Volume calculator

There was no volume calculator prepared when the spill occurred.



June 9, 2023

Vertex Project #: 21E-02816-27

Spill Closure Report:	Tomcat 17 Federal #001
	Unit P, Section 17, Township 23 South, Range 32 East
	API: 30-025-34690
	County: Lea
	Incident Reports: nSAP0219636264, nKJ1524345298 (1RP-3833)
Prepared For:	Devon Energy Production Company
	6488 Seven Rivers Highway
	Artesia, New Mexico 88210

New Mexico Oil Conservation Division - District 1 - Hobbs 1625 North French Drive Hobbs, New Mexico 88240

Devon Energy Production Company (Devon) retained Vertex Resource Services Inc. (Vertex) to conduct a Spill Assessment for two releases of produced oil that occurred at Tomcat 17 Federal #001, API 30-025-34690 (hereafter referred to as "Tomcat"). Incidents nSAP0219636264 and nKJ1524345298 were caused by a perforated fill line and corrosion in the bottom of a tank, respectively. Devon provided immediate notification to the Bureau of Land Management (BLM) and the New Mexico Oil Conservation Division (NMOCD) District 1, via submission of initial C-141 Release Notifications. This letter provides a description of the Spill Assessment and includes a request for Spill Closure. The release area is located at N 32.298882, W -103.690711.

Background

The site is located approximately 3.22 miles north of the intersection of Highway 128 and Red Road, and 2.93 miles east of Red Road (Google Inc., 2023). The legal location for the site is Unit P, Section 17, Township 23 South and Range 32 East in Lea County, New Mexico. The release area is located on BLM property. An aerial photograph and site schematic are presented on Figure 1 (Attachment 1).

The Geological Map of New Mexico (New Mexico Bureau of Geology and Mineral Resources, 2022) indicates the site's surface geology is comprised primarily of Qep - Eolian and piedmont deposits (Holocene to middle Pleistocene) Interlayed eolian sands and piedmont-slope deposits. The Natural Resources Conservation Service *Web Soil Survey* characterizes the predominant soil textures on the site as Maljamar and palomas fine sands or Pyote and Maljamar fine sands. It tends to be well drained with very low to low runoff and low to moderate available moisture levels in the soil profile (United States Department of Agriculture, Natural Resources Conservation Service, 2022). There is low potential for karst geology to be present near Tomcat, though some erosional karst is possible (United States Department of the Interior, Bureau of Land Management, 2018).

The surrounding landscape is associated with uplands, plains, dunes, fan piedmonts and in inter dunal areas. The parent material consists of mixed alluvium and or eolian sands derived from sedimentary rock. Slopes range on this site range vertex.ca

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from 0 to 3% with variable direction. Elevations range from 3,000 to 3,900 feet above sea level. The climate is semi-arid, with an annual precipitation ranging between 10 to 15 inches. Historically, the plant community was dominated by grasses, which stabilized the potentially erosive sandy soils; however, more recent conditions, resulting from fire suppression and extensive grazing, show increased woody plant abundance. The dominant grass species are dropseeds and bluestem interspersed with mesquite. Short grasses are a significant proportion of ground cover while shrubs, litter and, to a lesser extent, bare ground compose the remainder (United States Department of Agriculture, Natural Resources Conservation Service, 2022). Limited to no vegetation is allowed to grow on the compacted facility pad.

There is no surface water located at Tomcat. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 Mexico Administrative Code (NMAC; New Mexico Oil Conservation Division, 2018), is the intermittent stream located approximately 4.45 miles west-northwest of Tomcat (United States Fish and Wildlife Service, 2022). There are no continuous 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.

Incident Description

nSAP0219636264

The release occurred on July 15, 2002, due to a perforated fill line. The spill was reported on March 22, 2022, and involved the release of approximately 110 barrels (bbl) of produced oil into the unlined containment surrounding the tanks on the west side of the pad. Approximately 34 bbl free fluid was recovered during initial spill clean-up. The release was contained within the bermed, earthen containment on the facility pad. No oil was released into undisturbed areas or waterways. The NMOCD initial C-141 Report for incident nSAP0219636264 is included in Attachment 2. A new initial C-141 for nSAP0219636264 was created because the original is missing. The characterization schematic is presented in Figure 1 (Attachment 1). The daily field reports (DFRs) with site photographs are included in Attachment 3.

nKJ1524345298, 1RP-3833

The release occurred on August 26, 2015, due to the development of a hole in the bottom of an oil tank from internal corrosion. The spill was reported on August 26, 2015, and involved the release of approximately 90 bbl of produced oil into the unlined containment. Approximately 10 bbl of free fluid was recovered during initial spill clean-up. The release was contained within the bermed, earthen containment on the facility pad. No oil was released into undisturbed areas or waterways. The NMOCD C-141 Report for incident nKJ1524345298 and corresponding administrative work order 1RP-3833 is included in Attachment 2. The DFRs and site photographs are included in Attachment 3.

Closure Criteria Determination

The depth to groundwater was determined using information from Oil and Gas Drilling records and the New Mexico Office of the State Engineer Water Column/Average Depth to Water report. The closest recorded depth to groundwater was determined to be 713 feet below ground surface (bgs) and 5,689 feet from the site (New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System, 2023). The available depth to groundwater reference exceeded the 0.5 mile radius limit, and a closer confirmation reference was required.

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Vision Resources, Inc. (Vision) obtained a permit from New Mexico Office of the State Engineer approving collection of lithological data for a test borehole for depth to groundwater on the east side of the pad at Tomcat, 200 feet east of the excavation. On March 7, 2023, Vision drilled a well to 63 feet bgs without contacting water. The sand surrounding much of the wellbore collapsed into the well before the casing could be installed. Another well was drilled 10 feet west of the first to attempt to satisfy depth to groundwater requirements. The second well was advanced to 43 feet bgs when the sand in the wellbore began collapsing. The two attempts made to drill the borehole failed due to the instability of the soils beneath the site, and additional boreholes were not recommended due to concerns of instability and possible collapse. The well information and location are included with documentation used in Closure Criteria Determination research in Attachment 4.

Using site characterization information, a closure criteria determination worksheet was completed in accordance with the scenario outlined in Paragraph (5) of Subsection A of 19.15.29.11 NMAC for a release onto an open pad area. Due to the sale of Tomcat and other sites to Harvard Petroleum Company, all unresolved releases associated with divested properties will be remediated sufficiently as to meet reclamation criteria. The closure criteria will also adhere to Paragraph (1) of Subsection D of 19.15.29.13 NMAC for reclamation from surface to 4 feet bgs. The closure criteria determined for the site are associated with the following constituent concentration limits as presented in Table 1.

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Tomcat 17 Federal #001

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	Criteria Worksheet le: Tomcat 17 Federal #001		
	rdinates:	X: 32.2990761	Y: -103.6903
ite Spec	ific Conditions	Value	Unit
1	Depth to Groundwater	>51	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	23,531	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	28,997	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	38,311	feet
5	 i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 		feet
	ii) Within 1000 feet of any fresh water well or spring	5,689	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	29,695	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
10	Within a 100-year Floodplain	No	year
11	Soil Type	Fine sand, fine sandy loam	
12	Ecological Classification	Loamy Sand	
13	Geology	Eolian and piedmont deposits	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	51-100'	<50' 51-100' >100'

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Devon Energy Production Company, LP

Tomcat 17 Federal #001

	Constituent	Limit
0-4 feet bgs (19.15.29.13)	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
DTGW 51-100 feet (19.15.29.12)	Chloride	10,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg
	GRO+DRO	1,000 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

bgs – Below ground surface

DTGW – Depth to groundwater

TPH – Total petroleum hydrocarbons = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO), BTEX - Benzene, toluene, ethylbenzene, and xylenes

Remedial Actions Taken

Initial site inspection and release characterization activities at Tomcat were initiated by Vertex on May 18, 2020. Characterization was finalized on January 17, 2023, when horizontal and vertical delineation of the release was completed. The remaining areas of impact within the containment were a portion immediately north of the northwest tank and an area around the tanks within the south half of the containment. The northern impact area was determined to be approximately 20 feet long and 14 feet wide, covering an area of 78 square feet. The southern impact area was approximately 61 feet long and 29 feet wide, covering an area of 528 square feet. The DFRs associated with the site visits are included in Attachment 3. Characterization sample locations and approximate impacted areas are presented on Figure 1 (Attachment 1). Characterization field screening and laboratory results are summarized in Table 2 (Attachment 5).

Remediation efforts began on July 16, 2020, when Micro-Blaze, a hydrocarbon bioremediation agent, was applied to the impacted area. Sampling conducted well after the 40-day treatment period still exceeded NMOCD reclamation criteria. Excavation began on December 6, 2022, and was completed on January 7, 2023. Vertex personnel supervised the excavation of impacted soils with hand tools. Field screening results were used to identify areas requiring further remediation from those areas showing concentrations below determined closure criteria levels. Field screening was completed using a Photo Ionization Detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and an Electroconductivity meter (chloride). Field screening results and daily field reports are presented in Attachment 3.

On January 7, 2023, excavation was completed with approximately 465 total yards having been removed for disposal. Soils were removed to a depth of 2 feet bgs east of the tanks, and 4 feet bgs west and north of the tanks. The total surface area of the excavation walls was approximately 1,810 square feet, and the total surface area of the excavation base was approximately 2,600 square feet. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility.

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Notification that confirmatory samples were being collected was provided to the NMOCD on December 8 and 20, 2022, and January 3, 2023, and are included in Attachment 6. Confirmatory samples were collected from the base and walls of the excavation as five-point composites. Each composite sample was representative of no more than 200 square feet per the alternate sampling method outlined in Subparagraph (c) of Paragraph (1) of Subsection D 19.15.29.12 NMAC, which does not require prior NMOCD approval. A total of 15 excavation base samples, and 21 excavation wall samples, were collected for laboratory analysis following NMOCD soil sampling procedures. Samples were submitted to Hall Environmental Laboratory Analysis under chain-of-custody protocols and analyzed for BTEX (EPA Method 8021B), total petroleum hydrocarbons (GRO, DRO, MRO – EPA Method 8015D) and total chloride (EPA Method 300.0). Laboratory results are presented in Table 3 (Attachment 5) and laboratory data reports are included in Attachment 7. All confirmatory samples collected and analyzed were below closure criteria for the site.

Closure Request

Vertex recommends no additional remedial actions to address the release at Tomcat 17 Federal #001. Soils impacted by the release have tested below the criteria and in accordance with Paragraph (4) of Subsection C of 19.15.29.12 NMAC and Paragraph (1) of Subsection D of 19.15.29.13 NMAC as shown in the laboratory analysis in Attachment 7. Laboratory analyses of the confirmatory samples from surface to 4 feet bgs showed constituent of concern concentration levels below NMOCD closure criteria for areas where depth to groundwater is less than 50 feet bgs as shown in Table 1. Laboratory analyses of the confirmatory samples collected 4 feet bgs and below showed constituent of concern concentration levels below NMOCD closure criteria for areas where depth to groundwater is below showed constituent of concern concentration levels below NMOCD closure criteria for areas where depth to groundwater is below showed constituent of concern concentration levels below NMOCD closure criteria for areas where depth to groundwater is between 51 and 100 feet bgs as shown in Table 1. The excavation was backfilled with non-waste-containing, uncontaminated, earthen material, sourced locally, and placed to meet the site's existing grade to prevent ponding of water and erosion. There are no anticipated risks to human, ecological or hydrological receptors associated with the release site.

Vertex requests that these incidents (nSAP0219636264 and nKJ1524345298) be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. Devon certifies that all information in this report and the attachments is correct, and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NMOCD requirements to obtain closure on the historical releases at Tomcat.

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Devon Energy Production Company, LP Tomcat 17 Federal #001

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

Lakin Pullman

ENVIRONMENTAL SPECIALIST, REPORTING

Lakin Pullman, B.Sc.

<u>June 9, 2023</u> Date

Kent Stallings P.G.

Kent Stallings, P.G.

June 12, 2023

Date

PROJECT MANAGER, REPORT REVIEW

Attachments

- Attachment 1. Figures
- Attachment 2. NMOCD C-141 Reports
- Attachment 3. Daily Field Reports with Photographs
- Attachment 4. Closure Criteria for Soils Impacted by a Release Research Determination Documentation
- Attachment 5. Tables
- Attachment 6. Confirmatory Sampling Notification to the NMOCD
- Attachment 7. Laboratory Data Reports and Chain of Custody Forms

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References

- Google Inc. (2023). *Google Earth Pro* (Version 7.3.4) [Software]. Retrieved from http://www.google.com/earth on January 8, 2023.
- New Mexico Bureau of Geology and Mineral Resources. (2022). *Interactive Geologic Map.* Retrieved from http://geoinfo.nmt.edu.
- New Mexico Oil Conservation Division. (2018). New Mexico Administrative Code Natural Resources and Wildlife Oil and Gas Releases. Santa Fe, New Mexico.
- New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System. (2023). *Water Column/Average* Depth to Water Report. Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html
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- 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/

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Devon Energy Production Company, LP Tomcat 17 Federal #001

Limitations

This report has been prepared for the sole benefit of Devon Energy Production Company. This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division and Bureau of Land Management, without the express written consent of Vertex Resource Services Inc. (Vertex) and Devon Energy Production Company. 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.

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ATTACHMENT 1



Page

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Recu

by OCD:

3/12/2024 2:24:38 PM

ATTACHMENT 2

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 Page 15 of 309

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

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Incident ID	nSAP0219636264
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Harvard Petroleum Company, LLC	OGRID 10155
Contact Name Jeff Harvard	Contact Telephone 575-208-7135
Contact email jharvard@hpcnm.com	Incident # nSAP0219636264
Contact mailing address P.O. Box 936 Roswell, NM 88202	

Location of Release Source

Latitude 32.298865

(NAD 83 in decimal degrees to 5 decimal places)

Site Name Tomcat 17 Federal #001	Site Type Oil Well and Tank Battery
Date Release Discovered 07/15/2002	API# 30-025-34690

Unit Letter	Section	Township	Range	County
Р	17	238	32E	Lea

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) 110	Volume Recovered (bbls) 34
Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride 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

Release is historical and on file with NMOCD but original C-141 is not on file (possibly never uploaded). Fill likely line leaked, possibly due to perforation. Notation on NMOCD incident web page is as follows: "FILL LINE WAS REPLACED. SPILL INSIDE TANK BATTERY DIKE. SAMPLES TAKEN & BEING REMEDIATED."

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Incident ID	nSAP0219636264
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? Volume released (110 bbl) exceeds 25 bbl.
Yes 🗌 No	
If YES, was immediate n	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Release is historical and unknown.	on file with NMOCD but original C-141 is not on file. Timeline of notice and parties informed are

Initial Response

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

 \square 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:Jeff Harvard	Title:President and Manager
Signature:	Date:
email:jharvard@hpcnm.com	Telephone: <u>575-208-7135</u>
OCD Only	
Received by:	Date:

State of New Mexico Energy Minerals and Natural Resources

Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

1220 51 511 144	Santa Fe, NM 87505											
Release Notification and Corrective Action												
OPE						OPERA '	ГOR		nitial Repo	rt [Final Report
Name of C	ompany D	evon Energy	y Product	ion		Contact D	an Suniga					
		Rivers Hwy					No. 575.390.585	50				
		at 17 Federa				Facility Ty						
Surface Ov	vner Fede	ral		Mineral	Ownei	r Federal		AP	I No. 30-02	25-346	590	
Surface of												
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				NAT	URF	OF REL	EASE					
Type of Rele	ease Spill	Oil			0112	Volume of		Volu	me Recover	ed		
	-					90 BBL		10 B	BL			
Source of R	elease Hole	at the botton	n of oil tai	ık		Date and 8/26/15 11	Hour of Occurre :00 am		and Hour o 15 11:00 am		very	Ý
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By Whom?	Ray Carter	•				Date and						
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Describe Ar	Describe Area Affected and Cleanup Action Taken.*											
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area.												
I hereby cert	ify that the i	information gi	iven above	is true and comp	lete to	the best of my	knowledge and u	nderstand that	pursuant to 1	NMOC	D ru	lles and
							nd perform correc					
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federal, state, or local laws and/or regulations. OIL CONSERVATION DIVISION					SION							
Signature: Jeanette Barrow												
Signature. J												
Printed Nam	e: Jeanette	Barron				Approved by	Environmental S	pecialist: K	y/	6	_	
Title: Field 4	Title: Field Admin Support				Approval Da	roval Date: 08/31/2015 Expiration Date: 10/31/2015						
								Lipiu		<u>5,51/4</u> 0		
E-mail Addr	ess: Jeanett	te.barron@dv	vn.com			Conditions of Approval: Attached 6137						
				required. Deline per MNOCD gui		1RP-	3833					

photographs of remediation required.

* Attach Additional Sheets If Necessary

nKJ1524345298 pKJ1524348116

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Form C-141

Received by OCD: 3/12/2024 2:24:38 PM Form C-141 State of New Mexico

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Oil Conservation Division

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Incident ID	nSAP0219636264,
	nKJ1524345298
District RP	1RP-3833
Facility ID	30-025-34690
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>>51</u> (ft bgs)			
Did this release impact groundwater or surface water?				
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.

Characterization Report Checklist: 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.

	Incident ID District RP	Page 19 of 309 nSAP0219636264, nKJ1524345298 1RP-3833
		30-025-34690
ifications and perform co DCD does not relieve the eat to groundwater, surface responsibility for compl Fitle:President a	nd understand that pursu prective actions for relea- operator of liability sho ce water, human health iance with any other fect and Manager	ases which may endanger ould their operations have or the environment. In leral, state, or local laws
Telephone: <u>575</u>	-208-7135	
Date:		
	ifications and perform co OCD does not relieve the eat to groundwater, surfa responsibility for compl Fitle: <u>President a</u> Date: Telephone: <u>575</u>	District RP Facility ID Application ID best of my knowledge and understand that pursu ifications and perform corrective actions for rele OCD does not relieve the operator of liability sho eat to groundwater, surface water, human health responsibility for compliance with any other fec Fitle: President and Manager

Page 6

Oil Conservation Division

Incident ID	nSAP0219636264,
	nKJ1524345298
District RP	1RP-3833
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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.

<u>Closure Report Attachment Checklist</u>: 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:Jeff Harvard	Title:President and Manager					
Signature:	Date:					
email:jharvard@hpcnm.com	Telephone: <u>575-208-7135</u>					
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:					

ATTACHMENT 3



Client:	Devon Energy Corporation	Inspection Date:		
Site Location Name:	Tomcat 17 Federal 001	Report Run Date:	7/17/2020 4:18 PM	
Client Contact Name:	Amanda Davis	API #:	30-025-34690	
Client Contact Phone #:	(575) 748-0176			
Unique Project ID	-Tomcat 17 Federal 001	Project Owner:	Tom Bynum	
Project Reference #	Spill 1RP-3833	Project Manager:	Natalie Gordon	
		Summary of	Times	
Arrived at Site	7/16/2020 10:00 AM			
Departed Site	7/16/2020 5:03 PM			

Field Notes

10:28 Bioremediation of oil release conducted by Wildwest Services. Micro blaze will be applied to impacted area around tanks at a depth of 2-3 feet below surface.

