-6'	Total/NA	Solid	SHAKE	
885-3291-4	WS24-04 0-10'	Total/NA	Solid	SHAKE	
885-3291-5	WS24-05 0-10'	Total/NA	Solid	SHAKE	
885-3291-6	WS24-06 0-10'	Total/NA	Solid	SHAKE	
885-3291-7	WS24-07 0-10'	Total/NA	Solid	SHAKE	
885-3291-9	BS24-02 10	Total/NA	Solid	SHAKE	
885-3291-10	BS24-03 2'	Total/NA	Solid	SHAKE	
885-3291-11	BS24-04 2'	Total/NA	Solid	SHAKE	
885-3291-12	BS24-05 2'	Total/NA	Solid	SHAKE	
885-3291-13	BS24-06 6'	Total/NA	Solid	SHAKE	
885-3291-14	BS24-07 10'	Total/NA	Solid	SHAKE	
MB 885-3839/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-3839/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 3939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-1	WS24-01 0-2'	Total/NA	Solid	8015D	3839
885-3291-6	WS24-06 0-10'	Total/NA	Solid	8015D	3839
885-3291-9	BS24-02 10	Total/NA	Solid	8015D	3839
885-3291-12	BS24-05 2'	Total/NA	Solid	8015D	3839
885-3291-13	BS24-06 6'	Total/NA	Solid	8015D	3839
MB 885-3839/1-A	Method Blank	Total/NA	Solid	8015D	3839
LCS 885-3839/2-A	Lab Control Sample	Total/NA	Solid	8015D	3839

Analysis Batch: 4063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-2	WS24-02 0-2'	Total/NA	Solid	8015D	3839
885-3291-3	WS24-03 2-6'	Total/NA	Solid	8015D	3839
885-3291-4	WS24-04 0-10'	Total/NA	Solid	8015D	3839

QC Association Summary

Client: Vertex
Project/Site: Aldabra 25 Federal #006

Job ID: 885-3291-1

GC Semi VOA (Continued)

Analysis Batch: 4063 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-5	WS24-05 0-10'	Total/NA	Solid	8015D	3839
885-3291-7	WS24-07 0-10'	Total/NA	Solid	8015D	3839
885-3291-10	BS24-03 2'	Total/NA	Solid	8015D	3839
885-3291-11	BS24-04 2'	Total/NA	Solid	8015D	3839
885-3291-14	BS24-07 10'	Total/NA	Solid	8015D	3839

Prep Batch: 4160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-8	BS24-01 2'	Total/NA	Solid	SHAKE	
885-3291-15	BS24-08 2'	Total/NA	Solid	SHAKE	
MB 885-4160/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-4160/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 4196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-8	BS24-01 2'	Total/NA	Solid	8015D	4160
885-3291-15	BS24-08 2'	Total/NA	Solid	8015D	4160
MB 885-4160/1-A	Method Blank	Total/NA	Solid	8015D	4160
LCS 885-4160/2-A	Lab Control Sample	Total/NA	Solid	8015D	4160

HPLC/IC

Prep Batch: 3838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-1	WS24-01 0-2'	Total/NA	Solid	300_Prep	
885-3291-2	WS24-02 0-2'	Total/NA	Solid	300_Prep	
885-3291-3	WS24-03 2-6'	Total/NA	Solid	300_Prep	
885-3291-4	WS24-04 0-10'	Total/NA	Solid	300_Prep	
885-3291-5	WS24-05 0-10'	Total/NA	Solid	300_Prep	
885-3291-6	WS24-06 0-10'	Total/NA	Solid	300_Prep	
885-3291-7	WS24-07 0-10'	Total/NA	Solid	300_Prep	
885-3291-8	BS24-01 2'	Total/NA	Solid	300_Prep	
885-3291-9	BS24-02 10	Total/NA	Solid	300_Prep	
885-3291-10	BS24-03 2'	Total/NA	Solid	300_Prep	
885-3291-11	BS24-04 2'	Total/NA	Solid	300_Prep	
MB 885-3838/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-3838/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-3291-1 MS	WS24-01 0-2'	Total/NA	Solid	300_Prep	
885-3291-1 MSD	WS24-01 0-2'	Total/NA	Solid	300_Prep	

Analysis Batch: 3852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-1	WS24-01 0-2'	Total/NA	Solid	300.0	3838
885-3291-2	WS24-02 0-2'	Total/NA	Solid	300.0	3838
885-3291-3	WS24-03 2-6'	Total/NA	Solid	300.0	3838
885-3291-4	WS24-04 0-10'	Total/NA	Solid	300.0	3838
885-3291-5	WS24-05 0-10'	Total/NA	Solid	300.0	3838
885-3291-6	WS24-06 0-10'	Total/NA	Solid	300.0	3838
885-3291-7	WS24-07 0-10'	Total/NA	Solid	300.0	3838
885-3291-8	BS24-01 2'	Total/NA	Solid	300.0	3838
885-3291-10	BS24-03 2'	Total/NA	Solid	300.0	3838

