Spill Volume(Bbls) Calculator								
Inputs in blue, Outputs in red								
Contaminated Soil measurement								
Length(Ft)	Width(Ft)	Depth(Ft)						
Cubic Feet of S	oil Impacted	<u>0.000</u>						
Barrels of So	il Impacted	0.00						
Soil T	уре	Clay/Sand						
Barrels of Oi 100% Sat	l Assuming uration	<u>0.00</u>						
Saturation	Fluid pre	sent with shovel/backhoe						
Estimated Ba Relea	rrels of Oil sed	0.00						
	Free Stand	ing Fluid Only						
Length(Ft)	Width(Ft)	Depth(Ft)						
<u>30</u>	<u>128.000</u>	<u>0.042</u>						
Standin	g fluid	<u>28.685</u>						
Total fluid	ls spilled	28.685						

Spills In Line	d Containment
Measurements	Of Standing Fluid
Length (Ft)	125
Width(Ft)	22
Depth(in.)	2
Total Capacity without tank displacements (bbls)	81.63
No. of 500 bbl Tanks In Standing Fluid	5
No. of Other Tanks In Standing Fluid	0
OD Of Other Tanks In Standing Fluid(feet)	
Total Volume of standing fluid accounting for tank displacement.	53.64



Incident Number: nAPP2319260257

Release Assessment and Closure

Red Bull 29 Federal #1H Section 29, Township 23 South, Range 35 East County: Lea Vertex File Number: 23E-04311

Prepared for: Devon Energy Production Company, LP

Prepared by: Vertex Resource Services Inc.

Date: February 2024 Devon Energy Production Company, LP Red Bull 29 Federal #1H

Release Assessment and Closure Red Bull 29 Federal #1H Section 29, Township 23 South, Range 35 East County: Lea

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

New Mexico Oil Conservation Division – District 1 1625 N. French Drive Hobbs, New Mexico 88240

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

<u>Stephanie McCarty</u>

Stephanie McCarty, B.Sc. U ENVIRONMENTAL TECHINICIAN, REPORTING February 7, 2024

Date

kent stallings P.G.

Kent Stallings, P.G. PROJECT MANAGER, REPORT REVIEW Date

February 8, 2024

Devon Energy Production Company, L	P
Red Bull 29 Federal #1H	

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Devon Energy Production Company, LP

Red Bull 29 Federal #1H

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- Appendix B. Closure Criteria Research Documentation
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- Appendix E. Laboratory Data Reports and Chain of Custody Forms
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Devon Energy Production Company, LP Red Bull 29 Federal #1H

1.0 Introduction

Devon Energy Production Company, LP (Devon) retained Vertex Resource Services Inc. (Vertex) to conduct a Release Assessment and Closure for a produced water release that occurred on July 11, 2023, at Red Bull 29 Federal #1H (hereafter referred to as the "site"). Devon submitted a notice of release on July 11, 2023, and an initial C-141 Release Notification (Appendix A) to New Mexico Oil Conservation Division (NMOCD) District 1 on July 26, 2023. Incident ID number nAPP2319260257 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 the release site 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 release occurred on July 11, 2023, when tanks lost communication, overflowing and releasing produced water within containment and onto the pad. The incident was reported on July 26, 2023, and involved the release of 83 barrels (bbl.) of produced water. During the initial clean-up, 82 bbl. of produced water were recovered, and 1 bbl. remained on location. Additional details relevant to the release are presented in the C-141 Report (Appendix A).

Please note a discrepancy on the notice of release which indicates the incident involved the release and loss of 28 bbl. of produced water with an "estimated 13 bbl. making it to the pad." The initial C-141 indicates the indicates the incident release involved the release of 83 bbl. of produced water and recovery of 82 bbl. Based on field observations, sampling and permit information per NMOCD permitting search website, emnrd.nm.gov, Vertex determined the correct release area.

3.0 Site Characteristics

The site is located approximately 16 miles southwest of Jal, New Mexico at, 32.281725° N, 103.396954° W (Google Inc., 2023). The legal location for the site is Section 29, Township 23 South and Range 35 East in Lea County, New Mexico. The release area is located on private property. An aerial photograph and characterization sampling site schematic is 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. The following sections specifically describe the release area at the site or in proximity to the constructed pad (Figure 1).

The *Geological Map of New Mexico* (New Mexico Bureau of Geology and Mineral Resources, 2023) indicates the surface geology at the site primarily comprises Qoa – older alluvium deposits of upland plains and piedmont areas, and calcic soils and eolian cover sediments of High Plains region (middle to lower Pleistocene). The soil at the site is characterized as Simona fine sandy loam (United States Department of Agriculture, Natural Resources Conservation Service, 2023).

Release Assessment and Closure February 2024

Additional soil characteristics include well drained soil with very high runoff and very low available moisture levels in the soil profile. The karst geology potential for the site is low (United States Department of the Interior, Bureau of Land Management, 2018).

The surrounding landscape is associated with uplands landforms, plains, dunes, fan piedmont and inter dune areas, where low stabilized dunes may occasionally occur, at elevations of 2,842 to 4,500 feet above sea level. The climate is semi-arid 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. Black grama (*Bouteloua eriopoda*) dominates the historical plant community in this area. Fire suppression, overgrazing and extended drought can reduce the black grama grass cover, increasing shrub dispersal of the mesquite and creosote bush sparsely dotted in this historical grassland community (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.

4.0 Closure Criteria Determination

The nearest well within 0.5 mile to the site, C-01984 POD-1, was drilled on January 19, 2024, as a local depth to groundwater reference. It is located approximately 0.34 miles southwest of the site.

The depth to groundwater was determined by drilling a borehole permitted by the New Mexico Office of the State Engineer (NMOSE) within a 0.5 mile radius of the site. The borehole was advanced to a depth of 105 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 a 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 WR-08 permit, Well Plugging Plan of Operations, filed with NMOSE. Documentation related to the exploratory borehole is included in Appendix F.

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. It is identified in the National Wetlands Inventory approximately 1.1 miles north 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. The closure criteria research documentation is included in Appendix B.

Release Assessment and Closure February 2024

Table 1.	Table 1. Closure Criteria Determination							
Site Name	e: Red Bull 29 Fed 1H	I						
Spill Coor	dinates: 32.28172539,-103.3969538	X: UTM 650960	Y: UTM 3572792					
Site Speci	fic Conditions	Value	Unit					
	Depth to Groundwater (nearest reference)	>105	feet					
1	Distance between release and nearest DTGW	1,780	feet					
	reference	0.34	miles					
	Date of nearest DTGW reference measurement	Janauary	19, 2024					
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	8,569	feet					
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	9,213	feet					
4	Within 300 feet from an occupied residence, school, hospital, institution or church	25,640	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	16,229	feet					
	ii) Within 1000 feet of any fresh water well or spring	-	feet					
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)					
7	Within 300 feet of a wetland	7,547	feet					
	Within the area overlying a subsurface mine	No	(Y/N)					
8	Distance between release and nearest registered mine	153,435	feet					
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low					
	Distance between release and nearest unstable area	120,067	feet					
	Within a 100-year Floodplain	500	year					
10	Distance between release and nearest FEMA Zone A (100-year Floodplain)	84,745	feet					
11	Soil Type Simona fine sandy loam							
12	Ecological Classification	shallov	v sands					
13	Geology	Q	oa					
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	>100'	<50' 51-100' >100'					

VERSATILITY. EXPERTISE.

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Red Bull 29 Federal #1H

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		
	Chloride	20,000 mg/kg		
	TPH (GRO+DRO+MRO)	2,500 mg/kg		
> 100 feet	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 completed on July 18, 2023, and characterization was concluded on July 26, 2023, which identified the area of the release specified in the initial C-141 Report. During characterization of the site, vertical assessment was difficult to attain due to the indurated caliche layer that occurs at depths of 6 to 25 inches in the impacted area (United States Department of Agriculture, Natural Resources Conservation Service, 2023). The impacted area and impacted area per closure criteria was determined to be approximately 114 feet long and 95 feet wide; the total affected area was 3,205 square feet.

Remediation efforts began on October 25, 2023, and were finalized on November 29, 2023. Vertex personnel supervised the excavation of impacted soils. Field screening was conducted and consisted of analysis using a Photo Ionization Detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and electroconductivity meter (chlorides). Field screening results were used to identify areas requiring further remediation. Characterization results are summarized in Table 3. Confirmation laboratory results are summarized in Table 4, and an excavation and confirmation sampling site schematic is presented on Figure 2. Sampling and Daily Field Reports (DFRs) documenting various phases of the remediation are included in Appendix C.

Notification that a liner inspection was scheduled to be completed was provided to the NMOCD on November 1, 2023. Visual observation of the liner was completed on all sides and the base of the containment, around equipment, and of all seams in the liner. As evidenced in the DFR (Appendix C), liner integrity was confirmed. The Liner Inspection Notification email is presented in Appendix D.

Notification that confirmatory samples were being collected was provided to the NMOCD on October 24, and November 6 and 27, 2023 (Appendix D). Confirmatory composite samples were collected from the base and walls of the excavation in 200 square foot increments. A total of 37 samples were collected for laboratory analysis following NMOCD soil sampling procedures. Samples were submitted to Hall Environmental Analysis Laboratory, now Eurofins

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Devon Energy Production Company, LP Red Bull 29 Federal #1H

Environmental Testing South Central, in Albuquerque, New Mexico, under chain-of-custody protocols and analyzed for BTEX (EPA Method 8021B), total petroleum hydrocarbons (GRO, DRO, MRO – EPA Method 8015D) and total chlorides (EPA Method 300.0). Laboratory results are presented in Table 4, and the laboratory data reports are included in Appendix E. 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. 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 location where depth to ground water is greater than 100 feet bgs. Based on these findings, Devon 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.

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7.0 References

Google Inc. (2023). Google Earth Pro (Version 7.3.3) [Software]. Retrieved from https://earth.google.com

- New Mexico Bureau of Geology and Mineral Resources. (2023). *Interactive Geologic Map*. Retrieved from https://maps.nmt.edu/
- New Mexico Department of Surface Water Quality Bureau. (2023). Assessed and Impaired Waters of New Mexico. Retrieved from https://gis.web.env.nm.gov/oem/?map=swqb
- New Mexico Energy, Minerals and Natural Resources Department. (2023). OCD Permitting Spill Search. Retrieved from https://wwwapps.emnrd.nm.gov/ocd/ocdpermitting/Data/Spills/Spills.aspx
- New Mexico Mining and Minerals Division. (2023). *Coal Mine Resources in New Mexico*. Retrieved from https://nmemnrd.maps.arcgis.com/apps/webappviewer/index.html?id=5f80f3b0faa545e58fe747cc7b037a93
- New Mexico Office of the State Engineer. (2023a). *Point of Diversion Location Report New Mexico Water Rights Reporting System*. Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/wellSurfaceDiversion.html
- New Mexico Office of the State Engineer. (2023b). Water Column/Average Depth to Water Report New Mexico Water Rights Reporting System. Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html
- New Mexico Office of the State Engineer. (2023c). Well Log/Meter Information Report New Mexico Water Rights Reporting System. Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/meterReport.html
- New Mexico Oil Conservation Division. (2018). New Mexico Administrative Code Natural Resources and Wildlife Oil and Gas Releases. Santa Fe, New Mexico.
- United States Department of Agriculture, Natural Resources Conservation Service. (2023). *Web Soil Survey*. Retrieved from https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx
- United States Department of Homeland Security, Federal Emergency Management Agency. (2023). FEMA Flood Map Service: Search by Address. Retrieved from https://msc.fema.gov/portal/search?AddressQuery=malaga% 20new%20mexico#searchresultsanchor
- United States Department of the Interior, Bureau of Land Management. (2018). *New Mexico Cave/Karst*. Retrieved from https://www.nm.blm.gov/shapeFiles/cfo/carlsbad_spatial_data.html
- United States Fish and Wildlife Service. (2023). *National Wetland Inventory Surface Waters and Wetlands*. Retrieved from https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/
- United States Geological Survey. (2023). National Water Information System: Web Interface. Retrieved from https://waterdata.usgs.gov/nwis

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Devon Energy Production Company, LP Red Bull 29 Federal #1H

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, 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





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TABLES

Client Name: Devon Energy Production Company, LP Site Name: Red Bull 29 Federal 1H NMOCD Tracking #: nAPP2319260257 Project #: 23E-04311 Lab Report: 2307D90

Table 3. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater >100 feet bgs													
Sample Description			Fi	eld Screeni	ng								
			10			Vol	Volatile Extractable						Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compound: (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	July 26, 2023	1	204	6,284	ND	ND	ND	1/0	78	1/0	250	9100
	1.5	July 26, 2023	0	74	144	ND	ND	ND	1/		1/	1/	270
BH23-02	0	July 26, 2023	9	-	11,439	ND	ND	6	3800	1/00	3806	5506	16000
	1	July 26, 2023	2	286	3,218	ND	ND	ND	230	120	230	350	4000
BH23-03	0	July 26, 2023	1	22	0	ND	ND	ND	ND	ND	ND	ND	120
	1	July 26, 2023	0	29	0	ND	ND	ND	ND	ND	ND	ND	83
BH23-04	0	July 26, 2023	1	98	365	ND	ND	ND	ND	ND	ND	ND	1100
	1	July 26, 2023	69	69	47	ND	ND	ND	ND	ND	ND	ND	280
BH23-05	0	July 26, 2023	0	52	28	ND	ND	ND	ND	ND	ND	ND	240
	1	July 26, 2023	0	30	0	ND	ND	ND	ND	ND	ND	ND	110
BH23-06	0	July 26, 2023	0	45	0	ND	ND	ND	ND	ND	ND	ND	120
51120 00	1	July 26, 2023	0	25	0	ND	ND	ND	ND	ND	ND	ND	ND
BH23-07	0	July 26, 2023	0	33	0	ND	ND	ND	ND	ND	ND	ND	72
225 07	1	July 26, 2023	0	30	0	ND	ND	ND	ND	ND	ND	ND	ND
BH23-08	0	July 26, 2023	0	30	0	ND	ND	ND	ND	ND	ND	ND	110
BH23-08	0.5	1.1.2.2022	0	26	· ·		ND	ND			ND	ND	60

"ND" Not Detected at the Reporting Limit

"-" indicates not analyzed/assessed

Bold and grey shaded indicates exceedance outside of NMOCD Closure Criteria (on-pad)

Bold and green shaded indicates exceedance outside of NMOCD Reclamation Criteria (off-pad)



Client Name: Devon Energy Production Company, LP Site Name: Red Bull 29 Federal 1H NMOCD Tracking #: nAPP2319260257 Project #: 23E-04311 Lab Reports: 2310E28, 2311071, 2311274, 2311546 and 2312014

Table 4. Confirmation Sample Field Screen and Laboratory Results - Depth to Groundwater >100 feet bgs													
Sample Description Field Se					ng	Petroleum Hydrocarbons							
			s			Vol	atile			Extractable			Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compound: (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)
WES23-01	0 - 1	October 31, 2023	0	112	751	ND	ND	ND	55	48	55	103	500
WES23-02	0 - 1	October 31, 2023	0	287	1,288	ND	ND	ND	270	230	270	500	1500
WES23-03	0 - 1	October 31, 2023	0	605	301	ND	ND	ND	210	260	210	470	140
WES23-04	0 - 1	October 31, 2023	0	167	584	ND	ND	ND	45	120	45	165	520
WES23-05	0 - 0.5	November 3, 2023	1	219	1,606	ND	ND	ND	16	ND	16	16	1400
WES23-06	0 - 0.5	November 3, 2023	1	851	2,693	ND	ND	ND	520	360	520	880	3200
WES23-07	0 - 1	November 3, 2023	1	436	187	ND	ND	ND	210	140	210	350	140
WES23-08	0 - 1	October 27, 2023	-	>2000	-	ND	ND	ND	520	450	520	970	560
WES23-09	0 - 1.5	November 29, 2023	-	159	476	ND	ND	ND	50	56	50	106	180
BES23-01	1	October 27, 2023	0	167	425	ND	ND	ND	87	82	87	169	470
BES23-02	1	October 27, 2023	0	488	2,820	ND	ND	ND	310	230	310	540	3400
BES23-03	1	October 27, 2023	0	689	7,100	ND	ND	ND	660	430	660	1090	9300
BES23-04	1	October 27, 2023	0	310	7,050	ND	ND	ND	150	110	150	260	7700
BES23-05	1	October 27, 2023	0	32	7,625	ND	ND	ND	210	160	210	370	9700
BES23-06	1	October 27, 2023	0	466	2,188	ND	ND	ND	320	260	320	580	2300
BES23-07	1	October 27, 2023	0	537	1,780	ND	ND	ND	370	320	370	690	1800
BES23-08	1	October 27, 2023	1	267	1,860	ND	ND	ND	520	450	520	970	560
BES23-09	1	October 31, 2023	1	868	1,649	ND	ND	ND	730	700	730	1430	2300
BES23-10	1	October 31, 2023	0	546	5,878	ND	ND	ND	550	330	550	880	8900
BES23-11	1	October 31, 2023	0	200	5,412	ND	ND	ND	36	30	36	66	8300
BES22-12	1	October 31, 2023	0	962	292	ND	ND	ND	1300	1000	1300	2300	140
BL323-12	1.5	November 29, 2023	-	40	555	ND	ND	ND	16	ND	16	16	240
BES23-13	1	October 31, 2023	0	1,028	629	ND	ND	ND	870	870	870	1740	380
BES23-14	1	October 31, 2023	0	254	1,109	ND	ND	ND	180	180	180	360	1400
BES23-15	1	October 31, 2023	0	868	536	ND	ND	ND	790	560	790	1350	300
BES23-16	1	October 31, 2023	0	341	323	ND	ND	ND	300	290	300	590	170
BES23-17	1	October 31, 2023	0	852	375	ND	ND	ND	520	420	520	940	170
BES23-18	1	October 31, 2023	0	430	261	ND	ND	ND	270	480	270	750	120
BES23-19	0.5	November 3, 2023	1	254	1,392	ND	ND	ND	190	200	190	390	1100
BES23-20	0.5	November 3, 2023	8	861	8,949	ND	ND	ND	920	500	920	1420	11000
BES23-21	1	November 3, 2023	9	887	1,539	ND	ND	ND	660	350	660	1010	2000
BES23-22	1	November 3, 2023	48	716	1,583	ND	ND	ND	720	340	720	1060	1800
BES23-23	1.5	November 29, 2023	-	120	526	ND	ND	ND	50	51	50	101	230
BES23-24	1	November 8, 2023	-	815	2,299	ND	ND	ND	330	220	330	550	2600
BES23-25	1	November 8, 2023	-	327	253	ND	ND	ND	180	130	180	310	290
BES23-26	1	November 8, 2023	-	259	6,758	ND	ND	ND	53	ND	53	53	6700
BES23-27	1	November 8, 2023	-	249	5,751	ND	ND	ND	44	ND	44	44	8800

"ND" Not Detected at the Reporting Limit

"-" indicates not analyzed/assessed Bold and grey shaded indicates exceedance outside of NMOCD Closure Criteria (on-pad)

Bold and green shaded indicates exceedance outside of NMOCD Reclamation Criteria (off-pad)



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APPENDIX A - NMOCD C-141 Report

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

State of New Mexico Energy Minerals and Natural **Resources Department**

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

Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

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Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Longitude

~:) I		
	(NAD 83 in decimal deg	grees to 5 decimal places)
Latitude		Longitude

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: State Federal Tribal Private (Name: _

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

Page	2
B-	_

Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release?
Yes No	
If YES, was immediate n	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

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.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

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

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.

Printed Name:	Title:
Signature: Kendra Ruiz	Date:
email:	Telephone:
OCD Only	
Received by: <u>Shelly Wells</u>	Date: <u>7/27/2023</u>

<u>Sp</u>	ill Volume(Bbl	s) Calculator		
lr.	nputs in blue, O	utputs in red		
Co	ntaminated Soil	measurement		
Length(Ft)	Width(Ft)	Depth(Ft)		
Cubic Feet of	Soil Impacted	0.000		
Barrels of Sc	il Impacted	0.00		
Soil	Гуре	Clay/Sand		
Barrels of Oil Assuming 100% Saturation		0.00		
Saturation	Fluid present	ent with shovel/backhoe		
Estimated Barrels of Oil Released		0.00		
	Free Standing F	Fluid Only		
Length(Ft)	Width(Ft)	Depth(Ft)		
<u>30</u>	128.000	0.042		
Standing fluid		<u>28.685</u>		
Total fluid	ds spilled	28.685		

Spills In Line	d Containment		
Measurements	Of Standing Fluid		
Length (Ft)	125		
Width(Ft)	22		
Depth(in.)	2		
Total Capacity without tank displacements (bbls)	81.63		
No. of 500 bbl Tanks In Standing Fluid	5		
No. of Other Tanks In Standing Fluid	0		
OD Of Other Tanks In Standing Fluid(feet)			
Total Volume of standing fluid accounting for tank displacement.	53.64		

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410

Phone:(505) 334-6178 Fax:(505) 334-6170 District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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

CONDITIONS

Operator:	OGRID:	
DEVON ENERGY PRODUCTION COMPANY, LP	6137	
333 West Sheridan Ave.	Action Number:	
Oklahoma City, OK 73102	244510	
	Action Type:	
	[C-141] Release Corrective Action (C-141)	

CONDITIONS

Created By Condition scwells None

CONDITIONS

Action 244510

Condition Date

7/27/2023

Oil Conservation Division

	Page 24 of 2	51
Incident ID	nAPP2319260257	
District RP		
Facility ID		
Application ID		

Site Assessment/Characterization

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?	<u><50</u> (ft bgs)
Did this release impact groundwater or surface water?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	🗌 Yes 🛛 No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	🗌 Yes 🛛 No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	🗌 Yes 🛛 No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	🗌 Yes 🛛 No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	🗌 Yes 🛛 No
Are the lateral extents of the release within 300 feet of a wetland?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying a subsurface mine?	🗌 Yes 🛛 No
Are the lateral extents of the release overlying an unstable area such as karst geology?	🗌 Yes 🛛 No
Are the lateral extents of the release within a 100-year floodplain?	🗌 Yes 🛛 No
Did the release impact areas not on an exploration, development, production, or storage site?	🗌 Yes 🔀 No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

<u>Characterization Report Checklist</u>: Each of the following items must be included in the report.

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- \square Depth to water determination
- Determination of water sources and significant watercourses within ¹/₂-mile of the lateral extents of the release
- \boxtimes Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Received by OCD: 2/8/2024	9:56:02 AMAM			Page 25 of 251
Form C-141	State of New Mexico		Incident ID	nAPP2319260257
Page 4	Oil Conservation Division		District RP	
			Facility ID	
			Application ID	
I hereby certify that the inform regulations all operators are re- public health or the environm failed to adequately investiga addition, OCD acceptance of and/or regulations. Printed Name: <u>Dale</u> Signature: <u>Dale</u> <u>War</u> email: <u>dale.woodall</u>	mation given above is true and complete to the equired to report and/or file certain release not ent. The acceptance of a C-141 report by the te and remediate contamination that pose a thr a C-141 report does not relieve the operator of <u>woodall</u> <u>woodall</u> <u>@dvn.com</u>	best of my knowledg tifications and perform OCD does not relieve reat to groundwater, su f responsibility for con Title: <u>En</u> Date: <u>10/16/202</u> Telephone: <u></u>	e and understand that purs corrective actions for rele the operator of liability sh rface water, human health apliance with any other fe v. Professional	uant to OCD rules and eases which may endanger ould their operations have or the environment. In deral, state, or local laws
Received by: <u>Shelly Wells</u>		Date: <u>10/</u>	16/2023	

Received by OCD: 2/8/2024 9:56:02 AMAM Form C-1+1 State of New Mexico

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Oil Conservation Division

Remediation Plan Checklist: Each of the following items must be included in the plan.

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Incident ID	nAPP2319260257	
District RP		
Facility ID		
Application ID		

Remediation Plan

Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required) Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation. Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction. Extents of contamination must be fully delineated. Contamination does not cause an imminent risk to human health, the environment, or groundwater. 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. Printed Name: Dale Woodall Title: Env. Professional Signature: Dale Woodall Date: 10/16/2023 email: <u>dale.woodall@dvn.com</u>_____ Telephone: <u>575-748-1838</u> OCD Only Date: <u>10/16/2023</u> Received by: <u>Shelly Wells</u> Approved Approved with Attached Conditions of Approval Denied Deferral Approved Signature: Date:

Remediation plan conditionally approved with the following:

1. If exploratory boring to determine depth tho water is not advanced within 0.5 miles from the release, then the closure standard will be gw<50 ft. below grade. Keep in mind, the boring location should be as close to the point of release as possible.

2. Devon has 90-days (May 2, 2024) to submit its appropriate or final remediation closure report.

Page 6

Oil Conservation Division

Incident ID	nAPP2319260257
District RP	
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Application ID	

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Closure

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 (electronic submittals in .pdf format are preferred) 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.

Closure Report Attachment Checklist: Each of the following items must be included in the closure report. A scaled site and sampling diagram as described in 19.15.29.11 NMAC Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection) Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling) Description of remediation activities 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. Printed Name: _____Dale Woodall ______ Title: ____Env. Professional ______ Signature: Date: email: dale.woodall@dvn.com Telephone: 575-748-1838 **OCD Only** Received by: Date: Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:	Date:
Printed Name:	Title:

APPENDIX B – Closure Criteria Research Documentation

•

Closure Cr	iteria Determination					
Site Name	: Ked Bull 29 Fed 1H linator: 22 29172520, 102 2050529		V. 11TM 2572702			
Site Specif	in Conditions	X. UTIVI 050900 Value	1. UTIVI 3372792			
Site Speci	Denth to Groundwater (nearest reference)	>105	feet			
		1 780	feet			
1	Distance between release and nearest DTGW reference	0.34	miles			
	Date of nearest DTGW reference measurement	Janauary 19, 2024				
2	Within 300 feet of any continuously flowing watercourse	8,569	feet			
2	Within 200 feet of any lakebed, sinkhole or playa lake	0.212	feet			
3	(measured from the ordinary high-water mark)	9,213	reet			
4	hospital, institution or church	25,640	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 	16,229	feet			
	ii) Within 1000 feet of any fresh water well or spring	-	feet			
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)			
7	Within 300 feet of a wetland	7,547	feet			
	Within the area overlying a subsurface mine	No	(Y/N)			
8	Distance between release and nearest registered mine	153,435	feet			
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low			
	Distance between release and nearest unstable area	120,067	feet			
	Within a 100-year Floodplain	500	year			
10	Distance between release and nearest FEMA Zone A (100 year Floodplain)	. 84,745	feet			
11	Soil Type	Simona fine	sandy loam			
12	Ecological Classification	shallov	v sands			
13	Geology	Q	0a			
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	>100'	<50' 51-100' >100'			



New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	(R=POD replaced, O=orphan C=the file closed)	has been ned, e is	l	((qua (qua	rte	rs are rs are	1=NV smalle	V 2=NE est to la	2 3=SW 4=SI rgest) (N	E) IAD83 UTM in n	neters)	(In f	eet)	
		POD Sub-		Q	Q	Q								W	ater
POD Number	Code	basin	County	64	16	4	Sec	Tws	Rng	X	Y	DistanceDeptl	1WellDept	hWater Co	lumn
<u>CP 00614 POD2</u>		СР	LE	4	3	3	29	238	35E	651102	35/1401	1398	440	320	120
<u>CP 01099 POD3</u>		СР	LE	1	1	1	28	23S	35E	652478	3572932 🌍	1524	930	725	205
<u>CP 01099 POD2</u>		СР	LE	3	3	3	21	23S	35E	652968	3572750 🤤	2008	750	120	630
<u>CP 01100 POD3</u>		СР	LE	3	2	1	28	23S	35E	652987	3572726 🌍	2028	950	730	220
<u>CP 01100 POD2</u>		СР	LE		2	1	28	23S	35E	652995	3572726 🌍	2036	750	125	625
<u>CP 01830 POD1</u>		СР	LE	3	3	3	18	238	35E	649289	3574568 🌍	2439	460	270	190
<u>CP 00580</u>		СР	LE	3	4	3	23	23S	34E	646524	3572948* 🌍	4438	220		
<u>CP 00606</u>		СР	LE		4	1	23	23S	34E	646613	3573854* 🌍	4474	650	265	385
<u>CP 00499</u>		СР	LE		3	3	23	238	35E	655875	3573194* 🌍	4931	150		
<u>CP 01120 POD1</u>		СР	LE	2	3	3	14	23S	34E	646366	3574753 🌍	4994	397	318	79
											Avera	ge Depth to Water:		359 fee	t
												Minimum Dept	a:	120 fee	t
												Maximum Depth	ι:	730 fee	t
Record Count: 10															
UTMNAD83 Radius	<u>Search (in</u>	<u>meters)</u>	<u>:</u>												
Easting (X): 650	960		North	ning	; (Y):	3572	2792			Radius: 5000				
*UTM location was derived	from PLSS -	see Help													

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

7/19/23 9:44 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Received by OCD: 2/8/2024 9:56:02 AM Red Bull 29 Federal 1H OSE CP-01984 POD1 Map



2/7/2024, 12:55:17 PM

 Override 1
 Inactive
 Artesian Planning Area

 GIS WATERS PODs
 Inactive
 NHD Flowlines

 Active
 Water Right Regulations
 Stream River

 Pending
 Closure Area



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

<i>ceived by OCD:</i> Owner's Name:	2/8/2024 9:56:02 5TANDA K	AM ?1) SAFETY	Owner We	##:RED BUL	L	Page 32
Owners Street o	or		Latit	ude: 72.280832		
Owners City:	•		Longit	ude: -103,402796	alığışın kerşiyarğı denmi mensen kerşiş	
Owners State:		-	Eleva	tion:		1
Owners Zip Code:			GPS Brand U	sed: GARMIN / MAG	GELLAN	
Wells Street or RFD:	22 MILES 5	OF NELAWA	RE BASIN RU (circ	of Work: le one) New W	ell	
Well County:	LEA			Deepen	ing	
Well's City:				Record	itionino	
Well's Zip Code	ə:			Replace	ement	
Proposed Use (circle one)	: Mon Indus	itor trial Il Soil Boring	Irrigation Public Supply Domestic	Geothermal Heat Loop Test well Rig Supply	If public su were plans	ppiy approved
	De-Wa	tering	Injection	Stock	Yes	No
Diameter of Hol	le: 6.24	in.	From: 0	To:F		
Diameter of Hol	le:	in.	From:	To:		
Diameter of Hol	le:	in.	From:	10:		
5. pet		Descri	ption & color of format	ion materials		
erom O	10	CAL	CHI PAD	Description		
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Borehole Completion: (circle one)	C Un	open Hole derreamed	Str	aight Wa	d: from:	t	0:	with:	
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	Mayor	Sheel Plantin Deat. Co	ing, Blank	Pipe & V	ven Screen Data:				
Dia (in)	Used	Mig., if comm	ercial	Fron		Gauge Casi	ng Screen		
Annular Seal	From	fi mber of sacks & r	To:	d:	ft. PLVGGED	52 HAGS HO	DIE PW	6	
Data:	From Nu	Fromft. To:ft. Number of sacks & material used:							
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			10.1.1						
Distance to Septic	c Field of i	other Concentrate	d Contamin	ation					
Distance to Prope	rty Line:				Method of Verifica	ation:			
Surface Comp	letion:	Surface Slab I	nstalled		Surface	Sleeve Installed			
(chicle one	e)	Pitless Adapte	er Used		Alternativ	e Procedure Use	d		
Static Level below	e)	Pitless Adapte	er Used	0	Alternativ	re Procedure Use	d	an	
Static Level below	e) v land surf	Pitless Adapte	er Used	fl.	Alternativ Date:	ve Procedure Use	d		
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Static Level below Artesian Flow: Packers	e) v land surf	Pitless Adapte	er Used GPM	ft. oth	Alternativ Date: Was Chemical a	re Procedure Use analysis made:	Yes	No	
Static Level below Artesian Flow: Packers	e) v land surf	Pitless Adapte	GPM	fl. oth	Alternativ Date: Was Chemical a Did you knowingly p which contains undes	re Procedure Use analysis made: enetrate any strata irable constituents?:	Yes Yes	No	
Static Level below Artesian Flow: Packers	e) v land surf	Pitless Adapte	GPM	ft. oth	Alternativ Date: Was Chemical a Did you knowingly p which contains undes Cement/Bento	re Procedure Use analysis made: enetrate any strata irable constiluents?:	Yes Yes Yes	No	
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DRILLING FL	RILLING FLUID: AIR MID ADDITIVES – SPECIFY:										
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WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

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U.S. Fish and Wildlife Service

National Wetlands Inventory

02 - Watercourse - Red Bull 29 Fed 1H 8,569 feet away (1.62 miles)



 July 19, 2023
 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.

 Estuarine and Marine Deepwater
 Freshwater Forested/Shrub Wetland
 Other

 Estuarine and Marine Wetland
 Freshwater Pond
 Riverine

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

10/2021 0.56.02 AM Received by OCD: **U.S. Fish and Wildlife Service**

National Wetlands Inventory

03 - Lakebed - Red Bull 29 Fed 1H 9,213 feet away (1.74 miles)



Wetlands

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

Lake Other Riverine 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.

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WATER RIGHT SUMMARY





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U.S. Fish and Wildlife Service National Wetlands Inventory

07 - Wetland - Red Bull 29 Fed 1H 7,547 feet away (1.43 miles)



Wetlands

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

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

Red Bull 29 Federal 1H Mine 153,435 ft



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Registered Mines

- * Aggregate, Stone etc.
- * Aggregate, Stone etc.
- * Aggregate, Stone etc.
- Industrial Minerals (Other)







U.S. BLM, Esri, NASA, NGA, USGS, New Mexico State University, Texas Parks & Wildlife, CONANP, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, BLM

EMNRD MMD GIS Coordinator

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



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Distance to Nearest High Karst area: 120,067 feet 22.74 miles Legend Page 47 of 251

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Legend

Page 48 of 251



Basemap Imagery Source: USGS National Map 2023

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Distance to Nearest Zone A Flood Plain: 84,754 feet 16 miles Legend Page 49 of 251 Red Bull 29 Federal 1 H

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United States Department of Agriculture

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 Lea County, New Mexico



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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Soil Map (Red Bull 29 Federal #1H)	9
Legend	10
Map Unit Legend (Red Bull 29 Federal #1H)	11
Map Unit Descriptions (Red Bull 29 Federal #1H)	11
Lea County, New Mexico	
SE—Simona fine sandy loam, 0 to 3 percent slopes	
References	15

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

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Custom Soil Resource Report

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.