Next Steps & Recommendations

1 Continue to water containment area to reactivate microblaze.

2 Schedule confirmatory sampling after microblaze sits for approximately 40 days.



Site Photos Viewing Direction: West Viewing Direction: South Impacted Area prior to remediation Area flooded with microblaze Viewing Direction: North Viewing Direction: North Area flooded with microblaze Area flooded with microblaze



Viewing Direction: West	Viewing Direction: South		
SID52	Descriptions introduced and and a construction of the construction		
Treated area	Impacted Area prior to remediation		
Viewing Direction: East	Viewing Direction: South		
And Control of Control All			
Impacted Area prior to remediation	Impacted Area prior to remediation		

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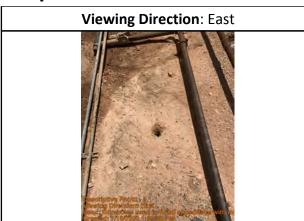
Viewing Direction: North	Viewing Direction: South
Baschiptiva Stole Lite Baschiptiva Stole Lite	Productive Photo - 8 Melling-Minection: Scotto Melling-Minection: Melling-Minection: Mell
Impacted Area prior to remediation	Impacted Area prior to remediation
Viewing Direction: North	Viewing Direction: South
Proving Structure and an advance of a variable and	Descriptions (Figure 16) These insurance (Figure 16) These
Impacted Area prior to remediation	Remediation in progress

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VE

VERTEX

Daily Site Visit Report



Boreholes used to flood subsurface with microblaze

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Daily Site Visit Signature

Inspector: Kevin Smith

Signature:

Ven DM

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Client:	Devon Energy Corporation	Inspection Date:	5/15/2022
Site Location Name:	Tomcat 17 Federal 001	Report Run Date:	5/15/2022 11:40 PM
Client Contact Name:	Wes Matthews	API #:	30-025-34690
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
		Summary of	Times
Arrived at Site	5/15/2022 6:45 AM		
Departed Site	5/15/2022 4:13 PM		

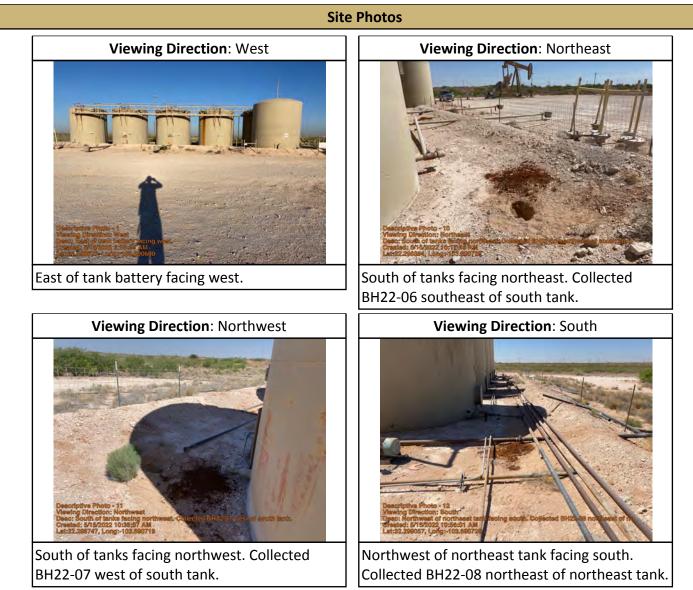
Field Notes

- **6:57** Completed safety paperwork at office. Objective for the day is to collect soil samples from 8 boreholes around tank battery and assess current remediation needs.
- **12:42** Collected 0, 2, and 4 foot bgs samples at 8 boreholes around containment area and packaged all samples for laboratory analysis of chloride, TPH, and BTEX concentrations.
- **16:10** Hydrocarbon odor from general area. Field screened all samples, 10x dilution for PetroFlag to save time.
- **16:11** Created current polygon of containment berm in Arc Collector.

Next Steps & Recommendations

1 Check laboratory results.

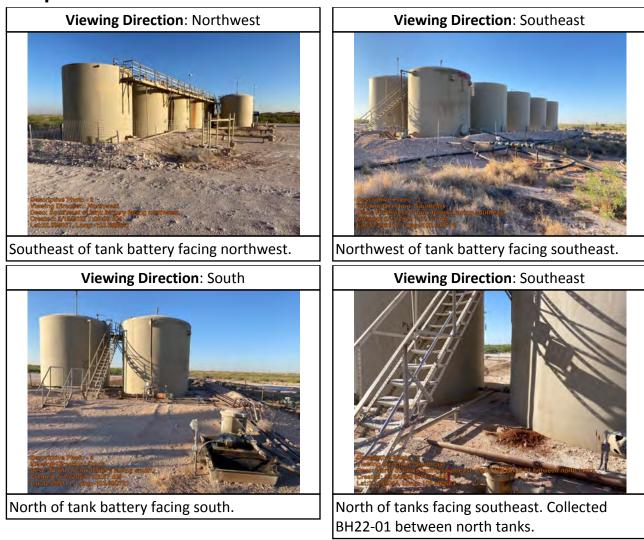




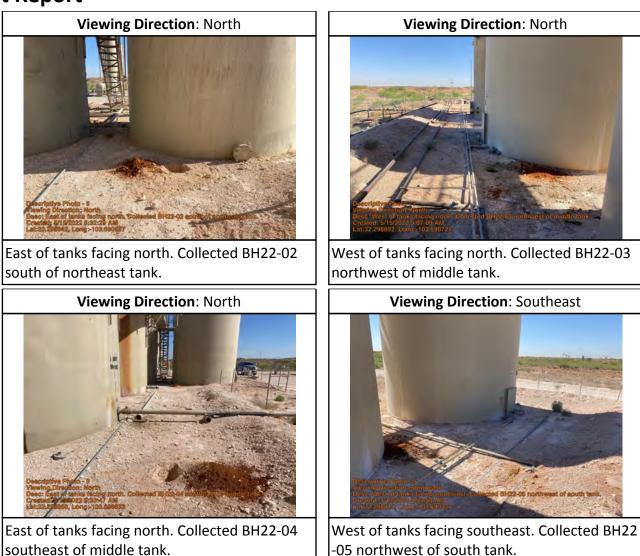
Run on 5/15/2022 11:40 PM UTC



Page 30 of 309









Daily Site Visit Signature

Inspector: Lakin Pullman Signature:

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Client:	Devon Energy Corporation	Inspection Date:	1/7/2023
Site Location Name:	Tomcat 17 Federal 001	Report Run Date:	1/7/2023 7:43 PM
Client Contact Name:	Wes Matthews	API #:	30-025-34690
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	
		Summary of	Times
Arrived at Site	1/7/2023 6:50 AM		
Departed Site	1/7/2023 9:02 AM		

Field Notes

- **6:55** Completed JSA on arrival and conducted safety meeting with co-worker. On site to complete confirmation sampling and view final excavation.
- 7:07 Swept sampling surface areas with magnetic locator prior to ground disturbance.
- **8:37** Collected remaining excavation wall confirmation samples WS22-17, WS22-18, WS22-19, WS22-20, and WS22-21. Samples were 5-point composites.
- 8:38 Collected remaining excavation base samples BH22-14 and BH22-15. Samples were 5-point composites.
- 8:39 Excavation was completed and fence reinstalled to limit access to tank battery area and open excavation.
- 9:01 Excavation ready for backfill once laboratory results are confirmed to be below NMOCD requirements.

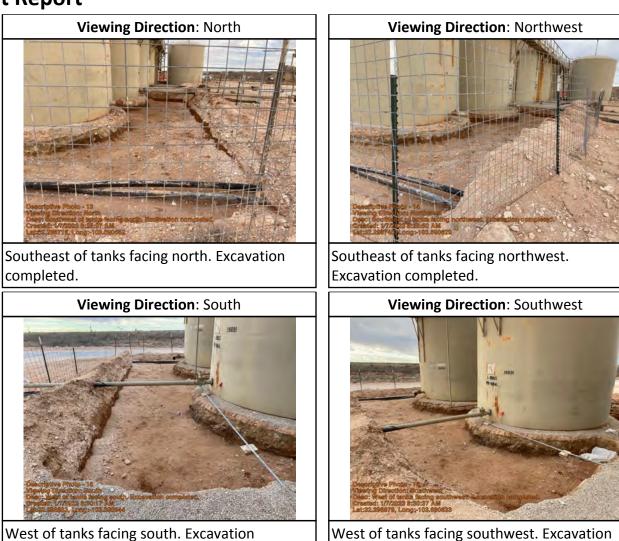
Next Steps & Recommendations

1 Submit confirmation samples for laboratory analyses.



Site Photos Viewing Direction: West Viewing Direction: East HARMARD TOMCAT 17 FED 1 30-025-34690 NMNM97891 SL: SEC.17-1233-R32E 660'FSL & 660'FEL BL: SEC.17-1233-R32E 660'FSL & 660'FEL LEA COUNTY, NEW MEXICO LAT. N32' IT 56.67396'L0KG, W103' 47 25.08' DE HARYARD PETROLEUM CO. LLC 3377 East of tanks facing west. Southwest of tanks facing east. Excavation completed. Viewing Direction: Northeast Viewing Direction: West Southwest of tanks facing northeast. Southeast of tanks facing west. Excavation Excavation completed. completed.



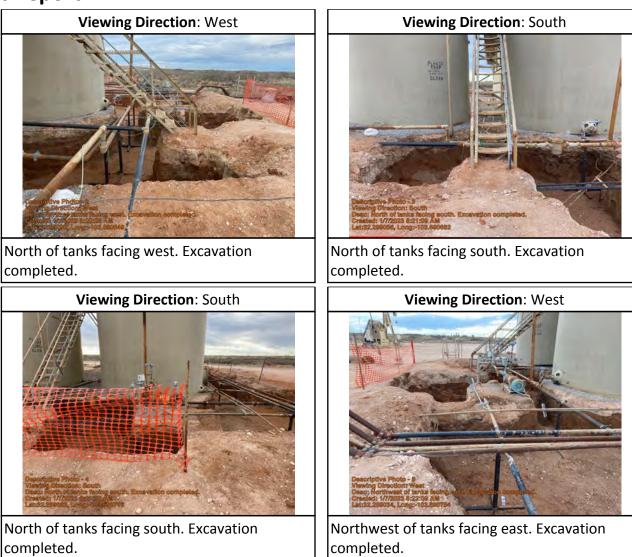


Run on 1/7/2023 7:43 PM UTC

completed.

completed.









Northwest of tanks facing south. Excavation completed.

Viewing Direction: Southeast



West of tanks facing southeast. Excavation completed.



West of tanks facing northeast. Excavation completed.

Viewing Direction: North



Southwest of tanks facing north. Excavation completed.



Daily Site Visit Signature

Inspector: Lakin Pullman Signature:

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Client:	Devon Energy Corporation	Inspection Date:	1/16/2023			
Site Location Name:	Tomcat 17 Federal 001	Report Run Date:	1/17/2023 1:32 AM			
Client Contact Name:	Wes Matthews	API #:	30-025-34690			
Client Contact Phone #:	(575) 748-0176					
Unique Project ID		Project Owner:				
Project Reference #		Project Manager:				
Summary of Times						
Arrived at Site	1/16/2023 8:40 AM					
Departed Site	1/16/2023 4:44 PM					

Field Notes

9:04 Completed JSA on arrival. On site to collect additional delineation samples.

16:36 Swept sampling areas with magnetic locator prior to ground disturbance. Surrounding infrastructure created significant interference.

16:40 Advanced BH22-26 northeast of tanks, and BH22-27 west of tanks to 8 feet bgs for vertical delineation.

16:41 Collected discrete samples from excavation walls for further horizontal delineation.

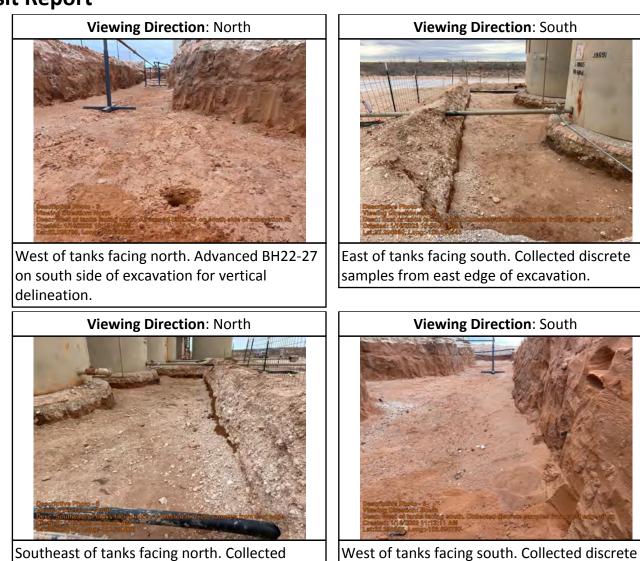
Next Steps & Recommendations

1 Continue horizontal delineation.



Site Photos Viewing Direction: West Viewing Direction: South Original Superior Colspan="2">Site Photos Unit of the second sec





samples from west edge of excavation.

Run on 1/17/2023 1:32 AM UTC

discrete samples from east edge of excavation.



Daily Site Visit Signature

Inspector: Lakin Pullman Signature:

Run on 1/17/2023 1:32 AM UTC

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Client:	Devon Energy Corporation	Inspection Date:	1/17/2023			
Site Location Name:	Tomcat 17 Federal 001	Report Run Date:	1/18/2023 1:40 AM			
Client Contact Name:	Wes Matthews	API #:	30-025-34690			
Client Contact Phone #:	(575) 748-0176	_				
Unique Project ID		Project Owner:				
Project Reference #		Project Manager:				
Summary of Times						
Arrived at Site	1/17/2023 7:10 AM					
Departed Site	1/17/2023 4:50 PM					

Field Notes

7:47 Completed JSA on arrival. On site to continue additional horizontal delineation.

7:54 Swept sampling locations with magnetic locator prior to ground disturbance.

11:06 Collected discrete samples from west, north, and northeast points of excavation to refine horizontal delineation.

15:36 Completed horizontal and vertical delineation pending laboratory results.

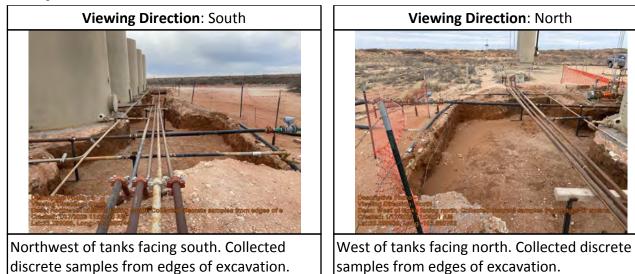
Next Steps & Recommendations

1 Complete and submit remediation plan and corresponding closure report pending laboratory results.



Site Photos Viewing Direction: West Viewing Direction: West HARMARD TOMCAT 17 FED 1 -34690 NMNM9789 32E 660' FSL & 660' FEL R32E 660' FSL & 660' FEL OUNTY, NEW MEXICO 56.67396" LONG. W 103" 41" 25.08" D PETROLEUM CO. LL-3377 North of tanks facing west. Collected discrete East of tanks facing west. samples from edges of excavation. Viewing Direction: South Viewing Direction: Southeast CLEAN North of tanks facing south. Collected discrete Northwest of tanks facing southeast. Collected samples from edges of excavation. discrete samples from edges of excavation.







Daily Site Visit Signature

Inspector: Lakin Pullman

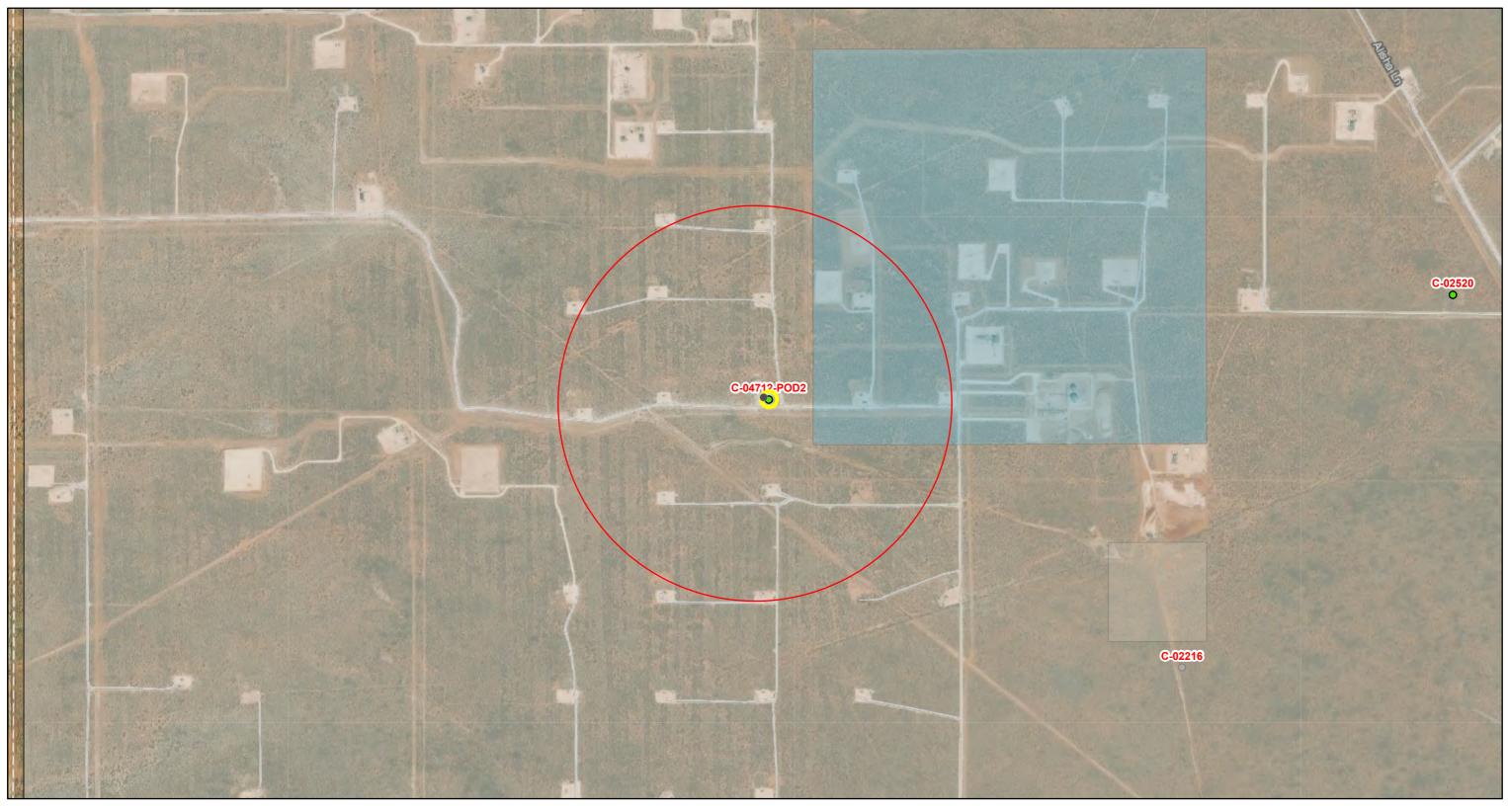
Signature:

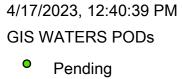
Signature

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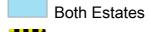
ATTACHMENT 4

OSE POD 0.5 mile

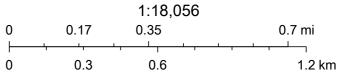








SiteBoundaries



Esri, HERE, iPC, U.S. Department of Energy Office of Legacy Management, Esri, HERE, Garmin, iPC, Maxar

OSE POD 0.5 mile



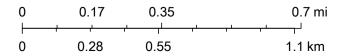
6/8/2023, 4:39:44 PM

GIS WATERS PODs OSE District Boundary New Mexico State Trust Lands

- Active Water Right Regulations
- Pending
 Closure Area

Subsurface Estate

Both Estates SiteBoundaries 1:18,056



Esri, HERE, iPC, U.S. Department of Energy Office of Legacy Management, Esri, HERE, Garmin, iPC, Maxar



New Mexico Office of the State Engineer Point of Diversion Summary

		(quarters are 1=NW 2= (quarters are smallest		(NAD83 UTM in meters)	
Well Tag	POD Number	Q64 Q16 Q4 See	e Tws Rng	X Y	
NA	C 04712 POD2	4 4 4 17	238 32E	623332 3574331)
x Driller Lic	ense: 1833	Driller Company:	VISION RE	ESOURCES, INC	
Driller Nai	me: JASON MALEY				
Drill Start	Date: 03/09/2023	Drill Finish Date:	03/09/202	23 Plug Date:	03/14/2023
Log File Da	ate: 04/04/2023	PCW Rcv Date:		Source:	
Pump Type	e:	Pipe Discharge Size		Estimated Yiel	d:
Casing Size	e:	Depth Well:	55 feet	Depth Water:	

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.