QC Association Summary

Client: Vertex
Job ID: 885-3291-1
Project/Site: Aldabra 25 Federal #006

HPLC/IC (Continued)

Analysis Batch: 3852 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-11	BS24-04 2'	Total/NA	Solid	300.0	3838
MB 885-3838/1-A	Method Blank	Total/NA	Solid	300.0	3838
LCS 885-3838/2-A	Lab Control Sample	Total/NA	Solid	300.0	3838
885-3291-1 MS	WS24-01 0-2'	Total/NA	Solid	300.0	3838
885-3291-1 MSD	WS24-01 0-2'	Total/NA	Solid	300.0	3838

Prep Batch: 3924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-12	BS24-05 2'	Total/NA	Solid	300_Prep	
885-3291-13	BS24-06 6'	Total/NA	Solid	300_Prep	
885-3291-14	BS24-07 10'	Total/NA	Solid	300_Prep	
885-3291-15	BS24-08 2'	Total/NA	Solid	300_Prep	
MB 885-3924/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-3924/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 3930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-12	BS24-05 2'	Total/NA	Solid	300.0	3924
885-3291-13	BS24-06 6'	Total/NA	Solid	300.0	3924
885-3291-14	BS24-07 10'	Total/NA	Solid	300.0	3924
885-3291-15	BS24-08 2'	Total/NA	Solid	300.0	3924
MB 885-3924/1-A	Method Blank	Total/NA	Solid	300.0	3924
MB 885-3930/5	Method Blank	Total/NA	Solid	300.0	
LCS 885-3924/2-A	Lab Control Sample	Total/NA	Solid	300.0	3924
MRL 885-3930/4	Lab Control Sample	Total/NA	Solid	300.0	

Analysis Batch: 4015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-3291-9	BS24-02 10	Total/NA	Solid	300.0	3838
MRL 885-4015/3	Lab Control Sample	Total/NA	Solid	300.0	

Lab Chronicle

Client: Vertex
Job ID: 885-3291-1
Project/Site: Aldabra 25 Federal #006

Client Sample ID: WS24-01 0-2'
Lab Sample ID: 885-3291-1
Date Collected: 04/19/24 10:20
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8015D		1	3943	JP	EET ALB	04/25/24 20:06
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8021B		1	3944	JP	EET ALB	04/25/24 20:06
Total/NA	Prep	SHAKE			3839	JU	EET ALB	04/24/24 15:00
Total/NA	Analysis	8015D		1	3939	JU	EET ALB	04/25/24 17:41
Total/NA	Prep	300_Prep			3838	RC	EET ALB	04/24/24 14:12
Total/NA	Analysis	300.0		20	3852	JT	EET ALB	04/24/24 19:38

Client Sample ID: WS24-02 0-2'
Lab Sample ID: 885-3291-2
Date Collected: 04/19/24 10:08
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8015D		1	3943	JP	EET ALB	04/25/24 21:16
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8021B		1	3944	JP	EET ALB	04/25/24 21:16
Total/NA	Prep	SHAKE			3839	JU	EET ALB	04/24/24 15:00
Total/NA	Analysis	8015D		1	4063	JU	EET ALB	04/26/24 12:06
Total/NA	Prep	300_Prep			3838	RC	EET ALB	04/24/24 14:12
Total/NA	Analysis	300.0		20	3852	JT	EET ALB	04/24/24 20:17

Client Sample ID: WS24-03 2-6'
Lab Sample ID: 885-3291-3
Date Collected: 04/19/24 09:05
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8015D		1	3943	JP	EET ALB	04/25/24 22:49
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8021B		1	3944	JP	EET ALB	04/25/24 22:49
Total/NA	Prep	SHAKE			3839	JU	EET ALB	04/24/24 15:00
Total/NA	Analysis	8015D		1	4063	JU	EET ALB	04/26/24 12:30
Total/NA	Prep	300_Prep			3838	RC	EET ALB	04/24/24 14:12
Total/NA	Analysis	300.0		20	3852	JT	EET ALB	04/24/24 20:29

Client Sample ID: WS24-04 0-10'
Lab Sample ID: 885-3291-4
Date Collected: 04/19/24 09:15
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8015D		1	3943	JP	EET ALB	04/25/24 23:12