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MAP L	EGEND	MAP INFORMATION		
Area of Interest (AOI) △ △ Area of Interest (AOI) △ Soil Map Unit Polygons △ ○ Soil Map Unit Points ○ Soil Map Unit Points ○ Borrow Pit ○ ○ ○ <th>EGENDImage: Spoil AreaImage: Spoil</th> <th colspan="3">MAP INFORMATION The soil surveys that comprise your AOI were mapped at 1:20,000. Warning: Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale. Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG: 3857)</th>	EGENDImage: Spoil AreaImage: Spoil	MAP INFORMATION The soil surveys that comprise your AOI were mapped at 1:20,000. Warning: Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale. Please rely on the bar scale on each map sheet for map measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG: 3857)		
 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 	Local Roads Background Aerial Photography	 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: Lea County, New Mexico Survey Area Data: Version 20, Sep 6, 2023 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 imagery displayed on these maps. As a result, some minor 		

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Map Unit Legend (Red Bull 29 Federal #1H)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
SE	Simona fine sandy loam, 0 to 3 percent slopes	3.4	100.0%
Totals for Area of Interest	·	3.4	100.0%

Map Unit Descriptions (Red Bull 29 Federal #1H)

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.

Lea County, New Mexico

SE—Simona fine sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: dmr2 Elevation: 3,000 to 4,200 feet Mean annual precipitation: 10 to 15 inches Mean annual air temperature: 58 to 62 degrees F Frost-free period: 190 to 205 days Farmland classification: Not prime farmland

Map Unit Composition

Simona and similar soils: 85 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Simona

Setting

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

Typical profile

A - 0 to 8 inches: fine sandy loam Bk - 8 to 16 inches: gravelly fine sandy loam Bkm - 16 to 26 inches: cemented material

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: 35 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: Very low (about 2.0 inches)

Interpretive groups

Land capability classification (irrigated): 6s Land capability classification (nonirrigated): 7s Hydrologic Soil Group: D Ecological site: R070BD002NM - Shallow Sandy Hydric soil rating: No

Custom Soil Resource Report

Minor Components

Kimbrough

Percent of map unit: 8 percent Ecological site: R077CY037TX - Very Shallow 16-21" PZ Hydric soil rating: No

Lea

Percent of map unit: 7 percent *Ecological site:* R077CY028TX - Limy Upland 16-21" PZ *Hydric soil rating:* No

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/ nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/ home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/ detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/ nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/? cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Conservation Service

USDA Natural Resources

Ecological site R070BD002NM Shallow Sandy

Accessed: 10/02/2023

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.

Associated sites

R070BD004NM	Sandy	
	Sandy sites often occur in association or in a complex with Shallow Sandy Sites.	

Similar sites

R070BD004NM	Sandy
	Sandy ecological sites are similar to Shallow Sandy sites in species composition and Transition pathways.

Table 1. Dominant plant species

Tree	Not specified		
Shrub	Not specified		
Herbaceous	Not specified		

Physiographic features

This site occures on plains, alluvial fans, uplands, or fan piedmonts. The parent material consists of mixed loamy alluvium or eolian material derived from igneous and sedimentory bedrock. The petrocalcic layer is at a depth of 10 to 25 inches and undulating.

Slopes are nearly level to undulating, usually less than 9 percent. Elevations range from 2,842 to 4,500 feet.

Table 2. Representative physiographic features

Landforms	(1) Plain (2) Fan piedmont (3) Alluvial fan
Elevation	2,842–4,500 ft
Slope	1–9%
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 from 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.

Temperature and rainfall both favor warm season perennial plant growth. In years of abundant spring moisture, annual forbs and cool season grasses can make up an important component of the site. The vegetation of this site can take advantage of the moisture and the time it falls. Because of the soil profile, little moisture can be stored in the soil for any length of time. Moisture is readily available to the plants from the time it falls. Strong winds from the southwest blow from January through June which rapidly dries out the soil profile during a critical period for 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 very shallow to shallow, less than 20 inches in depth. Surface and subsurface textures are gravelly loamy sand, gravelly fine sandy loam or fine sandy loam.

An indurated calache layer occurs at depths of 6 to 25 inches and is at an average of 15 inches from the surface. Underlying material textures are very gravelly fine sandy loam, very gravelly sandy loam, gravelly fine sandy loam. Gravels are calcium carbonate concretions, calcium carbonate content ranges from 30 to 65 percent.

The indurated caliche layer typically holds water up in the profile for short periods within the root zone of plants. These soils will blow if left unprotected by vegetation.

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

Characteristic soils are: Simona Jerag

Table 4. Representative soil features

-	1		
Surface texture	(1) Fine sandy loam(2) Loamy fine sand(3) Gravelly fine sandy loam		
Family particle size	(1) Loamy		
Drainage class	Well drained to moderately well drained		
Permeability class	Moderately slow to moderate		

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Soil depth	7–24 in
Surface fragment cover <=3"	5–25%
Surface fragment cover >3"	0%
Available water capacity (0-40in)	1–2 in
Calcium carbonate equivalent (0-40in)	5–15%
Electrical conductivity (0-40in)	0–4 mmhos/cm
Sodium adsorption ratio (0-40in)	0
Soil reaction (1:1 water) (0-40in)	7.4–8
Subsurface fragment volume <=3" (Depth not specified)	5–25%
Subsurface fragment volume >3" (Depth not specified)	0%

Ecological dynamics

Overview

The Shallow Sandy site occurs on upland plains, and tops of low ridges and mesas, associated with Sandy, Loamy Sand, and Shallow sites. Coarse to moderately coarse soil surface textures, shallow depth (<20 inches) to an indurated caliche layer (petrocalcic horizon), and an overwhelming dominance by black grama help to distinguish this site. The historic plant community of the Shallow Sandy site is a black grama dominated grassland sparsely dotted with shrubs. Shrubs, especially mesquite and creosotebush can increase or colonize due to the dispersal of shrub seeds by livestock or wildlife. This increase in mesquite and colonization of creosotebush may be enhanced by proximity to areas with existing high shrub densities. Fire suppression, and the loss of grass cover due to overgrazing or drought may facilitate the increase and encroachment of shrubs. Persistent loss of grass cover, competition for resources by shrubs, and periods of climate with increased winter precipitation and dry summers, may initiate the transition to a shrub-dominated state.

State and transition model

Plant Communities and Transitional Pathways (diagram)



1a. Seed dispersal, drought, overgrazing, fire suppression.

1b. Prescribed fire, brush control, prescribed grazing.

2. Persistent loss of grass cover, resource competition, increased winter precipitation.

3. Brush control, range seeding, prescribed grazing,

State 1 Historic Climax Plant Community

Community 1.1 Historic Climax Plant Community

Grassland: This site responds well to management and is resistant to state change, due to the shallow depth to petrocalcic horizon and sandy surface textures. The sandy surface textures allow rapid water infiltration and the petrocalcic horizon helps to keep water perched and available to shallow rooted grasses. Black grama is the dominant species in the historic plant community, averaging 50 to 60 percent of the total production for this site. Bush muhly, blue grama, and dropseeds are present as sub-dominants. Typically, yucca, javalinabush, range ratany, prickly pear, and mesquite are sparsely dotted across the landscape. Leatherweed croton, cutleaf

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happlopappus, wooly groundsel, and threadleaf groundsel are common forbs. Continuous heavy grazing or extended periods of drought will cause a loss of grass cover characterized by a decrease in black grama, bush muhly, blue and sideoats grama, plains bristlegrass, and Arizona cottontop. Dropseeds and or threeawns may increase and become sub-dominant to black grama. Continued loss of grass cover in conjunction with dispersal of shrubs seeds and fire suppression is believed to cause the transition to a state with increased amounts of shrubs (Grass/Shrub state). Diagnosis: Black grama is the dominant grass species. Grass cover uniformly distributed. Shrubs are a minor component averaging only two to five percent canopy cover. Litter cover is high (40-50 percent of area), and litter movement is limited to smaller size class litter and short distances (<. 5m). Other grasses that could appear on this site would include: six-weeks grama, fluffgrass, false-buffalograss, hairy grama, little bluestem, bristle panicum, cane bluestem, Indian ricegrass, tridens spp., and red lovegrass. Other woody plants include: pricklypear, cholla, fourwing saltbush, catclaw mimosa, winterfat, American tarbush and mesquite. Other forbs include: globemallow, verbena, desert holly, senna, plains blackfoot, trailing fleabane, fiddleneck, deerstongue, wooly Indianwheat, and locoweed.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	474	652	830
Forb	78	107	136
Shrub/Vine	48	66	84
Total	600	825	1050

Table 6. Ground cover

Tree foliar cover	0%	
Shrub/vine/liana foliar cover	0%	
Grass/grasslike foliar cover	30-35%	
Forb foliar cover	0%	
Non-vascular plants	0%	
Biological crusts	0%	
Litter	40-50%	
Surface fragments >0.25" and <=3"	0%	
Surface fragments >3"	0%	
Bedrock	0%	
Water	0%	
Bare ground	15-25%	

Figure 5. Plant community growth curve (percent production by month). NM2802, R042XC002NM-Shallow Sandy-HCPC. SD-3 Shallow Sandy - 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 Grass/Shrub

Community 2.1 Grass/Shrub

Grass/Shrub: This state is characterized by the notable presence of shrubs, especially mesquite, broom snakeweed, and/or creosotebush, however grasses remain as the dominant species. Black grama is the dominant

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grass species. Threeawns and or dropseeds are sub-dominant. The susceptibility of the Shallow Sandy site to shrub encroachment may be higher when located adjacent to other sites with high densities of mesquite or creosotebush. Retrogression within this site is characterized by decreases in grass cover and increasing densities of shrubs. Diagnosis: Black grama remains as the dominant grass species. Grass cover varies in response to the amount of shrub increase, ranging from uniform to patchy. Shrubs are found at increased densities relative to the grassland state, especially mesquite, creosotebush, or broom snakeweed. Transition to Grass/Shrub (1a) Historically fire may have kept mesquite and other shrubs in check by completely killing some species and disrupting seed production cycles and suppressing the establishment of shrub seedlings in others. Fire suppression combined with seed dispersal by livestock and wildlife is believed to be the factors responsible for the establishment and increase in shrubs.1, 3 Loss of grass cover due to overgrazing, prolonged periods of drought, or their combination, reduces fire fuel loads and increases the susceptibility of the site to shrub establishment. Key indicators of approach to transition: Increase in the relative abundance of dropseeds and threeawns Presence of shrub seedlings Loss of organic matter—evidenced by an increase in physical soil crusts 8 Transition back to Grassland (1b) Brush control is necessary to initiate the transition back to the grassland state. If adequate fuel loads remain, possibly the reintroduction of fire as a management tool will assist in the transition back, however, mixed results have been observed concerning the effects of fire on black grama grasslands.6 Prescribed grazing will help ensure adequate rest following brush control and will assist in the establishment and maintenance of grass cover capable of sustaining fire.

State 3 Shrub Dominated

Community 3.1 Shrub Dominated

Shrub-Dominated: Across the range of soil types included in the Shallow Sandy site, mesquite is typically the dominant shrub, but it does occur as a co-dominant or sub-dominant species with creosotebush or broom snakeweed. Mesquite tends to dominate when the Shallow Sandy site occurs as part of a complex or in association with Sandy or Loamy Sand sites. Creosotebush tends to dominate on Shallow Sandy sites that occur as part of, or adjacent to Shallow Sites. Broom snakeweed increases in response to heavy grazing, but tends to cycle in and out depending on timing of rainfall. However, once the site is dominated by shrubs and snakeweed becomes well established, it tends to remain as a major component in the shrub dominated state. Diagnosis: Mesquite, creosotebush, or snakeweed cover is high, exceeding that of grasses. Grass cover is patchy with large connected bare areas present. Black grama, threeawns, or dropseeds may be the dominant grass. Evidence of accelerated wind erosion in the form of pedestalling of plants, and soil deposition around shrub bases may be common. Transition to Shrub-Dominated (2) Persistent loss of grass cover and the resulting increased competition between shrubs and remaining grasses for dwindling resources (especially soil moisture) may drive this transition.5 Additionally periods of increased winter precipitation may facilitate periodic episodes of shrub expansion and establishment. 4 Key indicators of approach to transition: Increase in size and frequency of bare patches. Loss of grass cover in shrub interspaces. Increased signs of erosion, evidenced by pedestalling of plants, and soil and litter deposition on leeward side of plants. 7 Transition back to Grassland (3) Brush control is necessary to reduce competition from shrubs and reestablish grasses. Range seeding may be necessary if insufficient grasses remain, The benefits, and costs, will vary depending upon the degree of site degradation, and adequate precipitation following seeding.

Additional community tables

Table 7. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)				
Grass	Grass/Grasslike								
1	Warm Season	413–495							
	black grama	BOER4	Bouteloua eriopoda	413–495	_				
2	Warm Season		41–83						
	bush muhly	MUPO2	Muhlenbergia porteri	41–83	_				
3	Warm Season			41–83					

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Forb (herbaceous, not grass nor grass-like)

2FORB

like)

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	blue grama	BOGR2	Bouteloua gracilis	41–83	-
4	Warm Season	25–41			
	sideoats grama	BOCU	Bouteloua curtipendula	25–41	_
5	Warm Season	-		41–83	
	spike dropseed	SPCO4	Sporobolus contractus	41–83	_
	sand dropseed	SPCR	Sporobolus cryptandrus	41–83	-
	mesa dropseed	SPFL2	Sporobolus flexuosus	41–83	-
6	Warm Season			17–41	
	threeawn	ARIST	Aristida	17–41	-
7	Warm Season			41–83	
	Arizona cottontop	DICA8	Digitaria californica	41–83	_
	plains bristlegrass	SEVU2	Setaria vulpiseta	41–83	_
8	Warm Season			41–83	
	mat sandbur	CELO3	Cenchrus longispinus	41–83	_
	hooded windmill grass	CHCU2	Chloris cucullata	41–83	_
9	Other Perennial Grasses	-		25–41	
	Grass, perennial	2GP	Grass, perennial	25–41	_
Shrub	/Vine		•		
10	Shrub			8–25	
	javelina bush	COER5	Condalia ericoides	8–25	_
11	Shrub		•	8–25	
	уисса	YUCCA	Yucca	8–25	_
12	Shrub	8–25			
	jointfir	EPHED	Ephedra	8–25	_
	littleleaf ratany	KRER	Krameria erecta	8–25	_
13	Shrub	<u></u>	•	8–25	
	featherplume	DAFO	Dalea formosa	8–25	_
14	Shrub	•	8–25		
	broom snakeweed	GUSA2	Gutierrezia sarothrae	8–25	_
15	Other Shrubs		•	25–41	
	Shrub (>.5m)	2SHRUB	Shrub (>.5m)	25–41	_
Forb			•		
16	Forb			17–41	
	leatherweed	CRPOP	Croton pottsii var. pottsii	17–41	_
	Goodding's tansyaster	MAPIG2	Machaeranthera pinnatifida ssp. gooddingii var. gooddingii	17–41	_
17	Forb			17–41	
	woolly groundsel	PACA15	Packera cana	17–41	_
	threadleaf ragwort	SEFLF	Senecio flaccidus var. flaccidus	17–41	_
18	Forb		·	8–25	
	whitest evening primrose	OEAL	Oenothera albicaulis	8–25	_
19	Other Forbs	8–25			

Forb (herbaceous, not grass nor grass-

8–25

-1
Animal community

This site provides habitats which support a resident animal community that is characterized by pronghorn antelope, swift fox, black-tailed jackrabbit, spotted ground squirrel, Ord's kangaroo rat, northern grasshopper mouse, coyote, horned lark, meadowlark, lark bunting, scaled quail, morning dove, side-blotched lizard, round-tailed horned lizard, marbled whiptail, prairie rattlesnake and ornate box turtle.

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 Jarag D Simona D

Recreational uses

This site offers recreation for hiking, horseback riding, nature observation and photography, and quail and dove hunting. During years of abundant spring moisture, this site displays a riot of color from wildflowers during May and June. A few summer and fall flowers also occur.

Wood products

The natural potential plant community of this site affords little or no wood products. Where the site has been invaded by mesquite or cholla cactus the roots and stems of these plants provide attractive material for a variety of curiosities, such as lamps and small furniture.

Other products

This site is suitable for grazing by all kinds and classes of livestock during all seasons of the year. Because of the sandy textures and shallow profile, this site will respond rapidly to management. As this site deteriorates, plants such as black grama, bush muhly, blue and sideoats grama, plains bristlegrass and Arizona cottontop, will decrease and be replaced by plants such as threeawns, mesquite, creosote bush, and broom snakeweed. This also causes a decrease in ground cover, leaving the soil to blow. This site responds best to a system of management that rotates the season of use.

Other information

Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month Similarity Index Ac/AUM $100 - 76 \ 2.5 - 3.5$ $75 - 51 \ 3.2 - 4.6$ $50 - 26 \ 4.5 - 7.5$ $25 - 0 \ 7.6 +$

Inventory data references

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

Other references

Literature References:

1. Brooks, M.L. and D.A. Pyke. 2001. Invasive plants and fire in the deserts of North America. Pages 1–14 in K.E.M. Galley and T.P. Wilson (eds.). Proceedings of the Invasive Species Workshop: the Role of Fire in the Control and Spread of Invasive Species.

2. Hennessy, J.T., R.P. Gibbens, J.M. Tromble, and M. Cardenas. 1983. Water properties of caliche. J. Range Manage. 36: 723-726.

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

4. Moir, W.H., and J. A. Ludwig. 1991. Plant succession and changing land features in desert grasslands. P. 15-18. In P.F. Ffolliott and W.T. Swank (eds.) People and the temperate region: a summary of research from the United States Man and the Biosphere Program 1991. U.S. Dept. State, Publ No. 9839, Nat. Tech. Info. Serv., U.S. Dept. Commerce, Springfield, Illinois. 63 p.

5. Tiedemann, A. R. and J. O. Klemmedson. 1977. Effect of mesquite trees on vegetation and soils in the desert grassland. J. Range Manage. 30: 361-367.

6. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (2002, September). Fire Effects Information System, [Online]. Available: http://www.fs.fed.us/database/feis/ [accessed 2/10/03].

7. U.S. Department of Agriculture, Natural Resources Conservation Service. 2001. Soil Quality Information Sheets. Rangeland Soil Quality—Wind Erosion. Rangeland Sheet 10 [Online]. Available: http://www.statlab.iastate.edu/survey/SQI/range.html

8. U.S. Department of Agriculture, Natural Resources Conservation Service. 2001. Soil Quality Information Sheets. Rangeland Soil Quality—Physical and Biological Soil Crusts. Rangeland Sheet 7 [Online]. Available: http://www.statlab.iastate.edu/survey/SQI/range.html

Contributors

David Trujillo Don Sylvester

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 annualproduction):
- 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:

Received by OCD: 2/8/2024 9:56:02 AM

Red Bull 29 Federal #1H Geology



Earthstar Geographics, New Mexico State University, Texas Parks & Wildlife, CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/ NASA, USGS, EPA, NPS, USDA, NMBGMR

APPENDIX C – Daily Field and Sampling Reports



Devon Energy Corporation	Inspection Date:	7/26/2023		
Red Bull 29 Fed 1H	Report Run Date:	7/26/2023 10:19 PM		
Jim Raley	API #:			
575-748-0176				
	Project Owner:			
	Project Manager:			
Summary of Times				
7/26/2023 8:30 AM				
7/26/2023 2:03 PM				
	Devon Energy Corporation Red Bull 29 Fed 1H Jim Raley 575-748-0176 7/26/2023 8:30 AM 7/26/2023 2:03 PM	Devon Energy CorporationInspection Date:Red Bull 29 Fed 1HReport Run Date:Jim RaleyAPI #:575-748-0176Project Owner:Project Owner:Project Manager:7/26/2023 8:30 AM7/26/2023 2:03 PM		

Field Notes

15:10 Completed safety paperwork and initial line locate upon arrive

15:10 Started delineation efforts

15:13 BH-01 to 08 obtained. All samples obtained at 0 and 1 feet. Refusal occurred at BH23-01 (1.5 foot) and BH23-08 (0.5 feet).

15:17 Soil presents a "concrete" like structure with digging possible only with the rock bar. Machine need for deeper (> 2 foot) excavation.

Next Steps & Recommendations

1



Site Photos Viewing Direction: West Viewing Direction: West BH23-01 BH23-02 Viewing Direction: West Viewing Direction: Northwest BH23-03 BH23-04







Daily Site Visit Signature

Inspector: Deusavan Costa Filho

Signature:

•



Client:	Devon Energy Corporation	Inspection Date:	10/25/2023	
Site Location Name:	Red Bull 29 Fed 1H	Report Run Date:	10/25/2023 10:38 PM	
Client Contact Name:	Dale Woodall	API #:		
Client Contact Phone #:	405-318-4697			
Unique Project ID		Project Owner:		
Project Reference #		Project Manager:		
Summary of Times				
Arrived at Site	10/25/2023 9:15 AM			
Departed Site	10/25/2023 2:00 PM			

Field Notes

10:39 Arrived on site, examined site and completed safety assessment for job and documents.

Met with Centrex crew and discussed excavation plan and rainwater mitigation possibilities.

Discussed the remediation plan of 6 inch excavation of staining and 1 foot excavation around BH23-02 in addition to showing location of BH23-02 and vicinity of 1 foot excavation.

- **10:51** Completed site photographic documentation and assessment of rain event on excavation.
- **13:35** Collected field screening samples BS23-01 through BS23-03 and WS23-01 and WS23-02. Field screened for TPH with Dexsil Petroflag and chlorides with silver nitrate. All samples screened below criteria.
- **13:37** Due to rocky, compacted soil and caliche layer, excavator teeth and butter bar were ripped from bucket and work was concluded for the day.

Next Steps & Recommendations

- 1 Finish 1 foot excavation around BH23-02 from Characterization
- 2 Continue to excavate to south at 6 inches



Site Photos Viewing Direction: South Viewing Direction: Southeast von Site information placard 1-2 inches of rainwater in containment Viewing Direction: Northeast Viewing Direction: Southeast North half of excavation full of rainwater, Muddy, uphill (of inundated excavation) area excavated to 1 foot and extended to around of unexcavated half with pot holes for utility wellhead. lines and orange construction paint marking the staining marked on Oct. 23, 2023.







Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature:

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Client:	Devon Energy Corporation	Inspection Date:	11/8/2023	
Site Location Name:	Red Bull 29 Fed 1H	Report Run Date:	11/8/2023 10:44 PM	
Client Contact Name:	Dale Woodall	- API #:		
Client Contact Phone #:	405-318-4697	-		
Unique Project ID		- Project Owner:		
Project Reference #		Project Manager:		
Summary of Times				
Arrived at Site	11/8/2023 8:45 AM			
Departed Site	11/8/2023 1:55 PM			

Field Notes

13:33 Arrived on site, examined site for hazards and completed safety assessment for job and documents.

13:40 Collected sample BES23-12 1' for reevaluation and collected samples BES23-23 1' through BES23-27 1' and WES23-08 0-1' and TP23-01 0-1'.

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

Determined the following samples should be advanced in depth or pushed out:

-BES23-12 1', BES23-23 1' to additional 6 inches bgs.

-WES23-08 0-1' to an additional 1-1.5' out from current wall to meet with TP23-01 0-1'

13:47 Marked out areas to advance in excavation with white flagging.

Documented samples below in photos. Collected samples are circled in red, positioned in central location of 200 sq ft area or less from which the 5-point composite samples where collected.

Prepared samples for lab and returned samples to constituents' preservation method on ice.

Next Steps & Recommendations

Run on 11/8/2023 10:44 PM UTC

- 1 Advance areas with constituent of concern above criteria limits
- **2** Collect final confirmation samples
- 3 Collect lab data



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TP23-01 0-1ft, bore hole is from the daylighting of electrical lines. Extends approximately 1-1.5 ft back from current wall.



Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature:

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Client:	Devon Energy Corporation	Inspection Date:	11/14/2023	
Site Location Name:	Red Bull 29 Fed 1H	Report Run Date:	11/15/2023 12:22 AM	
Client Contact Name:	Dale Woodall	API #:		
Client Contact Phone #:	405-318-4697			
Unique Project ID		Project Owner:		
Project Reference #		Project Manager:		
Summary of Times				
Arrived at Site	11/14/2023 11:40 AM			
Departed Site	11/14/2023 3:30 PM			

Field Notes

14:15 Arrived on site, examined site for hazards and completed safety assessment for job and documents. Collected composite samples BES23-12 1.5 foot, BES23-23 1.5 foot and WES23-09 0-1.5 foot.

15:22 Field screened samples for TPH with Dexsil Petroflag and chlorides with EC meter. All samples field screened below criteria.

Next Steps & Recommendations

1 Collect confirmation samples



Site Photos Viewing Direction: South Viewing Direction: Northwest devon FEDERAL #1 C.29-T235-R35E 375' FSL & 375' FM A COUNTY, NEW MEXICO Site information placard BES23-12 excavated to 1.5 foot depth Viewing Direction: West Viewing Direction: West BES23-12 1.5 ft BES23-23 excavated to 1.5 foot depth. *note utility pot hole in photo







Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature:

•



Client:	Devon Energy Corporation	Inspection Date:	11/29/2023	
Site Location Name:	Red Bull 29 Fed 1H	Report Run Date:	11/30/2023 12:53 AM	
Client Contact Name:	Dale Woodall	API #:		
Client Contact Phone #:	405-318-4697			
Unique Project ID		Project Owner:		
Project Reference #		Project Manager:		
Summary of Times				
Arrived at Site	11/29/2023 9:50 AM			
Departed Site	11/29/2023 4:05 PM			

Field Notes

10:06 Arrived on site, examined site for hazards and completed safety assessment for job and documents.

- **12:08** Site is backfilled and required 5 discrete bore hole samples to be composited along WES23-09 wall, =\<200 sq ft area around BES23-12 and BES23-23 which were excavated to below criteria at 1.5' and out an additional 1-1.5 feet west.
- **16:01** Field screened samples for chlorides with EC meter and TPH with Dexsil petroflag. Yielded similar results from previous field screening of same sample areas below DTGW criteria (also below strictest criteria).
- **16:01** Prepared samples for lab and preserved on ice. Backfilled bore holes.

Next Steps & Recommendations

- 1 Submit samples to lab
- **2** Prepare closure report



Site Photos Viewing Direction: East Viewing Direction: Southwest Site information placard Backfilled site Viewing Direction: Northeast Viewing Direction: Northeast Discrete sample locations along wall WES23-Discrete sample along wall WES23-09, 1.5 feet 09, 0-1.5 feet









Run on 11/30/2023 12:53 AM UTC





V

VERTEX

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature:

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Client:	Devon Energy Corporation	Inspection Date:	11/3/2023	
Site Location Name:	Red Bull 29 Fed 1H	Report Run Date:	11/3/2023 9:15 PM	
Client Contact Name:	Dale Woodall	API #:		
Client Contact Phone #:	405-318-4697	_		
Unique Project ID		– Project Owner:		
Project Reference #		Project Manager:		
Summary of Times				
Arrived at Site	11/3/2023 8:30 AM			
Departed Site	11/3/2023 4:00 PM			

Field Notes

9:21 Arrived on site, examined site for hazards and completed safety assessment for job and documents. Conducted inspection of liner for containment per notification.

9:23 Inspected both inside and outside walls of containment/liner and did not find any compromising damage or unexpected breaches. No unexpected staining on soil outside the containment or from area of breach, which has been delineated.
Inspection of liner around and between equipment and tanks, inside containment did not yield any damage, breaches, or areas of concern with liner.
See photos of liner below.

Next Steps & Recommendations

1 Complete remediation

2 Submit liner inspection and state notification with closure report



Site Photos Viewing Direction: South Viewing Direction: Southeast devon RED BULL 29 FEDERAL #1H 30-025-40628 NMNM-117558 54.5664" LONG. W 103" 23" 49.07724 Northwest corner of containment facing Site information placard southeast. North end outside containment. Viewing Direction: East Viewing Direction: West Southwest corner of containment facing east. Southwest corner of containment facing west. Outside containment. Inside containment.









South side of containment facing north, between tank batteries and tank on east. Outside containment.



Southeast corner of containment facing northwest. Outside containment.



Southeast corner of containment facing east. Inside containment.



Northeast corner of containment facing west. Outside containment.





containment.

North side of containment facing west. Outside

Run on 11/3/2023 9:15 PM UTC

V

VERTEX

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature: /

Run on 11/3/2023 9:15 PM UTC

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Released to Imaging: 4/5/2024 3:20:10 PM
APPENDIX D – Notifications



Dhugal Hanton <vertexresourcegroupusa@gmail.com>

Liner Inspection and Confirmation Notice

9 messages

Dhugal Hanton <vertexresourcegroupusa@gmail.com> Tue, Oct 24, 2023 at 9:25 AM To: "Wells, Shelly, EMNRD" <shelly.wells@emnrd.nm.gov>, "CFO_Spill, BLM_NM" <blm_nm_cfo_spill@blm.gov>, "Enviro, OCD, EMNRD" <OCD.Enviro@emnrd.nm.gov>

Shelly,

Please accept this email as notification that Vertex Resource Services, on behalf of Devon Resources, has scheduled a Liner Inspection and Confirmation Sampling notice to be conducted at the following release.

Red Bull 29 Fed 1H, NAPP2319260257

On Friday, October 27, 2023, Vertex will be on-site to conduct the liner inspection and begin confirmation sampling. The confirmation sampling will continue through November 3, 2023. If you have any questions regarding this notification, please call at 346-814-1413.

Thanks,

Kent

Kent Stallings P.G.

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

P 575.725.5001 ext 706 C 346.814.1413

 Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
 Tue, Oct 24, 2023 at 9:31 AM

 To: Dhugal Hanton <vertexresourcegroupusa@gmail.com>, "CFO_Spill, BLM_NM" <blm_nm_cfo_spill@blm.gov>

 Cc: "Velez, Nelson, EMNRD" <Nelson.Velez@emnrd.nm.gov>, "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>

Hi Kent,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced

Environmental Bureau

EMNRD-Oil Conservation Division

1220 S. St. Francis Drive Santa Fe, NM 87505

(505)469-7520|Shelly.Wells@emnrd.nm.gov

http://www.emnrd.state.nm.us/OCD/

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com> Sent: Tuesday, October 24, 2023 9:25 AM To: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>; CFO_Spill, BLM_NM <blm_nm_cfo_spill@blm.gov>; Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov> Subject: [EXTERNAL] Liner Inspection and Confirmation Notice

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

[Quoted text hidden]

Dhugal Hanton <vertexresourcegroupusa@gmail.com> Wed, Nov 1, 2023 at 8:34 AM To: "Wells, Shelly, EMNRD" <shelly.wells@emnrd.nm.gov>, "CFO_Spill, BLM_NM" <blm_nm_cfo_spill@blm.gov>, "Enviro, OCD, EMNRD" <OCD.Enviro@emnrd.nm.gov>

Shelley,

The final liner inspection at Red Bull 29 Fed 1H, NAPP2319260257 will occur Friday, 11/03/2023. Thanks,

Kent

Kent Stallings P.G.

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

P 575.725.5001 ext 706 C 346.814.1413 [Quoted text hidden]

Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>

Wed, Nov 1, 2023 at 8:44 AM

To: Dhugal Hanton <vertexresourcegroupusa@gmail.com>, "Wells, Shelly, EMNRD" <Shelly.Wells@emnrd.nm.gov>, "CFO_Spill, BLM_NM" <blm_nm_cfo_spill@blm.gov> Cc: "Velez, Nelson, EMNRD" <Nelson.Velez@emnrd.nm.gov>, "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>

Good morning Kent,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced

Environmental Bureau

EMNRD-Oil Conservation Division

1220 S. St. Francis Drive|Santa Fe, NM 87505

(505)469-7520|Shelly.Wells@emnrd.nm.gov

http://www.emnrd.state.nm.us/OCD/

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com> Sent: Wednesday, November 1, 2023 8:35 AM To: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>; CFO_Spill, BLM_NM <blm_nm_cfo_spill@blm.gov>; Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov> Subject: [EXTERNAL] Re: Liner Inspection and Confirmation Notice

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

Shelley,

[Quoted text hidden] [Quoted text hidden]

 Dhugal Hanton <vertexresourcegroupusa@gmail.com>
 Mon, Nov 6, 2023 at 7:18 AM

 To: "Wells, Shelly, EMNRD" <Shelly.Wells@emnrd.nm.gov>
 Cc: "CFO_Spill, BLM_NM" <blm_nm_cfo_spill@blm.gov>, "Velez, Nelson, EMNRD" <Nelson.Velez@emnrd.nm.gov>, "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>

Please accept this email as notification that Vertex Resource Services, on behalf of Devon Resources, has scheduled Confirmation Sampling to be conducted at the following release.

Red Bull 29 Fed 1H, NAPP2319260257

On Wednesday, November 08, 2023, Vertex will be on site to conduct confirmation sampling. The confirmation sampling will continue through November 10, 2023. If you have any questions regarding this notification, please call at 346-814-1413.

Thanks,

Kent

Kent Stallings P.G.

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

P 575.725.5001 ext 706 C 346.814.1413

[Quoted text hidden]

Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov> Mon, Nov 6, 2023 at 7:25 AM To: Dhugal Hanton <vertexresourcegroupusa@gmail.com> Cc: "CFO_Spill, BLM_NM" <blm_nm_cfo_spill@blm.gov>, "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>, "Wells, Shelly, EMNRD" <Shelly.Wells@emnrd.nm.gov>

Good morning Dhugal,

Thank you for the notice.

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

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

Regards,

Nelson Velez • Environmental Specialist - Adv Environmental Bureau | EMNRD - Oil Conservation Division 1000 Rio Brazos Road | Aztec, NM 87410 (505) 469-6146 | nelson.velez@emnrd.nm.gov http://www.emnrd.state.nm.us/OCD/_



From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Sent: Monday, November 6, 2023 7:18 AM
To: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>
Cc: CFO_Spill, BLM_NM <blm_nm_cfo_spill@blm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>;
Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: Re: [EXTERNAL] Re: Liner Inspection and Confirmation Notice

Dhugal Hanton <vertexresourcegroupusa@gmail.com>

Mon, Nov 27, 2023 at 8:53 AM To: "Wells, Shelly, EMNRD" <shelly.wells@emnrd.nm.gov>, "CFO_Spill, BLM_NM" <blm_nm_cfo_spill@blm.gov>, "Enviro, OCD, EMNRD" <OCD.Enviro@emnrd.nm.gov>, mmoffitt@vertex.ca, KStallings@vertex.ca

All,

Please accept this email as notification that Vertex Resource Services, on behalf of Devon Resources, has scheduled a Confirmation Sampling notice to be conducted at the following release.

Red Bull 29 Fed 1H, NAPP2319260257

On Wednesday, November 29, 2023, Vertex will be on-site to conduct confirmation sampling. If you have any questions regarding this notification, please call at 346-814-1413.