4/16/23 2:46 PM

POINT OF DIVERSION SUMMARY



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	(R=POD replaced, O=orpha														
& no longer serves a water right file.)	C=the fil closed)			```					V 2=NE est to la	3=SW 4=S rgest) (1	E) NAD83 UTM in n	neters)	(In f	eet)	
	,	POD Sub-		Q	Q	Q								V	Vater
POD Number	Code	basin	County	64	16	4	Sec	Tws	Rng	X	Y	DistanceDe	othWellDep	thWater Co	olumn
<u>C 04712 POD2</u>		CUB	LE	4	4	4	17	23S	32E	623332	3574331 🌍	24	55		
<u>C 03851 POD1</u>		CUB	LE	3	3	4	20	23S	32E	622880	3572660 🌍	1734	1392	713	679
<u>C 02216</u>		CUB	LE	2	2	4	21	238	32E	625035	3573261* 🌍	2035	585	400	185
<u>C 03529 POD1</u>		С	LE	2	4	3	29	238	32E	622651	3571212 🌍	3195	550		
<u>C 04712 POD3</u>		CUB	ED	4	1	2	24	23S	31E	619651	3573877 🌍	3687	55		
<u>C 02349</u>		CUB	ED		2	3	03	238	32E	625678	3578004* 🌔	4363	525		
<u>C 04712 POD1</u>		CUB	LE	1	4	1	31	238	32E	620917	3570289 🌍	4704	55		
											Avera	ge Depth to Wat	er:	556 fe	et
												Minimum De	epth:	400 fee	et
												Maximum De	pth:	713 fe	et
Record Count: 7															
UTMNAD83 Radius	<u>s Search (in</u>	<u>meters)</u>	<u>:</u>												
Easting (X): 623	3309		North	ing	(Y)):	3574	340			Radius: 5000				
*UTM location was derived	from PLSS ·	- see Help													
The data is furnished by the N accuracy, completeness, reliab										derstanding th	hat the OSE/ISC ma	ake no warranties,	expressed or in	nplied, concer	ning the

4/17/23 12:43 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

New Mexico Office of the State Engineer Water Right Summary

F	WR File Number:	C 04712	Subbasin: CUB	Cross Reference:	-
	Primary Purpose:	MON MONITORING	WELL		
<u>get image list</u>	Primary Status:	PMT PERMIT			
	Total Acres:		Subfile: -		Header: -
	Total Diversion:	0	Cause/Case: -		
	Owner:	VERTEX RESOURCES			
	User:	HARVARD PETROLEU	M COMPANY LLC		
	Contact:	JUSTIN WARREN			

Documents on File

				Sta	atus	From/				
	Trn #	Doc	File/Act	1	2	Transaction Desc.	То	Acres	Diversion	Consumptive
images	<u>743189</u>	EXPL	2023-02-21	PMT	APR	C 04712 POD1-6	Т	0	0	

Current Points of Diversion

		Q					(1	NAD83 UTM	in meters)	
POD Number <u>C 04712 POD1</u>	Well Tag Source NA	64 Q	216 4	-		Tws 23S	0	X 620917	Y 3570289	Other Location Desc SDE
<u>C 04712 POD2</u>	NA	4	4	4	17	23S	32E	623332	3574331 🥌	TOMCAT17
<u>C 04712 POD3</u>	NA	4	1	2	24	23S	31E	619651	3573877 🥥	TODD24
<u>C 04712 POD4</u>	NA	1	4	3	14	23S	31E	617535	3574316 🥑	TODD14
<u>C 04712 POD5</u>	NA	4	4	3	09	23S	31E	614393	3575754 🌍	NPG9
<u>C 04712 POD6</u>	NA	3	3	4	08	23S	31E	613147	3575740 🜍	NPG8

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.

4/17/23 12:50 PM

WATER RIGHT SUMMARY

Received 4by QGD: 3/12/2024.3:24:38 PMus/ReportDispatcher?type=TRANSHTML&name=TransactionSummaryHTML.jrxml&basin=C&nbr=B4\$62.53 cf. 309

New Mexico Office of the State Engineer Transaction Summary

		EXPL Permit To Explore	e	
Transaction Number: 74	43189	Transaction Desc: C 04712	POD1-6 File I	Date: 12/14/2022
Secondary Status: Person Assigned: Applicant: User:	****** VERTEX RI	roved ESOURCES PETROLEUM COMPANY LLC	2	
× Events				
Date	Type 2 APP	Description Application Received	Comment *	Processed By *****
(index) (in	3 TEC	Technical Report	*PLG PLN OPS C	*****
02/21/202	3 FTN	Finalize non-published Trans.		*****
03/09/202	3 QAT	Quality Assurance Completed	DATA	****
03/14/202	3 QAT	Quality Assurance Completed	IMAGE	****
04/04/202	3 LOG	Well Log Received	*C-4712-POD1 DRY	****
04/04/202	3 DRY	Dry well log received	C-4712 POD1 DRY	*****
04/04/202	3 LOG	Well Log Received	*C-4712-POD2 DRY	*****
04/04/2023	3 DRY	Dry well log received	C-4712-POD2 DRY	*****
04/04/202	3 LOG	Well Log Received	*C-4712-POD3 DRY	*****
04/04/2023	3 DRY	Dry well log received	C-4712-POD3 DRY	*****
04/04/202	3 LOG	Well Log Received	*C-4712-POD4 DRY	****
04/04/202	3 DRY	Dry well log received	C-4712-POD4 DRY	*****
04/04/202	3 LOG	Well Log Received	*C-4712-POD5 DRY	****
04/04/202	3 DRY	Dry well log received	C-4712-POD5 DRY	*****
04/04/202	3 LOG	Well Log Received	*C-4712-POD6 DRY	*****
04/04/202	3 DRY	Dry well log received	C-4712-POD6 DRY	*****

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04/04/2023	LGI	Well Log Image	*PLG RECORD C-	*****
04/04/2023	LGI	Well Log Image	*PLG RECORD C-	*****
04/04/2023	LGI	Well Log Image	*PLG RECORD C-	*****
04/04/2023	LGI	Well Log Image	*PLG RECORD C-	*****
04/04/2023	LGI	Well Log Image	*PLG RECORD C-	*****
04/04/2023	LGI	Well Log Image	*PLG RECORD C-	*****
05/24/2023	QAT	Quality Assurance Completed	DATA WR C-4712	*****
05/24/2023	QAT	Quality Assurance Completed	DATA PLG RECORD	*****
06/08/2023	QAT	Quality Assurance Completed	DATA LOG POD1	*****
06/08/2023	QAT	Quality Assurance Completed	DATA LOG POD2	*****
06/08/2023	QAT	Quality Assurance Completed	DATA LOG POD3	*****
06/08/2023	QAT	Quality Assurance Completed	DATA LOG POD4	*****
06/08/2023	QAT	Quality Assurance Completed	DATA LOG POD5	******
06/08/2023	QAT	Quality Assurance Completed	DATA LOG POD6	*****

Water Right Information			
WR File Nbr	Acres	Diversion	Consumptive Purpose of Use
C 04712	0	0	MON MONITORING WELL
**Point of Diversion			
C 04712 POD2		623332	3574331 🥌
C 04712 POD1		620917	3570289 🔵
C 04712 POD3		619651	3573877 🌍
C 04712 POD6		613090	3576220 🥌
C 04712 POD4		617535	3574316 🌍
C 04712 POD5		614393	3575754 🌍
			-

Conditions

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- 4 No water shall be appropriated and beneficially used under this permit.
- 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.

Received by QCD: 3/12/2024 2:24:38 PMus/ReportDispatcher?type=TRANSHTML&name=TransactionSummaryHTML.jrxml&basin=C&nbr=B486255 uff. 309

- 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.
- 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
- 7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.
- 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.
- 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.
- Q The State Engineer retains jurisdiction over this permit.
- 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.

Action of the State Engineer

IT IS THE PERMITTEE'S RESPONSIBILITY TO OBTAIN ALL AUTHORIZATIONS AND PERMISSIONS TO DRILL ON PROPERTY OF OTHER OWNERSHIP BEFORE COMMENCING ACTIVITIES UNDER THIS PERMIT.

** See Image For Any Additional Conditions of Approval **

Approval Code:	A - Approved
Action Date:	02/21/2023
Log Due Date:	02/21/2024
State Engineer:	Mike A. Hamman, P.

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.

6/8/23 4:56 PM

TRANSACTION SUMMARY



U.S. Fish and Wildlife Service National Wetlands Inventory

Intermittent 23,531 feet



February 14, 2023

Wetlands



Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

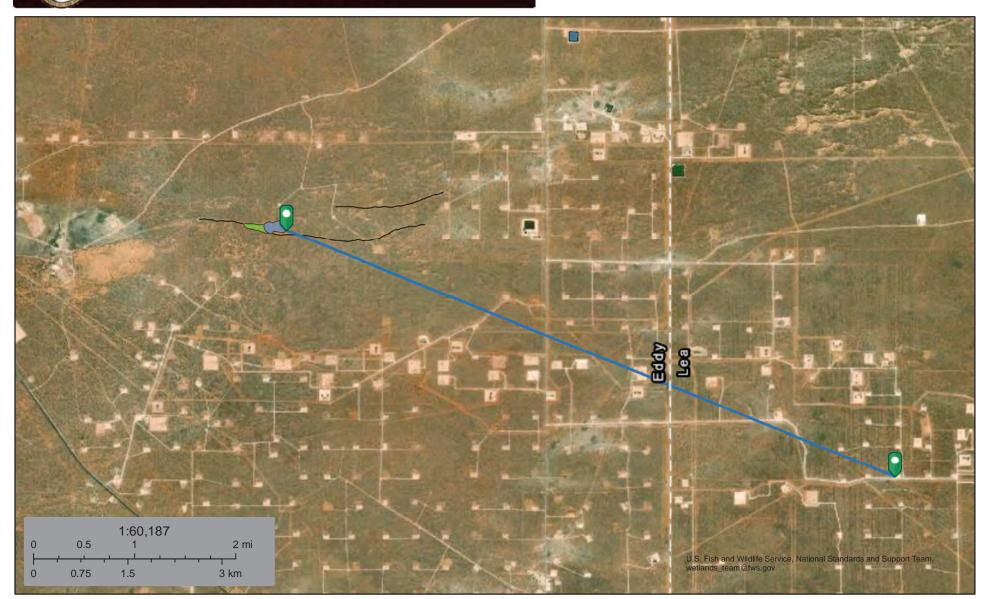
Freshwater Pond

Lake Other Riverine This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site. Received by OCD: 3/12/2024 2:24:38 PM



U.S. Fish and Wildlife Service **National Wetlands Inventory**

Pond 28,997 feet



February 14, 2023

Wetlands

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

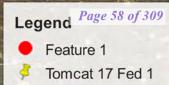
Freshwater Emergent Wetland

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

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Page 59 of 309

(with Ownership Information)

	(acre ft per an	inum)			(R=POD has been replaced and no longer serves this file, C=the file is closed)	(1	rs are 1=] rs are sm			SW 4=SE) st)	(NAE	083 UTM in meter	s)
WR File Nbr <u>C 04712</u>	Sub basin Use Divers CUB MON	ion Owner 0 VERTEX RESOURCES	County POD Number LE C 04712 POD2	Wel Tag NA		Source	qqq 64164 444	Sec		0	X 623331	¥ 3574331 🌍	Distance 24
<u>C 03851</u>	CUB MON	0 US DEPARTMENT OF ENERGY	LE <u>C 03851 POD1</u>			Artesian	334	20	23S	32E	622879	3572660 🌍	1734
<u>C 04703</u>	CUB MON	0 DEVON ENERGY PRODUCTION CO.	LE <u>C 04703 POD1</u>	NA			144	08	26S	32E	623195	3576072 🌍	1736
<u>C 02216</u>	CUB PLS	11.3 BRININSTOOL XL RANCH LLC	LE <u>C 02216</u>				224	21	23S	32E	625035	3573261* 🌍	2035
<u>C 02520</u>	C PRO	0 PENWELL ENERGY	LE <u>C 02520</u>				14	15	23S	32E	626122	3574791* 🌍	2848
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Record Count:	10											_	

UTMNAD83 Radius Search (in meters):

Easting (X): 623309 Northing (Y): 3574340

Radius: 5000

Sorted by: Distance

*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



New Mexico Office of the State Engineer Point of Diversion Summary

			(quarte	ers are	1=NV	W 2=N	E 3=SW	7 4=SE)					
		(quar	(quarters are smallest to largest)							(NAD83 UTM in meters)			
Well Tag	POD	Number	Q64	Q16	Q4	Sec	Tws	Rng	2	X	Y		
	C 0.	3851 POD1	3	3	4	20	23S	32E	62288	0 35	572660 🧧)	
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Drill Start	Date:	08/19/2015	Drill F	inish	Dat	e:	10	0/02/201	15	Plug D	ate:		
Log File D	ate:	11/10/2015	PCW I	Rev D)ate:	:			1	Source	:	Artesian	
Pump Typ	e:		Pipe D	ischa	rge	Size:]	Estima	ted Yield	: 3 GPM	
Casing Siz	e:	5.00	Depth	Well:			1.	392 feet]	Depth	Water:	713 feet	
X	Wate	er Bearing Strati	fications:		То	p I	Bottom	Desci	ription				
					135	54	1380) Lime	stone/Dol	omite/0	Chalk		
x Casing Perfor			forations:	rations: Top			Bottom	l					
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POINT OF DIVERSION SUMMARY

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New Mexico Office of the State Engineer Water Right Summary

Internate Stream	Camminuton					<u> </u>					
P	WR File Nu	mber:	C 03	851		Subbasin:	CUB	Cross R	eference:	-	
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images get	<u>564731 EXPL</u>	2015-	<u>07-09</u>	PMT	LOG	C 03851 POD1		Т	0	0	
Current P	oints of Diver	sion					NAD83 UTI	M in meters)			
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	Number 51 POD1	Well	0	Source (Artesian	-	Q4Sec Tws Rng 4 20 23S 32E	X 622880			Location Des R (C-2695)	8C

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.

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WATER RIGHT SUMMARY

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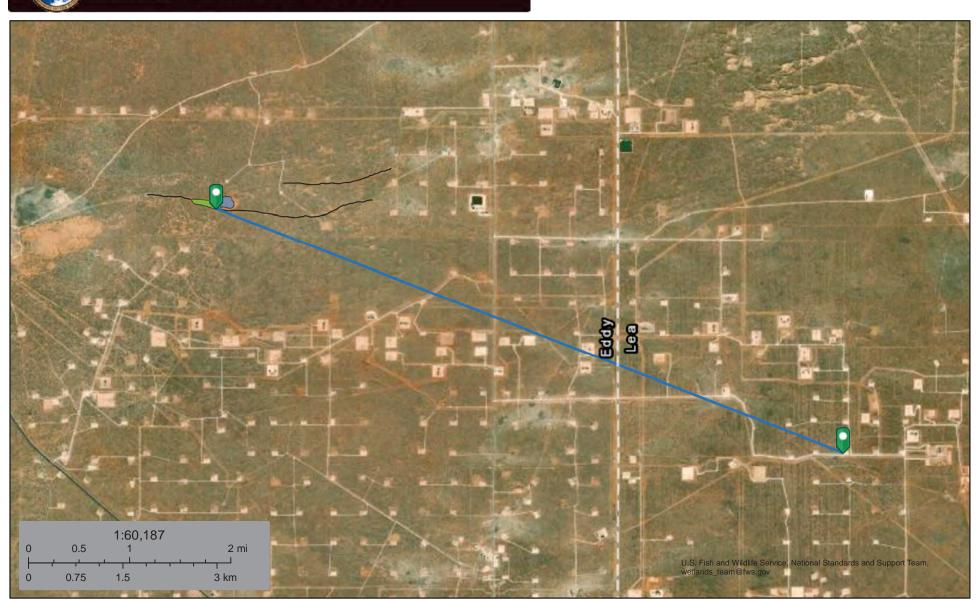
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U.S. Fish and Wildlife Service **National Wetlands Inventory**