Lab Chronicle

Client: Vertex
Job ID: 885-3291-1
Project/Site: Aldabra 25 Federal #006

Client Sample ID: WS24-04 0-10'
Lab Sample ID: 885-3291-4
Date Collected: 04/19/24 09:15
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8021B		1	3944	JP	EET ALB	04/25/24 23:12
Total/NA	Prep	SHAKE			3839	JU	EET ALB	04/24/24 15:00
Total/NA	Analysis	8015D		2	4063	JU	EET ALB	04/26/24 12:54
Total/NA	Prep	300_Prep			3838	RC	EET ALB	04/24/24 14:12
Total/NA	Analysis	300.0		20	3852	JT	EET ALB	04/24/24 20:42

Client Sample ID: WS24-05 0-10'
Lab Sample ID: 885-3291-5
Date Collected: 04/19/24 09:30
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8015D		1	3943	JP	EET ALB	04/25/24 23:36
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8021B		1	3944	JP	EET ALB	04/25/24 23:36
Total/NA	Prep	SHAKE			3839	JU	EET ALB	04/24/24 15:00
Total/NA	Analysis	8015D		1	4063	JU	EET ALB	04/26/24 13:42
Total/NA	Prep	300_Prep			3838	RC	EET ALB	04/24/24 14:12
Total/NA	Analysis	300.0		20	3852	JT	EET ALB	04/24/24 20:55

Client Sample ID: WS24-06 0-10'
Lab Sample ID: 885-3291-6
Date Collected: 04/19/24 09:50
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8015D		1	3943	JP	EET ALB	04/25/24 23:59
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8021B		1	3944	JP	EET ALB	04/25/24 23:59
Total/NA	Prep	SHAKE			3839	JU	EET ALB	04/24/24 15:00
Total/NA	Analysis	8015D		1	3939	JU	EET ALB	04/25/24 18:45
Total/NA	Prep	300_Prep			3838	RC	EET ALB	04/24/24 14:12
Total/NA	Analysis	300.0		20	3852	JT	EET ALB	04/24/24 21:34

Client Sample ID: WS24-07 0-10'
Lab Sample ID: 885-3291-7
Date Collected: 04/19/24 10:00
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8015D		1	3943	JP	EET ALB	04/26/24 00:23
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8021B		1	3944	JP	EET ALB	04/26/24 00:23

Lab Chronicle

Client: Vertex
Job ID: 885-3291-1
Project/Site: Aldabra 25 Federal #006

Client Sample ID: WS24-07 0-10'
Lab Sample ID: 885-3291-7
Date Collected: 04/19/24 10:00
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			3839	JU	EET ALB	04/24/24 15:00
Total/NA	Analysis	8015D		1	4063	JU	EET ALB	04/26/24 14:06
Total/NA	Prep	300_Prep			3838	RC	EET ALB	04/24/24 14:12
Total/NA	Analysis	300.0		20	3852	JT	EET ALB	04/24/24 21:47

Client Sample ID: BS24-01 2'
Lab Sample ID: 885-3291-8
Date Collected: 04/19/24 10:05
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8015D		1	3943	JP	EET ALB	04/26/24 00:46
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8021B		1	3944	JP	EET ALB	04/26/24 00:46
Total/NA	Prep	SHAKE			4160	JU	EET ALB	05/01/24 08:32
Total/NA	Analysis	8015D		1	4196	JU	EET ALB	05/01/24 10:47
Total/NA	Prep	300_Prep			3838	RC	EET ALB	04/24/24 14:12
Total/NA	Analysis	300.0		20	3852	JT	EET ALB	04/24/24 21:59

Client Sample ID: BS24-02 10
Lab Sample ID: 885-3291-9
Date Collected: 04/19/24 09:45
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8015D		1	3943	JP	EET ALB	04/26/24 01:10
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8021B		1	3944	JP	EET ALB	04/26/24 01:10
Total/NA	Prep	SHAKE			3839	JU	EET ALB	04/24/24 15:00
Total/NA	Analysis	8015D		1	3939	JU	EET ALB	04/25/24 19:23
Total/NA	Prep	300_Prep			3838	RC	EET ALB	04/24/24 14:12
Total/NA	Analysis	300.0		50	4015	JT	EET ALB	04/27/24 16:11

Client Sample ID: BS24-03 2'
Lab Sample ID: 885-3291-10
Date Collected: 04/19/24 10:10
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8015D		1	3943	JP	EET ALB	04/26/24 01:33
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8021B		1	3944	JP	EET ALB	04/26/24 01:33
Total/NA	Prep	SHAKE			3839	JU	EET ALB	04/24/24 15:00
Total/NA	Analysis	8015D		1	4063	JU	EET ALB	04/26/24 15:43