Thanks,

Steph McCarty

Environmental Technologist Vertex Resource Services Inc. 3101 Boyd Drive, Carlsbad, NM 88220

C 575.263.3295

www.vertex.ca [webpage]Connect with LinkedIn

Confidentiality Notice: This message and any attachments are solely for the intended recipient and may contain confidential or privileged information. If you are not the intended recipient, any disclosure, copying, use, or distribution of the information included in this message and any attachment is prohibited. If you have received this communication in error, please notify us by reply email and immediately and permanently delete this message and any attachments. Thank you.

On Tue, Oct 24, 2023 at 9:25 AM Dhugal Hanton <vertexresourcegroupusa@gmail.com> wrote: [Quoted text hidden]

Wells, Shelly, EMNRD <Shelly, Wells@emnrd.nm.gov> Mon, Nov 27, 2023 at 9:14 AM To: Dhugal Hanton <vertexresourcegroupusa@gmail.com>, "CFO_Spill, BLM_NM" <blm_nm_cfo_spill@blm.gov>, "mmoffitt@vertex.ca" <mmoffitt@vertex.ca>, "KStallings@vertex.ca" <KStallings@vertex.ca> Cc: "Velez, Nelson, EMNRD" <Nelson.Velez@emnrd.nm.gov>, "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>

Good morning Steph,

The OCD has received your notification. Please also include the anticipated sampling time in future notices. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced

Environmental Bureau

EMNRD-Oil Conservation Division

1220 S. St. Francis Drive|Santa Fe, NM 87505

(505)469-7520|Shelly.Wells@emnrd.nm.gov

http://www.emnrd.state.nm.us/OCD/

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com> Sent: Monday, November 27, 2023 8:54 AM To: Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>; CFO_Spill, BLM_NM <blm_nm_cfo_spill@blm.gov>; Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; mmoffitt@vertex.ca; KStallings@vertex.ca Subject: [EXTERNAL] Re: Liner Inspection and Confirmation Notice

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

All,

[Quoted text hidden] [Quoted text hidden]

Dhugal Hanton <vertexresourcegroupusa@gmail.com> To: smccarty@vertex.ca Wed, Dec 27, 2023 at 9:12 AM

[Quoted text hidden]

APPENDIX E – Laboratory Data Reports and Chain of Custody Forms



August 07, 2023

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

RE: Red Bull 29 Fed 1H

OrderNo.: 2307D90

Hall Environmental Analysis Laboratory

TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 16 sample(s) on 7/28/2023 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Red Bull 29 Fed 1H

Project:

Chloride

Analytical Report Lab Order 2307D90

Date Reported: 8/7/2023

8/3/2023 9:11:22 PM

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-01 0.0 ' Collection Date: 7/26/2023 9:00:00 AM

Lab ID: 2307D90-001 Matrix: SOIL Received Date: 7/28/2023 7:15:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) 170 9.8 7/31/2023 7:07:01 PM mg/Kg 1 mg/Kg Motor Oil Range Organics (MRO) 1 7/31/2023 7:07:01 PM 78 49 Surr: DNOP 69-147 90.0 %Rec 1 7/31/2023 7:07:01 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 8/1/2023 11:06:04 AM Surr: BFB 1 8/1/2023 11:06:04 AM 87.5 15-244 %Rec **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1 8/1/2023 11:06:04 AM Toluene ND 0.049 mg/Kg 1 8/1/2023 11:06:04 AM Ethylbenzene 8/1/2023 11:06:04 AM ND 0.049 mg/Kg 1 Xylenes, Total ND 0.098 mg/Kg 1 8/1/2023 11:06:04 AM %Rec Surr: 4-Bromofluorobenzene 107 39.1-146 1 8/1/2023 11:06:04 AM **EPA METHOD 300.0: ANIONS** Analyst: RBC

9100

600

mg/Kg

200

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

% 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

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Analytical Report Lab Order 2307D90

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/7/2023
Client Sample ID: BH23-01 1.5 '
Collection Poter 7/26/2022 0:10:00 AM

Project:	Red Bull 29 Fed 1H	Collection Date: 7/26/2023 9:10:00 AM					
Lab ID:	2307D90-002	Matrix: SOIL	Received Date: 7/28/2023 7:15:00 AM				
Analyses		Result	RL Qu	al Units	DF	Date Analyzed	
EPA ME	THOD 8015M/D: DIESEL RA	ANGE ORGANICS				Analyst: DGH	
Diesel R	ange Organics (DRO)	17	9.3	mg/Kg	1	7/31/2023 7:31:38 PM	
Motor Oi	Range Organics (MRO)	ND	47	mg/Kg	1	7/31/2023 7:31:38 PM	
Surr: I	DNOP	86.7	69-147	%Rec	1	7/31/2023 7:31:38 PM	
EPA ME	THOD 8015D: GASOLINE R	ANGE				Analyst: JJP	
Gasoline	Range Organics (GRO)	ND	4.8	mg/Kg	1	8/1/2023 11:29:30 AM	
Surr: I	BFB	92.4	15-244	%Rec	1	8/1/2023 11:29:30 AM	
EPA ME	THOD 8021B: VOLATILES					Analyst: JJP	
Benzene		ND	0.024	mg/Kg	1	8/1/2023 11:29:30 AM	
Toluene		ND	0.048	mg/Kg	1	8/1/2023 11:29:30 AM	
Ethylben	zene	ND	0.048	mg/Kg	1	8/1/2023 11:29:30 AM	
Xylenes,	Total	ND	0.096	mg/Kg	1	8/1/2023 11:29:30 AM	
Surr: 4	4-Bromofluorobenzene	111	39.1-146	%Rec	1	8/1/2023 11:29:30 AM	
EPA ME	THOD 300.0: ANIONS					Analyst: RBC	
Chloride		270	60	mg/Kg	20	8/2/2023 5:13:39 PM	

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.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

RL Re

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Analytical Report Lab Order 2307D90

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/7/2023
Client Sample ID: BH23-02 0.0 '

Project:	Red Bull 29 Fed 1H	Collection Date: 7/26/2023 9:20:00 AM							
Lab ID:	2307D90-003	Matrix: SOIL	Re	eceive	ceived Date: 7/28/2023 7:15:00 AM				
Analyses		Result	RL (Qual	Units	DF	Date Analyzed		
EPA ME	THOD 8015M/D: DIESEL RA	NGE ORGANICS					Analyst: DGH		
Diesel R	ange Organics (DRO)	3800	89		mg/Kg	10	7/31/2023 7:56:14 PM		
Motor Oi	Range Organics (MRO)	1700	450		mg/Kg	10	7/31/2023 7:56:14 PM		
Surr: [DNOP	0	69-147	S	%Rec	10	7/31/2023 7:56:14 PM		
EPA ME	THOD 8015D: GASOLINE R	ANGE					Analyst: JJP		
Gasoline	Range Organics (GRO)	6.4	4.8		mg/Kg	1	8/1/2023 3:24:57 PM		
Surr: E	BFB	135	15-244		%Rec	1	8/1/2023 3:24:57 PM		
EPA ME	THOD 8021B: VOLATILES						Analyst: JJP		
Benzene		ND	0.024		mg/Kg	1	8/1/2023 3:24:57 PM		
Toluene		ND	0.048		mg/Kg	1	8/1/2023 3:24:57 PM		
Ethylben	zene	ND	0.048		mg/Kg	1	8/1/2023 3:24:57 PM		
Xylenes,	Total	0.15	0.096		mg/Kg	1	8/1/2023 3:24:57 PM		
Surr: 4	1-Bromofluorobenzene	114	39.1-146		%Rec	1	8/1/2023 3:24:57 PM		
EPA ME	THOD 300.0: ANIONS						Analyst: RBC		
Chloride		16000	600		mg/Kg	200	8/3/2023 9:23:46 PM		

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

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

RL Re

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Red Bull 29 Fed 1H

Project:

Analytical Report Lab Order 2307D90

Date Reported: 8/7/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-02 1.0 ' Collection Date: 7/26/2023 9:30:00 AM Received Date: 7/28/2023 7:15:00 AM

Lab ID: 2307D90-004	Matrix: SOIL	Received Date: 7/28/2023 7:15:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH	
Diesel Range Organics (DRO)	230	9.6	mg/Kg	1	8/1/2023 10:48:06 AM	
Motor Oil Range Organics (MRO)	120	48	mg/Kg	1	8/1/2023 10:48:06 AM	
Surr: DNOP	98.6	69-147	%Rec	1	8/1/2023 10:48:06 AM	
EPA METHOD 8015D: GASOLINE R	ANGE				Analyst: JJP	
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	8/1/2023 12:16:25 PM	
Surr: BFB	89.9	15-244	%Rec	1	8/1/2023 12:16:25 PM	
EPA METHOD 8021B: VOLATILES					Analyst: JJP	
Benzene	ND	0.023	mg/Kg	1	8/1/2023 12:16:25 PM	
Toluene	ND	0.047	mg/Kg	1	8/1/2023 12:16:25 PM	
Ethylbenzene	ND	0.047	mg/Kg	1	8/1/2023 12:16:25 PM	
Xylenes, Total	ND	0.094	mg/Kg	1	8/1/2023 12:16:25 PM	
Surr: 4-Bromofluorobenzene	110	39.1-146	%Rec	1	8/1/2023 12:16:25 PM	
EPA METHOD 300.0: ANIONS					Analyst: RBC	
Chloride	4000	150	mg/Kg	50	8/3/2023 9:36:11 PM	

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit

% Recovery outside of standard limits. If undiluted results may be estimated. S

- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits

Р Sample pH Not In Range Reporting Limit

RL

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Analytical Report Lab Order 2307D90

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/7/2023 Client Sample ID: BH23-03 0.0 '

Project:	Red Bull 29 Fed 1H	Collection Date: 7/26/2023 9:40:00 AM						
Lab ID:	2307D90-005	Matrix: SOIL	Received Date: 7/28/2023 7:15:00 AM					
Analyses		Result	RL Qu	al Units	DF	Date Analyzed		
EPA ME	THOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH		
Diesel R	ange Organics (DRO)	ND	8.6	mg/Kg	1	7/31/2023 8:45:18 PM		
Motor O	il Range Organics (MRO)	ND	43	mg/Kg	1	7/31/2023 8:45:18 PM		
Surr:	DNOP	83.6	69-147	%Rec	1	7/31/2023 8:45:18 PM		
EPA ME	THOD 8015D: GASOLINE R	ANGE				Analyst: JJP		
Gasoline	e Range Organics (GRO)	ND	4.9	mg/Kg	1	8/1/2023 12:39:58 PM		
Surr:	BFB	90.5	15-244	%Rec	1	8/1/2023 12:39:58 PM		
EPA ME	THOD 8021B: VOLATILES					Analyst: JJP		
Benzene	9	ND	0.024	mg/Kg	1	8/1/2023 12:39:58 PM		
Toluene		ND	0.049	mg/Kg	1	8/1/2023 12:39:58 PM		
Ethylber	izene	ND	0.049	mg/Kg	1	8/1/2023 12:39:58 PM		
Xylenes,	Total	ND	0.098	mg/Kg	1	8/1/2023 12:39:58 PM		
Surr:	4-Bromofluorobenzene	108	39.1-146	%Rec	1	8/1/2023 12:39:58 PM		
EPA ME	THOD 300.0: ANIONS					Analyst: RBC		
Chloride		120	60	mg/Kg	20	8/2/2023 5:50:53 PM		

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Red Bull 29 Fed 1H

Project:

Analytical Report Lab Order 2307D90

Date Reported: 8/7/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-03 1.0 ' Collection Date: 7/26/2023 9:50:00 AM Received Date: 7/28/2023 7:15:00 AM

Lab ID: 2307D90-006	Matrix: SOIL	Received Date: 7/28/2023 7:15:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH	
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	7/31/2023 9:09:51 PM	
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	7/31/2023 9:09:51 PM	
Surr: DNOP	86.7	69-147	%Rec	1	7/31/2023 9:09:51 PM	
EPA METHOD 8015D: GASOLINE R	ANGE				Analyst: JJP	
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	8/1/2023 1:03:32 PM	
Surr: BFB	88.1	15-244	%Rec	1	8/1/2023 1:03:32 PM	
EPA METHOD 8021B: VOLATILES					Analyst: JJP	
Benzene	ND	0.024	mg/Kg	1	8/1/2023 1:03:32 PM	
Toluene	ND	0.047	mg/Kg	1	8/1/2023 1:03:32 PM	
Ethylbenzene	ND	0.047	mg/Kg	1	8/1/2023 1:03:32 PM	
Xylenes, Total	ND	0.095	mg/Kg	1	8/1/2023 1:03:32 PM	
Surr: 4-Bromofluorobenzene	106	39.1-146	%Rec	1	8/1/2023 1:03:32 PM	
EPA METHOD 300.0: ANIONS					Analyst: RBC	
Chloride	83	60	mg/Kg	20	8/2/2023 6:28:06 PM	

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit PQL

Practical Quanitative Limit % Recovery outside of standard limits. If undiluted results may be estimated. S

Analyte detected in the associated Method Blank в

Above Quantitation Range/Estimated Value Е

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 6 of 23

Analytical Report Lab Order 2307D90

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/7/2023 Client Sample ID: BH23-04 0.0 '

Project:	Red Bull 29 Fed 1H		Collection Date: 7/26/2023 10:00:00 AM					
Lab ID:	2307D90-007	Matrix: SOIL	Received Date: 7/28/2023 7:15:00 AM					
Analyses		Result	RL Qu	al Units	DF	Date Analyzed		
EPA ME	THOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH		
Diesel R	ange Organics (DRO)	ND	9.0	mg/Kg	1	7/31/2023 9:34:27 PM		
Motor O	il Range Organics (MRO)	ND	45	mg/Kg	1	7/31/2023 9:34:27 PM		
Surr:	DNOP	87.4	69-147	%Rec	1	7/31/2023 9:34:27 PM		
EPA ME	THOD 8015D: GASOLINE R	ANGE				Analyst: JJP		
Gasoline	e Range Organics (GRO)	ND	4.7	mg/Kg	1	8/1/2023 1:27:02 PM		
Surr:	BFB	90.5	15-244	%Rec	1	8/1/2023 1:27:02 PM		
EPA ME	THOD 8021B: VOLATILES					Analyst: JJP		
Benzene	e	ND	0.023	mg/Kg	1	8/1/2023 1:27:02 PM		
Toluene		ND	0.047	mg/Kg	1	8/1/2023 1:27:02 PM		
Ethylber	nzene	ND	0.047	mg/Kg	1	8/1/2023 1:27:02 PM		
Xylenes.	, Total	ND	0.093	mg/Kg	1	8/1/2023 1:27:02 PM		
Surr:	4-Bromofluorobenzene	109	39.1-146	%Rec	1	8/1/2023 1:27:02 PM		
EPA ME	THOD 300.0: ANIONS					Analyst: RBC		
Chloride		1100	60	mg/Kg	20	8/2/2023 6:40:31 PM		

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

- Not Detected at the Reporting Limit
- ND PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Project:

Lab ID:

Red Bull 29 Fed 1H

2307D90-008

Analytical Report Lab Order 2307D90

Date Reported: 8/7/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-04 1.0 ' Collection Date: 7/26/2023 10:10:00 AM

Received Date: 7/28/2023 7:15:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	RGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	7/31/2023 9:58:58 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	7/31/2023 9:58:58 PM
Surr: DNOP	89.3	69-147	%Rec	1	7/31/2023 9:58:58 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	8/1/2023 1:50:35 PM
Surr: BFB	96.1	15-244	%Rec	1	8/1/2023 1:50:35 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	8/1/2023 1:50:35 PM
Toluene	ND	0.047	mg/Kg	1	8/1/2023 1:50:35 PM
Ethylbenzene	ND	0.047	mg/Kg	1	8/1/2023 1:50:35 PM
Xylenes, Total	ND	0.095	mg/Kg	1	8/1/2023 1:50:35 PM
Surr: 4-Bromofluorobenzene	112	39.1-146	%Rec	1	8/1/2023 1:50:35 PM
EPA METHOD 300.0: ANIONS					Analyst: RBC
Chloride	280	60	mg/Kg	20	8/2/2023 11:31:21 AM

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit

ND PQL Practical Quanitative Limit

% Recovery outside of standard limits. If undiluted results may be estimated. S

- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 8 of 23

Analytical Report Lab Order 2307D90

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 8/7/2023 Client Sample ID: BH23-05 0.0 ' Collection Date: 7/26/2023 10:20:00 AM

Project:	Red Bull 29 Fed 1H	Collection Date: 7/26/2023 10:20:00 AM					
Lab ID:	2307D90-009	Matrix: SOIL	Rece	ived Date:	7/28/2	2023 7:15:00 AM	
Analyses		Result	RL Qu	al Units	DF	Date Analyzed	
EPA ME	THOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: PRD	
Diesel R	ange Organics (DRO)	ND	9.9	mg/Kg	1	8/1/2023 1:07:29 PM	
Motor Oi	I Range Organics (MRO)	ND	50	mg/Kg	1	8/1/2023 1:07:29 PM	
Surr: [DNOP	102	69-147	%Rec	1	8/1/2023 1:07:29 PM	
EPA ME	THOD 8015D: GASOLINE R	ANGE				Analyst: JJP	
Gasoline	Range Organics (GRO)	ND	4.7	mg/Kg	1	8/1/2023 10:52:25 PM	
Surr: E	BFB	90.7	15-244	%Rec	1	8/1/2023 10:52:25 PM	
EPA ME	THOD 8021B: VOLATILES					Analyst: JJP	
Benzene		ND	0.024	mg/Kg	1	8/1/2023 10:52:25 PM	
Toluene		ND	0.047	mg/Kg	1	8/1/2023 10:52:25 PM	
Ethylben	zene	ND	0.047	mg/Kg	1	8/1/2023 10:52:25 PM	
Xylenes,	Total	ND	0.094	mg/Kg	1	8/1/2023 10:52:25 PM	
Surr: 4	1-Bromofluorobenzene	109	39.1-146	%Rec	1	8/1/2023 10:52:25 PM	
EPA ME	THOD 300.0: ANIONS					Analyst: RBC	
Chloride		240	60	mg/Kg	20	8/2/2023 11:43:46 AM	

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 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

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Project:

Lab ID:

Red Bull 29 Fed 1H

2307D90-010

Analytical Report Lab Order 2307D90

Date Reported: 8/7/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-05 1.0 ' Collection Date: 7/26/2023 10:30:00 AM Received Date: 7/28/2023 7:15:00 AM

Analyses	Result	RL (Qual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	RGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	8/1/2023 1:18:05 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	8/1/2023 1:18:05 PM
Surr: DNOP	131	69-147	%Rec	1	8/1/2023 1:18:05 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/2/2023 12:02:37 AM
Surr: BFB	96.7	15-244	%Rec	1	8/2/2023 12:02:37 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	8/2/2023 12:02:37 AM
Toluene	ND	0.048	mg/Kg	1	8/2/2023 12:02:37 AM
Ethylbenzene	ND	0.048	mg/Kg	1	8/2/2023 12:02:37 AM
Xylenes, Total	ND	0.097	mg/Kg	1	8/2/2023 12:02:37 AM
Surr: 4-Bromofluorobenzene	115	39.1-146	%Rec	1	8/2/2023 12:02:37 AM
EPA METHOD 300.0: ANIONS					Analyst: RBC
Chloride	110	60	mg/Kg	20	8/2/2023 11:56:11 AM

Matrix: SOIL

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

Qualifiers:

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

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Project:

Lab ID:

Red Bull 29 Fed 1H

2307D90-011

Analytical Report Lab Order 2307D90

Date Reported: 8/7/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-06 0.0 ' Collection Date: 7/26/2023 10:40:00 AM

Received Date: 7/28/2023 7:15:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	RGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	8/1/2023 1:28:44 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	8/1/2023 1:28:44 PM
Surr: DNOP	74.0	69-147	%Rec	1	8/1/2023 1:28:44 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	8/2/2023 1:13:05 AM
Surr: BFB	91.1	15-244	%Rec	1	8/2/2023 1:13:05 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	8/2/2023 1:13:05 AM
Toluene	ND	0.047	mg/Kg	1	8/2/2023 1:13:05 AM
Ethylbenzene	ND	0.047	mg/Kg	1	8/2/2023 1:13:05 AM
Xylenes, Total	ND	0.095	mg/Kg	1	8/2/2023 1:13:05 AM
Surr: 4-Bromofluorobenzene	109	39.1-146	%Rec	1	8/2/2023 1:13:05 AM
EPA METHOD 300.0: ANIONS					Analyst: RBC
Chloride	120	60	mg/Kg	20	8/2/2023 12:08:35 PM

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D н

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit

% Recovery outside of standard limits. If undiluted results may be estimated. S

- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 11 of 23

Project:

Lab ID:

Red Bull 29 Fed 1H

2307D90-012

Analytical Report Lab Order 2307D90

Date Reported: 8/7/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-06 1.0 ' Collection Date: 7/26/2023 10:50:00 AM

Received Date: 7/28/2023 7:15:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	8/1/2023 1:39:25 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	8/1/2023 1:39:25 PM
Surr: DNOP	99.0	69-147	%Rec	1	8/1/2023 1:39:25 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/2/2023 1:36:25 AM
Surr: BFB	92.0	15-244	%Rec	1	8/2/2023 1:36:25 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	8/2/2023 1:36:25 AM
Toluene	ND	0.049	mg/Kg	1	8/2/2023 1:36:25 AM
Ethylbenzene	ND	0.049	mg/Kg	1	8/2/2023 1:36:25 AM
Xylenes, Total	ND	0.097	mg/Kg	1	8/2/2023 1:36:25 AM
Surr: 4-Bromofluorobenzene	111	39.1-146	%Rec	1	8/2/2023 1:36:25 AM
EPA METHOD 300.0: ANIONS					Analyst: RBC
Chloride	ND	60	mg/Kg	20	8/2/2023 1:10:37 PM

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D н

- Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range Reporting Limit

RL

Page 12 of 23

Project:

Red Bull 29 Fed 1H

Analytical Report Lab Order 2307D90

Date Reported: 8/7/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-07 0.0 ' Collection Date: 7/26/2023 11:00:00 AM Received Date: 7/28/2023 7:15:00 AM

Lab ID: 2307D90-013	Matrix: SOIL Received Date: 7/28/2023 7:15:00 A				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	8/1/2023 1:50:07 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	8/1/2023 1:50:07 PM
Surr: DNOP	78.8	69-147	%Rec	1	8/1/2023 1:50:07 PM
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/2/2023 1:59:46 AM
Surr: BFB	91.7	15-244	%Rec	1	8/2/2023 1:59:46 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	8/2/2023 1:59:46 AM
Toluene	ND	0.049	mg/Kg	1	8/2/2023 1:59:46 AM
Ethylbenzene	ND	0.049	mg/Kg	1	8/2/2023 1:59:46 AM
Xylenes, Total	ND	0.098	mg/Kg	1	8/2/2023 1:59:46 AM
Surr: 4-Bromofluorobenzene	110	39.1-146	%Rec	1	8/2/2023 1:59:46 AM
EPA METHOD 300.0: ANIONS					Analyst: RBC
Chloride	72	60	mg/Kg	20	8/2/2023 1:23:02 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

- D н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Project:

Lab ID:

Red Bull 29 Fed 1H

2307D90-014

Analytical Report Lab Order 2307D90

Date Reported: 8/7/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-07 1.0 ' Collection Date: 7/26/2023 11:10:00 AM Received Date: 7/28/2023 7:15:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	8/1/2023 2:00:50 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	8/1/2023 2:00:50 PM
Surr: DNOP	112	69-147	%Rec	1	8/1/2023 2:00:50 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/2/2023 2:23:12 AM
Surr: BFB	91.7	15-244	%Rec	1	8/2/2023 2:23:12 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	8/2/2023 2:23:12 AM
Toluene	ND	0.049	mg/Kg	1	8/2/2023 2:23:12 AM
Ethylbenzene	ND	0.049	mg/Kg	1	8/2/2023 2:23:12 AM
Xylenes, Total	ND	0.097	mg/Kg	1	8/2/2023 2:23:12 AM
Surr: 4-Bromofluorobenzene	110	39.1-146	%Rec	1	8/2/2023 2:23:12 AM
EPA METHOD 300.0: ANIONS					Analyst: RBC
Chloride	ND	60	mg/Kg	20	8/2/2023 1:35:27 PM

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Project:

Red Bull 29 Fed 1H

Analytical Report Lab Order 2307D90

Date Reported: 8/7/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-08 0.0 ' Collection Date: 7/26/2023 11:20:00 AM Received Date: 7/28/2023 7:15:00 AM

Lab ID: 2307D90-015	Matrix: SOIL	Rece	eived Date:	7/28/2	023 7:15:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: PRD
Diesel Range Organics (DRO)	ND	8.7	mg/Kg	1	8/1/2023 2:11:34 PM
Motor Oil Range Organics (MRO)	ND	44	mg/Kg	1	8/1/2023 2:11:34 PM
Surr: DNOP	85.9	69-147	%Rec	1	8/1/2023 2:11:34 PM
EPA METHOD 8015D: GASOLINE RA	ANGE				Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/2/2023 2:46:42 AM
Surr: BFB	92.0	15-244	%Rec	1	8/2/2023 2:46:42 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	8/2/2023 2:46:42 AM
Toluene	ND	0.048	mg/Kg	1	8/2/2023 2:46:42 AM
Ethylbenzene	ND	0.048	mg/Kg	1	8/2/2023 2:46:42 AM
Xylenes, Total	ND	0.095	mg/Kg	1	8/2/2023 2:46:42 AM
Surr: 4-Bromofluorobenzene	110	39.1-146	%Rec	1	8/2/2023 2:46:42 AM
EPA METHOD 300.0: ANIONS					Analyst: RBC
Chloride	110	60	mg/Kg	20	8/2/2023 1:47:51 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits

Р Sample pH Not In Range Reporting Limit

RL

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Red Bull 29 Fed 1H

Project:

Analytical Report Lab Order 2307D90

Date Reported: 8/7/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH23-08 0.5 ' Collection Date: 7/26/2023 11:30:00 AM Received Date: 7/28/2023 7:15:00 AM

Lab ID: 2307D90-016	Matrix: SOIL	Rece	eived Date:	7/28/2	023 7:15:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.0	mg/Kg	1	8/2/2023 3:07:46 PM
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	8/2/2023 3:07:46 PM
Surr: DNOP	92.8	69-147	%Rec	1	8/2/2023 3:07:46 PM
EPA METHOD 8015D: GASOLINE R	ANGE				Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/2/2023 3:10:17 AM
Surr: BFB	88.6	15-244	%Rec	1	8/2/2023 3:10:17 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	8/2/2023 3:10:17 AM
Toluene	ND	0.049	mg/Kg	1	8/2/2023 3:10:17 AM
Ethylbenzene	ND	0.049	mg/Kg	1	8/2/2023 3:10:17 AM
Xylenes, Total	ND	0.097	mg/Kg	1	8/2/2023 3:10:17 AM
Surr: 4-Bromofluorobenzene	107	39.1-146	%Rec	1	8/2/2023 3:10:17 AM
EPA METHOD 300.0: ANIONS					Analyst: RBC
Chloride	60	60	mg/Kg	20	8/2/2023 2:25:05 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix

- н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Above Quantitation Range/Estimated Value Е
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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WO#:	2307D90
	07 140 22

07-Aug-2	3
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Client:	Devon E	nergy								
Project:	Red Bull	29 Fed 1H								
Sample ID:	MB-76612	SampType:	MBLK	Tes	tCode: EF	PA Method	300.0: Anions			
Client ID:	PBS	Batch ID:	76612	F	RunNo: 98	3664				
Prep Date:	8/1/2023	Analysis Date:	8/1/2023	S	SeqNo: 35	593662	Units: mg/K	g		
Analyte		Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND 1	.5							
Sample ID:	LCS-76612	SampType:	LCS	Tes	tCode: EF	PA Method	300.0: Anions			
Client ID:	LCSS	Batch ID:	76612	F	RunNo: 98	3664				
Prep Date:	8/1/2023	Analysis Date:	8/1/2023	S	SeqNo: 35	593663	Units: mg/K	g		
Analyte		Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14 1	.5 15.00	0	92.4	90	110			
Sample ID:	MB-76617	SampType:	MBLK	Tes	tCode: EF	PA Method	300.0: Anions			
Sample ID: Client ID:	MB-76617 PBS	SampType: Batch ID: `	MBLK 76617	Tes	tCode: EF RunNo: 98	PA Method 3683	300.0: Anions	i i		
Sample ID: Client ID: Prep Date:	MB-76617 PBS 8/2/2023	SampType: Batch ID: Analysis Date:	MBLK 76617 8/2/2023	Tes F	tCode: EF RunNo: 98 SeqNo: 35	PA Method 3683 594682	300.0: Anions Units: mg/K	g		
Sample ID: Client ID: Prep Date: Analyte	MB-76617 PBS 8/2/2023	SampType: Batch ID: Analysis Date: Result PQ	MBLK 76617 8/2/2023 L SPK value	Tes F SPK Ref Val	tCode: EF RunNo: 98 SeqNo: 38 %REC	PA Method 3683 594682 LowLimit	300.0: Anions Units: mg/K g HighLimit	g %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Chloride	MB-76617 PBS 8/2/2023	SampType: Batch ID: Analysis Date: Result PQ ND 1	MBLK 76617 8/2/2023 L SPK value .5	Tes F SPK Ref Val	tCode: EF RunNo: 98 SeqNo: 38 %REC	PA Method 3683 594682 LowLimit	300.0: Anions Units: mg/Kg HighLimit	g %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Chloride Sample ID:	MB-76617 PBS 8/2/2023 LCS-76617	SampType: Batch ID: Analysis Date: Result PQ ND 1 SampType:	MBLK 76617 8/2/2023 L SPK value .5	Tes F SPK Ref Val Tes	tCode: EF RunNo: 98 SeqNo: 35 %REC tCode: EF	PA Method 3683 594682 LowLimit	300.0: Anions Units: mg/Kg HighLimit 300.0: Anions	g %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Chloride Sample ID: Client ID:	MB-76617 PBS 8/2/2023 LCS-76617 LCSS	SampType: Batch ID: Analysis Date: Result PQ ND 1 SampType: Batch ID:	MBLK 76617 8/2/2023 L SPK value .5 LCS 76617	Tes F SPK Ref Val Tes F	tCode: EF RunNo: 98 SeqNo: 38 %REC tCode: EF RunNo: 98	PA Method 3683 594682 LowLimit PA Method 3683	300.0: Anions Units: mg/Kg HighLimit 300.0: Anions	g %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Chloride Sample ID: Client ID: Prep Date:	MB-76617 PBS 8/2/2023 LCS-76617 LCSS 8/2/2023	SampType: Batch ID: Analysis Date: Result PQ ND 1 SampType: Batch ID: Analysis Date:	MBLK 76617 8/2/2023 L SPK value .5 LCS 76617 8/2/2023	Tes F SPK Ref Val Tes F	tCode: EF RunNo: 98 SeqNo: 35 %REC tCode: EF RunNo: 98 SeqNo: 35	PA Method 3683 594682 LowLimit PA Method 3683 594683	300.0: Anions Units: mg/Kg HighLimit 300.0: Anions Units: mg/Kg	g %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Chloride Sample ID: Client ID: Prep Date: Analyte	MB-76617 PBS 8/2/2023 LCS-76617 LCSS 8/2/2023	SampType: Batch ID: Analysis Date: Result PQ ND 1 SampType: Batch ID: Analysis Date: Result PQ	MBLK 76617 8/2/2023 L SPK value .5 LCS 76617 8/2/2023 L SPK value	Tes F SPK Ref Val Tes F SPK Ref Val	tCode: EF RunNo: 98 SeqNo: 35 %REC tCode: EF RunNo: 98 SeqNo: 35 %REC	PA Method 3683 594682 LowLimit PA Method 3683 594683 LowLimit	300.0: Anions Units: mg/Kg HighLimit 300.0: Anions Units: mg/Kg HighLimit	9 %RPD 9 %RPD	RPDLimit	Qual

Qualifiers:

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

Devon Energy

Client:

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc

tory. Inc	WO#:	2307D90
tor y, mc.		07-Aug-23

Project: Red Bul	ll 29 Fed 1H		
Sample ID: MB-76565	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 76565	RunNo: 98619	
Prep Date: 7/31/2023	Analysis Date: 7/31/2023	SeqNo: 3591533	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	8.8 10.00	88.0 69	147
Sample ID: LCS-76565	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 76565	RunNo: 98619	
Prep Date: 7/31/2023	Analysis Date: 7/31/2023	SeqNo: 3591534	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 93.2 61.9	130
Surr: DNOP	4.4 5.000	87.7 69	147
Sample ID: LCS-76582	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 76582	RunNo: 98632	
Prep Date: 7/31/2023	Analysis Date: 8/1/2023	SeqNo: 3593241	Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	55 10 50.00	0 110 61.9	130
Surr: DNOP	5.3 5.000	105 69	147
Sample ID: MB-76582	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 76582	RunNo: 98632	
Prep Date: 7/31/2023	Analysis Date: 8/1/2023	SeqNo: 3593242	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	405 00	
Suff: DNOP	11 10.00	105 69	147
Sample ID: MB-76620	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 76620	RunNo: 98691	
Prep Date: 8/2/2023	Analysis Date: 8/2/2023	SeqNo: 3594941	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	007 00	4.47
SUIT: DINOP	9.0 10.00	89.7 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

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Client: Project:	Devon Energy Red Bull 29 Fed 1	Н								
Sample ID: LCS-76	6 20 Sam	рТуре: LC	s	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: LCSS	Bat	ich ID: 76	620	F	RunNo: 98	3691				
Prep Date: 8/2/202	23 Analysis	Date: 8/	/2/2023	S	SeqNo: 35	594942	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (E	DRO) 44	10	50.00	0	88.7	61.9	130			
Surr: DNOP	4.3		5.000		86.0	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

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2307D90

07-Aug-23

WO#:

Client:

Project:

Client ID:

Prep Date:

Surr: BFB

Client ID:

Prep Date:

Surr: BFB

Client ID:

Prep Date:

Surr: BFB

Analyte

Analyte

Analvte

Sample ID: Ics-76543

LCSS

Gasoline Range Organics (GRO)

Sample ID: mb-76543

PBS

Gasoline Range Organics (GRO)

LCSS

Gasoline Range Organics (GRO)