Wetland 29,695 feet



February 14, 2023

Wetlands



Estuarine and Marine Deepwater

Estuarine and Marine Wetland

- Freshwater Forested/Shrub Wetland
 - Freshwater Pond

Freshwater Emergent Wetland

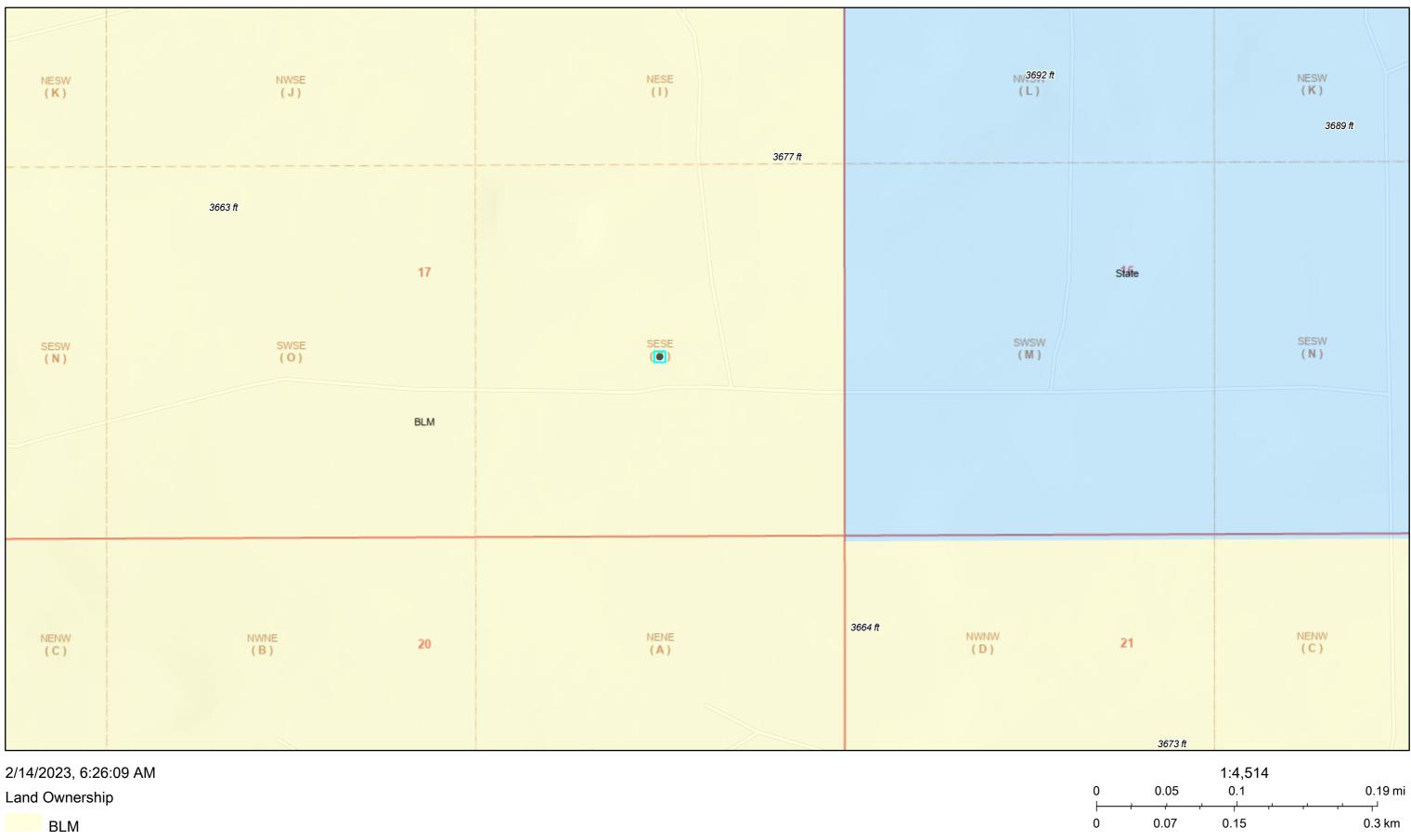
Lake Other Riverine

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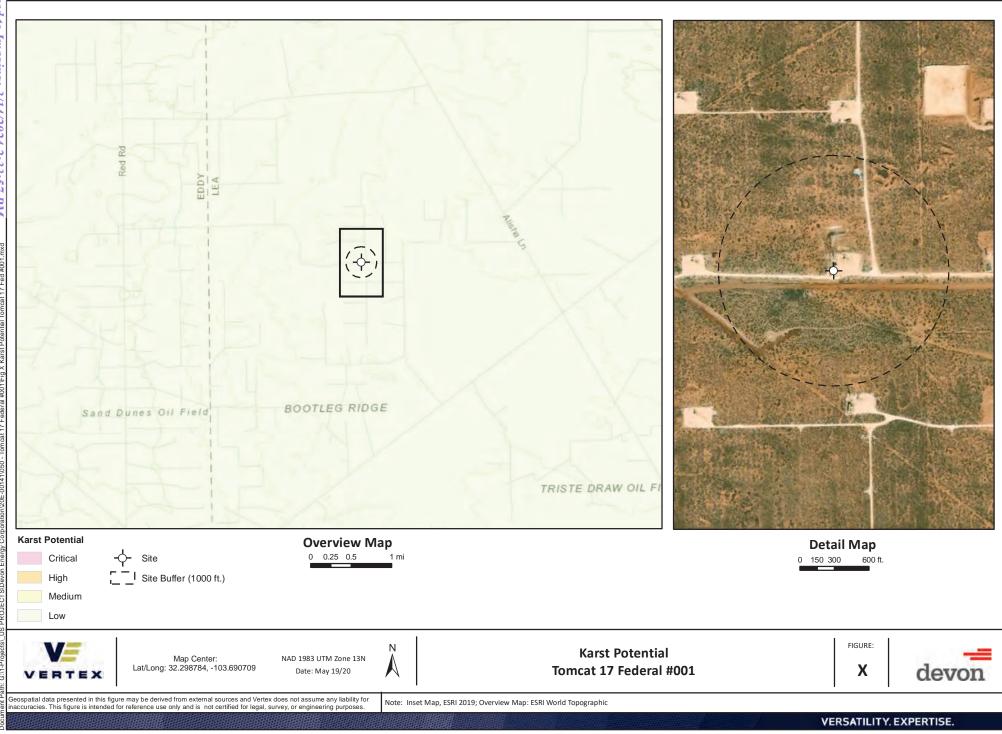
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Active Mines in New Mexico





U.S. BLM, Esri Community Maps Contributors, New Mexico State University, Texas Parks & Wildlife, © OpenStreetMap, Microsoft, CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA,



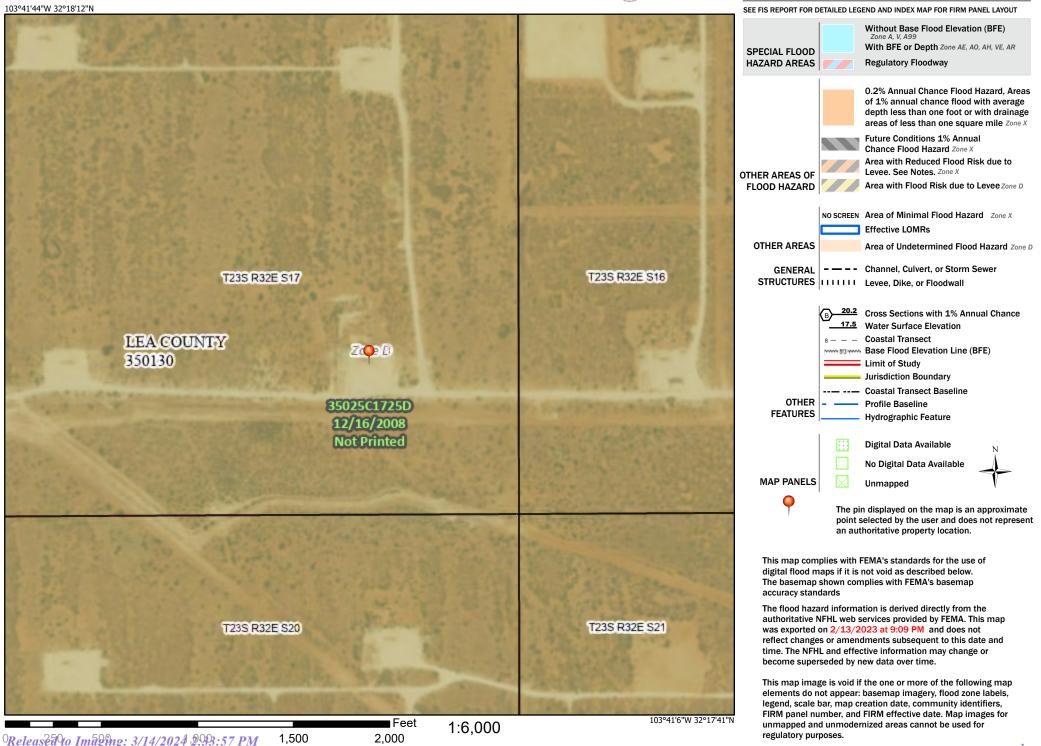
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Received by OCD: 3/12/2024 2:24:38,PM National Flood Hazard Layer FIRMette



Legend

Page 66 of 309



Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

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Area or Interest (AUI) Area of Interest (AOI)	(10	Spoil Area Stonv Spot	The soil surveys that comprise your AOI were mapped at 1:20,000.
Soils	8	Very Stony Spot	Warning: Soil Map may not be valid at this scale.
Soil Map Unit Polygons	ons	Wet Spot	Enlargement of maps beyond the scale of mapping can cause
Soil Map Unit Lines		Other	misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of
Special Point Features	•	Special Line Features	contrasting soils that could have been shown at a more detailed scale.
(o) Blowout	Water Fe	Features	
Borrow Pit	{	Streams and Canals	Please rely on the bar scale on each map sheet for map measurements.
	Transportation	rtation	Source of Man. Natural Decources Conconvertion Service
	Ŧ	Rails	Veb Soil Survey URL:
	1	Interstate Highways	Coordinate System: Web Mercator (EPSG:3857)
📈 Gravel Pit	1	US Routes	Maps from the Web Soil Survey are based on the Web Mercator
Gravelly Spot	2	Major Roads	projection, which preserves direction and shape but distorts
🙄 Landfill	5	Local Roads	ulstance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more
🗎 🙏 Lava Flow	Background	und	accurate calculations of distance or area are required.
📥 Marsh or swamp	Å	Aerial Photography	This product is generated from the USDA-NRCS certified data as
🙊 Mine or Quarry			Coil Criteron Arros I no Country Now Moving
Miscellaneous Water	jr		
O Perennial Water			Soil map units are labeled (as space allows) for map scales
Rock Outcrop			1:50,000 or larger.
+ Saline Spot			Date(s) aerial images were photographed: Dec 31, 2009—Sep
Sandy Spot			The orthonhoto or other base men on which the soil lines were
Severely Eroded Spot	ot		compiled and digitized probably differs from the background
Sinkhole			imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.
📎 Slide or Slip			-
🛒 Sodic Spot			

5/18/2020 Page 2 of 3

USDA Natural Resources Conservation Service

Web Soil Survey National Cooperative Soil Survey

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MF	Maljamar and palomas fine sands, 0 to 3 percent slopes	1.4	52.7%
PU	Pyote and maljamar fine sands	1.2	47.3%
Totals for Area of Interest	•	2.6	100.0%



Lea County, New Mexico

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

Map Unit Setting

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

Map Unit Composition

Palomas and similar soils: 45 percent
Maljamar and similar soils: 45 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Palomas

Setting

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

Typical profile

- A 0 to 16 inches: fine sand Bt - 16 to 60 inches: sandy clay loam Bk - 60 to 66 inches: sandy loam
- BK 00 to 00 menes. Sandy ic

Properties and qualities

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

Available water storage in profile: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e Hydrologic Soil Group: B Ecological site: Loamy Sand (R042XC003NM) Hydric soil rating: No

Description of Maljamar

Setting

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

Typical profile

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

Properties and qualities

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

Interpretive groups

Land capability classification (irrigated): 7e Land capability classification (nonirrigated): 7e Hydrologic Soil Group: B Ecological site: Loamy Sand (R042XC003NM) Hydric soil rating: No

Minor Components

Wink

Percent of map unit: 5 percent Ecological site: Loamy Sand (R042XC003NM) Hydric soil rating: No

Kermit

Percent of map unit: 5 percent *Ecological site:* Sandhills (R042XC022NM) Map Unit Description: Maljamar and palomas fine sands, 0 to 3 percent slopes---Lea County, New Mexico

Hydric soil rating: No

Data Source Information

Soil Survey Area: Lea County, New Mexico Survey Area Data: Version 16, Sep 15, 2019



Lea County, New Mexico

PU—Pyote and maljamar fine sands

Map Unit Setting

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

Map Unit Composition

Maljamar and similar soils: 45 percent
Pyote and similar soils: 45 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Maljamar

Setting

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

Typical profile

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

Properties and qualities

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

Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 7e Hydrologic Soil Group: B Ecological site: Loamy Sand (R042XC003NM) Hydric soil rating: No

Description of Pyote

Setting

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

Typical profile

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

Properties and qualities

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

Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 7s Hydrologic Soil Group: A Ecological site: Loamy Sand (R042XC003NM) Hydric soil rating: No

Minor Components

Kermit

Percent of map unit: 10 percent Ecological site: Sandhills (R042XC022NM)



Hydric soil rating: No

Data Source Information

Soil Survey Area: Lea County, New Mexico Survey Area Data: Version 16, Sep 15, 2019



Conservation Service

USDA Natural Resources

Ecological site R070BD003NM Loamy Sand

Accessed: 01/15/2023

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	
R070BD005NM	Deep Sand Deep Sand	

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site is on uplands, plains, dunes, fan piedmonts and in inter dunal areas. The parent material consists of mixed alluvium and or eolian sands derived from sedimentary rock. Slope range on this site range from 0 to 9 percent with the average of 5 percent.

Low stabilized dunes may occur occasionally on this site. Elevations range from 2,800 to 5,000 feet.

Table 2. Representative physiographic features

Landforms	(1) Fan piedmont(2) Alluvial fan(3) Dune
Elevation	2,800–5,000 ft
Slope	0–9%
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 207 to 220 days. The last killing frost being late March or early April and the first killing frost being in later October or early November.

Temperature and rainfall both favor warm season perennial plant growth. In years of abundant spring moisture, annual forbs and cool season grasses can make up an important component of this site. Strong winds blow from the southwest from January through June, which accelerates soil drying during a critical period for cool season plant growth.

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

Table 3. Representative climatic features

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

Influencing water features

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

Soil features

Soils are moderately deep or very deep. Surface textures are loamy fine sand, fine sandy loam, loamy very fine sand or gravelly sandy loam.

Subsurface is a loamy fine sand, coarse sandy loam, fine sandy loam or loam that averages less than 18 percent clay and less than 15 percent carbonates.

Substratum is a fine sandy loam or gravelly fine sandy loam with less than 15 percent gravel and with less than 40 percent calcium carbonate. Some layers high in lime or with caliche fragments may occur at depths of 20 to 30 inches.

These soils, if unprotected by plant cover and organic residue, become wind blown and low hummocks are formed.

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

Characteristic soils are: Maljamar Berino Parjarito Palomas Wink Pyote

Table 4. Representative soil features

Surface texture	(1) Fine sand(2) Fine sandy loam(3) Loamy fine sand
Family particle size	(1) Sandy
Drainage class	Well drained to somewhat excessively drained
Permeability class	Moderate to moderately rapid

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Soil depth	40–72 in
Surface fragment cover <=3"	0–10%
Surface fragment cover >3"	0%
Available water capacity (0-40in)	5–7 in
Calcium carbonate equivalent (0-40in)	3–40%
Electrical conductivity (0-40in)	2–4 mmhos/cm
Sodium adsorption ratio (0-40in)	0–2
Soil reaction (1:1 water) (0-40in)	6.6–8.4
Subsurface fragment volume <=3" (Depth not specified)	4–12%
Subsurface fragment volume >3" (Depth not specified)	0%

Ecological dynamics

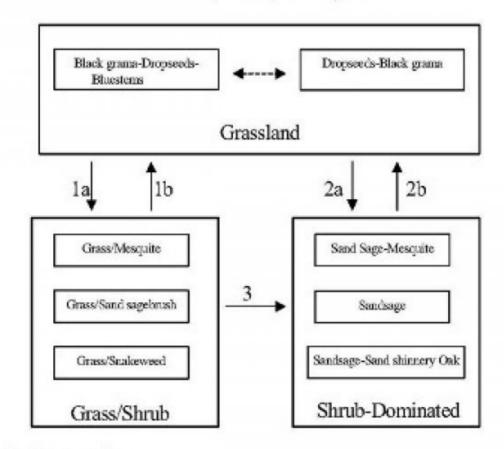
Overview

The Loamy Sand site intergrades with the Deep Sand and Sandy sites (SD-3). These sites can be differentiated by surface soil texture and depth to a textural change. Loamy Sand and Deep Sand sites have coarse textured (sands and loamy sand) surface soils while Sandy sites have moderately coarse textured (sandy loam and fine sandy loam) surfaces. Although Loamy Sand and Deep Sand sites have similar surface textures, the depth to a textural change is different—Loamy Sand sub-surface textures typically increase in clay at approximately 20 to 30 inches, and Deep Sand sites not until around 40 inches.

The historic plant community of Loamy Sand sites is dominated by black grama (*Bouteloua eriopoda*), dropseeds (*Sporobolus flexuosus*, *S. contractus*, *S. cryptandrus*), and bluestems (*Schizachyrium scoparium* and *Andropogon hallii*), with scattered shinnery oak (*Quercus havardii*) and sand sage (*Artemisia filifolia*). Perennial and annual forb abundance and distribution are dependent on precipitation. Litter and to a lesser extent, bare ground, are a significant proportion of ground cover while grasses compose the remainder. Decreases in black grama indicate a transition to either a grass/shrub or shrub-dominated state. The grass/shrub state is composed of grasses/honey mesquite (*Prosopis glandulosa*), grasses/broom snakeweed (*Gutierrezia sarothrae*), or grasses/sand sage. The shrub-dominated state occurs after a severe loss of grass cover and a prevalence of sand sage with secondary shinnery oak and mesquite. Heavy grazing intensity and/or drought are influential drivers in decreasing black grama and bluestems and subsequently increasing shrub cover, erosion, and bare patches. Historical fire suppression also encourages shrub pervasiveness and a competitive advantage over grass species (McPherson 1995). Brush and grazing management, however, may reverse grass/shrub and shrub-dominated states toward the grassland-dominated historic plant community.

State and transition model

MLRA-42, SD-3, Loamy Sand



1a. Drought, over grazing, fire suppression.

1b. Brush control, prescribed grazing

Severe loss of grass cover, fire suppression, erosion.
 Brush control, seeding, prescribed grazing.

3. Continued loss of grass cover, erosion.

State 1 Historic Climax Plant Community

Community 1.1 Historic Climax Plant Community

Grassland: The historic plant community is a uniformly distributed grassland dominated by black grama, dropseeds, and bluestems. Sand sage and shinnery oak are evenly dispersed throughout the grassland due to the coarse soil

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surface texture. Perennial and annual forbs are common but their abundance and distribution are reflective of precipitation. Bluestems initially, followed by black grama, decrease with drought and heavy grazing intensity. Historical fire frequency is unknown but likely occurred enough to remove small shrubs to the competitive advantage of grass species. Fire suppression, drought conditions, and excessive grazing drive most grass species out of competition with shrub species. Diagnosis: Grassland dominated by black grama, dropseeds, and bluestems. Shrubs, such as sand sage, shinnery oak, and mesquite are dispersed throughout the grassland. Forbs are present and populations fluctuate with precipitation variability.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	
Grass/Grasslike	442	833	1224
Forb	110	208	306
Shrub/Vine	98	184	270
Total	650	1225	1800

Table 6. Ground cover

Tree foliar cover	0%				
Shrub/vine/liana foliar cover					
Grass/grasslike foliar cover					
Forb foliar cover	0%				
Non-vascular plants	0%				
Biological crusts					
Litter	50%				
Surface fragments >0.25" and <=3"	0%				
Surface fragments >3"	0%				
Bedrock	0%				
Water	0%				
Bare ground	22%				

Figure 5. Plant community growth curve (percent production by month). NM2803, R042XC003NM-Loamy Sand-HCPC. SD-3 Loamy Sand - Warm season plant community .

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

State 2 Grass/Shrub

Community 2.1 Grass/Shrub Grass/Shrub



 Black grame/Mesquite community, with some dropseeds, threeovus, and scattered and shimory oak
 Orass cover low to moderate

Grass/Shrub State: The grass/shrub state is dominated by communities of grasses/mesquite, grasses/snakeweed, or grasses/sand sage. Decreases in black grama and bluestem species lead to an increase in bare patches and mesquite which further competes with grass species. An increase of dropseeds and threeawns occurs. Grass distribution becomes more patchy with an absence or severe decrease in black grama and bluestems. Mesquite provides nitrogen and soil organic matter to co-dominant grasses (Ansley and Jacoby 1998, Ansley et al. 1998). Mesquite mortality when exposed to fire is low due to aggressive resprouting abilities. Herbicide application combined with subsequent prescribed fire may be more effective in mesquite reduction (Britton and Wright 1971). Diagnosis: This state is dominated by an increased abundance of communities including grass/mesquite, grass/snakeweed, or grass/sand sage. Dropseeds and threeawns have a patchy distribution. Transition to Grass/Shrub State (1a): The historic plant community begins to shift toward the grass/shrub state as drivers such as drought, fire suppression, interspecific competition, and excessive grazing contribute to alterations in soil properties and herbaceous cover. Cover loss and surface soil erosion are initial indicators of transition followed by a decrease in black grama with a subsequent increase of dropseeds, threeawns, mesquite, and snakeweed. Snakeweed has been documented to outcompete black grama especially under conditions of fire suppression and drought (McDaniel et al. 1984). Key indicators of approach to transition: • Loss of black grama cover • Surface soil erosion • Bare patch expansion • Increased dropseed/threeawn and mesquite, snakeweed, or sand sage abundances Transition to Historic Plant Community (1b): Brush and grazing management may restore the grassland component and reverse shrub or grass/shrub dominated states back toward the historic plant community.