Lab Chronicle

Client: Vertex
Job ID: 885-3291-1
Project/Site: Aldabra 25 Federal #006

Client Sample ID: BS24-03 2'
Lab Sample ID: 885-3291-10
Date Collected: 04/19/24 10:10
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			3838	RC	EET ALB	04/24/24 14:12
Total/NA	Analysis	300.0		20	3852	JT	EET ALB	04/24/24 22:25

Client Sample ID: BS24-04 2'
Lab Sample ID: 885-3291-11
Date Collected: 04/19/24 10:12
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8015D		1	3943	JP	EET ALB	04/26/24 02:20
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8021B		1	3944	JP	EET ALB	04/26/24 02:20
Total/NA	Prep	SHAKE			3839	JU	EET ALB	04/24/24 15:00
Total/NA	Analysis	8015D		1	4063	JU	EET ALB	04/26/24 16:07
Total/NA	Prep	300_Prep			3838	RC	EET ALB	04/24/24 14:12
Total/NA	Analysis	300.0		20	3852	JT	EET ALB	04/24/24 22:38

Client Sample ID: BS24-05 2'
Lab Sample ID: 885-3291-12
Date Collected: 04/19/24 10:15
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8015D		1	3943	JP	EET ALB	04/26/24 02:43
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8021B		1	3944	JP	EET ALB	04/26/24 02:43
Total/NA	Prep	SHAKE			3839	JU	EET ALB	04/24/24 15:00
Total/NA	Analysis	8015D		1	3939	JU	EET ALB	04/25/24 20:14
Total/NA	Prep	300_Prep			3924	SS	EET ALB	04/25/24 16:33
Total/NA	Analysis	300.0		20	3930	JT	EET ALB	04/25/24 19:29

Client Sample ID: BS24-06 6'
Lab Sample ID: 885-3291-13
Date Collected: 04/19/24 09:00
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8015D		1	3943	JP	EET ALB	04/26/24 03:07
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8021B		1	3944	JP	EET ALB	04/26/24 03:07
Total/NA	Prep	SHAKE			3839	JU	EET ALB	04/24/24 15:00
Total/NA	Analysis	8015D		1	3939	JU	EET ALB	04/25/24 20:27
Total/NA	Prep	300_Prep			3924	SS	EET ALB	04/25/24 16:33
Total/NA	Analysis	300.0		20	3930	JT	EET ALB	04/25/24 19:44

Lab Chronicle

Client: Vertex
Job ID: 885-3291-1
Project/Site: Aldabra 25 Federal #006

Client Sample ID: BS24-07 10'
Lab Sample ID: 885-3291-14
Date Collected: 04/19/24 09:40
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8015D		1	3943	JP	EET ALB	04/26/24 03:31
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8021B		1	3944	JP	EET ALB	04/26/24 03:31
Total/NA	Prep	SHAKE			3839	JU	EET ALB	04/24/24 15:00
Total/NA	Analysis	8015D		1	4063	JU	EET ALB	04/26/24 16:31
Total/NA	Prep	300_Prep			3924	SS	EET ALB	04/25/24 16:33
Total/NA	Analysis	300.0		20	3930	JT	EET ALB	04/25/24 19:59

Client Sample ID: BS24-08 2'
Lab Sample ID: 885-3291-15
Date Collected: 04/19/24 10:30
Matrix: Solid
Date Received: 04/24/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8015D		1	3943	JP	EET ALB	04/26/24 03:54
Total/NA	Prep	5030C			3800	JP	EET ALB	04/24/24 09:40
Total/NA	Analysis	8021B		1	3944	JP	EET ALB	04/26/24 03:54
Total/NA	Prep	SHAKE			4160	JU	EET ALB	05/01/24 08:32
Total/NA	Analysis	8015D		1	4196	JU	EET ALB	05/01/24 12:14
Total/NA	Prep	300_Prep			3924	SS	EET ALB	04/25/24 16:33
Total/NA	Analysis	300.0		20	3930	JT	EET ALB	04/25/24 20:15

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-3291-1
Project/Site: Aldabra 25 Federal #006