7/31/2023

Sample ID: Ics-76571

7/28/2023

7/28/2023

QC SUMMARY REP Hall Environmental Anal

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IARY menta	(REPC al Analy	ORT //sis L	aborato	ry, Inc.					WO#:	2307D90 07-Aug-23
Devon E Red Bul	Energy 1 29 Fed 1F	ł								
43	Samp	Гуре: LC	S	Tes	tCode: E	PA Method	8015D: Gaso	line Range	!	
	Batc	h ID: 76	543	F	≀unNo: 9	8601				
023	Analysis [Date: 7/	31/2023	S	SeqNo: 3	591155	Units: mg/K	(g		
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
; (GRO)	23	5.0	25.00	0	92.9	70 15	130			
	2000		1000		199	15	244			
43	Samp	Гуре: МЕ	BLK	Tes	tCode: E	PA Method	8015D: Gaso	line Range	l	
	Batc	h ID: 76	543	F	≀unNo: 9	8601				
023	Analysis [Date: 7/	31/2023	Ş	SeqNo: 3	591604	Units: mg/K	(g		
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
s (GRO)	ND	5.0								
	960		1000		96.1	15	244			
71	Samp	Гуре: LC	S	Tes	tCode: E	PA Method	8015D: Gaso	line Range	l	
	Batc	h ID: 76	571	F	≀unNo: 9	8626				
023	Analysis [Date: 8/	1/2023	5	SeqNo: 3	593250	Units: mg/K	(g		
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Surr: BFB		1900		1000		191	15	244			
Sample ID:	mb-76571	SampT	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Range	•	
Client ID:	PBS	Batcl	h ID: 76	571	RunNo: 98626						
Prep Date:	7/31/2023	Analysis E	Date: 8/ *	1/2023	S	SeqNo: 3	593251	Units: mg/Kg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	ND	5.0								
Surr: BFB		970		1000		97.4	15	244			
Sample ID:	2307d90-009ams	SampT	Гуре: МS	5	Tes	tCode: EF	PA Method	8015D: Gaso	line Range	•	
Sample ID: Client ID:	2307d90-009ams BH23-05 0.0 '	Samp [¬] Batcl	Гуре: МS h ID: 76	571	Tes	tCode: EF RunNo: 98	PA Method 3626	8015D: Gaso	line Range	9	
Sample ID: Client ID: Prep Date:	2307d90-009ams BH23-05 0.0 ' 7/31/2023	SampT Batcl Analysis [Гуре: МS h ID: 76 Date: 8 /	5 571 1/2023	Tes F	tCode: EF RunNo: 98 SeqNo: 35	PA Method 3626 593266	8015D: Gaso Units: mg/K	line Range		
Sample ID: Client ID: Prep Date: Analyte	2307d90-009ams BH23-05 0.0 ' 7/31/2023	SampT Batcl Analysis I Result	Type: MS h ID: 76! Date: 8 / PQL	5 571 1/2023 SPK value	Tes F SPK Ref Val	tCode: EF RunNo: 98 SeqNo: 38 %REC	PA Method 3626 593266 LowLimit	8015D: Gaso Units: mg/K HighLimit	line Range (g %RPD	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte Gasoline Rang	2307d90-009ams BH23-05 0.0 ' 7/31/2023 e Organics (GRO)	SampT Batcl Analysis I Result 23	Fype: MS h ID: 76 Date: 8 / PQL 4.7	5 571 1/2023 SPK value 23.63	Tes F S SPK Ref Val 0	tCode: EF RunNo: 98 SeqNo: 38 %REC 96.2	PA Method 3626 593266 LowLimit 70	8015D: Gaso Units: mg/⊮ HighLimit 130	line Range Sg %RPD	RPDLimit	Qual

0

87.6

70

130

Sample ID:	2307d90-009amsd	SampType:	MSD	Tes	PA Method	8015D: Gasoli	ne Range			
Client ID:	BH23-05 0.0 '	Batch ID:	76571	R	RunNo: 9	8626				
Prep Date:	7/31/2023	Analysis Date:	8/1/2023	S	SeqNo: 3	593267	Units: mg/Kg)		
Analyte		Result PC	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit ND

- PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- в Analyte detected in the associated Method Blank
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Sample pH Not In Range Р

RL Reporting Limit Page 20 of 23

Client: Project:	Devon En Red Bull (ergy 29 Fed 1H	r								
110jeet.	Red Dull 2	27100111									
Sample ID:	2307d90-009amsd	SampT	уре: МS	D	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	BH23-05 0.0 '	Batch	n ID: 76	571	RunNo: 98626						
Prep Date:	7/31/2023	Analysis D	ate: 8/	1/2023	S	SeqNo: 3	593267	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	je Organics (GRO)	23	4.7	23.41	0	96.2	70	130	0.982	20	
Surr: BFB		1900		936.3		204	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

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2307D90

07-Aug-23

WO#:

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#:	2307D90

07-Aug-23

Client: Project:	Devon Red Bu	Energy 11 29 Fed 1H	I								
Sample ID:	LCS-76543	SampT	Гуре: LC	S	Tes	tCode: El	PA Method	8021B: Volati	les		
Client ID:	LCSS	Batch	h ID: 76	543	RunNo: 98601						
Prep Date:	7/28/2023	Analysis E	Date: 7/	31/2023	\$	SeqNo: 3	591156	Units: mg/K	g		
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	103	70	130			
Ethylbenzene		1.0	0.050	1.000	0	105	70	130			
Xylenes, Total		3.2	0.10	3.000	0	107	70	130			
Surr: 4-Brom	nofluorobenzene	1.1		1.000		114	39.1	146			
Sample ID:	mb-76543	SampT	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volati	les		
Client ID:	PBS	Batch	h ID: 76	543	F	RunNo: 9	8601				
Prep Date:	7/28/2023	Analysis D	Date: 7/	31/2023	5	SeqNo: 3	591642	Units: mg/K	g		
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-Brom	nofluorobenzene	1.1		1.000		114	39.1	146			
Sample ID:	LCS-76571	SampT	Гуре: LC	S	Tes	tCode: El	PA Method	8021B: Volati	les		
Client ID:	LCSS	Batcl	h ID: 76	571	F	RunNo: 9	8626				
Prep Date:	7/31/2023	Analysis D	Date: 8/	1/2023	Ş	SeqNo: 3	593284	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.94	0.025	1.000	0	93.6	70	130			
Toluene		0.98	0.050	1.000	0	97.6	70	130			
Ethylbenzene		1.0	0.050	1.000	0	102	70	130			
Xylenes, Total		3.1	0.10	3.000	0	104	70	130			
Surr: 4-Brom	nofluorobenzene	1.2		1.000		117	39.1	146			
Sample ID:	mb-76571	SampT	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volati	les		
Client ID:	PBS	Batch	h ID: 76	571	F	RunNo: 9	8626				
Prep Date:	7/31/2023	Analysis E	Date: 8/	1/2023	Ş	SeqNo: 3	593285	Units: mg/K	g		
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-Brom	nofluorobenzene	1.2		1.000		117	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

Devon Energy

Red Bull 29 Fed 1H

Client:

Project:

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Sample ID:	2307d90-001ams	SampType: MS TestCode: EPA Method 8021B: Volatiles											
Client ID:	BH23-01 0.0 '	Batch	h ID: 765	43	F	RunNo: 98626							
Prep Date:	7/28/2023	Analysis E	Date: 8/ *	1/2023	S	SeqNo: 3	593296	Units: mg/K	g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene		0.99	0.025	0.9814	0	101	70	130					
oluene		1.0	0.049	0.9814	0	102	70	130					
thylbenzene		1.0	0.049	0.9814	0	103	70	130					
(ylenes, Total		3.1	0.098	2.944	0	105	70	130					
Surr: 4-Bron	nofluorobenzene	1.1		0.9814		115	39.1	146					
Sample ID:	2307d90-001amsd	SampType: MSD TestCode: EPA Method 8021B: Volatiles											
Client ID:	BH23-01 0.0 '	Batch	h ID: 765	43	F	RunNo: 98	8626						
Prep Date:	7/28/2023	Analysis D	Date: 8/ *	1/2023	S	SeqNo: 3	593297	Units: mg/K	g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene		0.95	0.025	0.9833	0	97.0	70	130	3.58	20			
oluene		0.97	0.049	0.9833	0	99.1	70	130	2.59	20			
thylbenzene		0.99	0.049	0.9833	0	101	70	130	1.80	20			
(ylenes, Total		3.0	0.098	2.950	0	102	70	130	2.67	20			
Surr: 4-Bron	nofluorobenzene	1.1		0.9833		113	39.1	146	0	0			
Sample ID:	2307d90-010ams	SampT	Гуре: МS	i	Tes	tCode: EF	A Method	8021B: Volati	iles				
Sample ID: Client ID:	2307d90-010ams BH23-05 1.0 '	SampT Batcl	Гуре: МS h ID: 765	571	Tes F	tCode: EF	PA Method 3626	8021B: Volati	iles				
Sample ID: Client ID: Prep Date:	2307d90-010ams BH23-05 1.0 ' 7/31/2023	SampT Batcl Analysis D	Type: MS h ID: 765 Date: 8/ 2	71 2/2023	Tes F S	tCode: EF RunNo: 98 SeqNo: 35	PA Method 3626 593303	8021B: Volati Units: mg/K	iles (g				
Sample ID: Client ID: Prep Date: Analyte	2307d90-010ams BH23-05 1.0 ' 7/31/2023	SampT Batcl Analysis D Result	Fype: MS h ID: 765 Date: 8/2 PQL	571 2/2023 SPK value	Tes F SPK Ref Val	tCode: EF RunNo: 98 SeqNo: 38 %REC	PA Method 3626 593303 LowLimit	8021B: Volati Units: mg/K HighLimit	iles íg %RPD	RPDLimit	Qual		
Sample ID: Client ID: Prep Date: Analyte Benzene	2307d90-010ams BH23-05 1.0 ' 7/31/2023	SampT Batcl Analysis D Result 0.94	Fype: MS h ID: 765 Date: 8/2 PQL 0.024	571 2/2023 SPK value 0.9662	Tes F S SPK Ref Val 0	tCode: EF RunNo: 98 SeqNo: 38 %REC 97.2	PA Method 3626 593303 LowLimit 70	8021B: Volati Units: mg/K HighLimit 130	iles Sg %RPD	RPDLimit	Qual		
Sample ID: Client ID: Prep Date: Analyte Benzene ioluene	2307d90-010ams BH23-05 1.0 ' 7/31/2023	SampT Batcl Analysis E Result 0.94 0.99	Type: MS h ID: 765 Date: 8/2 PQL 0.024 0.048	571 2/2023 SPK value 0.9662 0.9662	Tes F SPK Ref Val 0 0	tCode: EF RunNo: 98 SeqNo: 39 %REC 97.2 102	24 Method 3626 593303 LowLimit 70 70	8021B: Volati Units: mg/K HighLimit 130 130	iles (g %RPD	RPDLimit	Qual		
Sample ID: Client ID: Prep Date: Analyte Benzene ioluene ithylbenzene	2307d90-010ams BH23-05 1.0 ' 7/31/2023	SampT Batch Analysis D Result 0.94 0.99 1.0	Type: MS h ID: 765 Date: 8/2 PQL 0.024 0.048 0.048	571 2/2023 SPK value 0.9662 0.9662 0.9662	Tes F SPK Ref Val 0 0 0 0	tCode: EF RunNo: 98 SeqNo: 38 %REC 97.2 102 108	PA Method 3626 593303 LowLimit 70 70 70 70	8021B: Volati Units: mg/K HighLimit 130 130 130	iles (g %RPD	RPDLimit	Qual		
Sample ID: Client ID: Prep Date: Analyte Benzene Foluene Stylbenzene Sylenes, Total	2307d90-010ams BH23-05 1.0 ' 7/31/2023	SampT Batch Analysis D Result 0.94 0.99 1.0 3.2	Type: MS h ID: 765 Date: 8/2 PQL 0.024 0.048 0.048 0.097	771 2/2023 SPK value 0.9662 0.9662 0.9662 2.899	Tes F SPK Ref Val 0 0 0 0 0	tCode: EF RunNo: 98 SeqNo: 38 %REC 97.2 102 108 109	PA Method 3626 593303 LowLimit 70 70 70 70 70	8021B: Volati Units: mg/K HighLimit 130 130 130 130	iles ⁷ g %RPD	RPDLimit	Qual		
Sample ID: Client ID: Prep Date: Analyte Benzene foluene (thylbenzene (ylenes, Total Surr: 4-Bron	2307d90-010ams BH23-05 1.0 ' 7/31/2023	SampT Batcl Analysis E Result 0.94 0.99 1.0 3.2 1.1	Fype: MS h ID: 765 Date: 8/ 2 0.024 0.048 0.048 0.048 0.097	771 2/2023 SPK value 0.9662 0.9662 0.9662 2.899 0.9662	Tes F SPK Ref Val 0 0 0 0 0 0	tCode: EF RunNo: 98 SeqNo: 38 %REC 97.2 102 108 109 114	PA Method 3626 593303 LowLimit 70 70 70 70 70 39.1	8021B: Volati Units: mg/K HighLimit 130 130 130 130 146	iles (g %RPD	RPDLimit	Qual		
Sample ID: Client ID: Prep Date: Analyte Benzene foluene thylbenzene (ylenes, Total Surr: 4-Bron Sample ID:	2307d90-010ams BH23-05 1.0 ' 7/31/2023 nofluorobenzene 2307d90-010amsd	SampT Batcl Analysis D Result 0.94 0.99 1.0 3.2 1.1 SampT	Fype: MS bh ID: 765 Date: 8/2 PQL 0.024 0.048 0.048 0.097	771 2/2023 SPK value 0.9662 0.9662 2.899 0.9662 0.9662 D	Tes F SPK Ref Val 0 0 0 0 Tes	tCode: EF RunNo: 98 SeqNo: 38 %REC 97.2 102 108 109 114 tCode: EF	PA Method 3626 593303 LowLimit 70 70 70 70 39.1 PA Method	8021B: Volati Units: mg/K HighLimit 130 130 130 130 146 8021B: Volati	iles %RPD	RPDLimit	Qual		
Sample ID: Client ID: Prep Date: Analyte Benzene foluene foluene fulylbenzene fylenes, Total Surr: 4-Bron Sample ID: Client ID:	2307d90-010ams BH23-05 1.0 ' 7/31/2023 nofluorobenzene 2307d90-010amsd BH23-05 1.0 '	SampT Batcl Analysis I Result 0.94 0.99 1.0 3.2 1.1 SampT Batcl	Fype: MS h ID: 765 Date: 8/ 2 0.024 0.048 0.048 0.097 Fype: MS h ID: 765	771 2/2023 SPK value 0.9662 0.9662 0.9662 2.899 0.9662 0.9662 D 771	Tes F SPK Ref Val 0 0 0 0 0 Tes F	tCode: EF RunNo: 98 SeqNo: 38 %REC 97.2 102 108 109 114 tCode: EF RunNo: 98	2A Method 3626 593303 LowLimit 70 70 70 70 70 39.1 2A Method 3626	8021B: Volati Units: mg/K HighLimit 130 130 130 130 146 8021B: Volati	iles Gg %RPD	RPDLimit	Qual		
Sample ID: Client ID: Prep Date: Analyte Benzene foluene tithylbenzene (ylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date:	2307d90-010ams BH23-05 1.0 ' 7/31/2023 nofluorobenzene 2307d90-010amsd BH23-05 1.0 ' 7/31/2023	SampT Batcl Analysis D Result 0.94 0.99 1.0 3.2 1.1 SampT Batcl Analysis D	Type: MS h ID: 765 Date: 8/2 PQL 0.024 0.048 0.097 Type: MS h ID: 765 Date: 8/2	771 2/2023 SPK value 0.9662 0.9662 2.899 0.9662 D 571 2/2023	Tes F SPK Ref Val 0 0 0 0 Tes F S	tCode: EF RunNo: 98 SeqNo: 38 %REC 97.2 102 108 109 114 tCode: EF RunNo: 98 SeqNo: 38	PA Method 3626 593303 LowLimit 70 70 70 39.1 PA Method 3626 593304	8021B: Volati Units: mg/K HighLimit 130 130 130 130 146 8021B: Volati Units: mg/K	iles %RPD	RPDLimit	Qual		
Sample ID: Client ID: Prep Date: Analyte Benzene foluene thylbenzene Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte	2307d90-010ams BH23-05 1.0 ' 7/31/2023 nofluorobenzene 2307d90-010amsd BH23-05 1.0 ' 7/31/2023	SampT Batcl Analysis D 0.94 0.99 1.0 3.2 1.1 SampT Batcl Analysis D Result	Fype: MS h ID: 765 Date: 8/2 PQL 0.024 0.048 0.048 0.097 Fype: MS h ID: 765 Date: 8/2 PQL	771 2/2023 SPK value 0.9662 0.9662 2.899 0.9662 0.9662 D 771 2/2023 SPK value	Tes F SPK Ref Val 0 0 0 0 Tes F SPK Ref Val	tCode: EF RunNo: 98 SeqNo: 38 %REC 97.2 102 108 109 114 tCode: EF RunNo: 98 SeqNo: 38 %REC	PA Method 3626 593303 LowLimit 70 70 70 39.1 PA Method 3626 593304 LowLimit	8021B: Volati Units: mg/K HighLimit 130 130 130 130 146 8021B: Volati Units: mg/K HighLimit	iles %RPD iles %RPD	RPDLimit	Qual		
Sample ID: Client ID: Prep Date: Analyte Benzene foluene thylbenzene (ylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte Benzene	2307d90-010ams BH23-05 1.0 ' 7/31/2023 nofluorobenzene 2307d90-010amsd BH23-05 1.0 ' 7/31/2023	SampT Batcl Analysis D Result 0.94 0.99 1.0 3.2 1.1 SampT Batcl Analysis D Result 0.91	Fype: MS h ID: 765 Date: 8/2 PQL 0.024 0.048 0.048 0.048 0.097 Fype: MS h ID: 765 Date: 8/2 PQL 0.024	771 2/2023 SPK value 0.9662 0.9662 2.899 0.9662 0.9662 D 771 2/2023 SPK value 0.9718	Tes F SPK Ref Val 0 0 0 0 Tes F SPK Ref Val 0	tCode: EF RunNo: 98 SeqNo: 38 %REC 97.2 102 108 109 114 tCode: EF RunNo: 98 SeqNo: 38 %REC 93.7	PA Method 3626 593303 LowLimit 70 70 70 39.1 PA Method 3626 593304 LowLimit 70	8021B: Volati Units: mg/K HighLimit 130 130 130 130 146 8021B: Volati Units: mg/K HighLimit 130	iles %RPD iles %RPD 3.10	RPDLimit RPDLimit 20	Qual		
Sample ID: Client ID: Prep Date: Analyte Benzene foluene (thylbenzene (ylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte Benzene foluene	2307d90-010ams BH23-05 1.0 ' 7/31/2023 nofluorobenzene 2307d90-010amsd BH23-05 1.0 ' 7/31/2023	SampT Batcl Analysis D Result 0.94 0.99 1.0 3.2 1.1 SampT Batcl Analysis D Result 0.91 0.95	Type: MS h ID: 765 Date: 8/2 PQL 0.024 0.048 0.097 Type: MS h ID: 765 Date: 8/2 PQL 0.024 0.024 0.049	571 2/2023 SPK value 0.9662 0.9662 2.899 0.9662 0.9662 D 571 2/2023 SPK value 0.9718 0.9718	Tes F SPK Ref Val 0 0 0 0 Tes SPK Ref Val 0 0	tCode: EF RunNo: 98 SeqNo: 38 %REC 97.2 102 108 109 114 tCode: EF RunNo: 98 SeqNo: 38 %REC 93.7 97.5	PA Method 3626 593303 LowLimit 70 70 70 39.1 PA Method 3626 593304 LowLimit 70 70 70 70	8021B: Volati Units: mg/K HighLimit 130 130 130 130 146 8021B: Volati Units: mg/K HighLimit 130 130	iles (g %RPD (iles (g %RPD 3.10 3.91	RPDLimit RPDLimit 20 20	Qual		
Sample ID: Client ID: Prep Date: Analyte Benzene foluene (thylbenzene (ylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte Benzene foluene (thylbenzene	2307d90-010ams BH23-05 1.0 ' 7/31/2023 nofluorobenzene 2307d90-010amsd BH23-05 1.0 ' 7/31/2023	SampT Batcl Analysis D Result 0.94 0.99 1.0 3.2 1.1 SampT Batcl Analysis D Result 0.91 0.95 1.0	Fype: MS h ID: 765 Date: 8/2 PQL 0.024 0.048 0.097 Fype: MS h ID: 765 Date: 8/2 PQL 0.024 0.049 0.049	771 2/2023 SPK value 0.9662 0.9662 2.899 0.9662 D 771 2/2023 SPK value 0.9718 0.9718 0.9718	Tes 5 5PK Ref Val 0 0 0 0 0 5 7 6 5 5 7 8 5 7 8 5 7 8 7 8 5 7 8 7 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8	tCode: EF RunNo: 98 SeqNo: 38 97.2 102 108 109 114 tCode: EF RunNo: 98 SeqNo: 38 %REC 93.7 97.5 103	PA Method 3626 593303 LowLimit 70 70 70 70 39.1 PA Method 3626 593304 LowLimit 70 70 70 70 70	8021B: Volati Units: mg/K HighLimit 130 130 130 130 146 8021B: Volati Units: mg/K HighLimit 130 130 130	iles 3 3 3 3 3 3 3 3 3 3 3 3 3	RPDLimit RPDLimit 20 20 20 20	Qual		
Sample ID: Client ID: Prep Date: Analyte Benzene foluene (thylbenzene (ylenes, Total Surr: 4-Bron Sample ID: Client ID: Prep Date: Analyte Benzene foluene (thylbenzene (ylenes, Total	2307d90-010ams BH23-05 1.0 ' 7/31/2023 nofluorobenzene 2307d90-010amsd BH23-05 1.0 ' 7/31/2023	SampT Batcl Analysis D Result 0.94 0.99 1.0 3.2 1.1 SampT Batcl Analysis D Result 0.91 0.95 1.0 3.0	Fype: MS h ID: 765 Date: 8/2 0.024 0.048 0.048 0.048 0.097 Fype: MS h ID: 765 Date: 8/2 PQL 0.024 0.049 0.049 0.097	771 2/2023 SPK value 0.9662 0.9662 0.9662 2.899 0.9662 0.9662 D 771 2/2023 SPK value 0.9718 0.9718 0.9718 0.9718 0.9718 2.915	Tes 5 5PK Ref Val 0 0 0 0 0 0 5 5PK Ref Val 0 0 0 0 0 0 0 0	tCode: EF RunNo: 98 SeqNo: 38 97.2 102 108 109 114 tCode: EF RunNo: 98 SeqNo: 38 %REC 93.7 97.5 103 105	2A Method 3626 593303 LowLimit 70 70 70 70 39.1 2A Method 3626 593304 LowLimit 70 70 70 70 70 70	8021B: Volati Units: mg/K HighLimit 130 130 130 130 146 8021B: Volati Units: mg/K HighLimit 130 130 130 130	iles (g %RPD iles (g %RPD 3.10 3.91 3.87 3.29	RPDLimit RPDLimit 20 20 20 20 20 20	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

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WO#: 2307D90

07-Aug-23

Work Order Numb ubias 7/28/2023 7:15:00 A ubias 7/28/2023 7:43:27 A 23	er: 2307D90 M		RcptNo: 1
ubias 7/28/2023 7:15:00 A ubias 7/28/2023 7:43:27 A Z 3	M		
ubias 7/28/2023 7:43:27 A 23	Μ		
23			
?	Yes	No 🔽	Not Present
d?	Courier		
the samples?	Yes 🔽	No 🗌	NA 🗌
a temperature of >0° C to 6.0°C	Yes 🗹	No 🗌	NA 🗔
(s)?	Yes 🗹	No 🗌	
ndicated test(s)?	Yes 🗹	No 🗌	
ONG) properly preserved?	Yes 🗹	No 🗌	
ttles?	Yes 🗌	No 🗹	NA 🗌
eadspace <1/4" for AQ VOA?	Yes	No 🗌	NA 🗹
received broken?	Yes 🗀	No 🔽	# of preserved bottles checked
labels? of custody)	Yes 🔽	No 🗌	for pH: (<2 or >12 anless noted)
d on Chain of Custody?	Yes 🔽	No 🗌	Adjusted?
requested?	Yes 🗹	No 🗌	my Traba
be met? orization.)	Yes 🗹	No 🗌	Checked by: NGALON23
able)			
epancies with this order?	Yes 🗌	No 🗌	NA 🗹
Date:			
Via:		hone 📋 Fax	
iling address phone number and Em	ail/Eax are missin		7/28/23
ming address, phone number, and EM	aii/Fax are missin		, 1120123
	o		
Condition Seal Intact Seal No	Seal Date	Signed By	
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Page 141 of 251

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	Din	cat B	ull		Project Na	me:	5/14	www.hallenvironmental.com												
Mailing	g Address				Kerkoll 29 1ED. FI				4901 Hawkins NE - Albuquerque, NM 87109											
			****		Project #:				Tel. 505-345-3975 Fax 505-345-4107											
Phone	#:			<u></u>	286-07011				Analysis Request											
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Received by OCD: 2/8/2024 9:56:02 AM

Client: Deren Direct Bill Mailing Address:	Turn-Around Time: Standard Rush 5000 Project Name: Red Bull 29 Fed 114 Project #: 23E-04311	HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107
email or Fax#: QA/QC Package: □ Standard □ Level 4 (Full Validation) Accreditation: □ Az Compliance □ NELAC □ Other	Project Manager: Kent Stallings Sampler: Att On Ice: Dryes IN0 1000	AugiNalia (8021) 0 / DRO / MRO) 0 / DRO / MRO) 0 / DRO / MRO) 04.1) 04.1) 04.10 NO ₂ , PO ₄ , SO ₄ A) A) A) A) Comparison (100) 100 100 100 100 100 100 100
Date Time Matrix Sample Name	# of Coolers: Cooler Temp(including CF): 0 - Ø = 0 (°C) Container Preservative Type HEAL No. 230-7 D90	RTEX MTBE / TPH:3015D(GR(R081 Pesticides 8081 Pesticides B081 Pestici
7-25-23 [100 So.] B/923-07 0.0 1/10 B/423-07 /.0' 1/20 B/423-08 0.0' V 1/30 B/423-08 0.5'	402 1CE 013 014 V V 015 016	
Date: Time: Relinquished by: Date: Time: Relinquished by:	Received by: Via: Date Time 127 23 800 Received by: Via: Courry Date Time 7:15	Remarks: Kent Stallings @ vertex.cg

Page 143 of 251

Released to Imaging: 4/3/2024 3:20:10



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

December 28, 2023 Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL:

FAX:

RE: Red Bull 29 Fed 1H

OrderNo.: 2310E28

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 8 sample(s) on 11/1/2023 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued November 13, 2023.

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. 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. All samples are reported as received unless otherwise indicated.

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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109
Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-01 1' **Project:** Red Bull 29 Fed 1H Collection Date: 10/27/2023 12:08:00 PM Lab ID: 2310E28-001 Matrix: SOIL Received Date: 11/1/2023 8:35:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 87 9.6 mg/Kg 1 11/3/2023 9:29:56 PM Motor Oil Range Organics (MRO) 82 1 11/3/2023 9:29:56 PM 48 mg/Kg Surr: DNOP 106 %Rec 1 11/3/2023 9:29:56 PM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 11/4/2023 4:57:48 PM Surr: BFB 89.3 11/4/2023 4:57:48 PM 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1 11/4/2023 4:57:48 PM Toluene ND 0.049 mg/Kg 1 11/4/2023 4:57:48 PM Ethylbenzene 11/4/2023 4:57:48 PM ND 0.049 mg/Kg 1 Xylenes, Total ND 0.098 mg/Kg 1 11/4/2023 4:57:48 PM Surr: 4-Bromofluorobenzene 93.2 39.1-146 %Rec 1 11/4/2023 4:57:48 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 470 11/3/2023 9:05:17 PM 60 mg/Kg 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

% Recovery outside of standard limits. If undiluted results may be estimated.

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-02 1' **Project:** Red Bull 29 Fed 1H Collection Date: 10/27/2023 12:09:00 PM Lab ID: 2310E28-002 Matrix: SOIL Received Date: 11/1/2023 8:35:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 310 9.3 11/3/2023 10:18:37 PM mg/Kg 1 Motor Oil Range Organics (MRO) 230 1 11/3/2023 10:18:37 PM 47 mg/Kg Surr: DNOP %Rec 1 11/3/2023 10:18:37 PM 111 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 11/4/2023 5:21:24 PM Surr: BFB 11/4/2023 5:21:24 PM 90.4 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1 11/4/2023 5:21:24 PM Toluene ND 0.048 mg/Kg 1 11/4/2023 5:21:24 PM Ethylbenzene 11/4/2023 5:21:24 PM ND 0.048 mg/Kg 1 Xylenes, Total ND 0.096 mg/Kg 1 11/4/2023 5:21:24 PM Surr: 4-Bromofluorobenzene 95.5 39.1-146 %Rec 1 11/4/2023 5:21:24 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 3400 11/6/2023 1:06:11 PM 150 mg/Kg 50

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit POL
- Practical Quanitative Limit S
- % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-03 1' **Project:** Red Bull 29 Fed 1H Collection Date: 10/27/2023 12:10:00 PM Lab ID: 2310E28-003 Matrix: SOIL Received Date: 11/1/2023 8:35:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 660 9.8 11/3/2023 11:07:04 PM mg/Kg 1 mg/Kg Motor Oil Range Organics (MRO) 430 1 11/3/2023 11:07:04 PM 49 Surr: DNOP 107 69-147 %Rec 1 11/3/2023 11:07:04 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.7 mg/Kg 1 11/4/2023 5:45:03 PM Surr: BFB 89.0 11/4/2023 5:45:03 PM 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1 11/4/2023 5:45:03 PM Toluene ND 0.047 mg/Kg 1 11/4/2023 5:45:03 PM Ethylbenzene 11/4/2023 5:45:03 PM ND 0.047 mg/Kg 1 Xylenes, Total ND 0.095 mg/Kg 1 11/4/2023 5:45:03 PM %Rec Surr: 4-Bromofluorobenzene 92.7 39.1-146 1 11/4/2023 5:45:03 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 9300 300 11/6/2023 1:18:35 PM mg/Kg 100

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

Qualifiers:

- D Sample Diluted Due to MatrixH 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

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-04 1' **Project:** Red Bull 29 Fed 1H Collection Date: 10/27/2023 2:45:00 PM Lab ID: 2310E28-004 Matrix: SOIL Received Date: 11/1/2023 8:35:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 9.6 11/4/2023 12:19:33 AM 150 mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/4/2023 12:19:33 AM 110 48 mg/Kg Surr: DNOP 105 %Rec 1 11/4/2023 12:19:33 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 11/4/2023 6:08:42 PM Surr: BFB 11/4/2023 6:08:42 PM 92.0 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1 11/4/2023 6:08:42 PM Toluene ND 0.049 mg/Kg 1 11/4/2023 6:08:42 PM Ethylbenzene 11/4/2023 6:08:42 PM ND 0.049 mg/Kg 1 Xylenes, Total ND 0.099 mg/Kg 1 11/4/2023 6:08:42 PM %Rec Surr: 4-Bromofluorobenzene 94.7 39.1-146 1 11/4/2023 6:08:42 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 7700 300 11/6/2023 1:31:00 PM mg/Kg 100

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

- Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-05 1' **Project:** Red Bull 29 Fed 1H Collection Date: 10/27/2023 2:46:00 PM Lab ID: 2310E28-005 Matrix: SOIL Received Date: 11/1/2023 8:35:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 210 9.4 11/4/2023 1:07:52 AM mg/Kg 1 Motor Oil Range Organics (MRO) 1 11/4/2023 1:07:52 AM 160 47 mg/Kg Surr: DNOP 108 %Rec 1 11/4/2023 1:07:52 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 11/4/2023 6:32:15 PM Surr: BFB 11/4/2023 6:32:15 PM 90.7 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1 11/4/2023 6:32:15 PM Toluene ND 0.049 mg/Kg 1 11/4/2023 6:32:15 PM Ethylbenzene 11/4/2023 6:32:15 PM ND 0.049 mg/Kg 1 Xylenes, Total ND 0.099 mg/Kg 1 11/4/2023 6:32:15 PM %Rec Surr: 4-Bromofluorobenzene 94.2 39.1-146 1 11/4/2023 6:32:15 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 9700 300 11/6/2023 1:43:24 PM mg/Kg 100

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL

Practical Quanitative Limit S

% Recovery outside of standard limits. If undiluted results may be estimated.

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-06 1' **Project:** Red Bull 29 Fed 1H Collection Date: 10/27/2023 2:48:00 PM Lab ID: 2310E28-006 Matrix: SOIL Received Date: 11/1/2023 8:35:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 320 9.6 11/4/2023 1:56:06 AM mg/Kg 1 mg/Kg Motor Oil Range Organics (MRO) 260 1 11/4/2023 1:56:06 AM 48 Surr: DNOP 107 %Rec 1 11/4/2023 1:56:06 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 11/4/2023 6:55:35 PM Surr: BFB 89.6 11/4/2023 6:55:35 PM 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1 11/4/2023 6:55:35 PM Toluene ND 0.049 mg/Kg 1 11/4/2023 6:55:35 PM Ethylbenzene 11/4/2023 6:55:35 PM ND 0.049 mg/Kg 1 Xylenes, Total ND 0.099 mg/Kg 1 11/4/2023 6:55:35 PM %Rec Surr: 4-Bromofluorobenzene 94.1 39.1-146 1 11/4/2023 6:55:35 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 2300 150 11/6/2023 1:55:49 PM mg/Kg 50

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit POL
- Practical Quanitative Limit S

% Recovery outside of standard limits. If undiluted results may be estimated.

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-07 1' **Project:** Red Bull 29 Fed 1H Collection Date: 10/27/2023 2:50:00 PM Lab ID: 2310E28-007 Matrix: SOIL Received Date: 11/1/2023 8:35:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 370 9.4 mg/Kg 1 11/4/2023 2:44:09 AM Motor Oil Range Organics (MRO) 320 1 11/4/2023 2:44:09 AM 47 mg/Kg Surr: DNOP 108 %Rec 1 11/4/2023 2:44:09 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 11/4/2023 7:18:58 PM Surr: BFB 11/4/2023 7:18:58 PM 90.5 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1 11/4/2023 7:18:58 PM Toluene ND 0.049 mg/Kg 1 11/4/2023 7:18:58 PM Ethylbenzene 11/4/2023 7:18:58 PM ND 0.049 mg/Kg 1 Xylenes, Total ND 0.098 mg/Kg 1 11/4/2023 7:18:58 PM Surr: 4-Bromofluorobenzene 94.0 39.1-146 %Rec 1 11/4/2023 7:18:58 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 1800 11/3/2023 10:19:45 PM 60 mg/Kg 20

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

Qualifiers:

- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit POL
- Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Project:

Lab ID:

CLIENT: Vertex Resources Services, Inc.