State 3 Shrub Dominated

Community 3.1 Shrub Dominated

Shrub-Dominated State: The shrub-dominated state results from a severe loss of grass cover. This state's primary species is sand sage. Shinnery oak and mesquite also occur; however, grass cover is limited to intershrub distribution. Sand sage stabilizes light sandy soils from wind erosion, which enhances protected grass/forb cover (Davis and Bonham 1979). However, shinnery oak also responds to the sandy soils with dense stands due to an

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aggressive rhizome system. Shinnery oak's extensive root system promotes competitive exclusion of grasses and forbs. Sand sage, shinnery oak, and mesquite can be controlled with herbicide (Herbel et al. 1979, Pettit 1986). Transition to Shrub-Dominated (2a): Severe loss of grass species with increased erosion and fire suppression will result in a transition to a shrub-dominated state with sand sage, Shin oak, and honey mesquite directly from the grassland-dominated state. Key indicators of approach to transition: • Severe loss of grass species cover • Surface soil erosion • Bare patch expansion • Increased sand sage, shinnery oak, and mesquite abundance Transition to Historic Plant Community (2b): Brush and grazing management may restore the grassland component and reverse shrub or grass/shrub dominated states back toward the historic plant community. In addition, seeding with native grass species will augment the transition to a grassland-dominated state. Transition to Shrub-Dominated (3): If the grass/shrub site continues to lose grass cover with soil erosion, the site will transition to a shrub-dominated state with sand sage, shinnery oak, and honey mesquite. Key indicators of approach to transition: • Continual loss of dropseeds/threeawns cover • Surface soil erosion • Bare patch expansion • Increased sand sage, shinnery oak, and mesquite/snakeweed abundance

Additional community tables

Table 7. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
Grass	/Grasslike				
1	Warm Season			61–123	
	little bluestem	SCSC	Schizachyrium scoparium	61–123	_
2	Warm Season			37–61	
	sand bluestem	ANHA	Andropogon hallii	37–61	_
3	Warm Season		·	37–61	
	cane bluestem	BOBA3	Bothriochloa barbinodis	37–61	_
	silver bluestem	BOSA	Bothriochloa saccharoides	37–61	_
4	Warm Season			123–184	
	black grama	BOER4	Bouteloua eriopoda	123–184	_
	bush muhly	MUPO2	Muhlenbergia porteri	123–184	_
5	Warm Season			123–184	
	thin paspalum	PASE5	Paspalum setaceum	123–184	_
	plains bristlegrass	SEVU2	Setaria vulpiseta	123–184	_
	fringed signalgrass	URCI	Urochloa ciliatissima	123–184	_
6	Warm Season			123–184	
	spike dropseed	SPCO4	Sporobolus contractus	123–184	_
	sand dropseed	SPCR	Sporobolus cryptandrus	123–184	_
	mesa dropseed	SPFL2	Sporobolus flexuosus	123–184	_
7	Warm Season			61–123	
	hooded windmill grass	CHCU2	Chloris cucullata	61–123	_
	Arizona cottontop	DICA8	Digitaria californica	61–123	_
9	Other Perennial Grasses			37–61	
	Grass, perennial	2GP	Grass, perennial	37–61	_
Shrub	/Vine				
8	Warm Season			37–61	
	New Mexico feathergrass	HENE5	Hesperostipa neomexicana	37–61	-
	giant dropseed	SPGI	Sporobolus giganteus	37–61	_
10	Shrub	•		61–123	
			· · · · · · · · · · · · · · · · · · ·		

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	sand sagebrush	ARFI2	Artemisia filifolia	61–123	-
	Havard oak	QUHA3	Quercus havardii	61–123	
11	Shrub			34–61	
	fourwing saltbush	ATCA2	Atriplex canescens	37–61	
	featherplume	DAFO	Dalea formosa	37–61	_
12	Shrub			37–61	
	jointfir	EPHED	Ephedra	37–61	-
	littleleaf ratany	KRER	Krameria erecta	37–61	-
13	Other Shrubs			37–61	
	Shrub (>.5m)	2SHRUB	Shrub (>.5m)	37–61	-
Forb					
14	Forb			61–123	
	leatherweed	CRPOP	Croton pottsii var. pottsii	61–123	_
	Indian blanket	GAPU	Gaillardia pulchella	61–123	_
	globemallow	SPHAE	Sphaeralcea	61–123	_
15	Forb	•		12–37	
	woolly groundsel	PACA15	Packera cana	12–37	-
16	Forb	•		61–123	
	touristplant	DIWI2	Dimorphocarpa wislizeni	61–123	_
	woolly plantain	PLPA2	Plantago patagonica	61–123	_
17	Other Forbs	Other Forbs			
	Forb (herbaceous, not grass nor grass-like)	2FORB	Forb (herbaceous, not grass nor grass-like)	37–61	_

Animal community

This Ecological Site provides habitat which supports a resident animal community that is characterized by pronghorn antelope, desert cottontail, spotted ground squirrel, black-tailed prairie dog, yellow faced pocket gopher, Ord's kangaroo rat, northern grasshopper mouse, southern plains woodrat, badger, roadrunner, meadowlark, burrowing owl, white necked raven, lesser prairie chicken, morning dove, scaled quail, Harris hawk, side blotched lizard, marbled whiptail, Texas horned lizard, western diamondback rattlesnake, dusty hognose snake and ornate box turtle.

Where mesquite has invaded, most resident birds and scissor-tailed flycatcher, morning dove and Swainson's hawk, nest. Vesper and grasshopper sparrows utilize the site during migration.

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 Berino B Kinco A Maljamar B Pajarito B Palomas B Wink B Pyote A

Recreational uses

This site offers recreation potential for hiking, borseback riding, nature observation, photography and hunting. During years of abundant spring moisture, this site displays a colorful array of wildflowers during May and June.

Wood products

This site has no potential for wood products.

Other products

This site is suitable for grazing by all kinds and classes of livestock at any time of year. In cases where this site has been invaded by brush species it is especially suited for goats. Mismanagement of this site will cause a decrease in species such as the bluestems, blsck grama, bush muhly, plains bristlegrass, New Mexico feathergrass, Arizona cottontop and fourwing saltbush. A corresponding increase in the dropseeds, windmill grass, fall witchgrass, silver bluestem, sand sagebrush, shinery oak and ephedra will occur. This will also cause an increase in bare ground which will increase soil erodibility. This site will respond well 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 2.3 - 3.575 - 51 3.0 - 4.550 - 26 4.6 - 9.025 - 0 9.1 +

Inventory data references

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

Other references

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Contributors

Don Sylvester Quinn Hodgson

Rangeland health reference sheet

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

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

Indicators

- 1. Number and extent of rills:
- 2. Presence of water flow patterns:
- 3. Number and height of erosional pedestals or terracettes:
- 4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):
- 5. Number of gullies and erosion associated with gullies:
- 6. Extent of wind scoured, blowouts and/or depositional areas:

- 7. Amount of litter movement (describe size and distance expected to travel):
- 8. Soil surface (top few mm) resistance to erosion (stability values are averages most sites will show a range of values):
- 9. Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):
- 10. Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:
- 11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):
- 12. Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):

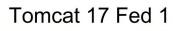
Dominant:

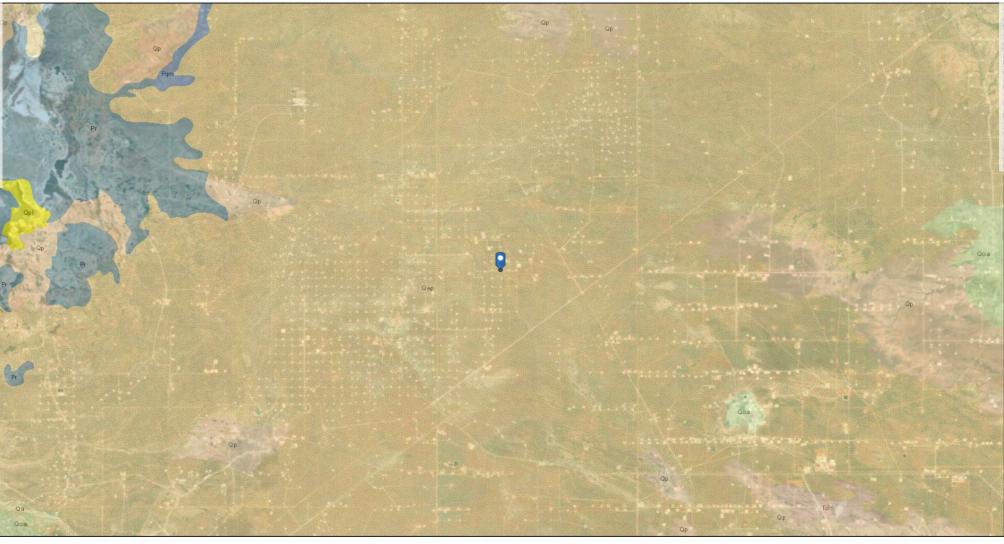
Sub-dominant:

Other:

Additional:

- 13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):
- 14. Average percent litter cover (%) and depth (in):
- 15. Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage 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:







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of 309

ATTACHMENT 5

Client Name: Devon Energy Production Company, LP Site Name: Tomcat 17 Federal #001 NM OCD Tracking #: nSAP0219636264, nKJ1524345298 (1RP-3833) Project #: 21E-02816-27 Lab Reports: 2205815, 2208929, 2212446, 2301712

Table 2. Sample Field Screen and Laboratory Results - Depth to Groundwater 51-100 feet bgs													
	Sample Des	cription	Fi	eld Screeni	ng			Petrole	um Hydro				
			ds			Vola	atile			Extractable	5	T	Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds 3 (PID)	Extractable Organic Compounds (PetroFlag)	() () () () () () () () () () () () () (eue Beuzeue (mg/kg)) BTEX (Total) (b)	월 영 Gasoline Range Organics 영 (GRO)	a Diesel Range Organics (DRO)	a) Motor Oil Range Organics (MRO)	(000 + 040) (mg/kg)	없. Total Petroleum 위 Hydrocarbons (TPH)	(a) (a) (a) (b)
	0	May 15, 2022	2	460	ND	ND	ND	ND	47	84	47	131	71
	0	August 10, 2022	-	574	161	ND	ND	ND	330	440	330	770	ND
BH22-01	2	May 15, 2022	1	330	ND	ND	ND	ND	75	83	75	158	ND
	2	August 10, 2022	-	-	163	ND	ND	ND	310	420	310	730	ND
	4	May 15, 2022	1	180	ND	ND	ND	ND	ND	ND	ND	ND	75
	0	May 15, 2022	1	200	ND	ND	ND	ND	ND	ND	ND	ND	72
	0	August 10, 2022	-	-	54	ND	ND	ND	ND	ND	ND	ND	ND
BH22-02	2	May 15, 2022	1	80	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2	August 10, 2022	-	17	28	ND	ND	ND	ND	ND	ND	ND	ND
	4	May 15, 2022	1	40	ND	ND	ND	ND	ND	ND	ND	ND	ND
	0	May 15, 2022	0	>10,000	ND	ND	ND	ND	8300	8000	8,300	16,300	ND
	0	August 10, 2022	-	42	37	ND	ND	ND	ND	ND	ND	ND	ND
BH22-03	2	May 15, 2022	1	260	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2	August 10, 2022	-	-	64	ND	ND	ND	ND	ND	ND	ND	ND
	4	May 15, 2022	1	230	ND	ND	ND	ND	ND	ND	ND	ND	ND
	0	May 15, 2022	0	80	ND 10	ND	ND	ND	ND	ND	ND	ND	ND
BH22-04	2	August 10, 2022	-	- 40	49 ND	ND	ND ND	ND	1200	1900	1,200	3,100	ND
01122 04	2	May 15, 2022 August 10, 2022	1	>10,000	ND 40	ND ND	ND	ND ND	ND 1300	ND 1700	ND 1,300	ND 3,000	ND ND
	4	May 15, 2022	1	110	40 ND	ND	ND	ND	ND	ND	ND	ND	ND
	0	May 15, 2022 May 15, 2022	0	>10,000	ND	ND	ND	ND	4600	4600	4,600	9,200	ND
	0	August 10, 2022	-	29	63	ND	ND	ND	ND	ND	ND	ND	ND
BH22-05	2	May 15, 2022	1	780	ND	ND	ND	ND	73	120	73	193	ND
	2	August 10, 2022	-	-	62	ND	ND	ND	ND	ND	ND	ND	ND
	4	May 15, 2022	2	240	ND	ND	ND	ND	ND	ND	ND	ND	ND
	0	May 15, 2022	1	240	ND	ND	ND	ND	ND	ND	ND	ND	98
	0	August 10, 2022	-	81	0	ND	ND	ND	ND	ND	ND	ND	ND
BH22-06	2	May 15, 2022	1	3,540	ND	ND	ND	ND	120	480	120	600	ND
	2	August 10, 2022	-	-	27	ND	ND	ND	ND	ND	ND	ND	ND
	4	May 15, 2022	1	160	ND	ND	ND	ND	ND	ND	ND	ND	ND
	0	May 15, 2022	1	240	ND	ND	ND	ND	ND	ND	ND	ND	ND
01122.07	0	August 10, 2022	-	-	72	ND	ND	ND	ND	ND	ND	ND	ND
BH22-07	2	May 15, 2022 August 10, 2022	103	460	ND	ND	ND	ND	230	140	230	370	ND
	4	May 15, 2022	- 7	51 800	124 ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
	4	May 15, 2022 May 15, 2022	2	230	1,003	ND	ND	ND	ND	ND	ND	ND	560
	0	August 10, 2022	-	40	378	ND	ND	ND	ND	ND	ND	ND	340
BH22-08	2	May 15, 2022	1	170	297	ND	ND	ND	ND	ND	ND	ND	400
	2	August 10, 2022	-	-	456	ND	ND	ND	ND	ND	ND	ND	400
	4	May 15, 2022	1	260	3,015	ND	ND	ND	ND	ND	ND	ND	1,900
BH22-09	0	December 6, 2022	0	45	317	ND	ND	ND	ND	ND	ND	ND	92
01122-03	2	December 6, 2022	0	31	28	ND	ND	ND	ND	ND	ND	ND	76
BH22-10	0	December 6, 2022	0	40	255	ND	ND	ND	ND	ND	ND	ND	96
	2	December 6, 2022	0	30	112	ND	ND	ND	ND	ND	ND	ND	90
BH22-11	0	December 6, 2022	0	22	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2	December 6, 2022	0	21	ND	ND	ND	ND	ND	ND	ND	ND	75
BH22-12	0	December 6, 2022	0	-	943	ND	ND	ND	ND	ND	ND	ND	680
		December 6, 2022	0	55	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH22-13	0	December 6, 2022 December 6, 2022	0	40 36	5 ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	61 ND
	0	December 6, 2022	0	64	ND	ND	ND	ND	ND	ND	ND	ND	ND
BH22-14	2	December 6, 2022	0	51	ND	ND	ND	ND	ND	ND	ND	ND	ND
	-		Ť	22									



Client Name: Devon Energy Production Company, LP Site Name: Tomcat 17 Federal #001 NM OCD Tracking #: nSAP0219636264, nKJ1524345298 (1RP-3833) Project #: 21E-02816-27 Lab Reports: 2205815, 2208929, 2212446, 2301712

· · · · · · · · · · · · · · · · · · ·							y Results - Depth to Groundwater 51-100 feet bgs						
	Sample Des	cription	Fi	eld Screeni	ng	Petroleum Hydrocarbons							
			st			Vola	atile			Extractable	5		Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics ((MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH22-15	0	January 16, 2023	0	9	303	ND	ND	ND	ND	ND	ND	ND	ND
	2	January 16, 2023	0	3	216	ND	ND	ND	ND	ND	ND	ND	ND
BH22-16	0	January 16, 2023	0	2	170	ND	ND	ND	ND	ND	ND	ND	ND
		January 16, 2023	0	5	223	ND	ND	ND	ND	ND	ND	ND	ND
BH22-17	0	January 16, 2023 January 16, 2023	0	17 1	212 232	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
	0	January 16, 2023	0	21	168	ND	ND	ND	ND	ND	ND	ND	ND
BH22-18	2	January 16, 2023	0	12	168	ND	ND	ND	ND	ND	ND	ND	ND
51122 10	4	January 16, 2023	0	12	248	ND	ND	ND	ND	ND	ND	ND	ND
	0	January 16, 2023	0	14	193	ND	ND	ND	ND	ND	ND	ND	ND
BH22-19	2	January 16, 2023	0	12	333	ND	ND	ND	ND	ND	ND	ND	71
51122 15	4	January 16, 2023	0	11	506	ND	ND	ND	ND	ND	ND	ND	140
	0	January 16, 2023	0	11	331	ND	ND	ND	ND	ND	ND	ND	ND
BH22-20	2	January 16, 2023	0	14	164	ND	ND	ND	ND	ND	ND	ND	ND
	4	January 16, 2023	0	9	202	ND	ND	ND	ND	ND	ND	ND	ND
	0	January 17, 2023	0	1	554	ND	ND	ND	ND	ND	ND	ND	140
BH22-21	2	January 17, 2023	0	4	292	ND	ND	ND	ND	ND	ND	ND	ND
	4	January 17, 2023	0	12	230	ND	ND	ND	ND	ND	ND	ND	ND
	0	January 17, 2023	0	48	170	ND	ND	ND	ND	ND	ND	ND	ND
BH22-22	2	January 17, 2023	0	14	174	ND	ND	ND	ND	ND	ND	ND	ND
	4	January 17, 2023	0	19	262	ND	ND	ND	ND	ND	ND	ND	ND
	0	January 17, 2023	0	51	152	ND	ND	ND	ND	ND	ND	ND	ND
BH22-23	2	January 17, 2023	0	24	139	ND	ND	ND	ND	ND	ND	ND	ND
L	4	January 17, 2023	0	10	144	ND	ND	ND	ND	ND	ND	ND	ND
DU122-24	0	January 17, 2023	0	51	298	ND	ND	ND	ND	ND	ND	ND	61
BH22-24	2	January 17, 2023	0	40	376	ND	ND	ND	ND	ND	ND	ND	ND
L	4	January 17, 2023	0	26	190	ND	ND	ND	ND	ND	ND	ND	ND
BH22-25	2	January 17, 2023 January 17, 2023	0	20	246	ND	ND	ND	ND	ND	ND	ND	ND
01122-23	4	January 17, 2023 January 17, 2023	0	25 27	232 337	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
<u> </u>	4	January 17, 2023 January 17, 2023	0	391	1,189	ND	ND	ND	43	74	43	117	520
BH22-26	6	January 17, 2023	0	77	907	ND	ND	ND	13	ND	13	117	430
2	8	January 17, 2023	0	72	635	ND	ND	ND	13	ND	13	13	250
	4	January 17, 2023	0	16	2,033	ND	ND	ND	ND	ND	ND	ND	1100
BH22-27	6	January 17, 2023	0	57	532	ND	ND	ND	ND	ND	ND	ND	220
	8	January 17, 2023	0	27	337	ND	ND	ND	ND	ND	ND	ND	92
	-	, ,	-										-