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Chain-of-Custody Record

Client: Vertex / Devon

Mailing Address: On file

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 48
☐ Standard ☑ Rush 72 hr

Project Name: Aldabra 25 Federal #006

Project #: 23E-04614

Project Manager: Kent Stallings

Sampler: SM

On Ice: ~~☐ Yes~~ ☐ No

# of Coolers: 2 Monty

Cooler Temp(including CF): 1.1-0=1.1 (°C) 1.6-0=1.6

HALL ENVIRONMENTAL ANALYSIS LABORA

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

885-3291 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
4/19/24	10:20	Soil	WS 24-01 0-2'	4 oz jar	Ice	1	✓	✓					✓			
	10:08		WS 24-02 0-2'			2										
	9:05		WS 24-03 2-6'			3										
	9:15		WS 24-04 0-10'			4										
	9:30		WS 24-05 0-10'			5										
	9:50		WS 24-06 0-10'			6										
	10:00		WS 24-07 0-10'			7										
	10:05		BS 24-01 2'			8										
	9:45		BS 24-02 10			9										
	10:10		BS 24-03 2'			10										
	10:12		BS 24-04 2'			11										
↓	10:15	↓	BS 24-05 2'	↓	↓	12	↓	↓					↓			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
		Kleph McKay			4/23/24	930
Date: 4/23/24	Time: 1900	Relinquished by:	Received by:	Via: courier	Date 4/24/24	Time 7:45

Remarks: Direct bill to Devon: WO#: 100586201

cc kstallings@vertex.ca
sinccerly@vertex.ca

pg 1 of 2

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

Chain-of-Custody Record

Client: Vertex / Devon

Mailing Address: On file

Phone #: ↓

email or Fax#: ↓

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

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other________ ☐ EDD (Type) ________

Turn-Around Time: ☐ Standard ☑ Rush 48 ~~72~~ hr

Project Name: Aldabra 25 Federal #006

Project #: 23E-04614

Project Manager: Kent Stallings

Sampler: SM

On Ice: ☑ Yes ☐ No

# of Coolers: 2 MoAy

Cooler Temp (including CF): 1.1-0=1.1 1.6-0=1.6 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
4/19/24	9:00	Soil	BS24-06 6'	4oz jar	Ice	13	✓	✓					✓									
↓	9:40	↓	BS24-07 10'	↓	↓	14	↓	↓					↓									
↓	10:30	↓	BS24-08 2'	↓	↓	15	↓	↓					↓									

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
		[signature]	[signature]		4/23/24	930
4/23/24	1900	[signature]	[signature]	courier	4/24/24	7:45

Remarks: Direct Bill to Devon: W/O# 1005186201

cc. kstallings@vertex.ca smccarty@vertex.ca

pg 2 of 2

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

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5/7/2024

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-3291-1

Login Number: 3291 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

District I
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QUESTIONS

Action 357398

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 357398
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAB1616056900**
Incident Name	**NAB1616056900 ALDABRA 25 FEDERAL #006H @ 30-015-38602**
Incident Type	**Oil Release**
Incident Status	**Remediation Closure Report Received**
Incident Well	**[30-015-38602] ALDABRA 25 FEDERAL #006H**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	ALDABRA 25 FEDERAL #006H
Date Release Discovered	06/06/2016
Surface Owner	Federal

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Equipment Failure | Separator | Crude Oil | Released: 25 BBL | Recovered: 15 BBL | Lost: 10 BBL.
Produced Water Released (bbls) Details	*Not answered.*
Is the concentration of chloride in the produced water >10,000 mg/l	*Not answered.*
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)	*Not answered.*

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QUESTIONS (continued)

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QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**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: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dvn.com Date: 06/25/2024

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QUESTIONS (continued)

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QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	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	Greater than 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	2300
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	6400
GRO+DRO (EPA SW-846 Method 8015M)	3500
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	04/09/2024
On what date will (or did) the final sampling or liner inspection occur	04/19/2024
On what date will (or was) the remediation complete(d)	04/29/2024
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	13552
What is the estimated volume (in cubic yards) that will be remediated	1269
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	R360 Artesia LLC LANDFARM [fEEM0112340644]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dvn.com Date: 06/25/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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QUESTIONS

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

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QUESTIONS (continued)

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QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**334178**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**04/19/2024**
What was the (estimated) number of samples that were to be gathered	**15**
What was the sampling surface area in square feet	**1358**

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	13552
What was the total volume (cubic yards) remediated	1269
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	13552
What was the total volume (in cubic yards) reclaimed	1269
Summarize any additional remediation activities not included by answers (above)	see report

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: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dvn.com Date: 06/25/2024

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QUESTIONS (continued)

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QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 357398

CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
amaxwell	Remediation closure approved.	6/27/2024
amaxwell	A reclamation report will not be accepted until reclamation of the release area, including areas reasonably needed for production or drilling activities, is complete and meet the requirements of 19.15.29.13 NMAC. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable.	6/27/2024
amaxwell	The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the 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; and a revegetation plan.	6/27/2024