Red Bull 29 Fed 1H

2310E28-008

Analytical Report Lab Order 2310E28

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BES23-08 1' Collection Date: 10/27/2023 10:05:00 AM Received Date: 11/1/2023 8:35:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OF	RGANICS				Analyst: PRD
Diesel Range Organics (DRO)	520	9.4	mg/Kg	1	11/3/2023 11:46:54 AM
Motor Oil Range Organics (MRO)	450	47	mg/Kg	1	11/3/2023 11:46:54 AM
Surr: DNOP	115	69-147	%Rec	1	11/3/2023 11:46:54 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: KMN
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	11/4/2023 11:19:00 AM
Surr: BFB	102	15-244	%Rec	1	11/4/2023 11:19:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: KMN
Benzene	ND	0.024	mg/Kg	1	11/4/2023 11:19:00 AM
Toluene	ND	0.049	mg/Kg	1	11/4/2023 11:19:00 AM
Ethylbenzene	ND	0.049	mg/Kg	1	11/4/2023 11:19:00 AM
Xylenes, Total	ND	0.098	mg/Kg	1	11/4/2023 11:19:00 AM
Surr: 4-Bromofluorobenzene	85.8	39.1-146	%Rec	1	11/4/2023 11:19:00 AM
EPA METHOD 300.0: ANIONS					Analyst: JMT
Chloride	560	60	mg/Kg	20	11/3/2023 10:32:09 PM

Matrix: SOIL

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

- D н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit
- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank в
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Client:	Vertex R	esources Services, Inc.	
Project:	Red Bull	29 Fed 1H	
Sample ID:	MB-78564	SampType: mblk	TestCode: EPA Method 300.0: Anions
Client ID:	PBS	Batch ID: 78564	RunNo: 100959
Prep Date:	11/3/2023	Analysis Date: 11/3/2023	SeqNo: 3705638 Units: mg/Kg
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride		ND 1.5	
Sample ID:	MB-78564	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID:	PBS	Batch ID: 78564	RunNo: 100987
Prep Date:	11/3/2023	Analysis Date: 11/6/2023	SeqNo: 3706675 Units: mg/Kg
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride		ND 1.5	
Sample ID:	LCS-78564	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID:	LCSS	Batch ID: 78564	RunNo: 100987
Prep Date:	11/3/2023	Analysis Date: 11/6/2023	SeqNo: 3706676 Units: mg/Kg
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride		14 1.5 15.00	0 95.0 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

2310E28

28-Dec-23

WO#:

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QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Vertex Re Red Bull 2	esources S 29 Fed 1H	ervices, I	Inc.							
Sample ID:	MB-78523	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	Organics	
Client ID:	PBS	Batch	n ID: 785	523	F	RunNo: 1(00939				
Prep Date:	11/2/2023	Analysis D	Date: 11	/3/2023	S	SeqNo: 37	704532	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	ND	10								
Motor Oil Rang	ge Organics (MRO)	ND	50								
Surr: DNOP		8.9		10.00		89.0	69	147			
Sample ID:	LCS-78523	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	Organics	
Client ID:	LCSS	Batch	n ID: 785	523	F	RunNo: 1(00939				
Prep Date:	11/2/2023	Analysis D	Date: 11	/3/2023	S	SeqNo: 37	704533	Units: mg/K	g		
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		4.6		5.000		91.2	69	147			
Sample ID:	LCS-78534	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	Organics	
Client ID:	LCSS	Batch	n ID: 785	534	F	RunNo: 1(00940				
Prep Date:	11/2/2023	Analysis D	Date: 11	/3/2023	S	SeqNo: 37	704561	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	46	10	50.00	0	92.7	61.9	130			
Surr: DNOP	_	5.5		5.000		111	69	147			
Sample ID:	MB-78534	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	Organics	
Client ID:	PBS	Batch	n ID: 78 5	534	F	RunNo: 10	00940		Ū	C	
Prep Date:	11/2/2023	Analysis D	Date: 11	/3/2023	Ś	SeqNo: 37	704563	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	ND	10								
Motor Oil Rang	ge Organics (MRO)	ND	50								
Surr: DNOP		9.0		10.00		90.0	69	147			
Sample ID:	2310E28-007AMS	SampT	ype: MS	5	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	Organics	
Client ID:	BES23-07 1'	Batch	n ID: 785	523	F	RunNo: 1(00942				
Prep Date:	11/2/2023	Analysis D	Date: 11	/4/2023	S	SeqNo: 37	705556	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	370	9.2	45.87	371.7	2.39	54.2	135			S
Surr: DNOP	1	5.4		4.587		117	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

WO#: 2310E28 28-Dec-23

Client: Project:	Vertex Res Red Bull 2	sources Se 9 Fed 1H	rvices	, Inc.								
Sample ID:	2310E28-007AMSD	SampT	/pe: M \$	SD	Tes	tCode: EF	A Method	8015M/D: Die	sel Range	Organics		
Client ID:	BES23-07 1'	Batch	ID: 78	523	F	tunNo: 10	0942					
Prep Date:	11/2/2023	Analysis Da	ate: 1 1	1/4/2023	S	SeqNo: 37	05557	Units: mg/K	g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range (Organics (DRO)	390	9.9	49.36	371.7	45.4	54.2	135	5.55	29.2	S	
Surr: DNOP		5.8		4.936		117	69	147	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
- 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

PQL Practical Quanitative Limit

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WO#: 2310E28 28-Dec-23

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Vertex Re Red Bull 2	sources Se 29 Fed 1H	ervices,	Inc.							
Sample ID:	lcs-78511	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	LCSS	Batch	ID: 78	511	F	RunNo: 1(00932				
Prep Date:	11/1/2023	Analysis D	ate: 11	/4/2023	Ş	SeqNo: 37	704768	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	21 2000	5.0	25.00 1000	0	84.1 195	70 15	130 244			
Sample ID:	mb-78511	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	PBS	Batch	ID: 78	511	F	RunNo: 1(00932				
Prep Date:	11/1/2023	Analysis D	ate: 11	/4/2023	S	SeqNo: 37	704770	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 950	5.0	1000		94.5	15	244			
Sample ID:	lcs-78524	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	LCSS	Batch	ID: 78	524	F	RunNo: 1(00953				
Prep Date:	11/2/2023	Analysis D	ate: 11	/4/2023	S	SeqNo: 37	705183	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	23 2200	5.0	25.00 1000	0	93.6 221	70 15	130 244			
Sample ID:	mb-78524	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	PBS	Batch	ID: 78	524	F	RunNo: 1(00953				
Prep Date:	11/2/2023	Analysis D	ate: 11	/4/2023	S	SeqNo: 37	705184	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 1000	5.0	1000		102	15	244			
Sample ID:	2310E28-008ams	SampT	ype: MS	;	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	BES23-08 1'	Batch	ID: 78	524	F	RunNo: 1(00953				
Prep Date:	11/2/2023	Analysis D	ate: 11	/4/2023	S	SeqNo: 37	705186	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	21 2200	4.9	24.37 974.7	0	86.6 223	70 15	130 244			
Sample ID:	2310E28-008amsd	SampT	ype: MS	D	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	BES23-08 1'	Batch	ID: 78	524	F	RunNo: 1(00953				
Prep Date:	11/2/2023	Analysis D	ate: 11	/4/2023	S	SeqNo: 37	705187	Units: mg/K	g		
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
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

- % Recovery outside of standard limits. If undiluted results may be estimated. S
- Analyte detected in the associated Method Blank В
- Е Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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WO#: 2310E28 28-Dec-23

Client: Project:	Vertex Re Red Bull 2	sources So 29 Fed 1H	ervices,	, Inc.							
Sample ID:	2310E28-008amsd	SampT	ype: MS	SD	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID:	BES23-08 1'	Batch	ID: 78	524	F	RunNo: 10	00953				
Prep Date:	11/2/2023	Analysis D	ate: 11	/4/2023	5	SeqNo: 37	05187	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	20	4.9	24.41	0	83.1	70	130	3.91	20	
Surr: BFB		2100		976.6		216	15	244	0	0	

Qualifiers:

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

- Page 157 of 251
- WO#: 2310E28 28-Dec-23

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QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	Vertex	Resources S	ervices,	Inc.							
Project:	Red B	ull 29 Fed 1H	ł								
Sample ID:	LCS-78511	Samp	Гуре: LC	S	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID:	LCSS	Batcl	h ID: 78	511	F	RunNo: 10	00932				
Prep Date:	11/1/2023	Analysis I	Date: 11	/4/2023	5	SeqNo: 37	704822	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.83	0.025	1.000	0	83.0	70	130			
Toluene		0.87	0.050	1.000	0	87.1	70	130			
Ethylbenzene		0.88	0.050	1.000	0	88.3	70	130			
Xylenes, Total		2.7	0.10	3.000	0	88.7	70	130			
Surr: 4-Bron	nofluorobenzene	0.99		1.000		99.2	39.1	146			
Sample ID:	mb-78511	SampT	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID:	PBS	Batcl	h ID: 78	511	F	RunNo: 10	00932				
Prep Date:	11/1/2023	Analysis [Date: 11	/4/2023	S	SeqNo: 37	704824	Units: mg/K	g		
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-Bron	nofluorobenzene	0.99		1.000		98.6	39.1	146			
Sample ID:	lcs-78524	SampT	Гуре: LC	S	Tes	tCode: El	PA Method	8021B: Volati	les		
Client ID:	LCSS	Batcl	h ID: 78	524	F	RunNo: 10	00953				
Prep Date:	11/2/2023	Analysis [Date: 11	/4/2023	S	SeqNo: 37	705231	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.70	0.025	1.000	0	70.4	70	130			
Toluene		0.74	0.050	1.000	0	74.1	70	130			
Ethylbenzene		0.77	0.050	1.000	0	77.4	70	130			
Xylenes, Total		2.3	0.10	3.000	0	77.0	70	130			
Surr: 4-Bron	nofluorobenzene	0.87		1.000		87.2	39.1	146			
Sample ID:	mb-78524	Samp	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volati	les		
Client ID:	PBS	Batcl	h ID: 78	524	F	RunNo: 10	00953				
Prep Date:	11/2/2023	Analysis [Date: 11	/4/2023	Ş	SeqNo: 3	705232	Units: mg/K	g		
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-Bron	nofluorobenzene	0.86		1.000		86.3	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
- Released to Imaging: 4/5/2024 3:20:10 PM

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WO#: 2310E28

HALL ENVIRONMEN ANALYSIS LABORATORY	TAL	Hall Environmental Albi TEL: 505-345-3975 Website: www.ha	Analysis Labo 4901 Hawk iquerque, NM FAX: 505-34. llenvironment	ratory ins NE 87109 Sam 5-4107 al.com	ple Log-In Check List	
Client Name: Vertex R Services	esources , Inc.	Work Order Number:	2310E28		RcptNo: 1	
Received By: Juan R	ojas	11/1/2023 8:35:00 AM	·	Han By		
Completed By: Cheyer Reviewed By:	ine Cason	11/1/2023 9:12:58 AM		Chenl		
Chain of Custody						
1. Is Chain of Custody con	mplete?		Yes 🗹	No 🗌	Not Present	
2. How was the sample de	elivered?		Courier			
Log In 3. Was an attempt made t	o cool the samples?		Yes 🗹	No 🗌		
4. Were all samples receiv	ved at a temperature	of >0° C to 6.0°C	Yes 🗹	No 🗌		
5. Sample(s) in proper con	ntainer(s)?		Yes 🗹	No 🗌		
6. Sufficient sample volum	e for indicated test(s)?	Yes 🗹	No 🗌		
7. Are samples (except VC	OA and ONG) proper	y preserved?	Yes 🗹	No 🗌		
8. Was preservative addee	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 conta	ainers received broke	n?	Yes 🗆	No 🗹 🗍	# of preserved	
11. Does paperwork match (Note discrepancies on	bottle labels? chain of custody)		Yes 🗹	No 🗆	for pH: (<2 or >12 unless note	ed)
12 Are matrices correctly id	lentified on Chain of	Custody?	Yes 🗹	No 🗌	Adjusted?	
13. Is it clear what analyses	were requested?		Yes 🗹	No 🗌		27
14. Were all holding times a (If no, notify customer for	able to be met? or authorization.)		Yes 🗹	No 🗌 🛛	Checked by:	125
Special Handling (if a	oplicable)					
15. Was client notified of a	Il discrepancies with	this order?	Yes 🗌	No 🗌	NA 🗹	
Person Notified:	Contraction of the second	Date:	and the second second			
By Whom:		Via: [eMail	Phone 🗌 Fax	In Person	
Regarding:						
Client Instruction	s:				and the set of the set of the set of the set	
16. Additional remarks:						
17. Cooler Information						
Cooler No Temp	°C Condition S	eal Intact Seal No S	Seal Date	Signed By		
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Received by OCD: 2/8/2024 9:56:02 AM

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				Coole	eriemp	(including	CF): 10.	60,1=05 (0)	N N	015	Pest	Met	by 8	N 8 N	Br,	(VO	(Ser	Colit	2	1.2	с — I	
Date T	ime	Matrix	Sample Name	Conta Type	ainer and #	Prese Type	ervative	HEAL NO. 2310E28	BTE	TPH:8	8081	EDB (PAHs	RCRA	₿F,	8260	8270	Total				
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	4:48		RES23-06 1'					006						heres		in di		1695	et sola	Sec. Sec.	e.	
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Turn-Around Time:

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. Released to Imaging: 4/5/2024 3:20:10 PM



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

December 28, 2023 Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive

Carlsbad, NM 88220 TEL: FAX:

RE: Red Bull 29 Federal 1H

OrderNo.: 2311071

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 14 sample(s) on 11/2/2023 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued November 15, 2023.

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. 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. All samples are reported as received unless otherwise indicated.

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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WES23-01 0'-1' **Project:** Red Bull 29 Federal 1H Collection Date: 10/31/2023 10:15:00 AM Lab ID: 2311071-001 Matrix: SOIL Received Date: 11/2/2023 7:45:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 55 9.5 mg/Kg 1 11/4/2023 3:04:38 AM Motor Oil Range Organics (MRO) 48 1 11/4/2023 3:04:38 AM 48 mg/Kg Surr: DNOP 101 %Rec 1 11/4/2023 3:04:38 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 11/5/2023 2:33:00 AM Surr: BFB 101 15-244 %Rec 1 11/5/2023 2:33:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.024 mg/Kg 1 11/8/2023 5:35:00 AM Toluene ND 0.049 mg/Kg 1 11/8/2023 5:35:00 AM Ethylbenzene 11/8/2023 5:35:00 AM ND 0.049 mg/Kg 1 Xylenes, Total ND 0.098 mg/Kg 1 11/8/2023 5:35:00 AM Surr: 4-Bromofluorobenzene 85.2 39.1-146 %Rec 1 11/8/2023 5:35:00 AM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 500 11/6/2023 9:10:12 PM 60 mg/Kg 20

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

Qualifiers:

- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit POL
- Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 12/28/2023

11/8/2023 5:57:00 AM

11/6/2023 9:22:37 PM

Analyst: RBC

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WES23-02 0'-1' **Project:** Red Bull 29 Federal 1H Collection Date: 10/31/2023 10:17:00 AM Lab ID: 2311071-002 Matrix: SOIL Received Date: 11/2/2023 7:45:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 270 10 11/4/2023 3:15:06 AM mg/Kg 1 Motor Oil Range Organics (MRO) 230 50 1 11/4/2023 3:15:06 AM mg/Kg Surr: DNOP %Rec 1 11/4/2023 3:15:06 AM 111 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 11/5/2023 2:54:00 AM Surr: BFB 101 15-244 %Rec 1 11/5/2023 2:54:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.024 mg/Kg 1 11/8/2023 5:57:00 AM Toluene ND 0.049 mg/Kg 1 11/8/2023 5:57:00 AM Ethylbenzene 11/8/2023 5:57:00 AM ND 0.049 mg/Kg 1 Xylenes, Total ND 0.098 mg/Kg 1 11/8/2023 5:57:00 AM

83.1

1500

39.1-146

60

%Rec

mg/Kg

1

20

Chloride

Surr: 4-Bromofluorobenzene

EPA METHOD 300.0: ANIONS

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

Qualifiers:

- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit POL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WES23-03 0'-1' **Project:** Red Bull 29 Federal 1H Collection Date: 10/31/2023 10:25:00 AM Lab ID: 2311071-003 Matrix: SOIL Received Date: 11/2/2023 7:45:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 210 9.9 mg/Kg 1 11/4/2023 3:55:03 AM Motor Oil Range Organics (MRO) 260 1 11/4/2023 3:55:03 AM 50 mg/Kg Surr: DNOP 93.0 %Rec 1 11/4/2023 3:55:03 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 11/5/2023 3:38:00 AM Surr: BFB 102 15-244 %Rec 1 11/5/2023 3:38:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.024 mg/Kg 1 11/8/2023 4:23:00 PM Toluene ND 0.048 mg/Kg 1 11/8/2023 4:23:00 PM Ethylbenzene 11/8/2023 4:23:00 PM ND 0.048 mg/Kg 1 Xylenes, Total ND 0.096 mg/Kg 1 11/8/2023 4:23:00 PM Surr: 4-Bromofluorobenzene 82.1 39.1-146 %Rec 1 11/8/2023 4:23:00 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 11/6/2023 9:59:50 PM 140 60 mg/Kg 20

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

Qualifiers:

- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- POL
 - Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WES23-04 0'-1' **Project:** Red Bull 29 Federal 1H Collection Date: 10/31/2023 10:30:00 AM Lab ID: 2311071-004 Matrix: SOIL Received Date: 11/2/2023 7:45:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 45 9.4 11/4/2023 4:35:01 AM mg/Kg 1 Motor Oil Range Organics (MRO) 120 1 11/4/2023 4:35:01 AM 47 mg/Kg Surr: DNOP 94.0 %Rec 1 11/4/2023 4:35:01 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.7 mg/Kg 1 11/5/2023 4:00:00 AM Surr: BFB 11/5/2023 4:00:00 AM 102 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.023 mg/Kg 1 11/8/2023 5:49:00 PM Toluene ND 0.047 mg/Kg 1 11/8/2023 5:49:00 PM Ethylbenzene 11/8/2023 5:49:00 PM ND 0.047 mg/Kg 1 Xylenes, Total ND 0.094 mg/Kg 1 11/8/2023 5:49:00 PM Surr: 4-Bromofluorobenzene 81.9 39.1-146 %Rec 1 11/8/2023 5:49:00 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 11/6/2023 10:12:15 PM 520 60 mg/Kg 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-09 1' **Project:** Red Bull 29 Federal 1H Collection Date: 10/31/2023 9:38:00 AM Received Date: 11/2/2023 7:45:00 AM Lab ID: 2311071-005 Matrix: SOIL Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 730 96 mg/Kg 10 11/4/2023 4:45:26 AM Motor Oil Range Organics (MRO) 700 480 10 11/4/2023 4:45:26 AM mg/Kg Surr: DNOP 0 69-147 S %Rec 10 11/4/2023 4:45:26 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 11/5/2023 4:21:00 AM Surr: BFB 103 15-244 %Rec 1 11/5/2023 4:21:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.024 mg/Kg 1 11/8/2023 6:11:00 PM Toluene ND 0.048 mg/Kg 1 11/8/2023 6:11:00 PM Ethylbenzene 11/8/2023 6:11:00 PM ND 0.048 mg/Kg 1 Xylenes, Total ND 0.096 mg/Kg 1 11/8/2023 6:11:00 PM Surr: 4-Bromofluorobenzene 83.1 39.1-146 %Rec 1 11/8/2023 6:11:00 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 11/6/2023 10:24:39 PM 2300 60 mg/Kg 20

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

Qualifiers:

- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit POL
- Practical Quanitative Limit S
- % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-10 1' **Project:** Red Bull 29 Federal 1H Collection Date: 10/31/2023 9:40:00 AM Lab ID: 2311071-006 Matrix: SOIL Received Date: 11/2/2023 7:45:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) 550 11/7/2023 3:11:17 PM 48 mg/Kg 5 Motor Oil Range Organics (MRO) 330 240 5 11/7/2023 3:11:17 PM mg/Kg Surr: DNOP 5 97.3 %Rec 11/7/2023 3:11:17 PM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.7 mg/Kg 1 11/5/2023 4:43:00 AM Surr: BFB 103 11/5/2023 4:43:00 AM 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.024 mg/Kg 1 11/8/2023 6:33:00 PM Toluene ND 0.048 mg/Kg 1 11/8/2023 6:33:00 PM Ethylbenzene 11/8/2023 6:33:00 PM ND 0.048 mg/Kg 1 Xylenes, Total ND 0.096 mg/Kg 1 11/8/2023 6:33:00 PM %Rec Surr: 4-Bromofluorobenzene 82.2 39.1-146 1 11/8/2023 6:33:00 PM **EPA METHOD 300.0: ANIONS** Analyst: KCB Chloride 610 11/7/2023 1:51:14 PM 8900 mg/Kg 200

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

Qualifiers:

- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- POL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limi

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-11 1' **Project:** Red Bull 29 Federal 1H Collection Date: 10/31/2023 9:42:00 AM Received Date: 11/2/2023 7:45:00 AM Lab ID: 2311071-007 Matrix: SOIL Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 36 9.9 11/4/2023 5:06:20 AM mg/Kg 1 Motor Oil Range Organics (MRO) ND 1 11/4/2023 5:06:20 AM 50 mg/Kg Surr: DNOP 92.4 %Rec 1 11/4/2023 5:06:20 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 11/5/2023 5:05:00 AM Surr: BFB 105 11/5/2023 5:05:00 AM 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.025 mg/Kg 1 11/8/2023 6:54:00 PM Toluene ND 0.049 mg/Kg 1 11/8/2023 6:54:00 PM Ethylbenzene 11/8/2023 6:54:00 PM ND 0.049 mg/Kg 1 Xylenes, Total ND 0.099 mg/Kg 1 11/8/2023 6:54:00 PM Surr: 4-Bromofluorobenzene 82.6 39.1-146 %Rec 1 11/8/2023 6:54:00 PM **EPA METHOD 300.0: ANIONS** Analyst: KCB Chloride 8300 300 11/7/2023 2:03:39 PM mg/Kg 100

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

Qualifiers:

- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit POL
- Practical Quanitative Limit S
- % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-12 1' **Project:** Red Bull 29 Federal 1H Collection Date: 10/31/2023 9:55:00 AM Lab ID: 2311071-008 Matrix: SOIL Received Date: 11/2/2023 7:45:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 1300 98 mg/Kg 10 11/4/2023 5:16:48 AM Motor Oil Range Organics (MRO) 1000 490 10 11/4/2023 5:16:48 AM mg/Kg Surr: DNOP 0 69-147 %Rec 10 11/4/2023 5:16:48 AM S **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.7 mg/Kg 1 11/5/2023 5:26:00 AM Surr: BFB 11/5/2023 5:26:00 AM 99.8 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.023 mg/Kg 1 11/8/2023 7:16:00 PM Toluene ND 0.046 mg/Kg 1 11/8/2023 7:16:00 PM Ethylbenzene 11/8/2023 7:16:00 PM ND 0.046 mg/Kg 1 Xylenes, Total ND 0.093 mg/Kg 1 11/8/2023 7:16:00 PM Surr: 4-Bromofluorobenzene 81.9 39.1-146 %Rec 1 11/8/2023 7:16:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride 11/7/2023 8:28:11 AM 140 60 mg/Kg 20

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

Qualifiers:

- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- POL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-13 1' **Project:** Red Bull 29 Federal 1H Collection Date: 10/31/2023 9:50:00 AM Lab ID: 2311071-009 Matrix: SOIL Received Date: 11/2/2023 7:45:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 870 96 mg/Kg 10 11/4/2023 5:37:40 AM Motor Oil Range Organics (MRO) 870 480 10 11/4/2023 5:37:40 AM mg/Kg Surr: DNOP 0 69-147 S %Rec 10 11/4/2023 5:37:40 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 11/5/2023 5:48:00 AM Surr: BFB 103 11/5/2023 5:48:00 AM 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.023 mg/Kg 1 11/8/2023 7:38:00 PM Toluene ND 0.047 mg/Kg 1 11/8/2023 7:38:00 PM Ethylbenzene 11/8/2023 7:38:00 PM ND 0.047 mg/Kg 1 Xylenes, Total ND 0.094 mg/Kg 1 11/8/2023 7:38:00 PM Surr: 4-Bromofluorobenzene 84.6 39.1-146 %Rec 1 11/8/2023 7:38:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride 380 11/7/2023 8:40:36 AM 60 mg/Kg 20

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

Qualifiers:

- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- POL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 12/28/2023

11/7/2023 9:17:50 AM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-14 1' **Project:** Red Bull 29 Federal 1H Collection Date: 10/31/2023 9:46:00 AM Lab ID: 2311071-010 Matrix: SOIL Received Date: 11/2/2023 7:45:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 9.9 180 mg/Kg 1 11/4/2023 5:48:10 AM Motor Oil Range Organics (MRO) 1 11/4/2023 5:48:10 AM 180 50 mg/Kg Surr: DNOP 97.4 %Rec 1 11/4/2023 5:48:10 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 5.0 mg/Kg 1 11/5/2023 6:10:00 AM Surr: BFB 11/5/2023 6:10:00 AM 100 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.024 mg/Kg 1 11/8/2023 7:59:00 PM Toluene ND 0.048 mg/Kg 1 11/8/2023 7:59:00 PM Ethylbenzene 11/8/2023 7:59:00 PM ND 0.048 mg/Kg 1 Xylenes, Total ND 0.096 mg/Kg 1 11/8/2023 7:59:00 PM Surr: 4-Bromofluorobenzene 83.9 39.1-146 %Rec 1 11/8/2023 7:59:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS

1400

60

mg/Kg

20

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

Qualifiers:

Chloride

- D Sample Diluted Due to MatrixH 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

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-15 1' **Project:** Red Bull 29 Federal 1H Collection Date: 10/31/2023 10:00:00 AM Lab ID: 2311071-011 Matrix: SOIL Received Date: 11/2/2023 7:45:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 790 100 mg/Kg 10 11/4/2023 6:28:05 AM Motor Oil Range Organics (MRO) 560 500 10 11/4/2023 6:28:05 AM mg/Kg Surr: DNOP 0 69-147 S %Rec 10 11/4/2023 6:28:05 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 5.0 mg/Kg 1 11/5/2023 6:32:00 AM Surr: BFB 11/5/2023 6:32:00 AM 99.1 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.024 mg/Kg 1 11/8/2023 8:21:00 PM Toluene ND 0.047 mg/Kg 1 11/8/2023 8:21:00 PM Ethylbenzene 11/8/2023 8:21:00 PM ND 0.047 mg/Kg 1 Xylenes, Total ND 0.095 mg/Kg 1 11/8/2023 8:21:00 PM Surr: 4-Bromofluorobenzene 81.2 39.1-146 %Rec 1 11/8/2023 8:21:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride 300 11/7/2023 9:30:14 AM 60 mg/Kg 20

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

Qualifiers:

- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- POL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limi

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-16 1' **Project:** Red Bull 29 Federal 1H Collection Date: 10/31/2023 10:05:00 AM Lab ID: 2311071-012 Matrix: SOIL Received Date: 11/2/2023 7:45:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 300 9.5 mg/Kg 1 11/4/2023 6:38:39 AM Motor Oil Range Organics (MRO) 290 1 11/4/2023 6:38:39 AM 47 mg/Kg Surr: DNOP 107 %Rec 1 11/4/2023 6:38:39 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 11/5/2023 6:53:00 AM Surr: BFB 11/5/2023 6:53:00 AM 100 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.025 mg/Kg 1 11/8/2023 8:43:00 PM Toluene ND 0.049 mg/Kg 1 11/8/2023 8:43:00 PM Ethylbenzene 11/8/2023 8:43:00 PM ND 0.049 mg/Kg 1 Xylenes, Total ND 0.098 mg/Kg 1 11/8/2023 8:43:00 PM Surr: 4-Bromofluorobenzene 84.1 39.1-146 %Rec 1 11/8/2023 8:43:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride 170 11/7/2023 9:42:38 AM 60 mg/Kg 20

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

Qualifiers:

- D Sample Diluted Due to MatrixH 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

Date Reported: 12/28/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-17 1' **Project:** Red Bull 29 Federal 1H Collection Date: 10/31/2023 10:08:00 AM Lab ID: 2311071-013 Matrix: SOIL Received Date: 11/2/2023 7:45:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 520 9.5 11/6/2023 7:10:02 PM mg/Kg 1 Motor Oil Range Organics (MRO) 420 1 11/6/2023 7:10:02 PM 48 mg/Kg Surr: DNOP 108 %Rec 1 11/6/2023 7:10:02 PM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 11/7/2023 3:28:00 PM Surr: BFB 11/7/2023 3:28:00 PM 99.8 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.024 mg/Kg 1 11/7/2023 3:28:00 PM Toluene ND 0.048 mg/Kg 1 11/7/2023 3:28:00 PM Ethylbenzene 11/7/2023 3:28:00 PM ND 0.048 mg/Kg 1 Xylenes, Total ND 0.096 mg/Kg 1 11/7/2023 3:28:00 PM Surr: 4-Bromofluorobenzene 84.9 39.1-146 %Rec 1 11/7/2023 3:28:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride 170 11/7/2023 9:55:03 AM 60 mg/Kg 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit POL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limi

Date Reported: 12/28/2023

11/7/2023 10:07:27 AM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-18 1' **Project:** Red Bull 29 Federal 1H Collection Date: 10/31/2023 10:10:00 AM Lab ID: 2311071-014 Matrix: SOIL Received Date: 11/2/2023 7:45:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 270 9.7 11/6/2023 7:51:12 PM mg/Kg 1 Motor Oil Range Organics (MRO) 480 1 11/6/2023 7:51:12 PM 49 mg/Kg Surr: DNOP 97.1 %Rec 1 11/6/2023 7:51:12 PM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: KMN Gasoline Range Organics (GRO) ND 4.7 mg/Kg 1 11/7/2023 4:33:00 PM Surr: BFB 103 11/7/2023 4:33:00 PM 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: KMN Benzene ND 0.024 mg/Kg 1 11/7/2023 4:33:00 PM Toluene ND 0.047 mg/Kg 1 11/7/2023 4:33:00 PM Ethylbenzene 11/7/2023 4:33:00 PM ND 0.047 mg/Kg 1 Xylenes, Total ND 0.095 mg/Kg 1 11/7/2023 4:33:00 PM Surr: 4-Bromofluorobenzene 86.5 39.1-146 %Rec 1 11/7/2023 4:33:00 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS

120

60

mg/Kg

20

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

Qualifiers:

Chloride

- D Sample Diluted Due to MatrixH 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.

Client:	Vertex Ded De	Resources Services, Inc.			
Project:	Red Bl	uli 29 Federal TH			
Sample ID:	MB-78590	SampType: mblk	TestCode: EPA Method	300.0: Anions	
Client ID:	PBS	Batch ID: 78590	RunNo: 100981		
Prep Date:	11/6/2023	Analysis Date: 11/6/2023	SeqNo: 3706462	Units: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride		ND 1.5			
Sample ID:	LCS-78590	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Client ID:	LCSS	Batch ID: 78590	RunNo: 100981		
Prep Date:	11/6/2023	Analysis Date: 11/6/2023	SeqNo: 3706463	Units: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride		14 1.5 15.00	0 90.2 90	110	
Sample ID:	MB-78596	SampType: MBLK	TestCode: EPA Method	300.0: Anions	
Client ID:	PBS	Batch ID: 78596	RunNo: 101020		
Prep Date:	11/6/2023	Analysis Date: 11/7/2023	SeqNo: 3708519	Units: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride		ND 1.5			
Sample ID:	LCS-78596	SampType: LCS	TestCode: EPA Method	300.0: Anions	
Client ID:	LCSS	Batch ID: 78596	RunNo: 101020		
Prep Date:	11/6/2023	Analysis Date: 11/7/2023	SeqNo: 3708520	Units: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride		14 1.5 15.00	0 91.6 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

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WO#: 2311071 28-Dec-23 **Client:**

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Vertex Resources Services, Inc.