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

Bold and grey shaded indicates exceedance outside of NMOCD Remediation Closure Criteria

Bold and green shaded indicates exceedance outside of NMOCD Reclamation Closure Criteria



Client Name: Devon Energy Production Company, LP Site Name: Tomcat 17 Federal #001 NM OCD Tracking #: nSAP0219636264, nKJ1524345298 (1RP-3833) Project #: 21E-02816-27 Lab Reports: 2212806, 2212905, 2212E06, 2301323

		Table 3. Confirmatory	and Labo	poratory Results - Depth to Groundwater 51-100 feet bgs									
	Sample Des	cription	Fi	eld Screeni	ng			Petrole	um Hydrod	carbons			
			ds			Vola	atile			Extractable	9		Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BS22-01	2	December 12, 2022	0	31	233	ND	ND	ND	ND	ND	ND	ND	ND
BS22-02	2	December 12, 2022	0	20	119	ND	ND	ND	ND	ND	ND	ND	100
BS22-03	2	December 12, 2022	0	36	44	ND	ND	ND	ND	ND	ND	ND	ND
BS22-04	2	December 12, 2022	0	42	232	ND	ND	ND	ND	ND	ND	ND	ND
BS22-05	4	December 13, 2022	12	87	5,230	ND	ND	ND	ND	ND	ND	ND	2000
BS22-06	4	December 13, 2022	0	55	6,556	ND	ND	ND	ND	ND	ND	ND	4400
BS22-07	4	December 13, 2022	0	25	4,159	ND	ND	ND	ND	ND	ND	ND	2700
BS22-08	4	December 13, 2022	0	188	7,320	ND	ND	ND	43	100	43	143	4900
BS22-09	4	December 13, 2022	0	89	5,074	ND	ND	ND	18	54	18	72	3200
BS22-10	4	December 22, 2022	0	300	4,986	ND	ND	ND	61	160	61	221	4200
BS22-11	4	December 22, 2022	0	1,174	3,270	ND	ND	ND	280	480	280	760	2500
BS22-12	4	December 22, 2022	0	1,017	4,911	ND	ND	ND	250	480	250	730	5400
BS22-13	4	December 22, 2022	0	618	7,635	ND	ND	ND	200	470	200	670	4200
BS22-14	4	January 7, 2023	0	169	2,164	ND	ND	ND	ND	ND	ND	ND	1800
BS22-15	4	January 7, 2023	0	34	2,560	ND	ND	ND	9.8	ND	9.8	9.8	1400
WS22-01	0-2	December 12, 2022	0	22	463	ND	ND	ND	ND	ND	ND	ND	110
WS22-02	0-2	December 12, 2022	0	32	ND	ND	ND	ND	ND	ND	ND	ND	ND
WS22-03	0-2	December 12, 2022	0	46	393	ND	ND	ND	ND	ND	ND	ND	170
WS22-04	0-2	December 12, 2022	0	37	473	ND	ND	ND	ND	ND	ND	ND	150
WS22-05	0-2	December 12, 2022	0	36	402	ND	ND	ND	ND	ND	ND	ND	ND
WS22-06	0-2	December 12, 2022	0	34	342	ND	ND	ND	ND	ND	ND	ND	ND
WS22-07	0-4	December 12, 2022	0	70	616	ND	ND	ND	ND	ND	ND	ND	140
WS22-08 WS22-09	0-4 0-4	December 12, 2022	0	41	630	ND	ND	ND	ND	ND	ND	ND	150
WS22-09 WS22-10	0-4	December 12, 2022	0	47	370	ND	ND	ND	ND	ND	ND	ND	ND
WS22-10 WS22-11	0-4	December 12, 2022	0	47	ND 227	ND	ND	ND	ND	ND	ND	ND	ND 250
WS22-11 WS22-12	2-4	December 12, 2022 December 12, 2022	0	51	337	ND	ND	ND	ND	ND	ND	ND	250
WS22-12 WS22-13	0-4		0	51	375	ND	ND	ND	ND	ND	ND	ND	ND
WS22-13 WS22-14	0-4	December 12, 2022	0	29	307	ND	ND	ND	ND	ND	ND	ND	ND 120
WS22-14 WS22-15	0-4	December 22, 2022 December 22, 2022	0	86 90	53 212	ND	ND	ND	ND	ND	ND	ND	130 170
WS22-15 WS22-16	0-4	December 22, 2022	0			ND	ND ND	ND	ND	ND	ND	ND	
WS22-16 WS22-17	0-4		0	31 23	479	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	410 ND
WS22-17 WS22-18	0-4	January 7, 2023 January 7, 2023	0	23	368 522	ND ND	ND ND	ND ND	ND	ND ND	ND	ND ND	ND ND
WS22-18 WS22-19	0-4	January 7, 2023	0	23	522	ND	ND	ND ND	ND	ND	ND	ND ND	ND ND
WS22-19 WS22-20	0-4	January 7, 2023	0	28	480	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND 120
WS22-20 WS22-21	0-4		0	15	480	ND ND	ND	ND ND	ND	ND	ND	ND	72
VV 5ZZ-Z1	U-4	January 7, 2023	U	13	407	טא	טא	טא	ND	טא	ND	טא	12

"ND" Not Detected at the Reporting Limit

Bold and grey shaded indicates exceedance outside of NMOCD Remediation Closure Criteria

Bold and green shaded indicates exceedance outside of NMOCD Reclamation Closure Criteria



ATTACHMENT 6

Thu, Dec 8, 2022 at 1:52 PM



Dhugal Hanton <vertexresourcegroupusa@gmail.com>

48-Hour Notification - Tomcat 17 Federal 1

6 messages

Dhugal Hanton <vertexresourcegroupusa@gmail.com> To: "Enviro, OCD, EMNRD" <OCD.Enviro@state.nm.us> Cc: dale.woodall@dvn.com, KStallings@vertex.ca

All,

Please accept this email as a notification that Vertex Resource Services has scheduled a sampling event to be conducted at the following releases:

nKJ1524345298 pKJ1524348116

On Monday, December 12, 2022, at approximately 8:00 a.m., Vertex will be on-site to conduct confirmation sampling. The sampling will continue until Friday, December 16, 2022. If you have any questions regarding this notification or need directions to the site, please contact Kent Stallings at 346-814-1413.

Thank you,

Chance Dixon B.Sc. Sr Environmental Technologist

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

C 575.988.1472

Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov> Thu, Dec 8, 2022 at 2:04 PM To: Dhugal Hanton <vertexresourcegroupusa@gmail.com> Cc: "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>, "Billings, Bradford, EMNRD" <Bradford.Billings@emnrd.nm.gov>

Please be aware that notification requirements are **two business days**, per rule. Please proceed on your schedule. Also, please include this, and all correspondence, in the closure report to insure inclusion in the project file.

Jocelyn Harimon • Environmental Specialist

Environmental Bureau

EMNRD - Oil Conservation Division

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

(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov

http:// www.emnrd.nm.gov

Received by OCD: 3/12/2024 2:24:38 PM



Page 94 of 309

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com> Sent: Thursday, December 8, 2022 1:53 PM To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov> Cc: dale.woodall@dvn.com; KStallings@vertex.ca Subject: [EXTERNAL] 48-Hour Notification - Tomcat 17 Federal 1

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> To: "Enviro, OCD, EMNRD" <OCD.Enviro@emnrd.nm.gov> Tue, Dec 20, 2022 at 8:03 AM

All,

Please accept this email as a notification that Vertex Resource Services has scheduled a sampling event to be conducted at the following releases:

nKJ1524345298, Tomcat 17 Federal 1 pKJ1524348116

On Monday, December 22, 2022, at approximately 8:00 a.m through December 23, 2023, Vertex will be on-site to conduct confirmation sampling. If you have any questions regarding this notification or need directions to the site, please contact Kent Stallings at 346-814-1413.

Thank you,

Kent Stallings [Quoted text hidden]

Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov> Tue, Dec 20, 2022 at 10:16 AM To: Dhugal Hanton <vertexresourcegroupusa@gmail.com> Cc: "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>, "Billings, Bradford, EMNRD" <Bradford.Billings@emnrd.nm.gov>

Kent,

Thank you for the notification. Please 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.

JH

[Quoted text hidden]

Dhugal Hanton <vertexresourcegroupusa@gmail.com> To: "Enviro, OCD, EMNRD" <OCD.Enviro@emnrd.nm.gov> Tue, Jan 3, 2023 at 4:18 PM

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

All,

Please accept this email as a notification that Vertex Resource Services has scheduled a sampling event to be conducted at the following releases:

nKJ1524345298, Tomcat 17 Federal 1 pKJ1524348116, Tomcat 17 Federal 1

On Saturday, January 7, 2023 at approximately 8:00 a.m, Vertex will be on-site to conduct final confirmation sampling. If you have any questions regarding this notification or need directions to the site, please contact Kent Stallings at 346-814-1413.

Thank you,

Kent Stallings [Quoted text hidden]

Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov> To: Dhugal Hanton <vertexresourcegroupusa@gmail.com> Cc: "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov> Tue, Jan 3, 2023 at 4:54 PM

Thank you for the notification. Please 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.

Jocelyn Harimon • Environmental Specialist

[Quoted text hidden]

ATTACHMENT 7



May 26, 2022

Monica Peppin Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL: (505) 506-0040 FAX

RE: Tomcat 17 Federal 001

OrderNo.: 2205815

Hall Environmental Analysis Laboratory

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

Website: www.hallenvironmental.com

4901 Hawkins NE

Albuquerque, NM 87109

Dear Monica Peppin:

Hall Environmental Analysis Laboratory received 24 sample(s) on 5/18/2022 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

CLIENT: Vertex Resources Services, Inc.

Project: Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/26/2022 Client Sample ID: BH22-01 0' Collection Date: 5/15/2022 7:55:00 AM

Lab ID: 2205815-001	Matrix: SOIL	Rece	eived Date:	5/18/2	022 8:27:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	47	9.9	mg/Kg	1	5/20/2022 6:20:57 PM
Motor Oil Range Organics (MRO)	84	50	mg/Kg	1	5/20/2022 6:20:57 PM
Surr: DNOP	84.4	51.1-141	%Rec	1	5/20/2022 6:20:57 PM
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	5/20/2022 12:39:39 AM
Surr: BFB	96.5	37.7-212	%Rec	1	5/20/2022 12:39:39 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.025	mg/Kg	1	5/20/2022 12:39:39 AM
Toluene	ND	0.050	mg/Kg	1	5/20/2022 12:39:39 AM
Ethylbenzene	ND	0.050	mg/Kg	1	5/20/2022 12:39:39 AM
Xylenes, Total	ND	0.10	mg/Kg	1	5/20/2022 12:39:39 AM
Surr: 4-Bromofluorobenzene	98.8	70-130	%Rec	1	5/20/2022 12:39:39 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	71	59	mg/Kg	20	5/23/2022 3:11:18 PM

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

Qualifiers:

* Value exceeds Maximum Contaminant Level.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 range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-01 2' Collection Date: 5/15/2022 8:00:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-002	Matrix: SOIL	Rece	eived Date:	5/18/2	022 8:27:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	75	9.0	mg/Kg	1	5/20/2022 6:54:02 PM
Motor Oil Range Organics (MRO)	83	45	mg/Kg	1	5/20/2022 6:54:02 PM
Surr: DNOP	89.8	51.1-141	%Rec	1	5/20/2022 6:54:02 PM
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	5/20/2022 1:50:00 AM
Surr: BFB	95.9	37.7-212	%Rec	1	5/20/2022 1:50:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.025	mg/Kg	1	5/20/2022 1:50:00 AM
Toluene	ND	0.049	mg/Kg	1	5/20/2022 1:50:00 AM
Ethylbenzene	ND	0.049	mg/Kg	1	5/20/2022 1:50:00 AM
Xylenes, Total	ND	0.098	mg/Kg	1	5/20/2022 1:50:00 AM
Surr: 4-Bromofluorobenzene	99.4	70-130	%Rec	1	5/20/2022 1:50:00 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	59	mg/Kg	20	5/23/2022 3:23:43 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 range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Project: Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 5/26/2022 Client Sample ID: BH22-01 4' Collection Date: 5/15/2022 8:05:00 AM

Lab ID: 2205815-003	Matrix: SOIL	Received Date: 5/18/2022 8:27:00 AM						
Analyses	Result	RL Qu	al Units	DF	Date Analyzed			
EPA METHOD 8015M/D: DIESEL RAI	NGE ORGANICS				Analyst: SB			
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	5/20/2022 7:05:01 PM			
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	5/20/2022 7:05:01 PM			
Surr: DNOP	92.7	51.1-141	%Rec	1	5/20/2022 7:05:01 PM			
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst: NSB			
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	5/20/2022 3:00:39 AM			
Surr: BFB	92.5	37.7-212	%Rec	1	5/20/2022 3:00:39 AM			
EPA METHOD 8021B: VOLATILES					Analyst: NSB			
Benzene	ND	0.025	mg/Kg	1	5/20/2022 3:00:39 AM			
Toluene	ND	0.049	mg/Kg	1	5/20/2022 3:00:39 AM			
Ethylbenzene	ND	0.049	mg/Kg	1	5/20/2022 3:00:39 AM			
Xylenes, Total	ND	0.099	mg/Kg	1	5/20/2022 3:00:39 AM			
Surr: 4-Bromofluorobenzene	95.0	70-130	%Rec	1	5/20/2022 3:00:39 AM			
EPA METHOD 300.0: ANIONS					Analyst: CAS			
Chloride	75	60	mg/Kg	20	5/23/2022 3:36:07 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-02 0' Collection Date: 5/15/2022 8:10:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-004	Matrix: SOIL	Rece	eived Date:	5/18/2	022 8:27:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	8.5	mg/Kg	1	5/20/2022 7:16:01 PM
Motor Oil Range Organics (MRO)	ND	42	mg/Kg	1	5/20/2022 7:16:01 PM
Surr: DNOP	86.8	51.1-141	%Rec	1	5/20/2022 7:16:01 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	5/20/2022 3:24:19 AM
Surr: BFB	91.8	37.7-212	%Rec	1	5/20/2022 3:24:19 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.025	mg/Kg	1	5/20/2022 3:24:19 AM
Toluene	ND	0.049	mg/Kg	1	5/20/2022 3:24:19 AM
Ethylbenzene	ND	0.049	mg/Kg	1	5/20/2022 3:24:19 AM
Xylenes, Total	ND	0.099	mg/Kg	1	5/20/2022 3:24:19 AM
Surr: 4-Bromofluorobenzene	96.4	70-130	%Rec	1	5/20/2022 3:24:19 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	72	60	mg/Kg	20	5/23/2022 3:48:31 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
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-02 2' Collection Date: 5/15/2022 8:15:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-005	Matrix: SOIL	Received Date: 5/18/2022 8:27:00 AM						
Analyses	Result	RL Qua	al Units	DF	Date Analyzed			
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB			
Diesel Range Organics (DRO)	ND	9.2	mg/Kg	1	5/20/2022 7:27:02 PM			
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	5/20/2022 7:27:02 PM			
Surr: DNOP	88.8	51.1-141	%Rec	1	5/20/2022 7:27:02 PM			
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: NSB			
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	5/20/2022 3:47:56 AM			
Surr: BFB	95.8	37.7-212	%Rec	1	5/20/2022 3:47:56 AM			
EPA METHOD 8021B: VOLATILES					Analyst: NSB			
Benzene	ND	0.024	mg/Kg	1	5/20/2022 3:47:56 AM			
Toluene	ND	0.049	mg/Kg	1	5/20/2022 3:47:56 AM			
Ethylbenzene	ND	0.049	mg/Kg	1	5/20/2022 3:47:56 AM			
Xylenes, Total	ND	0.097	mg/Kg	1	5/20/2022 3:47:56 AM			
Surr: 4-Bromofluorobenzene	97.4	70-130	%Rec	1	5/20/2022 3:47:56 AM			
EPA METHOD 300.0: ANIONS					Analyst: CAS			
Chloride	ND	60	mg/Kg	20	5/23/2022 4:00:55 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-02 4' Collection Date: 5/15/2022 8:20:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-006	Matrix: SOIL	Rece	ived Date:	5/18/2	022 8:27:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	5/20/2022 7:38:02 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	5/20/2022 7:38:02 PM
Surr: DNOP	92.7	51.1-141	%Rec	1	5/20/2022 7:38:02 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	5/20/2022 4:11:32 AM
Surr: BFB	96.1	37.7-212	%Rec	1	5/20/2022 4:11:32 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.025	mg/Kg	1	5/20/2022 4:11:32 AM
Toluene	ND	0.050	mg/Kg	1	5/20/2022 4:11:32 AM
Ethylbenzene	ND	0.050	mg/Kg	1	5/20/2022 4:11:32 AM
Xylenes, Total	ND	0.099	mg/Kg	1	5/20/2022 4:11:32 AM
Surr: 4-Bromofluorobenzene	98.2	70-130	%Rec	1	5/20/2022 4:11:32 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	5/23/2022 4:38:09 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-03 0' Collection Date: 5/15/2022 8:55:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-007	Matrix: SOIL	Re	eceive	d Date:	5/18/20	022 8:27:00 AM
Analyses	Result	RL Ç)ual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst: SB
Diesel Range Organics (DRO)	8300	990		mg/Kg	100	5/20/2022 7:49:03 PM
Motor Oil Range Organics (MRO)	8000	4900		mg/Kg	100	5/20/2022 7:49:03 PM
Surr: DNOP	0	51.1-141	S	%Rec	100	5/20/2022 7:49:03 PM
EPA METHOD 8015D: GASOLINE RANGE	E					Analyst: NSB
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	5/20/2022 4:34:57 AM
Surr: BFB	91.9	37.7-212		%Rec	5	5/20/2022 4:34:57 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	5/20/2022 4:34:57 AM
Toluene	ND	0.25		mg/Kg	5	5/20/2022 4:34:57 AM
Ethylbenzene	ND	0.25		mg/Kg	5	5/20/2022 4:34:57 AM
Xylenes, Total	ND	0.50		mg/Kg	5	5/20/2022 4:34:57 AM
Surr: 4-Bromofluorobenzene	93.2	70-130		%Rec	5	5/20/2022 4:34:57 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	5/23/2022 4:50:33 PM

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-03 2' Collection Date: 5/15/2022 9:00:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-008	Matrix: SOIL	Rece	ived Date:	5/18/2	022 8:27:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.0	mg/Kg	1	5/20/2022 8:00:02 PM
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	5/20/2022 8:00:02 PM
Surr: DNOP	91.9	51.1-141	%Rec	1	5/20/2022 8:00:02 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: BRM
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	5/20/2022 5:39:00 AM
Surr: BFB	89.1	37.7-212	%Rec	1	5/20/2022 5:39:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: BRM
Benzene	ND	0.025	mg/Kg	1	5/20/2022 5:39:00 AM
Toluene	ND	0.050	mg/Kg	1	5/20/2022 5:39:00 AM
Ethylbenzene	ND	0.050	mg/Kg	1	5/20/2022 5:39:00 AM
Xylenes, Total	ND	0.10	mg/Kg	1	5/20/2022 5:39:00 AM
Surr: 4-Bromofluorobenzene	91.9	70-130	%Rec	1	5/20/2022 5:39:00 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	5/23/2022 5:02:58 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Project: Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-03 4' Collection Date: 5/15/2022 9:05:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-009	Matrix: SOIL	Rece	eived Date:	5/18/2	022 8:27:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	5/20/2022 8:11:06 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	5/20/2022 8:11:06 PM
Surr: DNOP	93.6	51.1-141	%Rec	1	5/20/2022 8:11:06 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	5/20/2022 5:59:00 AM
Surr: BFB	89.7	37.7-212	%Rec	1	5/20/2022 5:59:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: BRM
Benzene	ND	0.025	mg/Kg	1	5/20/2022 5:59:00 AM
Toluene	ND	0.049	mg/Kg	1	5/20/2022 5:59:00 AM
Ethylbenzene	ND	0.049	mg/Kg	1	5/20/2022 5:59:00 AM
Xylenes, Total	ND	0.099	mg/Kg	1	5/20/2022 5:59:00 AM
Surr: 4-Bromofluorobenzene	92.9	70-130	%Rec	1	5/20/2022 5:59:00 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	59	mg/Kg	20	5/23/2022 5:40:13 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-04 0' Collection Date: 5/15/2022 9:20:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-010	Matrix: SOIL Result	Received Date: 5/18/2022 8:27:00 AM				
Analyses		RL Qua	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB	
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	5/20/2022 8:22:04 PM	
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	5/20/2022 8:22:04 PM	
Surr: DNOP	81.6	51.1-141	%Rec	1	5/20/2022 8:22:04 PM	
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: BRM	
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	5/20/2022 6:18:00 AM	
Surr: BFB	89.3	37.7-212	%Rec	1	5/20/2022 6:18:00 AM	
EPA METHOD 8021B: VOLATILES					Analyst: BRM	
Benzene	ND	0.024	mg/Kg	1	5/20/2022 6:18:00 AM	
Toluene	ND	0.049	mg/Kg	1	5/20/2022 6:18:00 AM	
Ethylbenzene	ND	0.049	mg/Kg	1	5/20/2022 6:18:00 AM	
Xylenes, Total	ND	0.097	mg/Kg	1	5/20/2022 6:18:00 AM	
Surr: 4-Bromofluorobenzene	91.2	70-130	%Rec	1	5/20/2022 6:18:00 AM	
EPA METHOD 300.0: ANIONS					Analyst: CAS	
Chloride	ND	60	mg/Kg	20	5/23/2022 5:52:38 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 range due to dilution or matrix interference

- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range

RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-04 2' Collection Date: 5/15/2022 9:25:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-011	Matrix: SOIL Result	Received Date: 5/18/2022 8:27:00 AM			
Analyses		RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	5/20/2022 8:33:16 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	5/20/2022 8:33:16 PM
Surr: DNOP	90.8	51.1-141	%Rec	1	5/20/2022 8:33:16 PM
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	5/20/2022 6:38:00 AM
Surr: BFB	89.6	37.7-212	%Rec	1	5/20/2022 6:38:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: BRM
Benzene	ND	0.024	mg/Kg	1	5/20/2022 6:38:00 AM
Toluene	ND	0.049	mg/Kg	1	5/20/2022 6:38:00 AM
Ethylbenzene	ND	0.049	mg/Kg	1	5/20/2022 6:38:00 AM
Xylenes, Total	ND	0.098	mg/Kg	1	5/20/2022 6:38:00 AM
Surr: 4-Bromofluorobenzene	91.7	70-130	%Rec	1	5/20/2022 6:38:00 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	5/23/2022 6:05:03 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-04 4' Collection Date: 5/15/2022 9:30:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-012	Matrix: SOIL	Received Date: 5/18/2022 8:27:00 AM				
Analyses	Result	RL Qua	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB	
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	5/20/2022 8:44:24 PM	
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	5/20/2022 8:44:24 PM	
Surr: DNOP	87.4	51.1-141	%Rec	1	5/20/2022 8:44:24 PM	
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: BRM	
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	5/20/2022 6:58:00 AM	
Surr: BFB	86.9	37.7-212	%Rec	1	5/20/2022 6:58:00 AM	
EPA METHOD 8021B: VOLATILES					Analyst: BRM	
Benzene	ND	0.025	mg/Kg	1	5/20/2022 6:58:00 AM	
Toluene	ND	0.050	mg/Kg	1	5/20/2022 6:58:00 AM	
Ethylbenzene	ND	0.050	mg/Kg	1	5/20/2022 6:58:00 AM	
Xylenes, Total	ND	0.10	mg/Kg	1	5/20/2022 6:58:00 AM	
Surr: 4-Bromofluorobenzene	87.0	70-130	%Rec	1	5/20/2022 6:58:00 AM	
EPA METHOD 300.0: ANIONS					Analyst: CAS	
Chloride	ND	60	mg/Kg	20	5/23/2022 6:17:28 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Project: Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-05 0' Collection Date: 5/15/2022 9:40:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-013	Matrix: SOIL	Received Date: 5/18/2022 8:27:00 A				022 8:27:00 AM
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst: SB
Diesel Range Organics (DRO)	4600	190		mg/Kg	20	5/20/2022 8:55:33 PM
Motor Oil Range Organics (MRO)	4600	970		mg/Kg	20	5/20/2022 8:55:33 PM
Surr: DNOP	0	51.1-141	S	%Rec	20	5/20/2022 8:55:33 PM
EPA METHOD 8015D: GASOLINE RANG	E					Analyst: NSB
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	5/20/2022 9:28:09 AM
Surr: BFB	94.6	37.7-212		%Rec	5	5/20/2022 9:28:09 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	5/20/2022 9:28:09 AM
Toluene	ND	0.25		mg/Kg	5	5/20/2022 9:28:09 AM
Ethylbenzene	ND	0.25		mg/Kg	5	5/20/2022 9:28:09 AM
Xylenes, Total	ND	0.50		mg/Kg	5	5/20/2022 9:28:09 AM
Surr: 4-Bromofluorobenzene	97.6	70-130		%Rec	5	5/20/2022 9:28:09 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	5/23/2022 6:29:53 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

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range

RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Project: Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-05 2' Collection Date: 5/15/2022 9:45:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-014	Matrix: SOIL	Received Date: 5/18/2022 8:27:00 AM				
Analyses	Result	RL Qua	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB	
Diesel Range Organics (DRO)	73	9.6	mg/Kg	1	5/25/2022 4:15:00 AM	
Motor Oil Range Organics (MRO)	120	48	mg/Kg	1	5/25/2022 4:15:00 AM	
Surr: DNOP	105	51.1-141	%Rec	1	5/25/2022 4:15:00 AM	
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: NSB	
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	5/20/2022 9:51:34 AM	
Surr: BFB	93.5	37.7-212	%Rec	1	5/20/2022 9:51:34 AM	
EPA METHOD 8021B: VOLATILES					Analyst: NSB	
Benzene	ND	0.025	mg/Kg	1	5/20/2022 9:51:34 AM	
Toluene	ND	0.050	mg/Kg	1	5/20/2022 9:51:34 AM	
Ethylbenzene	ND	0.050	mg/Kg	1	5/20/2022 9:51:34 AM	
Xylenes, Total	ND	0.099	mg/Kg	1	5/20/2022 9:51:34 AM	
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	5/20/2022 9:51:34 AM	
EPA METHOD 300.0: ANIONS					Analyst: CAS	
Chloride	ND	60	mg/Kg	20	5/23/2022 5:26:04 PM	

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-05 4' Collection Date: 5/15/2022 9:50:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-015	Matrix: SOIL	Recei	Received Date: 5/18/2022 8:27:00 AM				
Analyses	Result	RL Qua	l Units	DF	Date Analyzed		
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB		
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	5/20/2022 9:17:46 PM		
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	5/20/2022 9:17:46 PM		
Surr: DNOP	95.2	51.1-141	%Rec	1	5/20/2022 9:17:46 PM		
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: NSB		
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	5/20/2022 10:15:05 AM		
Surr: BFB	97.7	37.7-212	%Rec	1	5/20/2022 10:15:05 AM		
EPA METHOD 8021B: VOLATILES					Analyst: NSB		
Benzene	ND	0.025	mg/Kg	1	5/20/2022 10:15:05 AM		
Toluene	ND	0.050	mg/Kg	1	5/20/2022 10:15:05 AM		
Ethylbenzene	ND	0.050	mg/Kg	1	5/20/2022 10:15:05 AM		
Xylenes, Total	ND	0.10	mg/Kg	1	5/20/2022 10:15:05 AM		
Surr: 4-Bromofluorobenzene	102	70-130	%Rec	1	5/20/2022 10:15:05 AM		
EPA METHOD 300.0: ANIONS					Analyst: CAS		
Chloride	ND	60	mg/Kg	20	5/23/2022 6:42:17 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-06 0' Collection Date: 5/15/2022 10:05:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-016	Matrix: SOIL	Rece	022 8:27:00 AM		
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.1	mg/Kg	1	5/20/2022 9:28:51 PM
Motor Oil Range Organics (MRO)	ND	45	mg/Kg	1	5/20/2022 9:28:51 PM
Surr: DNOP	102	51.1-141	%Rec	1	5/20/2022 9:28:51 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	5/20/2022 10:38:29 AM
Surr: BFB	96.4	37.7-212	%Rec	1	5/20/2022 10:38:29 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.024	mg/Kg	1	5/20/2022 10:38:29 AM
Toluene	ND	0.049	mg/Kg	1	5/20/2022 10:38:29 AM
Ethylbenzene	ND	0.049	mg/Kg	1	5/20/2022 10:38:29 AM
Xylenes, Total	ND	0.098	mg/Kg	1	5/20/2022 10:38:29 AM
Surr: 4-Bromofluorobenzene	97.9	70-130	%Rec	1	5/20/2022 10:38:29 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	98	60	mg/Kg	20	5/23/2022 5:38:24 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 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 range due to dilution or matrix interference

- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-06 2' Collection Date: 5/15/2022 10:10:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-017	Matrix: SOIL	Re	eceive	ed Date:	5/18/2	022 8:27:00 AM
Analyses	Result	RL (Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst: SB
Diesel Range Organics (DRO)	120	95		mg/Kg	10	5/20/2022 9:39:57 PM
Motor Oil Range Organics (MRO)	480	470		mg/Kg	10	5/20/2022 9:39:57 PM
Surr: DNOP	0	51.1-141	S	%Rec	10	5/20/2022 9:39:57 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	24		mg/Kg	5	5/20/2022 11:01:58 AM
Surr: BFB	97.7	37.7-212		%Rec	5	5/20/2022 11:01:58 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	5/20/2022 11:01:58 AM
Toluene	ND	0.24		mg/Kg	5	5/20/2022 11:01:58 AM
Ethylbenzene	ND	0.24		mg/Kg	5	5/20/2022 11:01:58 AM
Xylenes, Total	ND	0.49		mg/Kg	5	5/20/2022 11:01:58 AM
Surr: 4-Bromofluorobenzene	99.1	70-130		%Rec	5	5/20/2022 11:01:58 AM
EPA METHOD 300.0: ANIONS						Analyst: CAS
Chloride	ND	60		mg/Kg	20	5/23/2022 5:50:45 PM

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-06 4' Collection Date: 5/15/2022 10:15:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-018	Matrix: SOIL	Rece	022 8:27:00 AM		
Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	5/20/2022 10:02:20 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	5/20/2022 10:02:20 PM
Surr: DNOP	95.8	51.1-141	%Rec	1	5/20/2022 10:02:20 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	5/20/2022 11:25:23 AM
Surr: BFB	95.5	37.7-212	%Rec	1	5/20/2022 11:25:23 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.025	mg/Kg	1	5/20/2022 11:25:23 AM
Toluene	ND	0.050	mg/Kg	1	5/20/2022 11:25:23 AM
Ethylbenzene	ND	0.050	mg/Kg	1	5/20/2022 11:25:23 AM
Xylenes, Total	ND	0.099	mg/Kg	1	5/20/2022 11:25:23 AM
Surr: 4-Bromofluorobenzene	97.7	70-130	%Rec	1	5/20/2022 11:25:23 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	5/23/2022 6:03:06 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level.
 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 range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-07 0' Collection Date: 5/15/2022 10:25:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-019	Matrix: SOIL	Rece	022 8:27:00 AM		
Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	5/20/2022 10:13:32 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	5/20/2022 10:13:32 PM
Surr: DNOP	85.0	51.1-141	%Rec	1	5/20/2022 10:13:32 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	5/20/2022 11:49:05 AM
Surr: BFB	96.5	37.7-212	%Rec	1	5/20/2022 11:49:05 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.025	mg/Kg	1	5/20/2022 11:49:05 AM
Toluene	ND	0.050	mg/Kg	1	5/20/2022 11:49:05 AM
Ethylbenzene	ND	0.050	mg/Kg	1	5/20/2022 11:49:05 AM
Xylenes, Total	ND	0.10	mg/Kg	1	5/20/2022 11:49:05 AM
Surr: 4-Bromofluorobenzene	99.3	70-130	%Rec	1	5/20/2022 11:49:05 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	60	mg/Kg	20	5/23/2022 6:40:08 PM

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-07 2' Collection Date: 5/15/2022 10:30:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-020	Matrix: SOIL	Recei	Received Date: 5/18/2022 8:27:00 AM				
Analyses	Result	RL Qua	ıl Units	DF	Date Analyzed		
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB		
Diesel Range Organics (DRO)	230	9.1	mg/Kg	1	5/20/2022 10:24:41 PM		
Motor Oil Range Organics (MRO)	140	46	mg/Kg	1	5/20/2022 10:24:41 PM		
Surr: DNOP	90.0	51.1-141	%Rec	1	5/20/2022 10:24:41 PM		
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: NSB		
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	5/20/2022 12:12:38 PM		
Surr: BFB	98.7	37.7-212	%Rec	1	5/20/2022 12:12:38 PM		
EPA METHOD 8021B: VOLATILES					Analyst: NSB		
Benzene	ND	0.025	mg/Kg	1	5/20/2022 12:12:38 PM		
Toluene	ND	0.050	mg/Kg	1	5/20/2022 12:12:38 PM		
Ethylbenzene	ND	0.050	mg/Kg	1	5/20/2022 12:12:38 PM		
Xylenes, Total	ND	0.099	mg/Kg	1	5/20/2022 12:12:38 PM		
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	5/20/2022 12:12:38 PM		
EPA METHOD 300.0: ANIONS					Analyst: CAS		
Chloride	ND	60	mg/Kg	20	5/23/2022 6:52:30 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-07 4' Collection Date: 5/15/2022 10:35:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-021	Matrix: SOIL	Rec	022 8:27:00 AM		
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	5/20/2022 11:53:27 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	5/20/2022 11:53:27 PM
Surr: DNOP	84.6	51.1-141	%Rec	1	5/20/2022 11:53:27 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	5/20/2022 11:54:00 AM
Surr: BFB	91.4	37.7-212	%Rec	1	5/20/2022 11:54:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: BRM
Benzene	ND	0.024	mg/Kg	1	5/20/2022 11:54:00 AM
Toluene	ND	0.048	mg/Kg	1	5/20/2022 11:54:00 AM
Ethylbenzene	ND	0.048	mg/Kg	1	5/20/2022 11:54:00 AM
Xylenes, Total	ND	0.097	mg/Kg	1	5/20/2022 11:54:00 AM
Surr: 4-Bromofluorobenzene	92.6	70-130	%Rec	1	5/20/2022 11:54:00 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	ND	61	mg/Kg	20	5/23/2022 7:29:31 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

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-08 0' Collection Date: 5/15/2022 10:40:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-022	Matrix: SOIL	Received Date: 5/18/2022 8:27:00 AM				
Analyses	Result	RL Qua	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB	
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	5/21/2022 12:26:37 AM	
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	5/21/2022 12:26:37 AM	
Surr: DNOP	90.4	51.1-141	%Rec	1	5/21/2022 12:26:37 AM	
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: BRM	
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	5/20/2022 12:53:00 PM	
Surr: BFB	89.7	37.7-212	%Rec	1	5/20/2022 12:53:00 PM	
EPA METHOD 8021B: VOLATILES					Analyst: BRM	
Benzene	ND	0.024	mg/Kg	1	5/20/2022 12:53:00 PM	
Toluene	ND	0.049	mg/Kg	1	5/20/2022 12:53:00 PM	
Ethylbenzene	ND	0.049	mg/Kg	1	5/20/2022 12:53:00 PM	
Xylenes, Total	ND	0.098	mg/Kg	1	5/20/2022 12:53:00 PM	
Surr: 4-Bromofluorobenzene	88.9	70-130	%Rec	1	5/20/2022 12:53:00 PM	
EPA METHOD 300.0: ANIONS					Analyst: CAS	
Chloride	560	60	mg/Kg	20	5/23/2022 7:41:52 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 range due to dilution or matrix interference

- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range

RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-08 2' Collection Date: 5/15/2022 10:45:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-023	Matrix: SOIL	Rece	022 8:27:00 AM		
Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	5/21/2022 12:37:39 AM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	5/21/2022 12:37:39 AM
Surr: DNOP	90.2	51.1-141	%Rec	1	5/21/2022 12:37:39 AM
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	5/20/2022 1:52:00 PM
Surr: BFB	87.1	37.7-212	%Rec	1	5/20/2022 1:52:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: BRM
Benzene	ND	0.024	mg/Kg	1	5/20/2022 1:52:00 PM
Toluene	ND	0.048	mg/Kg	1	5/20/2022 1:52:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	5/20/2022 1:52:00 PM
Xylenes, Total	ND	0.095	mg/Kg	1	5/20/2022 1:52:00 PM
Surr: 4-Bromofluorobenzene	89.4	70-130	%Rec	1	5/20/2022 1:52:00 PM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	400	60	mg/Kg	20	5/23/2022 7:54:14 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2205815

Date Reported: 5/26/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-08 4' Collection Date: 5/15/2022 10:50:00 AM Received Date: 5/18/2022 8:27:00 AM