2311071	WO#:
28-Dec-23	

Project:	Red Bull	29 Federa	11H								
Sample ID:	2311071-012AMS	Samp	Гуре: М	6	Tes	tCode: El	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	BES23-16 1'	Batc	h ID: 78	561	F	RunNo: 1	00940				
Prep Date:	11/3/2023	Analysis [Date: 1 1	1/4/2023	ę	SeqNo: 3	705007	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	250	9.7	48.64	301.5	-114	54.2	135			S
Surr: DNOP		6.0		4.864		123	69	147			
Sample ID:	2311071-012AMSD	Samp	Гуре: МS	SD	Tes	tCode: El	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	BES23-16 1'	Batc	h ID: 78	561	F	RunNo: 1	00940				
Prep Date:	11/3/2023	Analysis [Date: 1 1	1/4/2023	Ş	SeqNo: 3	705008	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	250	9.3	46.60	301.5	-112	54.2	135	1.30	29.2	S
Surr: DNOP		6.5		4.660		138	69	147	0	0	
Sample ID:	LCS-78561	Samp	Гуре: LC	S	Tes	tCode: El	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batc	h ID: 78	561	F	RunNo: 1	00940				
Prep Date:	11/3/2023	Analysis [Date: 11	1/4/2023	\$	SeqNo: 3	705013	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	46	10	50.00	0	91.1	61.9	130			
Surr: DNOP		5.5		5.000		111	69	147			
Sample ID:	MB-78561	Samp	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	PBS	Batc	h ID: 78	561	F	RunNo: 1	00940				
Prep Date:	11/3/2023	Analysis [Date: 1 1	1/4/2023	Ş	SeqNo: 3	705017	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	ND	10								
Motor Oil Rang	ge Organics (MRO)	ND	50								
Surr: DNOP		9.1		10.00		91.2	69	147			
Sample ID:	2311071-014AMS	Samp	Гуре: М	6	Tes	tCode: El	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	BES23-18 1'	Batc	h ID: 78	562	F	RunNo: 1	00996				
Prep Date:	11/3/2023	Analysis [Date: 1 1	1/6/2023	Ş	SeqNo: 3	707224	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	360	9.6	47.89	266.7	199	54.2	135			S
Surr: DNOP		6.3		4.789		131	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

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QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	Vertex Resources Services, Inc.												
Project: Red Bull 29 Federal 1H													
Sample ID:	2311071-014AMSD	TestCode: EPA Method 8015M/D: Diesel Range Organics											
Client ID:	BES23-18 1'	Batch	n ID: 78 5	562	RunNo: 100996								
Prep Date:	11/3/2023	Analysis Date: 11/6/2023			SeqNo: 3707225			Units: mg/Kg					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range	Organics (DRO)	180	9.7	48.26	266.7	-185	54.2	135	68.4	29.2	RS		
Surr: DNOP)	5.4		4.826		112	69	147	0	0			
Sample ID:	LCS-78562	SampT	ype: LC	S	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID:	LCSS	Batch	n ID: 78	562	RunNo: 100996								
Prep Date:	11/3/2023	Analysis Date: 11/6/2023			SeqNo: 3707248			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	97.9	61.9	130					
Surr: DNOP		5.5		5.000		110	69	147					
Sample ID:	MB-78562	TestCode: EPA Method 8015M/D: Diesel Range Organics											
Client ID:	PBS	Batch ID: 78562		RunNo: 100996									
Prep Date:	11/3/2023	Analysis Date: 11/6/2023			SeqNo: 3707251			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 Rang	ge Organics (MRO)	ND	50										
Surr: DNOP		11		10.00		108	69	147					

Qualifiers:

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- H Holding times for preparation or analysis exceeded
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- 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

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WO#: 2311071 28-Dec-23

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Vertex Resources Services, Inc. Red Bull 29 Federal 1H											
Sample ID:	lcs-78539	s-78539 SampType: LCS				TestCode: EPA Method 8015D: Gasoline Range						
Client ID:	LCSS	Batch	n ID: 78	539	F	RunNo: 10	00953					
Prep Date:	11/2/2023	Analysis Date: 11/4/2023			S	SeqNo: 3705207 Units: mg/Kg						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang Surr: BFB	e Organics (GRO)	23 2200	5.0	25.00 1000	0	90.8 222	70 15	130 244				
Sample ID:	mb-78539	SampT	ype: M	BLK	TestCode: EPA Method 8015D: Gasoline Range							
Client ID:	PBS	Batch	n ID: 78	539	RunNo: 100953							
Prep Date:	11/2/2023	Analysis Date: 11/4/2023			S	SeqNo: 3705208 Units: mg/Kg						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 1000	5.0	1000		104	15	244				
Sample ID:	lcs-78543	SampT	ype: LC	S	TestCode: EPA Method 8015D: Gasoline Range							
Client ID:	LCSS	Batch ID: 78543			RunNo: 101017							
Prep Date:	11/2/2023	Analysis Date: 11/7/2023			SeqNo: 3708381 Units: mg/Kg							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang	e Organics (GRO)	22	5.0	25.00	0	88.2	70	130				
Suff: BFB		2200		1000		217	15	244				
Sample ID:	mb-78543	SampT	ype: MI	BLK	TestCode: EPA Method 8015D: Gasoline Range							
Client ID:	PBS	Batch	n ID: 78	543	RunNo: 101017							
Prep Date:	11/2/2023	Analysis Date: 11/7/2023			S	SeqNo: 37	708382	Units: mg/k	٢g			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 1000	5.0	1000		101	15	244				
Sample ID:	2311071-013ams	SampT	ype: MS	6	TestCode: EPA Method 8015D: Gasoline Range							
Client ID:	BES23-17 1'	Batch ID: 78543			RunNo: 101017							
Prep Date:	11/2/2023	Analysis Date: 11/7/2023			SeqNo: 3708384 Units: mg/Kg							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang Surr: BFB	e Organics (GRO)	20 2000	4.8	23.97 958.8	0	83.5 211	70 15	130 244				
Sample ID:	2311071-013AMSD	SampT	ype: MS	SD	TestCode: EPA Method 8015D: Gasoline Range							
		Batch ID: 78543						RunNo: 101017				
Client ID:	BES23-17 1'	Batch	n ID: 78	543	F	RunNo: 1(01017					
Client ID: Prep Date:	BES23-17 1' 11/2/2023	Batch Analysis D	n ID: 78 Pate: 1 1	543 1/7/2023	F	RunNo: 10 SeqNo: 37	01017 708385	Units: mg/k	٢g			

Qualifiers:

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

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WO#: 2311071 28-Dec-23

Client: Project:	Vertex Re Red Bull 2	sources Se 29 Federal	rvices 1H	, Inc.							
Sample ID:	2311071-013AMSD SampType: MSD			TestCode: EPA Method 8015D: Gasoline Range							
Client ID:	BES23-17 1'	Batch ID: 78543			RunNo: 101017						
Prep Date:	11/2/2023	Analysis Date: 11/7/2023		SeqNo: 3708385			Units: mg/K	ζg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	19	4.8	24.13	0	78.4	70	130	5.65	20	
Surr: BFB		1900		965.3		199	15	244	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
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- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.

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- 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

2311071

28-Dec-23

WO#:

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Client:	Vertex	Resources S	ervices,	Inc.									
Project:	Red Bu	ill 29 Federa	1 1H										
Sample ID:	lcs-78543	Samp	Гуре: LC	S	TestCode: EPA Method 8021B: Volatiles								
Client ID:	LCSS	Batcl	h ID: 78	543	F	RunNo: 1	01017						
Prep Date:	11/2/2023	Analysis [Date: 11	/7/2023	Ş	SeqNo: 37	708405	Units: mg/K	g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene		0.70	0.025	1.000	0	70.0	70	130					
Toluene		0.74	0.050	1.000	0	74.2	70	130					
Ethylbenzene		0.75	0.050	1.000	0	75.5	70	130					
Xylenes, Total		2.2	0.10	3.000	0	74.6	70	130					
Surr: 4-Bron	nofluorobenzene	0.86		1.000		86.2	39.1	146					
Sample ID:	mb-78543	SampT	Гуре: МЕ	BLK	Tes	tCode: El	les						
Client ID:	PBS	Batcl	h ID: 78	543	F	RunNo: 10	01017						
Prep Date:	11/2/2023	Analysis [Date: 11	/7/2023	\$	SeqNo: 37	708406	Units: mg/K	g				
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-Bron	nofluorobenzene	0.83		1.000		83.4	39.1	146					
Sample ID:	lcs-78601	SampT	Гуре: LC	S	Tes	tCode: EF	PA Method	8021B: Volati	les				
Client ID:	LCSS	Batcl	h ID: 786	601	F	RunNo: 10	01017						
Prep Date:	11/6/2023	Analysis I	Date: 11	/8/2023	Ş	SeqNo: 37	708429	Units: mg/K	g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene		0.81	0.025	1.000	0	80.9	70	130					
Toluene		0.81	0.050	1.000	0	81.2	70	130					
Ethylbenzene		0.82	0.050	1.000	0	82.2	70	130					
Xylenes, Total		2.4	0.10	3.000	0	81.6	70	130					
Surr: 4-Bron	nofluorobenzene	0.85		1.000		84.9	39.1	146					
Sample ID:	mb-78601	Samp	Гуре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volati	les				
Client ID:	PBS	Batcl	h ID: 786	601	F	RunNo: 10	01017						
Prep Date:	11/6/2023	Analysis [Date: 11	/8/2023	Ş	SeqNo: 3	708430	Units: mg/K	g				
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-Bron	nofluorobenzene	0.86		1.000		86.0	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

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WO#:	2311071

28-Dec-23

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Client:

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Vertex Resources Services, Inc.

Project:	Red Bull	29 Federa	11H										
Sample ID:	2311071-014ams	Samp	Гуре: МS	5	TestCode: EPA Method 8021B: Volatiles								
Client ID:	BES23-18 1'	Batc	h ID: 78	543	F	RunNo: 10	01076						
Prep Date:	11/2/2023	Analysis [Date: 11	/9/2023	S	SeqNo: 37	711642	Units: mg/k	۲g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene		0.59	0.024	0.9515	0	62.1	70	130			S		
Toluene		0.63	0.048	0.9515	0	66.3	70	130			S		
Ethylbenzene		0.65	0.048	0.9515	0	68.3	70	130			S		
Xylenes, Total		1.9	0.095	2.854	0	67.7	70	130			S		
Surr: 4-Brom	ofluorobenzene	0.81		0.9515		85.6	39.1	146					
Sample ID:	2311071-014amsd	Samp	Гуре: МS	SD	Tes	tCode: El	PA Method	8021B: Volat	iles				
Client ID:	BES23-18 1'	Batc	h ID: 78	543	F	RunNo: 10	01076						
Prep Date:	11/2/2023	Analysis [Date: 11	/9/2023	S	SeqNo: 3							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene		0.59	0.024	0.9452	0	62.9	70	130	2.00	20	S		
Toluene		0.64	0.047	0.9452	0	67.7	70	130	1.27	20	S		
Ethylbenzene		0.67	0.047	0.9452	0	70.4	70	130	0.440	20			
Xylenes, Total		2.0	0.095	2.836	0	69.5	70	130	0.464	20	S		
Surr: 4-Brom	ofluorobenzene	0.81		0.9452		85.9	39.1	146	0	0			

Qualifiers:

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

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WO#: 2311071

28-Dec-23

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Albu TEL: 505-345-3975 Website: www.ha	Analysis Laboratory 4901 Hawkins NH iquerque, NM 87109 FAX: 505-345-4107 Ilenvironmental.com	^y ^E ⁹⁹ Sample Log-In Check List ¹⁷							
Client Name: Vertex Resources Services, Inc.	Work Order Number:	2311071		RcptNo:	1					
Received By: Tracy Casarrubias	11/2/2023 7:45:00 AM									
Completed By: Tracy Casarrubias	11/2/2023 8:09:00 AM									
Reviewed By: 7n 112123										
Chain of Custody										
1. Is Chain of Custody complete?		Yes	No 🗹	Not Present						
2. How was the sample delivered?		<u>Courier</u>								
Log In 3. Was an attempt made to cool the samples?		Yes 🔽	No 🗌	na 🗌						
4. Were all samples received at a temperature of	f >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 Internation	No 🔽	# of preserved bottles checked for pH: (<2 of >	>12 unless noted)					
12. Are matrices correctly identified on Chain of C	ustody?	Yes 🗹	No 🗌	Adjusted?						
13. Is it clear what analyses were requested?		Yes 🗹	No 🗌		m 12/2:					
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	No	Checked by:						
Special Handling (if applicable)										
15. Was client notified of all discrepancies with the	nis order?	Yes 🗹	No 🗌	NA 🗹 🏌	Ne 23					
Person Notified: By Whom: Regarding: Client Instructions: Making address, pl CDC DQS H	Date: T TUDIOS Via: [ALE discruptioned none number and Email/ NE accurate da	2 23 eMail Phote Fax are missing of $ 1 1 $	ne [] Fax n COC- TM	[] In Person C 11/2/23 TM2 31/2/23						
17. <u>Cooler Information</u> Cooler No Temp ^o C Condition Se 1 3.9 Good Yes	al Intact Seal No S Yogi	Seal Date Si	gned By							

Released to Imaging: 4/5/2024 3:20:10 PM

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Received by OCD: 2/8/2024 9:56:02 AM

Chain-of-Custody Record	Turn-Around Time:	HALL ENVIRONMENTAL									
Client: Vertex Dewn	□ Standard Rush 72 hr	ANALYSIS LABORATORY									
	Project Name:	www.hallenvironmental.com									
Mailing Address:	Red Bull 29 Federal 14	4901 Hawkins NE - Albuquerque, NM 87109									
	Project #:	Tel. 505-345-3975 Fax 505-345-4107									
Phone #:	23E-04311	Analysis Request									
email or Fax#:	Project Manager:										
QA/QC Package:	Kentstallings	s's (802 NPCB's (802 NPO4, 100									
Accreditation: Az Compliance	Sampler: SM										
NELAC Other	On Ice: Yes D No Mg										
□ EDD (Type)	# of Coolers: 1 Cooler Temperature CE: 39, (X = 29 (°C))	ATBI ATBI Mett									
	Container Preservative HEAL No.	EX/ N H:8015 B1 Pes B1									
Date Time Matrix Sample Name	Type and # Type 2311071										
11,123 10:15 Soil [NES23-01 0-1'	Yoziar Ice 001										
1 10:17 WES23-02 021	002										
10:25 WES23-03 0-1-	003										
10:30 WES 23-04 0-1'	004										
9:28 BES 23-09 11	005										
9:40 BESZ3-10 11	006										
9:42 BES23-11 1	007										
9:55 RES23-12 1'	800										
9:50 BES23-13 1'	009										
9:46 BES23-14 1'	010										
10:10 BES 23-15 1'	011										
10:05 BES73-16 1	012										
Date: Time: Religquished by:	Received by: Via: Date Time	Remarks: Direct 6ill to: Devon W/0#: 21195 741									
Date: Time: Relinquished by:	Received by: Via: Counter Date Time	C.C. Kstallings Quertex.ca Smccarty Quertex.ca DA. 10f2									

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Released to Imaging: 4/5/2024 3:2/28/23 MMG. Per Steph McCarty, Updated sample collection date's for all samples to 10/31/23.

Received by OCD: 2/8/2024 9:56:02 AM

С	Chain-of-Custody Record			Turn-Around Time:																	
Client:	Ver	tex/	Devon	□ Standard	Rush	The		1000		A	N	AL	YS	SIS	5 L	AE	301	RA	то	RY	r
				Project Name	9:				Maria.		www	v.hal	llenv	ironr	nen	tal.co	om				
Mailing	Address	s: 00	Gile	Red B	1129 F	celeral 1H	4901 Hawkins NE - Albuquerque, NM 87109														
				Project #:					Tel. 505-345-3975 Fax 505-345-4107												
Phone	#:			238-01	431		Analysis Request														
email o	r Fax#:			Project Mana	iger:		(Ô					S04			()					
QA/QC □ Star	Package: Idard		'	Kent St.	allings		3's (802	RO / MF	PCB's		SMIS0	1.11	, PO4,			ent/Abse		-			
Accred	itation:	□ Az Co	ompliance	Sampler: S	m		<u>I</u>	IJ IJ	3082	[]	827		N02			Lese					
	AC	Other	r	On Ice:	Ves	No yogi	Ц,	SR0	les/8	1502	0 or	als	3,		/OA	- L L L					
) (Type)	1	1	# of Coolers:	(including CE): 3.8	9-0=3.9 (°C)	ATB	5D(C	sticic	l the	831	Met	ž	(Y)	mi-	liforr					
Date	Time	Matrix	Sample Name	Container	Preservative	HEAL No.	RIEX	TPH:801	8081 Pe	EDB (Me	PAHs by	RCRA 8	Q, F, Br	8260 (VC	8270 (Se	Total Col					
11/1/2	10:08	Soil	RF(13-17 11	402,600	Dee	013	V	\checkmark					V								
140	10:10		R#522-18 11	N.	di	014	V	V					J								
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Date:	Time:	Relinquişi	ned by:	Received by:	Via:	Date Time	Rer	nark	s:	Dic	00	la	6:11	-	- 7	011	n n				
11/1/23	(180	11	epternelet	ann	Min	11/23 1130				ير س (ر)	10	#	: 2	9 11 B	5-1						
Date:	Time:	Relinquis	hel bý:	Received by:	Via: caun	Date Time		. C	- K	< <i>S</i> }	all	ings	sai	recte	ر ان مرجع	a					
11/13	MID	CAA	MAMARA	s		11/2/23 7:45			S	ma	cor	ha	ave	sk.	x·C	ia	1	pg	.2	of	2

Page 185 of 251

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. Released to Imaging: 4/5/2024 3:20:10 PM



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

November 17, 2023

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

RE: Red Bull 29 Federal 1H

OrderNo.: 2311274

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 7 sample(s) on 11/7/2023 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 11/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WES23-05 0-0.5' **Project:** Red Bull 29 Federal 1H Collection Date: 11/3/2023 9:23:00 AM Lab ID: 2311274-001 Matrix: SOIL Received Date: 11/7/2023 7:25:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) 16 10 mg/Kg 1 11/9/2023 7:16:36 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 11/9/2023 7:16:36 AM Surr: DNOP 83.5 69-147 %Rec 1 11/9/2023 7:16:36 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/11/2023 3:15:00 PM 4.8 mg/Kg 1 Surr: BFB 109 15-244 %Rec 1 11/11/2023 3:15:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/11/2023 3:15:00 PM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 11/11/2023 3:15:00 PM Ethylbenzene ND 0.048 mg/Kg 1 11/11/2023 3:15:00 PM Xylenes, Total ND 0.096 mg/Kg 11/11/2023 3:15:00 PM 1 Surr: 4-Bromofluorobenzene 100 39.1-146 %Rec 1 11/11/2023 3:15:00 PM **EPA METHOD 300.0: ANIONS** Analyst: RBC mg/Kg Chloride 11/9/2023 7:09:56 PM 1400 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 1 of 11

Date Reported: 11/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WES23-06 0-0.5' **Project:** Red Bull 29 Federal 1H Collection Date: 11/3/2023 10:32:00 AM Lab ID: 2311274-002 Matrix: SOIL Received Date: 11/7/2023 7:25:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) 520 9.2 mg/Kg 1 11/9/2023 7:40:17 AM Motor Oil Range Organics (MRO) 360 46 mg/Kg 1 11/9/2023 7:40:17 AM Surr: DNOP 69-147 %Rec 1 11/9/2023 7:40:17 AM 111 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/11/2023 3:37:00 PM 4.8 mg/Kg 1 Surr: BFB 107 15-244 %Rec 1 11/11/2023 3:37:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/11/2023 3:37:00 PM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 11/11/2023 3:37:00 PM Ethylbenzene ND 0.048 mg/Kg 1 11/11/2023 3:37:00 PM Xylenes, Total ND 0.095 mg/Kg 11/11/2023 3:37:00 PM 1 Surr: 4-Bromofluorobenzene 99.1 39.1-146 %Rec 1 11/11/2023 3:37:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride 11/10/2023 9:48:21 AM 3200 150 50

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

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
- RL Repo

Page 2 of 11

Date Reported: 11/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WES23-07 0-1' **Project:** Red Bull 29 Federal 1H Collection Date: 11/3/2023 10:40:00 AM Lab ID: 2311274-003 Matrix: SOIL Received Date: 11/7/2023 7:25:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) 210 9.8 mg/Kg 1 11/9/2023 8:27:44 AM Motor Oil Range Organics (MRO) 140 49 mg/Kg 1 11/9/2023 8:27:44 AM Surr: DNOP 109 69-147 %Rec 1 11/9/2023 8:27:44 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/12/2023 2:49:00 AM 4.7 mg/Kg 1 Surr: BFB 99.5 15-244 %Rec 1 11/12/2023 2:49:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/12/2023 2:49:00 AM 0.024 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 11/12/2023 2:49:00 AM Ethylbenzene ND 0.047 mg/Kg 1 11/12/2023 2:49:00 AM Xylenes, Total ND 0.094 mg/Kg 11/12/2023 2:49:00 AM 1 Surr: 4-Bromofluorobenzene 94.7 39.1-146 %Rec 1 11/12/2023 2:49:00 AM **EPA METHOD 300.0: ANIONS** Analyst: RBC mg/Kg Chloride 11/9/2023 7:59:35 PM 140 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

Analyte detected in the associated Method Blank в

- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 3 of 11

Date Reported: 11/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-19 0.5' **Project:** Red Bull 29 Federal 1H Collection Date: 11/3/2023 9:30:00 AM Lab ID: 2311274-004 Matrix: SOIL Received Date: 11/7/2023 7:25:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) 190 9.5 mg/Kg 1 11/9/2023 8:51:27 AM Motor Oil Range Organics (MRO) 200 48 mg/Kg 1 11/9/2023 8:51:27 AM Surr: DNOP 105 69-147 %Rec 1 11/9/2023 8:51:27 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/12/2023 3:10:00 AM 4.7 mg/Kg 1 Surr: BFB 100 15-244 %Rec 1 11/12/2023 3:10:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/12/2023 3:10:00 AM 0.023 mg/Kg 1 Toluene ND 0.047 mg/Kg 1 11/12/2023 3:10:00 AM Ethylbenzene ND 0.047 mg/Kg 1 11/12/2023 3:10:00 AM Xylenes, Total ND 0.094 mg/Kg 1 11/12/2023 3:10:00 AM Surr: 4-Bromofluorobenzene 94.8 39.1-146 %Rec 1 11/12/2023 3:10:00 AM **EPA METHOD 300.0: ANIONS** Analyst: RBC mg/Kg Chloride 11/9/2023 8:11:59 PM 1100 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range Reporting Limit

RL

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Date Reported: 11/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-20 0.5' **Project:** Red Bull 29 Federal 1H Collection Date: 11/3/2023 10:30:00 AM Lab ID: 2311274-005 Matrix: SOIL Received Date: 11/7/2023 7:25:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) 920 9.7 mg/Kg 1 11/9/2023 9:15:10 AM Motor Oil Range Organics (MRO) 500 48 mg/Kg 1 11/9/2023 9:15:10 AM Surr: DNOP 124 69-147 %Rec 1 11/9/2023 9:15:10 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/12/2023 3:32:00 AM 4.9 mg/Kg 1 Surr: BFB 99.7 15-244 %Rec 1 11/12/2023 3:32:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/12/2023 3:32:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/12/2023 3:32:00 AM Ethylbenzene ND 0.049 mg/Kg 1 11/12/2023 3:32:00 AM Xylenes, Total ND 0.098 mg/Kg 1 11/12/2023 3:32:00 AM Surr: 4-Bromofluorobenzene 94.2 39.1-146 %Rec 1 11/12/2023 3:32:00 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride mg/Kg 11/10/2023 10:00:46 AM 11000 600 200

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

- D Sample Diluted Due to MatrixH 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

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Date Reported: 11/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-21 1' **Project:** Red Bull 29 Federal 1H Collection Date: 11/3/2023 10:35:00 AM Lab ID: 2311274-006 Matrix: SOIL Received Date: 11/7/2023 7:25:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) 660 9.8 mg/Kg 1 11/9/2023 9:38:55 AM Motor Oil Range Organics (MRO) 350 49 mg/Kg 1 11/9/2023 9:38:55 AM Surr: DNOP 117 69-147 %Rec 1 11/9/2023 9:38:55 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/12/2023 3:53:00 AM 5.0 mg/Kg 1 Surr: BFB 103 15-244 %Rec 1 11/12/2023 3:53:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/12/2023 3:53:00 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 11/12/2023 3:53:00 AM Ethylbenzene ND 0.050 mg/Kg 1 11/12/2023 3:53:00 AM Xylenes, Total ND mg/Kg 1 11/12/2023 3:53:00 AM 0.099 Surr: 4-Bromofluorobenzene 94.9 39.1-146 %Rec 1 11/12/2023 3:53:00 AM **EPA METHOD 300.0: ANIONS** Analyst: RBC mg/Kg Chloride 11/9/2023 8:36:48 PM 2000 60 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit Page 6 of 11

Date Reported: 11/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-22 1' **Project:** Red Bull 29 Federal 1H Collection Date: 11/3/2023 10:40:00 AM Lab ID: 2311274-007 Matrix: SOIL Received Date: 11/7/2023 7:25:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) 720 9.8 mg/Kg 1 11/9/2023 1:31:38 PM Motor Oil Range Organics (MRO) 340 49 mg/Kg 1 11/9/2023 1:31:38 PM Surr: DNOP 133 69-147 %Rec 1 11/9/2023 1:31:38 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 11/12/2023 4:15:00 AM 4.9 mg/Kg 1 Surr: BFB 116 15-244 %Rec 1 11/12/2023 4:15:00 AM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 11/12/2023 4:15:00 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 11/12/2023 4:15:00 AM Ethylbenzene ND 0.049 mg/Kg 1 11/12/2023 4:15:00 AM Xylenes, Total ND mg/Kg 11/12/2023 4:15:00 AM 0.099 1 Surr: 4-Bromofluorobenzene 96.7 39.1-146 %Rec 1 11/12/2023 4:15:00 AM **EPA METHOD 300.0: ANIONS** Analyst: RBC mg/Kg Chloride 11/9/2023 8:49:13 PM 1800 60 20

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

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

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Client: Project:	Vertez Red B	x Resources Service Sull 29 Federal 1H	es, Inc.							
Sample ID:	MB-78694	SampType:	MBLK	Tes	tCode: EPA	;				
Client ID:	PBS	Batch ID:	78694	F	RunNo: 1010	73				
Prep Date:	11/9/2023	Analysis Date:	11/9/2023	S	SeqNo: 3711	697	Units: mg/K	g		
Analyte		Result PQI	L SPK value	SPK Ref Val	%REC L	owLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND 1.	.5							
Sample ID:	LCS-78694	SampType:	LCS	Tes	tCode: EPA	Method	300.0: Anions	;		
Client ID:	LCSS	Batch ID:	78694	F	RunNo: 1010	73				
Prep Date:	11/9/2023	Analysis Date:	11/9/2023	S	SeqNo: 3711	698	Units: mg/K	g		
Analyte		Result PQI	L SPK value	SPK Ref Val	%REC L	owLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14 1	.5 15.00	0	92.3	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

2311274

17-Nov-23

Client: Vertex F Project: Red Bul	Resources Solared Resources Solare	ervices, l 1H	Inc.									
Sample ID: MB-78631	SampT	уре: МЕ	BLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch	n ID: 78	631	F	RunNo: 1(01039						
Prep Date: 11/7/2023	Analysis D	ate: 11	/9/2023	S	SeqNo: 37	710036	Units: mg/K	g				
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	8.1		10.00		81.2	69	147					
Sample ID: LCS-78631	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics			
Client ID: LCSS	Batch	n ID: 78	631	F	RunNo: 1(01039						
Prep Date: 11/7/2023	Analysis D	ate: 11	/9/2023	Ş	SeqNo: 37	710037	Units: mg/K	g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range Organics (DRO)	55	10	50.00	0	111	61.9	130					
Surr: DNOP	3.8		5.000		75.6	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

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2311274

17-Nov-23

Client:VertexProject:Red Bu	Resources Se 11 29 Federal	rvices, 1H	Inc.							
Sample ID: Ics-78619	SampTy	/pe: LC	s	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID: LCSS	Batch	ID: 786	619	F	RunNo: 101095					
Prep Date: 11/7/2023	/2023 Analysis Date: 11/11/2023				SeqNo: 37	713277	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	90.0	70	130			
Surr: BFB	2300		1000		235	15	244			
Sample ID: mb-78619	SampTy	/ре: МВ	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Range		
Client ID: PBS	Batch	ID: 786	619	F	RunNo: 1(01095				
Prep Date: 11/7/2023	Analysis Da	ate: 11	/11/2023	S	SeqNo: 37	713278	Units: mg/K	g		
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		102	15	244			

Qualifiers:

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

Page 10 of 11

2311274

17-Nov-23

Client:VertexProject:Red Building	Resources S 111 29 Federa	Services, 11 1H	, Inc.									
Sample ID: Ics-78619	Samp	Type: LC	S	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batc	h ID: 786	619	F								
Prep Date: 11/7/2023	Analysis I	Date: 11	/11/2023	5	SeqNo: 37	713318	Units: mg/K					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	1.1	0.025	1.000	0	107	70	130					
Toluene	1.1	0.050	1.000	0	106	70	130					
Ethylbenzene	1.1	0.050	1.000	0	108	70	130					
Xylenes, Total	3.3	0.10	3.000	0	109	70	130					
Surr: 4-Bromofluorobenzene	0.98		1.000		97.9	39.1	146					
Sample ID: mb-78619	Samp	Туре: МЕ	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles				
Client ID: PBS	Batc	h ID: 786	619	F	RunNo: 10	01095						
Prep Date: 11/7/2023	Analysis I	Date: 11	/11/2023	S	SeqNo: 3	713319	Units: mg/K	g				
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	0.97		1.000		96.6	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

Page 11 of 11

2311274

17-Nov-23

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	nment lestin TEL #	Albu : 505-345-3975 'ebsite: www.ha	490 iquerq FAX: llenvir	91 Hawki pue, NM 505-345 ronmenta	r, EEC ins NE 87109 -4107 al.com	Sam	nple Log-In C	heck List
Client Name: Vertex Resource	es Work (Order Number:	231	1274			RcptNo:	1
Received By: Juan Rojas	11/7/202	3 7:25:00 AM			Gua	may		
Completed By: Cheyenne Ca	son 11/7/202	3 7:41:33 AM			Che	l		
Reviewed By: SCM	11/7/23			-				
Chain of Custody							_	
1. Is Chain of Custody complete	?		Yes		N	lo 🗌	Not Present	
2. How was the sample delivered	1?		<u>Cou</u>	<u>rier</u>				
Log In 3. Was an attempt made to cool	the samples?		Yes		Ν	io 🗌	NA 🗌	
4. Were all samples received at a	a temperature of >0° C to	o 6.0°C	Yes		N	lo 🗌	NA 🗆	
5. Sample(s) in proper container	(s)?		Yes		N	lo 🗌		
6. Sufficient sample volume for ir	dicated test(s)?		Yes		N	•		
7. Are samples (except VOA and	ONG) properly preserve	d?	Yes		N	• 🗌	_	
8. Was preservative added to bot	tles?		Yes		N	o ⊻	NA 🛄	
9. Received at least 1 vial with he	eadspace <1/4" for AQ V	DA?	Yes		N	o 🗌	NA 🗹	
10. Were any sample containers r	eceived broken?		Yes		N	lo 🗹	# of preserved	
11. Does paperwork match bottle l (Note discrepancies on chain of	abels? of custody)		Yes		Ν	• 🗆	for pH:	>12 unless noted)
12. Are matrices correctly identifie	d on Chain of Custody?		Yes		N	• 🗆	Adjusted?	
3. Is it clear what analyses were	requested?		Yes	\checkmark	Ν	• 🗆		1.1-1-
14. Were all holding times able to (If no, notify customer for auth	be met? orization.)		Yes		N	• 🗆 🍃	Checked by:	Jun 412
Special Handling (if applic	able)							
15. Was client notified of all discre	epancies with this order?		Yes		N	lo 🗌	NA 🗹	٦
Person Notified:		Date:						
By Whom:		Via: [_] eM	lail 📋	Phone	☐ Fax	In Person	
Client Instructione:							and the second second	
16. Additional remarks:								
17 Cooler Information								
Cooler No Temp °C	Condition Seal Intact	Seal No S	Seal D	Date	Siane	d Bv	1	
1 0.5 G	ood Not Present	Yogi				. ,		

Released to Imaging: 4/5/2024 3:20:10 PM

Received by	, OCD :	2/8/2024	4 9:56:02 AN	1
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Chain-of-Custody Record			Turn-Around Time:						н			FI	NV	TR	201	M	EN.	ΓΑΙ	Ĺ	
Client:	Ver!	tex/	Devon	□ Standard Project Name	Rush	72 h/	ANALYSIS LABORATORY													Y
Mailing	Address	. 1	0-10	Red Ru	1129 Fe	leral 1 H	4901 Hawkins NE - Albuquerque, NM 87109													
		01	n file	Project #:			Tel. 505-345-3975 Fax 505-345-4107													
Phone #	±.			23E-	04211		Analysis Request													
email or	Fax#:			Project Mana	ger:	e state aver		Ô					04			Ê		and show		
QA/QC F	Package: dard		Level 4 (Full Validation)	Kent S	tallings		3's (802 ⁻	RO / MR	2 PCB's		70SIMS		, PO4, S	2014 19 10		ent/Abse				
Accredi	ccreditation:			Sampler: SM On Ice: ⊒-Yes □ No				RO / DI	s/8082	504.1)	or 827	s	3, NO ₂		(AC	(Prese				
	EDD (Type)			# of Coolers:		yogi	TBE) GF	icide	Po	310	leta	ÔN N	7	-ir	E		1000		
Date	ate Time Matrix Sample Name				(including CF): () Preservative Type	HEAL NO. 2311274	BTEX M	TPH:8015[8081 Pesti	EDB (Meth	PAHs by 8	RCRA 8 N	Qh F, Br,	8260 (VO/	8270 (Sen	Total Colif				
11/2/13	9:23	Sail	WES22-05 0-0.5'	Yuziar	Ice	001	\bigvee	\checkmark					\checkmark							
1210	10:37	1	WES22-06 0-0.5'		111 111	OOZ					12	and the second		2020	- deserved			-		- 6
	10:40		WF52507 0-1			003						1.1						1 33		
	9:30		BES23-19 0.5'			004				10-11	065-52 100-10	ncei mcai		er te sa t Theoria		ener A The Se				×
	10:30		BE523-20 0.5-	20.000	er de la companya de	005				-		1.1		1.000		1000		1		
	10:35		BES23-21 11			006								ana a N			1.97	-		1.0
V	10:40	\checkmark	BE523-22 1		V	007	V	V					V				neta any			
					The second second						-		1.25.4.4							
			The second s									enerski i					_	_	┢━┥	
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			Contraction of the Ph	2 -K	600 0.000 000										-		+	-	┼──┤	
Date: 1/6/23 Date:	Date: Time: Relinquished by: 16/23 1015 Left McCaf Date: Time: Relinquished by: 14/13 100 ammmmp		Received by:	Via: Via: Via:	Date Time (1)//23 1015 Date Time 11/7/23 7225	Rer	nark	s: \$	Dir W Sta Mc	lot lot	+6i 7:50	11 + 211 2 ve	2:[95 (te))eve 74 c. Ca	L_l m fl co			<u></u>		



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

November 22, 2023 Kent Stallings

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

RE: Red Bull 29 Federal 1H

OrderNo.: 2311546

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 4 sample(s) on 11/10/2023 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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 11/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-24 1' **Project:** Red Bull 29 Federal 1H Collection Date: 11/8/2023 9:33:00 AM Lab ID: 2311546-001 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 330 11/15/2023 11:34:24 AM 9.8 mg/Kg 1 Motor Oil Range Organics (MRO) 220 1 11/15/2023 11:34:24 AM 49 mg/Kg Surr: DNOP 95.4 %Rec 1 11/15/2023 11:34:24 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.7 mg/Kg 1 11/15/2023 6:34:09 AM Surr: BFB 11/15/2023 6:34:09 AM 87.3 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1 11/15/2023 6:34:09 AM Toluene ND 0.047 mg/Kg 1 11/15/2023 6:34:09 AM Ethylbenzene ND 0.047 mg/Kg 1 11/15/2023 6:34:09 AM Xylenes, Total ND 0.094 mg/Kg 1 11/15/2023 6:34:09 AM Surr: 4-Bromofluorobenzene 90.9 39.1-146 %Rec 1 11/15/2023 6:34:09 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride 11/16/2023 8:45:43 AM 2600 150 mg/Kg 50

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

Qualifiers:

- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- POL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value J
- Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-25 1' **Project:** Red Bull 29 Federal 1H Collection Date: 11/8/2023 9:50:00 AM Lab ID: 2311546-002 Matrix: SOIL Received Date: 11/10/2023 7:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 180 9.6 mg/Kg 1 11/15/2023 11:44:57 AM Motor Oil Range Organics (MRO) 1 11/15/2023 11:44:57 AM 130 48 mg/Kg Surr: DNOP 83.0 %Rec 1 11/15/2023 11:44:57 AM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 11/15/2023 6:57:30 AM Surr: BFB 11/15/2023 6:57:30 AM 102 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1 11/15/2023 6:57:30 AM Toluene ND 0.049 mg/Kg 1 11/15/2023 6:57:30 AM Ethylbenzene ND 0.049 mg/Kg 1 11/15/2023 6:57:30 AM Xylenes, Total ND 0.099 mg/Kg 1 11/15/2023 6:57:30 AM Surr: 4-Bromofluorobenzene 95.2 39.1-146 %Rec 1 11/15/2023 6:57:30 AM **EPA METHOD 300.0: ANIONS** Analyst: RBC Chloride 11/15/2023 1:30:44 PM 290 60 mg/Kg 20

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

Qualifiers:

- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit POL Practical Quanitative Limit
- S % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-26 1' **Project:** Red Bull 29 Federal 1H Collection Date: 11/8/2023 9:55:00 AM Received Date: 11/10/2023 7:50:00 AM Lab ID: 2311546-003 Matrix: SOIL Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 53 11/15/2023 12:06:39 PM 9.8 mg/Kg 1 Motor Oil Range Organics (MRO) ND 1 11/15/2023 12:06:39 PM 49 mg/Kg Surr: DNOP 80.3 %Rec 1 11/15/2023 12:06:39 PM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 11/15/2023 7:20:52 AM Surr: BFB 11/15/2023 7:20:52 AM 93.3 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1 11/15/2023 7:20:52 AM Toluene ND 0.048 mg/Kg 1 11/15/2023 7:20:52 AM Ethylbenzene ND 0.048 mg/Kg 1 11/15/2023 7:20:52 AM Xylenes, Total ND 0.097 mg/Kg 1 11/15/2023 7:20:52 AM Surr: 4-Bromofluorobenzene 93.5 39.1-146 %Rec 1 11/15/2023 7:20:52 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride 6700 300 11/16/2023 8:58:07 AM mg/Kg 100

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

Qualifiers:

- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit POL
- Practical Quanitative Limit S
- % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 11/22/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-27 1' **Project:** Red Bull 29 Federal 1H Collection Date: 11/8/2023 9:58:00 AM Received Date: 11/10/2023 7:50:00 AM Lab ID: 2311546-004 Matrix: SOIL Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: PRD Diesel Range Organics (DRO) 9.4 11/15/2023 12:27:50 PM 44 mg/Kg 1 Motor Oil Range Organics (MRO) ND 1 11/15/2023 12:27:50 PM 47 mg/Kg Surr: DNOP 88.7 %Rec 1 11/15/2023 12:27:50 PM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 11/15/2023 7:44:10 AM Surr: BFB 91.1 15-244 %Rec 1 11/15/2023 7:44:10 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1 11/15/2023 7:44:10 AM Toluene ND 0.049 mg/Kg 1 11/15/2023 7:44:10 AM Ethylbenzene 11/15/2023 7:44:10 AM ND 0.049 mg/Kg 1 Xylenes, Total ND 0.099 mg/Kg 1 11/15/2023 7:44:10 AM Surr: 4-Bromofluorobenzene 94.5 39.1-146 %Rec 1 11/15/2023 7:44:10 AM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride 8800 300 11/16/2023 9:10:31 AM mg/Kg 100

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

Qualifiers:

- D Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit POL
- Practical Quanitative Limit S
- % Recovery outside of standard limits. If undiluted results may be estimated.
- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Client: Project:	Vertex Red Bu	Resources Se all 29 Federal	ervices, 1H	Inc.							
Sample ID:	MB-78812	SampT	уре: МЕ	BLK	Tes	tCode: EF	PA Method	300.0: Anions	5		
Client ID:	PBS Batch ID: 78812				F	RunNo: 1()1219				
Prep Date:	11/15/2023	Analysis D	/15/2023	3 SeqNo: 3720674 Units: mg/Kg							
Analyte		Result PQL SPK value			SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID:	LCS-78812	SampT	ype: LC	s	Tes						
Client ID:	LCSS	Batch	ID: 788	312	F	RunNo: 10	01219				
Prep Date:	e: 11/15/2023 Analysis Date: 11/15/2023				5	SeqNo: 37	20675	Units: mg/K	g		
Analyte	Result PQL SPK value				SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		15.00	0	94.4	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

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WO#: 2311546 22-Nov-23

Client:	Vertex	Resources Ser	vices,	Inc.											
Project:	Red Bu	ll 29 Federal	1H												
Sample ID:	LCS-78757	SampTy	pe: LC	S	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	Organics					
Client ID:	LCSS	Batch I	D: 787	757	F	RunNo: 1	01145								
Prep Date:	11/13/2023	Analysis Da	te: 11	/15/2023	S	SeqNo: 3	717324	Units: %Re	•						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Surr: DNOP)	4.2		5.000		84.9	69	147							
Sample ID:	MB-78757	SampTy	BLK	TestCode: EPA Method 8015M/D: Diesel Range Organics											
Client ID:	PBS	Batch ID: 78757				RunNo: 101145									
Prep Date:	11/13/2023	Analysis Da	/15/2023	S	SeqNo: 3	717326	Units: %Re	•							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Surr: DNOP)	9.1		10.00		90.5	69	147							
						TestCode: EPA Method 8015M/D: Diesel Range Organics									
Sample ID:	LCS-78800	SampTy	pe: LC	S	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	Organics					
Sample ID: Client ID:	LCS-78800 LCSS	SampTy Batch I	pe: LC	S 300	Tes F	tCode: El	PA Method 01145	8015M/D: Die	esel Range	Organics					
Sample ID: Client ID: Prep Date:	LCS-78800 LCSS 11/15/2023	SampTy Batch I Analysis Da	pe: LC	S 800 /15/2023	Tes F	tCode: El RunNo: 10 SeqNo: 3	PA Method 01145 719019	8015M/D: Die Units: mg/K	esel Range	Organics					
Sample ID: Client ID: Prep Date: Analyte	LCS-78800 LCSS 11/15/2023	SampTyj Batch I Analysis Da Result	pe: LC D: 788 te: 11 PQL	S 800 /15/2023 SPK value	Tes F SPK Ref Val	tCode: El RunNo: 10 SeqNo: 3 %REC	PA Method 01145 719019 LowLimit	8015M/D: Die Units: mg/k HighLimit	esel Range Xg %RPD	Organics RPDLimit	Qual				
Sample ID: Client ID: Prep Date: Analyte Diesel Range	LCS-78800 LCSS 11/15/2023 Organics (DRO)	SampTyj Batch I Analysis Da Result 41	pe: LC D: 788 te: 11 PQL 10	S 300 /15/2023 SPK value 50.00	Tes F SPK Ref Val 0	tCode: El RunNo: 10 SeqNo: 3 %REC 81.1	PA Method 01145 719019 LowLimit 61.9	8015M/D: Die Units: mg/K HighLimit 130	esel Range Gg %RPD	Organics RPDLimit	Qual				
Sample ID: Client ID: Prep Date: Analyte Diesel Range Surr: DNOP	LCS-78800 LCSS 11/15/2023 Organics (DRO)	SampTyj Batch I Analysis Da Result 41 3.8	pe: LC D: 788 te: 11 PQL 10	S 300 /15/2023 SPK value 50.00 5.000	Tes F SPK Ref Val 0	ttCode: El RunNo: 11 SeqNo: 3 %REC 81.1 75.7	PA Method 01145 719019 LowLimit 61.9 69	8015M/D: Die Units: mg/K HighLimit 130 147	ssel Range Gg %RPD	Organics RPDLimit	Qual				
Sample ID: Client ID: Prep Date: Analyte Diesel Range Surr: DNOP Sample ID:	LCS-78800 LCSS 11/15/2023 Organics (DRO)	SampTyp Batch I Analysis Da Result 41 3.8 SampTyp	pe: LC D: 788 te: 11 PQL 10 pe: ME	S 300 /15/2023 SPK value 50.00 5.000 SLK	Tes F SPK Ref Val 0 Tes	ttCode: EI RunNo: 11 SeqNo: 3 %REC 81.1 75.7 ttCode: EI	PA Method 01145 719019 LowLimit 61.9 69 PA Method	8015M/D: Die Units: mg/k HighLimit 130 147 8015M/D: Die	esel Range Xg %RPD esel Range	Organics RPDLimit Organics	Qual				
Sample ID: Client ID: Prep Date: Analyte Diesel Range Surr: DNOP Sample ID: Client ID:	LCS-78800 LCSS 11/15/2023 Organics (DRO) MB-78800 PBS	SampTyp Batch I Analysis Da Result 41 3.8 SampTyp Batch I	pe: LC D: 788 te: 11 PQL 10 pe: ME D: 788	S 300 /15/2023 SPK value 50.00 5.000 3LK 300	Tes F SPK Ref Val 0 Tes F	ttCode: EI RunNo: 1 SeqNo: 3 %REC 81.1 75.7 ttCode: EI RunNo: 1	PA Method 01145 719019 LowLimit 61.9 69 PA Method 01145	8015M/D: Die Units: mg/M HighLimit 130 147 8015M/D: Die	sel Range G %RPD sel Range	Organics RPDLimit Organics	Qual				
Sample ID: Client ID: Prep Date: Analyte Diesel Range Surr: DNOP Sample ID: Client ID: Prep Date:	LCS-78800 LCSS 11/15/2023 Organics (DRO) MB-78800 PBS 11/15/2023	SampTy Batch I Analysis Da Result 41 3.8 SampTy Batch I Analysis Da	pe: LC D: 788 te: 11 PQL 10 pe: ME D: 788 te: 11	S 300 /15/2023 SPK value 50.00 5.000 3LK 300 /15/2023	Tes F SPK Ref Val 0 Tes F	ttCode: EI RunNo: 11 SeqNo: 3 %REC 81.1 75.7 ttCode: EI RunNo: 10 SeqNo: 3	PA Method 01145 719019 LowLimit 61.9 69 PA Method 01145 719020	8015M/D: Die Units: mg/k HighLimit 130 147 8015M/D: Die Units: mg/k	esel Range Sg %RPD esel Range Sg	Organics RPDLimit Organics	Qual				
Sample ID: Client ID: Prep Date: Analyte Diesel Range Surr: DNOP Sample ID: Client ID: Prep Date: Analyte	LCS-78800 LCSS 11/15/2023 Organics (DRO)	SampTy Batch I Analysis Da Result 41 3.8 SampTy Batch I Analysis Da Result	pe: LC D: 788 te: 11 PQL 10 pe: ME D: 788 te: 11 PQL	S 300 /15/2023 SPK value 50.00 5.000 3LK 300 /15/2023 SPK value	Tes F SPK Ref Val 0 Tes F SPK Ref Val	ttCode: El RunNo: 10 SeqNo: 3 %REC 81.1 75.7 ttCode: El RunNo: 10 SeqNo: 3 %REC	PA Method 01145 719019 LowLimit 61.9 69 PA Method 01145 719020 LowLimit	8015M/D: Die Units: mg/K HighLimit 130 147 8015M/D: Die Units: mg/K HighLimit	ssel Range %RPD ssel Range %RPD	Organics RPDLimit Organics RPDLimit	Qual				
Sample ID: Client ID: Prep Date: Analyte Diesel Range Surr: DNOP Sample ID: Client ID: Prep Date: Analyte Diesel Range	LCS-78800 LCSS 11/15/2023 Organics (DRO) MB-78800 PBS 11/15/2023 Organics (DRO)	SampTyj Batch I Analysis Da Result 41 3.8 SampTyj Batch I Analysis Da Result ND	pe: LC D: 788 te: 11 PQL 10 pe: ME D: 788 te: 11 PQL 10	S 300 /15/2023 SPK value 50.00 5.000 3LK 300 /15/2023 SPK value	Tes F SPK Ref Val 0 Tes F SPK Ref Val	ttCode: El RunNo: 1 SeqNo: 3 %REC 81.1 75.7 ttCode: El RunNo: 1 SeqNo: 3 %REC	PA Method 01145 719019 LowLimit 61.9 69 PA Method 01145 719020 LowLimit	8015M/D: Die Units: mg/H HighLimit 130 147 8015M/D: Die Units: mg/H HighLimit	esel Range %RPD esel Range %RPD	Organics RPDLimit Organics RPDLimit	Qual				
Sample ID: Client ID: Prep Date: Analyte Diesel Range Surr: DNOP Sample ID: Client ID: Prep Date: Analyte Diesel Range Motor Oil Range	LCS-78800 LCSS 11/15/2023 Organics (DRO) MB-78800 PBS 11/15/2023 Organics (DRO) ge Organics (MRO)	SampTyr Batch I Analysis Da Result 41 3.8 SampTyr Batch I Analysis Da Result ND ND	pe: LC D: 788 te: 11 PQL 10 pe: ME D: 788 te: 11 PQL 10 50	S 300 /15/2023 SPK value 50.00 5.000 3LK 300 /15/2023 SPK value	Tes F SPK Ref Val 0 Tes F SPK Ref Val	ttCode: EI RunNo: 11 SeqNo: 3 %REC 81.1 75.7 ttCode: EI RunNo: 10 SeqNo: 3 %REC	PA Method 01145 719019 LowLimit 61.9 69 PA Method 01145 719020 LowLimit	8015M/D: Die Units: mg/k HighLimit 130 147 8015M/D: Die Units: mg/k HighLimit	ssel Range %RPD ssel Range %RPD	Organics RPDLimit Organics RPDLimit	Qual				

Qualifiers:

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

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- WO#: 2311546
 - 22-Nov-23

Client:	Vertex R	esources Ser	vices,	Inc.									
Project:	Keu Bull	29 rederal	іп										
Sample ID:	lcs-78760	SampTy	pe: LC	S	Tes	tCode: EF	A Method	8015D: Gasoli	ne Range				
Client ID:	LCSS	Batch I	D: 787	760	F	RunNo: 10	1155						
Prep Date:	11/13/2023	Analysis Da	te: 11	/15/2023	S	SeqNo: 37	17629	Units: mg/Kg	I				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Rang	e Organics (GRO)	22	5.0	25.00	0	87.3	70	130					
Surr: BFB		1900		1000		189	15	244					
Sample ID:	mb-78760	SampTy	pe: ME	BLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID:	PBS	Batch I	D: 787	760	RunNo: 101155								
Prep Date:	11/13/2023	Analysis Da	te: 11	/15/2023	SeqNo: 3717630			Units: mg/Kg	I				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Rang	e Organics (GRO)	ND	5.0										
Surr: BFB		920		1000		91.5	15	244					
Sample ID:	lcs-78754	SampTy	pe: LC	s	TestCode: EPA Method 8015D: Gasoline Range								
Client ID:	LCSS	Batch I	D: 787	754	F	RunNo: 10	1194						
Prep Date:	11/13/2023	Analysis Da	te: 11	/15/2023	5	SeqNo: 37	18682	Units: %Rec					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Surr: BFB		1900		1000		190	15	244					
Sample ID:	mb-78754	SampTy	pe: ME	BLK	Tes	tCode: EF	A Method	8015D: Gasoli	ne Range				
Client ID:	PBS	Batch I	D: 787	754	F	RunNo: 10	1194						
Prep Date:	11/13/2023	Analysis Da	te: 11	/15/2023	SeqNo: 3718683 Units: %R								
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Surr: BFB		940		1000		94.0	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

Released to Imaging: 4/5/2024 3:20:10 PM

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WO#: 2311546 22-Nov-23

Client: Project:	Verte Red I	ex Resources S Bull 29 Federa	ervices,	Inc.										
				_	TestCode: EDA Mothed 9004P: Valatilas									
Sample ID:	LCS-78760	Samp	Type: LC	S	Testcode: EPA Method 8021B: Volatiles									
Client ID:	LCSS	Batc	h ID: 787	760	F	RunNo: 1(01155							
Prep Date:	11/13/2023	Analysis [Date: 11	/15/2023	S	SeqNo: 37	717753	Units: mg/K	g					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene		0.96	0.025	1.000	0	96.2	70	130						
Toluene		0.97	0.050	1.000	0	96.7	70	130						
Ethylbenzene		0.96	0.050	1.000	0	95.8	70	130						
Xylenes, Total		2.8	0.10	3.000	0	94.5	70	130						
Surr: 4-Brom	nofluorobenzene	0.98		1.000		97.7	39.1	146						
Sample ID:	mb-78760	Samp	Гуре: МЕ	BLK	TestCode: EPA Method 8021B: Volatiles									
Client ID:	PBS	Batc	h ID: 78 7	760	F	RunNo: 101155								
Prep Date:	11/13/2023	Analysis [Date: 11	/15/2023	5	SeqNo: 37	717754	Units: mg/K	g					
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-Bron	nofluorobenzene	0.95		1.000		95.1	39.1	146						
Sample ID:	LCS-78754	Samp	Гуре: LC	S	Tes	tCode: EF	PA Method	8021B: Volati	les					
Client ID:	LCSS	Batc	h ID: 78 7	754	F	RunNo: 1(01194							
Prep Date:	11/13/2023	Analysis [Date: 11	/15/2023	S	SeqNo: 37	718687	Units: %Red	;					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Surr: 4-Brom	nofluorobenzene	0.98		1.000		98.5	39.1	146						
Sample ID:	mb-78754	Samp	Гуре: МЕ	BLK	TestCode: EPA Method 8021B: Volatiles									
Client ID:	PBS	Batc	h ID: 78 7	754	RunNo: 101194									
Prep Date: 11/13/2023 Analysis Date: 11/15/2023					S	SeqNo: 37	718688	Units: %Red	;					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Surr: 4-Brom	nofluorobenzene	0.97		1.000		97.2	39.1	146						

Qualifiers:

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

WO#: 2311546

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22-Nov-23

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🐝 eurofins 🛛 Er	nvironment Tes	Eurofins Env tin TEL: 505-345-3 Website: www	ironment Testing So Central, 4901 Hawkins Albuquerque, NM 87 975 FAX: 505-345-4 Allenvironmental.	uth LLC NE San 109 107 com	nple Log-In (Check List
Client Name: Vertex Re	sources	Work Order Numi	per: 2311546		RcptNo	: 1
Received By: Tracy Ca	sarrubias	11/10/2023 7:50:00	АМ			
Completed By: Tracy Ca	sarrubias	11/10/2023 8:21:41	AM			
Reviewed By: DAD	11/10/23					
Chain of Custody						
1. Is Chain of Custody com	plete?		Yes 🗌	No 🗹	Not Present	
2. How was the sample deli	vered?		Courier			
Log In 3. Was an attempt mode to	cool the complete					
o. Was an allempt made to	cool the samples?		Yes 🖭			
4. Were all samples receive	d at a temperature	of >0° C to 6.0°C	Yes 🗹	No 🗌	NA 🗌	
5. Sample(s) in proper conta	ainer(s)?		Yes 🗹	No 🗌		
6. Sufficient sample volume	for indicated test(s)?	Yes 🗹	No 🗌		
7. Are samples (except VOA	and ONG) proper	y preserved?	Yes 🗹	No 🗌		
8. Was preservative added t	o bottles?		Yes 🗌	No 🗹	NA 🗌	
9. Received at least 1 vial wi	ith headspace <1/4	" for AQ VOA?	Yes	No 🗌	NA 🗹	
10. Were any sample contain	iers received broke	n?	Yes	No 🗹	# of preserved	
11. Does paperwork match bo	ottle labels?		Yes 🗹	No 🗌	bottles checked for pH:	
(Note discrepancies on ch	ain of custody)		_	_	(<2 o	r >12 unless noted)
12. Are matrices correctly ide	ntified on Chain of	Custody?	Yes 🗹	No 🗌	Adjusted?	
13. Is it clear what analyses w	vere requested?		Yes ⊻		Chaked by	muhol23
(If no, notify customer for	le to be met? authorization.)		Yes ⊻	NO	checked by.	
Special Handling (if ap	plicable)					
15. Was client notified of all o	discrepancies with	this order?	Yes 🗌	No 🗌	NA 🗹	
Person Notified:	J	Date:	1			
By Whom:	1	Via:	eMail P	none 🗌 Fax	In Person	
Regarding:					and a state of state and state and	
Client Instructions:	Mailing address.r	hone number, and En	nail/Fax are missin	a on COC- TM	C 11/10/23	
16. Additional remarks:						
17. Cooler Information						
Cooler No Temp °C	Condition Se	eal Intact Seal No	Seal Date	Signed By		
1 5.9	Good Yes	s Yogi				

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Received by OCD: 2/8/2024 9:56:02 AM

C	Chain-of-Custody Record				Turn-Around Time:																		
Client:	Verl	ex/I	Dewn			□ Standard Project Nam	e:	72h	<u> </u>	ANALYSIS LABORATORY													
Mailing	Address	s: 0n	file			RedB	1129 Fe	deral	14		49	01 H	awki	ns N	E -	Albu	que	erque	e, NN	 VI 871	09		
			1			Project #:			11-11-		Τe	el. 50	5-34	5-39	75	Fa	ix 5	505-:	345-	4107			
Phone	#:			· · · · · ·		23E-0	4311			Analysis Request													
email o	r Fax#:					Project Mana	ager:	5	100		ି					40			Ê		10000		
QA/QC	Package: Idard		□ Level 4 (F	Full Valid	ation)	Kent Stallings				s (802	O / MR	PCB's		SMISC		PO4, S			It/Abser				
Accred	Accreditation: Az Compliance					Sampler: SM				I BE	DR	082	.	827(2 2			eser			10	
						On Ice:	Yes	□ No			В В	es/8	504	o	S	ŝ		S	- E				
	EDD (Type)					# of Coolers:	1	01.1	1091	BE	0	licide	pou	3310	leta	2 :	a	N-	E o		1		
						Cooler Terrip	(including CF).	· 0+0-1	25.1(0)	N N	015	Pest	Met	Å	8	Ъ	Š	Sen	Colif	- P			
Date	ate Time Matrix Sample Name					Container Type and #	Preservative Type	HEA 2311	AL NO.	A	TPH:8	8081	EDB (PAHs	RCRA	ц Э́	8260 (8270 (Total (
11/18/23	9:33	Sort	BES23-2	.4	1	402jar	Ice	0	01	\checkmark	\checkmark				1					-			
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	9:55		BES23-	26	11	003															33		
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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

December 13, 2023 Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive

Carlsbad, NM 88220 TEL: FAX:

RE: Red Bull 29 Fed 1 H

OrderNo.: 2312014

Dear Kent Stallings:

Eurofins Environment Testing South Central, LLC received 3 sample(s) on 12/1/2023 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued December 11, 2023.

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. 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. All samples are reported as received unless otherwise indicated.

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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 12/13/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WES23-09 0-1.5' **Project:** Red Bull 29 Fed 1 H Collection Date: 11/29/2023 11:50:00 AM Lab ID: 2312014-001 Matrix: SOIL Received Date: 12/1/2023 7:45:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) 50 8.8 12/6/2023 12:03:51 PM mg/Kg 1 Motor Oil Range Organics (MRO) 1 12/6/2023 12:03:51 PM 46 44 mg/Kg Surr: DNOP 87.7 69-147 %Rec 1 12/6/2023 12:03:51 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.9 mg/Kg 1 12/6/2023 1:45:49 PM Surr: BFB 12/6/2023 1:45:49 PM 92.6 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1 12/6/2023 1:45:49 PM Toluene ND 0.049 mg/Kg 1 12/6/2023 1:45:49 PM Ethylbenzene 12/6/2023 1:45:49 PM ND 0.049 mg/Kg 1 Xylenes, Total ND mg/Kg 1 12/6/2023 1:45:49 PM 0.099 Surr: 4-Bromofluorobenzene 94.8 39.1-146 %Rec 1 12/6/2023 1:45:49 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride 12/7/2023 4:22:28 PM 180 60 mg/Kg 20

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

Qualifiers:

- D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- POL 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

Date Reported: 12/13/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-12 1.5' **Project:** Red Bull 29 Fed 1 H Collection Date: 11/29/2023 1:59:00 PM Lab ID: 2312014-002 Matrix: SOIL Received Date: 12/1/2023 7:45:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) 16 12/6/2023 12:25:37 PM 9.8 mg/Kg 1 Motor Oil Range Organics (MRO) ND 1 12/6/2023 12:25:37 PM 49 mg/Kg Surr: DNOP 80.4 %Rec 1 12/6/2023 12:25:37 PM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 5.0 mg/Kg 1 12/6/2023 2:09:14 PM Surr: BFB 12/6/2023 2:09:14 PM 94.3 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1 12/6/2023 2:09:14 PM Toluene ND 0.050 mg/Kg 1 12/6/2023 2:09:14 PM Ethylbenzene 12/6/2023 2:09:14 PM ND 0.050 mg/Kg 1 Xylenes, Total ND mg/Kg 1 12/6/2023 2:09:14 PM 0.10 Surr: 4-Bromofluorobenzene 97.5 39.1-146 %Rec 1 12/6/2023 2:09:14 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride 12/7/2023 4:37:39 PM 240 60 mg/Kg 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

D Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Date Reported: 12/13/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BES23-23 1.5' **Project:** Red Bull 29 Fed 1 H Collection Date: 11/29/2023 1:25:00 PM Lab ID: 2312014-003 Matrix: SOIL Received Date: 12/1/2023 7:45:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) 50 9.0 12/6/2023 12:46:49 PM mg/Kg 1 Motor Oil Range Organics (MRO) 51 1 12/6/2023 12:46:49 PM 45 mg/Kg Surr: DNOP 86.0 %Rec 1 12/6/2023 12:46:49 PM 69-147 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 4.8 mg/Kg 1 12/6/2023 2:32:35 PM Surr: BFB 12/6/2023 2:32:35 PM 95.8 15-244 %Rec 1 **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1 12/6/2023 2:32:35 PM Toluene ND 0.048 mg/Kg 1 12/6/2023 2:32:35 PM Ethylbenzene 12/6/2023 2:32:35 PM ND 0.048 mg/Kg 1 Xylenes, Total ND 0.097 mg/Kg 1 12/6/2023 2:32:35 PM Surr: 4-Bromofluorobenzene 97.0 39.1-146 %Rec 1 12/6/2023 2:32:35 PM **EPA METHOD 300.0: ANIONS** Analyst: SNS Chloride 12/7/2023 4:52:48 PM 230 60 mg/Kg 20

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

Qualifiers:

Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit
- POL
- Practical Quanitative Limit S

% Recovery outside of standard limits. If undiluted results may be estimated.

- Analyte detected in the associated Method Blank в
- E Above Quantitation Range/Estimated Value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Client: Project:	Verte: Red E	x Resources Se Bull 29 Fed 1 H	Inc.										
Sample ID:	Sample ID: LCS-79216 SampType: LCS					tCode: EF							
Client ID:	LCSS Batch ID: 79216				F	RunNo: 1(01677						
Prep Date:	e: 12/7/2023 Analysis Date: 1			2/7/2023	S	SeqNo: 37	747421	Units: mg/Kg					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Chloride		14	1.5	15.00	0	92.0	90	110					
Sample ID:	MB-79216	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	300.0: Anions	6				
Client ID:	PBS	Batch	ID: 792	216	F	RunNo: 1(01677						
Prep Date:	ep Date: 12/7/2023 Analysis Date: 12/7/2023			S	SeqNo: 37	747425	Units: mg/K	g					
Analyte	Result PQL SPK value			SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Chloride	ND 1.5												

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

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WO#: 2312014 13-Dec-23

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Client: Ve Project: Re	rtex Resources S d Bull 29 Fed 1	Services, H	, Inc.										
Sample ID: LCS-79166	Samp	Type: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics				
Client ID: LCSS	Bato	:h ID: 79 '	166	F	RunNo: 10	01659							
Prep Date: 12/5/2023	Date: 12/5/2023 Analysis Date: 12/6/2023					744237	Units: mg/K	g/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Diesel Range Organics (DRO) 46	10	50.00	0	91.3	61.9	130						
Surr: DNOP	4.5		5.000		90.1	69	147						
Sample ID: MB-79166	Samp	Туре: МЕ	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics				
Client ID: PBS	Bato	:h ID: 79 '	166	F	RunNo: 10	01659							
Prep Date: 12/5/2023	Analysis	Date: 12	2/6/2023	Ś	SeqNo: 37	744239	Units: mg/K	g					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Diesel Range Organics (DRO) ND	10											
Motor Oil Range Organics (M	RO) ND												
Surr: DNOP	NOP 11 10.00				108	69	147						

Qualifiers:

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

WO#: 2312014 13-Dec-23

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QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Vertex R Red Bull	esources S 29 Fed 1 l	ervices, H	Inc.							
Sample ID: Ics-	79162	SampT	Гуре: LC	S	Tes	tCode: EF	PA Method	8015D: Gaso	line Range	!	
Prep Date: 12	55 2/5/2023	Analysis [Date: 12	/6/2023	r S	SeqNo: 37	744203	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Orga	anics (GRO)	20	5.0	25.00	0	80.5	70	130			
Surr: BFB		1800		1000		179	15	244			
Sample ID: mb-	-79162	Samp	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	line Range	!	
Client ID: PBS	S	Batcl	h ID: 79 1	62	F	RunNo: 1(01655				
Prep Date: 12	2/5/2023	Analysis [Date: 12	/6/2023	S	SeqNo: 37	744205	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Orga	anics (GRO)	ND	5.0								
Surr: BFB		890		1000		88.5	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

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WO#: 2312014 13-Dec-23

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Vertex Red Bu	Resources Services, Inc. Il 29 Fed 1 H									
Sample ID: LCS	6-79162	Samp	Гуре: LC	S	Tes	tCode: El	PA Method	8021B: Volati	les		
Client ID: LCS	SS	Batcl	h ID: 79 1	162	F	RunNo: 10	01655				
Prep Date: 12	/5/2023	Analysis I	Date: 12	2/6/2023	S	SeqNo: 3	44277	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.94	0.025	1.000	0	93.5	70	130			
Toluene		0.94	0.050	1.000	0	93.9	70	130			
Ethylbenzene		0.94	0.050	1.000	0	93.6	70	130			
Xylenes, Total		2.8	0.10	3.000	0	93.4	70	130			
Surr: 4-Bromofluor	robenzene	0.94		1.000		93.6	39.1	146			
Sample ID: mb-	79162	Samp	Гуре: МЕ	BLK	Tes	tCode: E	PA Method	8021B: Volati	les		
Client ID: PBS	5	Batcl	h ID: 79 1	162	F	RunNo: 10	01655				
Prep Date: 12	/5/2023	Analysis E	Date: 12	2/6/2023	Ş	SeqNo: 3	744278	Units: mg/K	g		
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-Bromofluor	robenzene	0.92		1.000		92.3	39.1	146			

Qualifiers:

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

Page 218 of 251

WO#:	2312014
	12 Dec 22

13-Dec-23

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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

Released to Imaging: 4/5/2024 3:20:10 PM

96.C22		_						
Client Name:	/ertex Reso	ources	Work	Order Numb	er: 2312014		RcptNo:	1
Received By:	Juan Roja	5	12/1/202	3 7:45:00 A	M	(Juan ag		
Completed By:	Desiree Do	ominguez	12/1/202	3 9:25:43 A	M	TA		
Reviewed By:	JA IZ	-1-23						
Chain of Custo	ody							
1. Is Chain of Cus	stody compl	ete?			Yes 🗹	No 🗌	Not Present	
2. How was the sa	ample delive	ered?			<u>Courier</u>			
Log In								
Was an attemp	t made to c	ool the samp	les?		Yes 🗹	No 🗀	NALI	
4. Were all sample	es received	at a tempera	ture of >0° C t	o 6.0°C	Yes 🗹	No 🗌	na 🗆	
5. Sample(s) in pr	oper contai	ner(s)?			Yes 🗹	No 🗌		
6. Sufficient samp	le volume fo	or indicated te	est(s)?		Yes 🗹	No 🗌		
Are samples (except VOA and ONG) properly preserved?					Yes 🗹	No 🗌		
8. Was preservati	ve added to	bottles?			Yes 🗌	No 🗹	NA 🗌	
9. Received at lea	st 1 vial with	n headspace	<1/4" for AQ V	OA?	Yes 🗌	No 🗌	NA 🗹	
10. Were any sam	ple containe	rs received b	roken?		Yes 🗆	No 🗹	# of preserved	
11. Does paperwor (Note discrepar	k match bot icies on cha	tle labels? iin of custody)		Yes 🗹	No 🗌	bottles checked for pH: (<2 o	r >12 unless peted)
2. Are matrices co	prrectly iden	tified on Chai	n of Custody?		Yes 🗹	No 🗌	Adjusted?	
3. Is it clear what	analyses we	ere requested	?		Yes 🗹	No 🗌		7
14. Were all holding (If no, notify cus	g times able stomer for a	to be met? uthorization.)			Yes 🗹	No 🗌	Checked by:	<u>M (21()</u>
Special Handlii	ng (if app	licable)						
15. Was client not	ified of all di	screpancies	with this order?		Yes 🗌	No 🗌	NA 🗹	
Person N	lotified:			Date:				
By Whor	n:			Via:	🗌 eMail 🗌] Phone 🔲 Fax	In Person	
Regardir	ig:					And the second		
Client In:	structions:							
16. Additional rem	narks:							
17. <u>Cooler Inform</u>	nation	÷	5	1			1	
Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By	receive and the second s	
1	2.0	Good	Not Present	Yogi				

Received by OCD: 2/8/2024 9:56:02 AM

C	hain	of-Cu	istody Record	Turn-Around	Time:					ы			EP	v	ТС				NT	A I	
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Mailing	Address	: 01	file	Red Bo Project #:	1129 Fe	d 1 H	4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107														
Phone	#:			23E-04	+311	factors recorded Bill Re-						A	naly	sis	Req	uest					
email o	r Fax#:			Project Mana	ager:		E	Ô					04		_	jut)					
QA/QC □ Star	Package: idard		Level 4 (Full Validation)	kentst.	allings	-264 1911 - 1915 - 1916	3's (802	SO / MF	PCB's		SMIS0		, PO4,			nt/Abse	21	1	14.C		
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	AC	Other	•	On Ice:	-P-Yes	□ No	- ù	N N N	les/8	1 50	0 or	als	3		Q	n (P					
	((ype)_ 			Cooler Temp	O(Including CF):	1.9.1.1=2.0(°C)	MTB	5D(C	sticic	thod	831	Met	ž	(Y)	-ime	lifor	1	-			
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL NO. 2312014	BTEX/	TPH:801	8081 Pe	EDB (Me	PAHs by	RCRA 8	Q, F, Br	8260 (VC	8270 (Se	Total Co					
1/29/23	11:50	Soil	WES23-09 0-1.5'	4 oziar	Ice	-001	V	~					\checkmark								
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	13:25		BES23-23 1.5-			-003											s in		22		
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Date: 11/30/23 Date: 11/30/23	Time: 7:52 Time: 1900	Relinquish	ed by: Mely ed by:	Received by: Received by:	Via: With Via:	Date Time 11/30/13 752 Date Time 12/1/23 7:45	Rer	nark .C. F	s: cent S m)ire -Sta cc a	atk	sil gs (y@	Ks Ver	halli Lex)eu ings c.c.	iun Que	W/c ertex	;#: c.ca;	2110	15-7	141

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

APPENDIX F – Depth to Groundwater Drilling

10.CP-1984 POD+

NEW	/ ME	XICO OFFICE OF TH WR-07 APPLICATION FOR F A WELL WITH NO WA (check applicable	PERMIT TO DRILL TER RIGHT box):
	Fo	r fees, see State Engineer website: ht	tp://www.ose.state.nm.us/
Purpose:		Pollution Control And/Or Recovery	Ground Source Heat Pump
Exploratory Well*(Pump test)		Construction Site/Public Works Dewatering	Other(Describe): Exploratory Borehole
Monitoring Well		Mine Dewatering	
A separate permit will be required to app	ly wate	r to beneficial use regardless if use is co	nsumptive or nonconsumptive.
New Mexico Environment Department-I	Drinking	Water Bureau (NMED-DWB) will be not	ified if a proposed exploratory well is used for public water supply.
Temporary Request - Request	ed Sta	rt Date: 11/06/2023	Requested End Date: 12/11/2023
Plugging Plan of Operations Subr	nitted?	Yes No	

1. APPLICANT(S)

Name: Devon Energy Resources		Name:	
Contact or Agent: Dale Woodall	check here if Agent	Contact or Agent:	check here if Agent
Mailing Address: 205 E Bender Road # 150		Mailing Address:	
City: Hobbs		City:	
State: NM	Zip Code: 88240	State:	Zip Code:
Phone: 405-318-4697 Phone (Work):	Home Cell	Phone: Phone (Work):	Home Cell
E-mail (optional): dale.woodall@dvn.com		E-mail (optional):	

OSE DIT DEC 8 2023 PM2:20

FOR OSE INTERNAL USE	Application for Permit, Form WR-0	7, Rev 07/12/22
File No.: CP-1984	Trn. No.: 753937	Receipt No.: 2-46443
Trans Description (optional);	LON	
Sub-Basin: CP	PCW/LOG Due I	Date: 12/10/24
		Page 1 of 3

Released to Imaging: 4/5/2024 3:20:10 PM

2. WELL(S) Describe the well(s) applicable to this application.

MM State Plane (NAD83) NM West Zone NM East Zone NM Central Zone	(Feet)	JTM (NAD83) (Mete]Zone 12N]Zone 13N	ers) I Lat/Long (WGS84) (to the nearest 1/10 th of second)
Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (Quarters or Halves , Section, Township, Range) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
CP-10864 POD1	-103.402629	32.281011	Section 30, T23S, R35E
NOTE: If more well location	s need to be describ	ed, complete form	n WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions Other description relating well	s are attached:	Yes INO	If yes, how manyNA
Red Bull 30 Federal #008H			
Well is on land owned by: Priv	rate		
Well Information: NOTE: If r If yes, how many	nore than one (1) we	Il needs to be des	cribed, provide attachment. Attached? Yes No
Approximate depth of well (fe	et): 105	0	Dutside diameter of well casing (inches): 2
Drillor Nome: Mater Deserve	a lacon Maloy		Driller License Number: 1922

Devon plans to have a licensed water well driller install an exploratory soil boring on location to determine the depth of groundwater. The soil boring will be installed up to a depth of 105 feet below ground surface (ft bgs). Temporary PVC well material will be placed to a depth of the boring and secured at the surface. The temporary well will be in place for a minimum of 72 hours at which time the well will be gauged for the presence of water. If water is encountered at any point during the boring installation, the soil boring will be plugged using a slurry of Portland Type 1/11 Neat Cement less than 6.0 gallons of water per 94 lb sack. If no water is encountered, the boring will be plugged using hydrated bentonite with drill cuttings to plug the upper 10 ft. bgs. The event will begin December 1st, 2023 and continue through December 31st, 2023.

Red Bull 30 Federal #008H, 32.281011, -103.402629

OSE DII DEC 8 2023 PM2:20

FOR OSE INTERNAL USE

File No.(?

Application for Permit, Form WR-07 Version 07/12/22

Tm No.: 753012-

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory: Is proposed well a future public water supply well? Yes NO If Yes, an application must be filed with NMED-DWB, concurrently.	Pollution Control and/or Recovery: Include a plan for pollution control/recovery, that includes the following: A description of the need for the pollution control or recovery operation. The estimated maximum period of time for completion of the operation. The annual diversion amount. The annual consumptive use amount. The maximum amount of water to be diverted and injected for the duration of the operation.	Construction De-Watering: Include a description of the proposed dewatering operation, The estimated duration of the operation, The maximum amount of water to be diverted, A description of the need for the dewatering operation, and, A description of how the diverted water will be disposed	Mine De-Watering: Include a plan for pollution control/recovery, that includes the following: A description of the need for mine dewatering. The estimated maximum period of time for completion of the operation. The source(s) of the water to be diverted. The geohydrologic characteristics of the aquifer(s). The maximum amount of water to be diverted per annum. The maximum amount of water to be diverted for the duration of the operation
description of	The method and place of discharge.	of.	The quality of the water.
pump test if applicable.	☐ The method of measurement of water produced and discharged. ☐ The source of water to be injected. ☐ The method of measurement of	Ground Source Heat Pump:	The method of measurement of water diverted. The recharge of water to the aquifer.
Monitoring	water injected.	The number of boreholes	hydrologic effect of the project.
The reason and duration of the monitoring is required.	 The characteristics of the aquifer. The method of determining the resulting annual consumptive use of water and depletion from any related stream system. Proof of any permit required from the New Mexico Environment Department. An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located. 	for the completed project and required depths. The time frame for constructing the geothermal heat exchange project, and, The duration of the project. Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	 The method and place of discharge. An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. A description of the methods employed to estimate effects on surface water rights and underground water rights. Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.

ACKNOWLEDGEMENT

Dale Woodall 1, We (name of applicant(s)),

Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Dale Woodall

Applicant Signature

1	1	-29	-23	

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is: approved

partially approved denied

OSE DIT DEC 8 2023 PM2:20

Page 3 of 3

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this	day of December 20	23 , for the State Engineer,
Mike A. Hamma	Ω, State Engine	eer
By: K.Parekt	Print	shyapPareth
Title: Water Resource	:> Manager I	
	FOR OSE INTERNAL USE	Application for Permit, Form WR-07 Version 07/12/22
	File No .: CP-1084	Tm No.: 752027

NEW MEXICO STATE ENGINEER OFFICE PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

- 17-16 Construction of a water well by anyone without a valid New Mexico Well Driller License is illegal, and the landowner shall bear the cost of plugging the well by a licensed New Mexico well driller. This does not apply to driven wells, the casing of which does not exceed two and three-eighths inches outside diameter.
- 17-1A Depth of the well shall not exceed the thickness of the valley fill.
- 17-4 No water shall be appropriated and beneficially used under this permit.
- 17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant ... The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

Trn Desc: CP 01984 POD1

File Number: CP 01984 Trn Number: 753937

page: 1

NEW MEXICO STATE ENGINEER OFFICE PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

- 17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
- 17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.
- 17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record. The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.
- 17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.
- 17-Q The State Engineer retains jurisdiction over this permit.
- 17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

Trn Desc: CP 01984 POD1

File Number: CP 01984 Trn Number: 753937

page: 2

NEW MEXICO STATE ENGINEER OFFICE PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

LOG The Point of Diversion CP 01984 POD1 must be completed and the Well Log filed on or before 12/10/2024.

ALL WELLS SHALL BE CONSTRUCTED TO PREVENT CONTAMINANTS FROM ENTERING THE HOLE FROM LAND SURFACE BY SEALING THE ANNULAR SPACE AROUND THE OUTERMOST CASING,

ACTION OF STATE ENGINEER

Notice of Intention Rcvd:	Date Rcvd. Corrected:
Formal Application Rcvd: 12/08/2023	Pub. of Notice Ordered:
Date Returned - Correction:	Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 11 day of Dec A.D., 2023

Mike A. Hamman, P.E. , State Engineer

By: KASHYAP PAREKH

Trn	Desc:	CP	01984	POD1	

File	Number:	CP 01984
Trn	Number:	753937

page: 3



Subsurface Estate **Released to Imaging: 4/5/2024 3:20:10 PM**

Curry County

Parcels 2023

County Parcels

2023

Luna County

Parcels 2023

Union County

Parcels 2023

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: 753937 File Nbr: CP 01984

Dec. 11, 2023

DALE WOODALL DEVON ENERGY RESOURCES 205 E BENDER ROAD #150 HOBBS, NM 88240

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

- * If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.
- * If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.
 - * The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.
- * This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,

Azucena Ramirez

(575) 622-6521

Enclosure

explore



November 30, 2023

DII-NMOSE 1900 W 2nd Street Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Application to Drill a Well with No Water Right for Groundwater Determination

To whom it may concern:

Vertex Resource Group and Vision Resources has been contracted to install eleven (11) Soil boring/temporary monitoring well at the locations in the table listed below.

Please find, in triplicate for each location, an *Application to Drill a Well with No Water Right, a Plugging* Plan of Operation, and Sundry Notice Approval from the Bureau of Land Management (BLM).

Associated Well Site or Facility	GPS Coordinates	Section, Township, & Range
Sirius 17 Federal #006H	32.662641, -103.883824	Section 17, T19S, R31E
Rattlesnake 13 12 Federal Com #001H	32.036403, -103.415659	Section 13, T26S, R34E
Red Bull 30 Federal #008H	32.281011, -103.402629	Section 30, T23S, R35E
Lynx Federal #001	32.828896, -103.752938	Section 15, T17S, R32E
Arena Roja Federal Unit #005	32.017699, -103.357869	Section 27, T26S, R35E
Corral Draw AQH Federal #001	32.216220, -103.945878	Section 13, T24S, R29E
Chincoteague 8 CTB 2	32.146558, -103.697204	Section 08, T25S, R32E
Aldabra 25 Federal #003H	32.268530, -103.733210	Section 25, T23S, R31E
Boomslang 14 23 Federal #002H	32.224703, -103.546460	Section 14, T24S, R33E
Thistle Unit #059H	32.282780, -103.575590	Section 28, T23S, R33E
Cotton Draw Unit 12 CTB 12	32.139938, -103.730982	Section 12, T25S, R31E

Cash

eheek is attached for \$5.00 to process the application.

If you have any questions, please contact Michael Moffitt at 575.988.2687 or mmoffitt@vertex.ca

USE OIT DEC 8 2023 PM2:20

vertex.ca

3101 Boyd Drive, Carlsbad, New Mexico 88220, USA | P 575.725.5001



United States Department of the Interior

BUREAU OF LAND MANAGEMENT Carlsbad Field Office 620 E. Greene St. Carlsbad, NM 88220-6292

In Reply Refer To: 3162.4 (NM-080) NMNM115426

November 8, 2023

NM Office of the State Engineer 1900 W. Second St. Roswell, NM 88201

Re: Red Bull 30Fed Com 8H 3002548331 Sec 30, T23S, R35E Lea County, New Mexico

To Whom It May Concern:

The above well location and the immediate area mentioned above requires advanced soil boring to take place at approximately 55 feet below ground surface. The boring will be secured and left open for 72 hours at which time Devon Energy Resources will assess for the presence or absence of groundwater. Temporary PVC well material will be placed to total depth of the boring and secured at the surface. If water is encountered at any point during the boring, installation of the soil boring will be plugged using Portland Type 1/11 neat cement less than 6.0 gallons of water per 94lb sack. If no water is encountered, then the soil boring will be plugged. The Bureau of Land Management (landowner) authorizes the access of the area to accomplish depth to groundwater determination of this site.

If you have any questions contact Crisha Morgan, at 575-234-5987.

Sincerely, CRISHA MORGAN Digitally signed by CRISHA MORGAN Date: 2023.11.08 08:37:57 -07'00'

Crisha A. Morgan Certified Environmental Protection Specialist

Received by OCD: 2/8/2024 9:56:02 AM

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT		11/10/2023	
Well Name: RED BULL 30 FED COM	Well Location: T23S / R35E / SEC 30 / NWNE /	County or Parish/State:	
Well Number: 8H	Type of Well: OIL WELL	Allottee or Tribe Name:	
Lease Number: NMNM115426	Unit or CA Name:	Unit or CA Number:	
US Well Number: 3002548331	Well Status: Approved Application for Permit to Drill	Operator: DEVON ENERGY PRODUCTION COMPANY LP	

Notice of Intent

Sundry ID: 2759889

Type of Submission: Notice of Intent

Date Sundry Submitted: 11/06/2023

Date proposed operation will begin: 11/06/2023

Type of Action: Other

Time Sundry Submitted: 09:29

Procedure Description: Devon Energy Resources plans to have a licensed water well driller install an exploratory soil boring on location to determine the depth of groundwater. The soil boring will be installed up to a depth of 55 feet below ground surface (ft bgs). Temporary PVC well material will be placed to a depth of the boring and secured at the surface. The temporary well will be in place for a minimum of 72 hours at which time the well will be gauged for the presence of water. If water is encountered at any point during the boring installation, the soil boring will be plugged using a slurry of Portland Type 1/11 Neat Cement less than 6.0 gallons of water per 94 lb sack. If no water is encountered, the boring will be plugged using hydrated bentonite with drill cuttings to plug the upper 10 ft. bgs. The event will potentially begin on November 6th, 2023 and may continue through December 11th, 2023 pending a drilling rig's availability to execute the exploratory borehole.

Surface Disturbance

Is any additional surface disturbance proposed?: No

OSE DIT DEC 8 2023 PM2:21

Page 233 of 251

Received by O	OCD: 2/8/2024 9:56:02 AM	_		
٣	Well Name: RED BULL 30 F	MC	Well Location: T23S / R35E / SEC 30 / NWNE /	C or Parish/State:
	Well Number: 8H		Type of Well: OIL WELL	Allottee or Tribe Name:
	Lease Number: NMNM115426		Unit or CA Name:	Unit or CA Number:
	US Well Number: 3002548331		Well Status: Approved Application for Permit to Drill	Operator: DEVON ENERGY PRODUCTION COMPANY LP

Conditions of Approval

Specialist Review

20231108_RED_BULL_30_FED_COM_8H_St_Engineer_Office_drilling_approval_20231108092923.pdf

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: CHELSEY GREEN

Signed on: NOV 06, 2023 09:29 AM

Name: DEVON ENERGY PRODUCTION COMPANY LP

State: OK

Title: Regulatory Compliance Professional

Street Address: 333 West Sheridan Avenue

City: Oklahoma City

Phone: (405) 228-8595

Email address: Chelsey.Green@dvn.com

Field

Representative Name:	
Street Address:	
City:	State:
Phone:	
Email address:	

Zip:

BLM Point of Contact

BLM POC Name: CRISHA A MORGAN BLM POC Phone: 5752345987 Disposition: Approved Signature: CRISHA A. MORGAN BLM POC Title: Environmental Protection Specialist BLM POC Email Address: camorgan@blm.gov

Disposition Date: 11/08/2023

Page 1 of 5

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STORE AND THE	WELL	PLUGGIN	Ŧ		NEW
	PLAN OF	OPERATIO	ONS	Construction and	
		or Liutin	0110	1912	03
NOTE: A Well Plugging Plan of C used to plug a single well, or if you	perations shall be filed with and a are plugging multiple monitoring	ccepted by the Office of wells on the same site u	the State Engineer sing the same plug	prior to pluggin ging methodolog	ng. This form may be ay.
Alert! Your well may be eligible to cgmn/ if within an area of interest construction reflected in a well rec prior to completing this prior form a later date.	participate in the Aquifer Mappin and meets the minimum construction ord and log is not compromised, co b. Showing proof to the OSE that ye	ig Program (AMP)-NM ion requirements, such a ontact AMP at 575-835-5 our well was accepted in	Bureau of Geology is there is still water 6038 or -6951, or by this program, may	geoinfo.nmt.edu r in your well, ar email nmbg-wa delay the plugg	/resources/water/ id the well terlevels@nmt.edu, ing of your well until
I. FILING FEE: There is no	o filing fee for this form.				
II. GENERAL / WELL OW	NERSHIP: Check here	e if proposing one plan for	multiple monitoring	wells on the sam	e site and attaching WD
Existing Office of the State Name of well owner: Devo	Engineer POD Number (Wonn Energy Resources	ell Number) for we	ll to be plugged	:_CP-1	984-POP
Mailing address: 205 E Ber	nder Road # 150		County:	Lea	
City: Hobbs		State:	NM	Zi	p code: 88240
Phone number: 405-318-469	7	E-mail: Dale.	Woodall@DVN.c	om	
II. WELL DRILLER INFO	DRMATION:				
III. WELL DRILLER INFO Well Driller contracted to pro	DRMATION:	on Resources , Jasor	n Maley	10/07/20	25
III. WELL DRILLER INF(Well Driller contracted to pro New Mexico Well Driller Lic	DRMATION:	on Resources , Jason	n Maley Expiration Da	te: <u>10/07/20</u>	25
III. WELL DRILLER INF(Well Driller contracted to pro New Mexico Well Driller Lic	DRMATION:	on Resources , Jason	n Maley Expiration Da ging multiple moni	te: <u>10/07/20</u>	25 he same site and attact
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7)	Inside diameter of innermost casing: inches.
8)	Casing material: PVC
9)	The well was constructed with: an open-hole production interval, state the open interval: a well screen or perforated pipe, state the screened interval(s): 100-105 Feet
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? None
11)	Was the well built with surface casing? If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? If yes, please describe:
12)	Has all pumping equipment and associated piping been removed from the well? <u>Yes</u> If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.
<u>V. D</u>	ESCRIPTION OF PLANNED WELL PLUGGING: form must be completed for each method.
Note: diagra as geoj	If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed m of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such obysical logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this plugging plan.
Also, if	this planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by the applicant.
D.	Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:
	Temporary PVC casing will be removed and approximately 9.4 Cubic feet bentonite chips will be placed in well.

Will well head be cut-off below land surface after plugging? No well head will be installed.

VI. PLUGGING AND SEALING MATERIALS:

2)

Note: The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant. Attach a copy of the batch mix recipe from the cement company and/or product description for specialty cement mixes or any sealant that deviates from the list of OSE approved sealants.

- 1) For plugging intervals that employ cement grout, complete and attach Table A.
- 2) For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
- Theoretical volume of grout required to plug the well to land surface: DNA
- 4) Type of Cement proposed: DNA
- 5) Proposed cement grout mix: DNA gallons of water per 94 pound sack of Portland cement.
- 6) Will the grout be: ______ batch-mixed and delivered to the site

DNA mixed on site

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7) Grout additives requested, and percent by dry weight relative to cement:

VII. ADDITIONAL INFORMATION: List additional information below, or on separate sheet(s):

Devon plans to have a licensed water well driller install an exploratory soil boring on location to determine the depth of groundwater. The soil boring will be installed up to a depth of 105 feet below ground surface (ft bgs). Temporary PVC well material will be placed to a depth of the boring and secured at the surface. The temporary well will be in place for a minimum of 72 hours at which time the well will be gauged for the presence of water. If water is encountered at any point during the boring installation, the soil boring will be plugged using a slurry of Portland Type 1/11 Neat Cement less than 6.0 gallons of water per 94 lb sack. If no water is encountered, the boring will be plugged using hydrated bentonite with drill cuttings to plug the upper 10 ft. bgs. The event will begin December 4th, 2023 and continue through December 31st, 2023. Red Bull 30 Federal #008H at 32.281011, -103.402629

VIII. SIGNATURE:

I, <u>Dale Woodall</u>, say that I have carefully read the foregoing Well Plugging Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Well Plugging Plan of Operations and attachments are true to the best of my knowledge and belief.

Dale Woodall 11-29-23

Signature of Applicant

Date

IX. ACTION OF THE STATE ENGINEER:

This Well Plugging Plan of Operations is:

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_ Approved subject to the attached conditions.

Not approved for the reasons provided on the attached letter.

11th day of December, 2023 Mike A. Hamphan P.E., New Mexico State Engineer Witness my hand and official seal this By: <u>K.P arekh</u> KASMYAP PAREKH W.R.M. I WD-08 Well Plugging Plan Version: March 07, 2022 Page 3 of 5

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TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

and the second se	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)	Does Not Apply (DNA)	DNA	DNA
Bottom of proposed interval of grout placement (ft bgl)	DNA	DNA	DNA
Theoretical volume of grout required per interval (gallons)	DNA	DNA	DNA
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement	DNA	DNA	DNA
Mixed on-site or batch- mixed and delivered?	DNA	DNA	DNA
Grout additive 1 requested	DNA	DNA	DNA
Additive 1 percent by dry weight relative to cement	DNA	DNA	DNA
Grout additive 2 requested	DNA	DNA	DNA
Additive 2 percent by dry weight relative to cement	DNA	DNA	DNA

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TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)	1-ft. Fill to one-ft below ground surface. Top 1-ft will be filled with soil backfill.		Zero feet below grade.
Bottom of proposed sealant of grout placement (ft bgl)	Bottom 105.0-ft. 0-20': Pour from surface 20 to 105': Tremie in bentonite chips.		
Theoretical volume of sealant required per interval (gallons)	Under a 100 gallons of water/enough to be adequate for hydrating the bentonite		
Proposed abandonment sealant (manufacturer and trade name)	Wyoming Bentonite		

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STATE OF NEW MEXICO OFFICE OF THE STATE ENGINEER ROSWELL 1900 West Second St. Roswell, New Mexico 88201 Phone: (575) 622-6521 Fax: (575) 623- 8559

Applicant has identified wells, listed below, to be plugged. Jason Maley (Vision Resources) (WD-1833) will perform the plugging.

Permittee: Devon Energy Resources NMOSE Permit Number: CP-1984-POD1

NMOSE File	Casing diameter (inches)	Well depth (feet bgl)	Approximate static water level (feet bgl)	Latitude	Longitude
CP-1984-POD1	6.5 (Soil Boring)	55	Unknown	32° 16' 51.6396"	103° 24' 9.4644''

Specific Plugging Conditions of Approval for Well located in Lea County, New Mexico.

1. Water well drilling and well drilling activities, including well plugging, are regulated under 19.27.4 NMAC, which requires any person engaged in the business of well drilling within New Mexico to obtain a Well Driller License issued by the New Mexico Office of the State Engineer (NMOSE). Therefore, the firm of a New Mexico licensed Well Driller shall perform the well plugging.

<u>2. Ground Water encountered:</u> The total Theoretical volume of sealant required for abandonment of soil boring well is approximately 95.0 gallons. Total minimum volume of necessary sealant shall be calculated upon sounding the actual pluggable depth of well, which is estimated at 55 feet.

<u>3. Dry Hole:</u> The total Theoretical volume of sealant required for abandonment of soil boring well is approximately 17.2 gallons. Total minimum volume of necessary sealant shall be calculated upon sounding the actual pluggable depth of well, which is estimated at 10 feet.

<u>4. Ground Water encountered:</u> Type I/II Portland cement mixed with 5.2 to 6.0 gallons of fresh water per 94-lb sack of cement is approved for the plugging the well.

<u>5. Dry Hole:</u> (a) Drill cuttings up to ten feet of land surface. (b) 10 feet to 0 feet – Hydrated bentonite. The bentonite shall be hydrated separately with its required increments of water prior to being mixed into the cement slurry.

6. Sealant shall be placed by pumping through a tremie pipe extended to near well bottom and kept below top of the slurry column as the well is plugged from bottom-upwards in a manner that displaces

the standing water column upwards from below. Tremie pipe may be pulled as necessary to retain minimal submergence in the advancing column of sealant.

7. Should cement "shrinks-back" occur in the well, use of a tremie for topping off is required for cement placement deeper than 20 feet below land surface or if water is present in the casing. The approved sealant for topping off is identified in condition 3. and 4. of these Specific Conditions of Approval.

8. Any open annulus encountered surrounding the casing shall also be sealed by the placement of the approved sealant. When plugging shallow wells with no construction or environmental concerns, and if the well record on a well to be plugged shows a proper 20-foot annular seal, a plugging plan can propose the use of clean fill material to a nominal 30 feet bgs, then placing an OSE approved sealant to surface. Lacking that information, we would require an excavation of at least 2-feet which shall then be filled in its entirety with sealant to surface.

9. Should the NMED, or another regulatory agency sharing jurisdiction of the project authorize, or by regulation require a more stringent well plugging procedure than herein acknowledged, the morestringent procedure should be followed. This, in part, includes provisions regarding pre-authorization to proceed, contaminant remediation, inspection, pulling/perforating of casing, or prohibition of free discharge of any fluid from the borehole during or related to the plugging process.

10. NMOSE witnessing of the plugging of the soil boring will not be required.

11. Any deviation from this plan must obtain an approved variance from this office prior to implementation.

12. A Well Plugging Record itemizing actual abandonment process and materials used shall be filed with the State Engineer within 30 days after completion of well plugging. For the plugging record, please resurvey coordinate location for well and note coordinate system for GPS unit. Please attach a copy of these plugging conditions.

The NMOSE Well Plugging Plan of Operations is hereby approved with the aforesaid conditions applied.

Witness my hand and seal this 11th day of December 2023

Mike A. Hamman, P.E. State Engineer

< Parel By:

Kashyap Parekh Water Resources Manager I





STATE OF NEW MEXICO OFFICE OF THE STATE ENGINEER

ROSWELL

Mike A. Hamman, P.E. State Engineer DISTRICT II 1900 West Second St. Roswell, New Mexico 88201 Phone: (575) 622-6521 Fax: (575) 623-8559

December 11, 2023

Devon Energy 205 E. Bender Road, #150 Hobbs, NM 88240

RE: Well Plugging Plan of Operations for well no. CP-1984-POD1

Greetings:

Enclosed is your copy of the Well Plugging Plan of Operations for the above referenced well subject to the attached Conditions of Approval. The proposed method of operation is found to be acceptable and in accordance with the Rules and Regulations Governing Well Driller Licensing; Construction, Repair and Plugging of Wells 19.27.4 NMAC adopted June 30, 2017 by the State Engineer. subject to the attached Conditions of Approval.

Within 30 days after the well is plugged, the well driller is required to file a complete plugging record with the OSE and the permit holder.

Sincerely,

K. Parekl

Kashyap Parekh Water Resources Manager I

<i>ceived by OCD: 2</i> Owner's Name:	2/8/2024 9:56:02 A 5TANDA RIJ	M SAFETY	Owne	er Well #:	RED BUL	<u> </u>	Page 242
Owners Street of RFD:	r			Latitude: 32	280832		
Owners City:			L	ongitude:10	13,402796		
Owners State:	_			Elevation:			
Owners Zip Code:		-	GPS Bra	and Used:	GARMIN / MAG	BELLAN	
Wells Street or RFD:	22 MILES 5.	OF NELAWA	RE BASIN RU.	Type of Work: (circle one)	New We	all	
Well County:	LEA				Deepen	ing	
Well's City:					Record	itionino	
Well's Zip Code:					Replace	ment	
Proposed Use: (circle one)	Monito Industr	or ial Soil Boring	Irrigation Public Supply Domestic	Geothen T Rig	mal Heat Loop est well g Suppiy	If public su were plans	pply approved
	De-Wate	ering	Injection		Stock	Yes	No
Diameter of Hole	e: 62	in.	From: 0		To:].05		
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(circle one)	Bor	ed Hollow	Stem Auger	Air Ro Other:	otary Cable Tool	-	
Borehole Completion: (circle one)	C	pen Hole derreamed	Str	aight Wa	ll Other	to:	with:
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	Mauror	- Val	sing, Blank	Pipe & W	ieil Screen Data:	an a	and a contract of the state of the state
Dia (in)	Used	Mfg., if com	nercial	From		Gauge Casing Sc	reen
Annular Seal Data:	From Nu From	mber of sacks &	ft. To: material use ft. To:	d:	tt. PLVGGED SZ ft.	BAGS HOLE	<u>р</u> ис
1	Nu	mber of sacks &	material use	d:			
Distance to Septic Distance to Prope Surface Comp (circle one	rty Line:	Surface Slab	Installed		Method of Verification Surface Slev Alternative Pr	: eve installed rocedure Used	
Static Level belov Artesian Flow:	v land surf	ace:	GPM	fl.	Date:	n)	
Packers		Туре	Dep	oth	Was Chemical analy	sis made: Y	es No
<u>.</u>					Did you knowingly penetra which contains undesirable	te any strata Y constituents?: Y	es No
	Cas	ing left in well	1		Cement/Bentonite	placed in well:	
Plugged: well plugged within 48 hrs?	from (ft)	to (ft)	from (ft)	to (ft)	cement/	bentonite - no. of	sacks
Type of Pump: (circle one)	Turbine	Submersible Cylinder	Depth to	o pump wl:		_ft.	entremente (201) Ann à record de la constitución de la constitución A
Well Test Types:	Pump	Jetted	Yield		GPM	a na sana sa	
	Bailer	Estimated	with (ft.)		drawdown after	r hrs.	
The at 101 adams	1						

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811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 312506

QUESTIONS		
Operator: DEVON ENERGY PRODUCTION COMPANY, LP	OGRID: 6137	
333 West Sheridan Ave. Oklahoma City, OK 73102	Action Number: 312506	
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2319260257
Incident Name	NAPP2319260257 RED BULL 29 FED 1H WELLPAD @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Facility	[fAPP2130624453] RED BULL 29 FED 1H WELLPAD

Location of Release Source

Please answer all the questions in this group.		
Site Name	RED BULL 29 FED 1H WELLPAD	
Date Release Discovered	07/11/2023	
Surface Owner	Private	

Incident Details

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

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Equipment Failure Other (Specify) Produced Water Released: 83 BBL Recovered: 82 BBL Lost: 1 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	No
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)	communication with tanks failed and they overran. estimated 13 bbls made it to the pad. recovered volumes not available at this time

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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QUESTIONS, Page 2

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QUESTIONS (continued)		
Operator:	OGRID:	
DEVON ENERGY PRODUCTION COMPANY, LP	6137	
333 West Sheridan Ave.	Action Number:	
Oklahoma City, OK 73102	312506	
	Action Type:	
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

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	False		
If all the actions described above have not been undertaken, explain why Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remed	recovered volumes are not available at this time ation 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: 02/08/2024		

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

Operator:

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

333 West Sheridan Ave.

Oklahoma City, OK 73102

DEVON ENERGY PRODUCTION COMPANY, LP

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

QUESTIONS (continued)

OGRID:

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QUESTIONS, Page 3

Action 312506

	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)
QUESTIONS	
Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approvi release discovery date.	al and beyond). This information must be provided to the appropriate district office no later than 90 days after the
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Estimate or Other
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release a	nd 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)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 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 th	e 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 a	ssociated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.
Wes this release entirely centeined within a lined centeinment eres	Yes
Soil Contamination Sampling: (Provide the bighest observable value for each in mill	NO
Chloride (EPA 300.0 or SM4500 CLB)	
TPH (CPO+DPO+MPO) (EI A 600.0 01 000+000 01 0)	
CPO+DRO (EFA SW-040 Mielilou 0015W)	5506
	3806
BTEX (EPA SW-846 Method 8021B of 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 e which includes the anticipated timelines for beginning and completing the remediation.	fforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC
On what estimated date will the remediation commence	10/25/2023
On what date will (or did) the final sampling or liner inspection occur	11/01/2023
On what date will (or was) the remediation complete(d)	11/29/2023
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	5360
What is the estimated volume (in cubic yards) that will be remediated	199
These estimated dates and measurements are recognized to be the best guess or calculation at the t	ime 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 acc significantly deviate from the remediation plan proposed, then it should consult with the division to	cordance with the physical realities encountered during remediation. If the responsible party has any need to determine if another remediation plan submission is required.

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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QUESTIONS (continued)		
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	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	

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 ef which includes the anticipated timelines for beginning and completing the remediation.	Torts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC,
I hereby certify that the information given above is true and complete to the best of my k to report and/or file certain release notifications and perform corrective actions for relea the OCD does not relieve the operator of liability should their operations have failed to a water, human health or the environment. In addition, OCD acceptance of a C-141 report local laws and/or regulations.	inowledge and understand that pursuant to OCD rules and regulations all operators are required ises which may endanger public health or the environment. The acceptance of a C-141 report by adequately investigate and remediate contamination that pose a threat to groundwater, surface t does not relieve the operator of responsibility for compliance with any other federal, state, or
I berefy agree and size off to the above statement	Name: Dale Woodall Title: EHS Professional

Date: 02/08/2024 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.

Email: Dale.Woodall@dvn.com

I hereby agree and sign off to the above statement

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170 District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

Deferral Requests Only

Only answer the questions in this group if seeking a deferral upon approval this submission. Each o	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

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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QUESTIONS (continued)		
Operator:	OGRID:	
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QUESTIONS

Sampling Event Information		
Last sampling notification (C-141N) recorded	312548	
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	11/29/2023	
What was the (estimated) number of samples that were to be gathered	3	
What was the sampling surface area in square feet	200	

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all r	emediation 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	5360
What was the total volume (cubic yards) remediated	199
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	0
What was the total volume (in cubic yards) reclaimed	0
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 comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.	closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of
I hereby certify that the information given above is true and complete to the best of my to report and/or file certain release notifications and perform corrective actions for release the OCD does not relieve the operator of liability should their operations have failed to water, human health or the environment. In addition, OCD acceptance of a C-141 report local laws and/or requilations. The responsible party acknowledges they must substant	knowledge and understand that pursuant to OCD rules and regulations all operators are required ases which may endanger public health or the environment. The acceptance of a C-141 report by adequately investigate and remediate contamination that pose a threat to groundwater, surface t does not relieve the operator of responsibility for compliance with any other federal, state, or ially restore, reclaim and re-vegetate the impacted surface area to the conditions that existed

1				, ,		,	, ,	
ocal laws and/or regulations. The responsible party acknowledge	owledges they m	nust substantially re	estore, reclaim, and re-veg	etate the impact	ed surface area	to the conditions	s that exist	t
prior to the release or their final land use in accordance w	ith 19.15.29.13 N	NMAC including no	tification to the OCD when	reclamation and	re-vegetation a	re complete.		

I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dvn.com Date: 02/08/2024
--	--

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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QUESTIONS (continued)		
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	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)	
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

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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CONDITIONS		
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CONDITIONS

Created By	Condition	Condition Date
nvelez	None	4/5/2024