Lab ID: 2205815-024	Matrix: SOIL	Rece	eived Date:	5/18/2	022 8:27:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	5/21/2022 12:48:41 AM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	5/21/2022 12:48:41 AM
Surr: DNOP	94.0	51.1-141	%Rec	1	5/21/2022 12:48:41 AM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	5/20/2022 2:12:00 PM
Surr: BFB	94.1	37.7-212	%Rec	1	5/20/2022 2:12:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: BRM
Benzene	ND	0.024	mg/Kg	1	5/20/2022 2:12:00 PM
Toluene	ND	0.049	mg/Kg	1	5/20/2022 2:12:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	5/20/2022 2:12:00 PM
Xylenes, Total	ND	0.097	mg/Kg	1	5/20/2022 2:12:00 PM
Surr: 4-Bromofluorobenzene	89.9	70-130	%Rec	1	5/20/2022 2:12:00 PM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	1900	60	mg/Kg	20	5/23/2022 8:06:35 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Client: Project:	Vertex Resou Tomcat 17 Fe		ices, I	Inc.							
Sample ID: MB-6	67621	SampType	: mbll	k	Test	Code: EF	PA Method	300.0: Anions	3		
Client ID: PBS		Batch ID:	6762	21	R	unNo: 88	3218				
Prep Date: 5/23	3/2022 Ana	alysis Date:	5/23	3/2022	S	eqNo: 31	127932	Units: mg/K	g		
Analyte	Re	esult P	QL :	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID: LCS-	-67621	SampType	: Ics		Test	Code: EF	PA Method	300.0: Anions	6		
Client ID: LCS	S	Batch ID:	6762	21	R	unNo: 88	3218				
Prep Date: 5/23	3/2022 Ana	alysis Date:	5/23	3/2022	S	eqNo: 31	127933	Units: mg/K	g		
Analyte	Re	esult P	QL :	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	94.6	90	110			
Sample ID: MB-6	67624	SampType	: mbll		Test	Code: EF	PA Method	300.0: Anions	3		
Client ID: PBS		Batch ID:	6762	24	R	unNo: 88	3218				
Prep Date: 5/23	3/2022 Ana	alysis Date:	5/23	3/2022	S	eqNo: 31	27935	Units: mg/K	g		
Analyte	Re	esult P	QL :	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID: LCS-	-67624	SampType	: Ics		Test	Code: EF	PA Method	300.0: Anions	6		
Client ID: LCS	S	Batch ID:	6762	24	R	unNo: 88	3218				
Prep Date: 5/23	3/2022 Ana	alysis Date:	5/23	3/2022	S	eqNo: 31	127936	Units: mg/K	g		
Analyte	Re	esult P	QL :	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	92.9	90	110			
Sample ID: MB-6	57621	SampType	mbl		Test	Code: EF	PA Method	300.0: Anions	3		
Client ID: PBS		Batch ID:	6762	21	R	unNo: 88	3201				
Prep Date: 5/23	3/2022 Ana	alysis Date:	5/23	3/2022	S	eqNo: 31	128092	Units: mg/K	g		
Analyte	Re	esult P	QL :	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID: LCS-	-67621	SampType	lcs		Test	Code: EF	PA Method	300.0: Anions	5		
Client ID: LCS	S	Batch ID:	6762	21	R	unNo: 88	3201				
Prep Date: 5/23	3/2022 Ana	alysis Date:	5/23	3/2022	S	eqNo: 31	128093	Units: mg/K	g		
Analyte	Re	esult P	QL :	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	94.9	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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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2205815

26-May-22

Client: Project:		a Resources Se at 17 Federal (, Inc.							
Sample ID:	MB-67624	SampTy	/pe: m t	olk	Test	tCode: EF	PA Method	300.0: Anion	s		
Client ID:	PBS	Batch	ID: 67	624	R	unNo: 8	8201				
Prep Date:	5/23/2022	Analysis Da	ate: 5/	23/2022	S	eqNo: 3	128094	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID:	LCS-67624	SampTy	/pe: Ics	5	Test	tCode: EF	PA Method	300.0: Anion	s		
Client ID:	LCSS	Batch	ID: 67	624	R	unNo: 8	8201				
Prep Date:	5/23/2022	Analysis Da	ate: 5/	23/2022	S	eqNo: 3	128095	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	93.3	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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2205815

26-May-22

Client: Project:	Vertex Re Tomcat 1			Inc.							
Sample ID:	2205815-001AMS	SampT	уре: МS	5	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	BH22-01 0'	Batch	ID: 67	573	F	RunNo: 88	3170				
Prep Date:	5/19/2022	Analysis D	ate: 5/	20/2022	S	SeqNo: 31	126848	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Surr: DNOP	Organics (DRO)	62 3.6	9.7	48.31 4.831	47.13	30.8 74.2	36.1 51.1	154 141			S
Sull. DNOP		3.0		4.031		74.2	51.1	141			
Sample ID:	2205815-001AMSE	SampT	ype: MS	D	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	BH22-01 0'	Batch	ID: 67	573	F	RunNo: 88	3170				
Prep Date:	5/19/2022	Analysis D	ate: 5/	20/2022	S	SeqNo: 31	26849	Units: mg/K	íg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	70		0 50.10	50.10 47.13 45.6 36.1		12.1	33.9			
Surr: DNOP		3.7		5.010		74.2	51.1	141	0	0	
Sample ID:	2205815-021AMS	SampT	уре: МS	5	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	BH22-07 4'	Batch	ID: 67	574	F	RunNo: 88	3170				
Prep Date:	5/19/2022	Analysis D	ate: 5/	21/2022	S	SeqNo: 31	126870	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	Organics (DRO)	51	9.4	47.13	0	108	36.1	154			
Surr: DNOP		4.2		4.713		89.4	51.1	141			
Sample ID:	2205815-021AMSD	SampT	уре: МS	D	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	BH22-07 4'	Batch	ID: 67	574	F	RunNo: 88	3170				
Prep Date:	5/19/2022	Analysis D	ate: 5/	21/2022	5	SeqNo: 31	26871	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	38	8.4	42.12	0	89.7	36.1	154	29.9	33.9	
Surr: DNOP		3.6		4.212		84.9	51.1	141	0	0	
Sample ID:	LCS-67548	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Batch	ID: 67	548	F	RunNo: 88	3170				
Prep Date:	5/19/2022	Analysis D	ate: 5/	20/2022	S	SeqNo: 31	126893	Units: %Re	C		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		5.0		5.000		101	51.1	141			
Sample ID:	LCS-67573	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Batch	ID: 67	573	F	RunNo: 88	3170				
Prep Date:	5/19/2022	Analysis D	ate: 5/	20/2022	S	SeqNo: 31	126894	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	Organics (DRO)	42	10	50.00	0	84.8	64.4	127			

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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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	Resources Services, Inc. 17 Federal 001			
Sample ID: LCS-67573	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics	
Client ID: LCSS	Batch ID: 67573	RunNo: 88170		
Prep Date: 5/19/2022	Analysis Date: 5/20/2022	SeqNo: 3126894	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Surr: DNOP	4.2 5.000	84.9 51.1	141	
Sample ID: LCS-67574	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics	
Client ID: LCSS	Batch ID: 67574	RunNo: 88170		
Prep Date: 5/19/2022	Analysis Date: 5/20/2022	SeqNo: 3126895	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Diesel Range Organics (DRO)	40 10 50.00		127	
Surr: DNOP	4.6 5.000	91.5 51.1	141	
Sample ID: MB-67548	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics	
Client ID: PBS	Batch ID: 67548	RunNo: 88170		
Prep Date: 5/19/2022	Analysis Date: 5/20/2022	SeqNo: 3126897	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Surr: DNOP	11 10.00	112 51.1	141	
Sample ID: MB-67573	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics	
Client ID: PBS	Batch ID: 67573	RunNo: 88170		
Prep Date: 5/19/2022	Analysis Date: 5/20/2022	SeqNo: 3126898	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) Surr: DNOP	ND 50 9.2 10.00	91.6 51.1	141	
	9.2 10.00	91.0 51.1	141	
Sample ID: MB-67574	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics	
Client ID: PBS	Batch ID: 67574	RunNo: 88170		
Prep Date: 5/19/2022	Analysis Date: 5/20/2022	SeqNo: 3126899	Units: mg/Kg	
Analyte		SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Diesel Range Organics (DRO)	ND 10			
Motor Oil Range Organics (MRO) Surr: DNOP	ND 50 10 10.00	103 51.1	141	
		100 0111		

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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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	Resources Services, Inc. 17 Federal 001			
Sample ID: mb-67550	SampType: MBLK	TestCode: EPA Method	8015D: Gasoline Range	
Client ID: PBS	Batch ID: 67550	RunNo: 88115		
Prep Date: 5/18/2022	Analysis Date: 5/20/2022	SeqNo: 3124685	Units: mg/Kg	
Analyte	Result PQL SPK valu	e SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 5.0 970 100	0 97.4 37.7	212	
Sample ID: Ics-67550	SampType: LCS	TestCode: EPA Method	8015D: Gasoline Range	
Client ID: LCSS	Batch ID: 67550	RunNo: 88115		
Prep Date: 5/18/2022	Analysis Date: 5/19/2022	SeqNo: 3124686	Units: mg/Kg	
Analyte	Result PQL SPK valu	e SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Gasoline Range Organics (GRO)	27 5.0 25.0			
Surr: BFB	2100 100	0 212 37.7	212	S
Sample ID: 2205815-001ams	SampType: MS	TestCode: EPA Method	l 8015D: Gasoline Range	
Client ID: BH22-01 0'	Batch ID: 67550	RunNo: 88115		
Prep Date: 5/18/2022	Analysis Date: 5/20/2022	SeqNo: 3124688	Units: mg/Kg	
Analyte	Result PQL SPK valu	e SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Gasoline Range Organics (GRO)	30 4.9 24.3			
Surr: BFB	2200 974	7 223 37.7	212	S
Sample ID: Ics-67545	SampType: LCS	TestCode: EPA Method	8015D: Gasoline Range	
Client ID: LCSS	Batch ID: 67545	RunNo: 88144		
Prep Date: 5/18/2022	Analysis Date: 5/19/2022	SeqNo: 3124750	Units: %Rec	
Analyte	Result PQL SPK valu	e SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Surr: BFB	1900 100	0 191 37.7	212	
Sample ID: mb-67545	SampType: MBLK	TestCode: EPA Method	I 8015D: Gasoline Range	
Client ID: PBS	Batch ID: 67545	RunNo: 88144		
Prep Date: 5/18/2022	Analysis Date: 5/19/2022	SeqNo: 3124752	Units: %Rec	
Analyte	Result PQL SPK valu	e SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Surr: BFB	910 100	0 90.6 37.7	212	
Sample ID: Ics-67570	SampType: LCS	TestCode: EPA Method	I 8015D: Gasoline Range	
Client ID: LCSS	Batch ID: 67570	RunNo: 88180	-	
Prep Date: 5/19/2022	Analysis Date: 5/20/2022	SeqNo: 3125949	Units: mg/Kg	
Analyte	Result PQL SPK valu	e SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit	Qual
Gasoline Range Organics (GRO)	25 5.0 25.0		0	
3 3 (<i>)</i>				

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 range due to dilution or matrix interference S
- Analyte detected in the associated Method Blank в
- Е

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit

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WO#:

Estimated value

Client: Project:		esources Sei 7 Federal 00		, Inc.							
Sample ID:	mb-67570	SampTy	be: MI	BLK	Test	tCode: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBS	Batch I	D: 67	570	R	unNo: 8	8180				
Prep Date:	5/19/2022	Analysis Da	te: 5/	/20/2022	S	eqNo: 3	125950	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 910	5.0	1000		91.2	37.7	212			
Sample ID:	2205815-021ams	SampTy	be: MS	S	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID:	BH22-07 4'	Batch I	D: 67	570	R	unNo: 8	8180				
Prep Date:	5/19/2022	Analysis Da	te: 5/	/20/2022	S	eqNo: 3	125952	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	e Organics (GRO)	25	4.8	23.88	0	106	70	130			
Surr: BFB		2000		955.1		205	37.7	212			
Sample ID:	2205815-021amsd	I SampTy	be: MS	SD	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	е	
Client ID:	BH22-07 4'	Batch I	D: 67	570	R	unNo: 8	8180				
Prep Date:	5/19/2022	Analysis Da	te: 5/	/20/2022	S	eqNo: 3	125953	Units: mg/k	٤g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	je Organics (GRO)	26	4.8	24.15	0	106	70	130	1.76	20	
Surr: BFB		2000		966.2		204	37.7	212	0	0	
Sample ID:	2205815-001amsd	l SampTy	be: MS	SD	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID:	BH22-01 0'	Batch I	D: 67	550	R	unNo: 8	8181				
Prep Date:	5/18/2022	Analysis Da	te: 5/	/20/2022	S	eqNo: 3	125975	Units: mg/k	٤g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	29	5.0	24.80	0	118	70	130	1.93	20	
Surr: BFB		2200		992.1		220	37.7	212	0	0	S

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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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	esources S 7 Federal		Inc.							
Sample ID: mb-67550	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch	n ID: 67	550	F	RunNo: 8	8115				
Prep Date: 5/18/2022	Analysis D	Date: 5/	20/2022	S	SeqNo: 3	124799	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	1.0		1.000		100	70	130			
Sample ID: LCS-67550	SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch	n ID: 67	550	F	RunNo: 8	8115				
Prep Date: 5/18/2022	Analysis D	Date: 5/	20/2022	S	SeqNo: 3	124807	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.4	80	120			
Toluene	0.98	0.050	1.000	0	98.0	80	120			
Ethylbenzene	0.98	0.050	1.000	0	97.8	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.4	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	70	130			
Sample ID: Ics-67545	SampT	ype: LC	S	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch	n ID: 67	545	F	RunNo: 8	8144				
Prep Date: 5/18/2022	Analysis D	Date: 5/	19/2022	S	SeqNo: 3	124827	Units: %Re	•		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.89		1.000		89.4	70	130			
Sample ID: mb-67545	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch	n ID: 67	545	F	RunNo: 8	8144				
Prep Date: 5/18/2022	Analysis D	Date: 5/	19/2022	S	SeqNo: 3	124828	Units: %Re	•		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.90		1.000		89.7	70	130			
Sample ID: 2205815-002ams	SampT	ype: M S	6	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID: BH22-01 2'		n ID: 67			RunNo: 8					
Prep Date: 5/18/2022	Analysis D				SeqNo: 3		Units: mg/K	g		
					%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Analyte	Result	PQL	SPK value	SPK Kel val						Quai
Analyte Benzene	Result 0.98	PQL 0.025	SPK value 0.9940	O O	98.1	68.8	120	70111 D		Quai
								/0111 D		Quai
Benzene	0.98	0.025	0.9940	0	98.1	68.8	120			Quai

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 range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Sample ID: 2205815-002ams SampType: MS TestCode: EPA Method 8021B: Volatiles Client ID: BH22-01 2' Batch ID: 67550 RunNo: 88115 Prep Date: 5/18/2022 Analysis Date: 5/20/2022 SeqNo: 3124836 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Surr: 4-Bromofluorobenzene 1.0 0.9940 103 70 130 Sample ID: 2205815-002amsd SampType: MSD TestCode: EPA Method 8021B: Volatiles Client ID: BH22-01 2' Batch ID: 67550 RunNo: 88115 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 1.0 0.025 0.9970 0 102 68.8 120 3.78 <td< th=""></td<>
Prep Date:5/18/2022Analysis Date:5/20/2022SeqNo:3124836Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualSurr:4-Bromofluorobenzene1.00.994010370130130Sample ID:2205815-002amsdSampType:MSDTestCode:EPA Method 8021B:VolatilesClient ID:BH22-01 2'Batch ID:67550RunNo:88115Prep Date:5/18/2022Analysis Date:5/20/2022SeqNo:3124848Units:mg/KgAnalyteResultPQLSPK valueSPK Ref Val%RECLowLimitHighLimit%RPDRPDLimitQualBenzene1.00.0250.9970010268.81203.7820Toluene1.10.0500.9970010673.61244.8420Ethylbenzene1.10.0500.9970010772.71295.7220Xylenes, Total3.20.102.991010875.71264.5120Sample ID:Ics-67570SampType:LCSTestCode:EPA Method 8021B:VolatilesClient ID:LCSSBatch ID:67570RunNo:88180Prep Date:5/19/2022Analysis Date:5/20/2022SeqNo:3125984Units:mg/Kg
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Surr: 4-Bromofluorobenzene 1.0 0.9940 103 70 130 Sample ID: 2205815-002amsd SampType: MSD TestCode: EPA Method 8021B: Volatiles Client ID: BH22-01 2' Batch ID: 67550 RunNo: 88115 Prep Date: 5/18/2022 Analysis Date: 5/20/2022 SeqNo: 3124848 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 1.0 0.025 0.9970 0 102 68.8 120 3.78 20 Toluene 1.1 0.050 0.9970 0 106 73.6 124 4.84 20 Ethylbenzene 1.1 0.050 0.9970 107 72.7 129 5.72 <
Sur: 4-Bromofluorobenzene 1.0 0.9940 103 70 130 Sample ID: 2205815-002amsd SampType: MSD TestCode: EPA Method 8021B: Volatiles Client ID: BH22-01 2' Batch ID: 67550 RunNo: 88115 Prep Date: 5/18/2022 Analysis Date: 5/20/2022 SeqNo: 3124848 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 1.0 0.025 0.9970 0 102 68.8 120 3.78 20 Toluene 1.1 0.050 0.9970 0 106 73.6 124 4.84 20 Ethylbenzene 1.1 0.050 0.9970 0 107 72.7 129 5.72 20 Xylenes, Total 3.2 0.10 2.991 0 108 75.7 126 4.51 20 Sur: 4-Bromofluorobenzene 1.0 0.9970 103 70 130
Sample ID: 2205815-002amsd SampType: MSD TestCode: EPA Method 8021B: Volatiles Client ID: BH22-01 2' Batch ID: 67550 RunNo: 88115 Prep Date: 5/18/2022 Analysis Date: 5/20/2022 SeqNo: 3124848 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 1.0 0.025 0.9970 0 102 68.8 120 3.78 20 Toluene 1.1 0.050 0.9970 0 106 73.6 124 4.84 20 Ethylbenzene 1.1 0.050 0.9970 0 107 72.7 129 5.72 20 Xylenes, Total 3.2 0.10 2.991 108 75.7 126 4.51 20 Surr: 4-Bromofluorobenzene 1.0 0.9970 103 70 130 0 0
Client ID: BH22-01 2' Batch ID: 67550 RunNo: 88115 Prep Date: 5/18/2022 Analysis Date: 5/20/2022 SeqNo: 3124848 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 1.0 0.025 0.9970 0 102 68.8 120 3.78 20 Toluene 1.1 0.050 0.9970 0 106 73.6 124 4.84 20 Ethylbenzene 1.1 0.050 0.9970 0 107 72.7 129 5.72 20 Sur: 4-Bromofluorobenzene 1.0 0.9970 103 70 130 0 0 Sample ID: Ics-67570 SampType: LCS TestCode: EPA Method 8021B: Volatiles Prep Date: 5/19/2022 Analysis Date: 5/20/2022 SeqNo: 3125984 Units: mg/Kg
Prep Date: 5/18/2022 Analysis Date: 5/20/2022 SeqNo: 3124848 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 1.0 0.025 0.9970 0 102 68.8 120 3.78 20 Toluene 1.1 0.050 0.9970 0 106 73.6 124 4.84 20 Ethylbenzene 1.1 0.050 0.9970 0 107 72.7 129 5.72 20 Xylenes, Total 3.2 0.10 2.991 0 108 75.7 126 4.51 20 Surr: 4-Bromofluorobenzene 1.0 0.9970 103 70 130 0 0 0 Sample ID: Ics-67570 SampType: Ics TestCode: EPA Method 8021B: Volatiles Prep Date: 5/19/2022 Analysis Date: 5/20/2022 SeqNo: 3125984 Units: mg/Kg
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Benzene 1.0 0.025 0.9970 0 102 68.8 120 3.78 20 Toluene 1.1 0.050 0.9970 0 106 73.6 124 4.84 20 Ethylbenzene 1.1 0.050 0.9970 0 107 72.7 129 5.72 20 Xylenes, Total 3.2 0.10 2.991 0 108 75.7 126 4.51 20 Surr: 4-Bromofluorobenzene 1.0 0.9970 103 70 130 0 0 Sample ID: Ics-67570 SampType: LCS TestCode: EPA Method 8021B: Volatiles Volatiles Client ID: LCSS Batch ID: 67570 RunNo: 88180 Vnits: mg/Kg Prep Date: 5/19/2022 Analysis Date: 5/20/2022 SeqNo: 3125984 Units: mg/Kg
Benzene 1.0 0.025 0.9970 0 102 68.8 120 3.78 20 Toluene 1.1 0.050 0.9970 0 106 73.6 124 4.84 20 Ethylbenzene 1.1 0.050 0.9970 0 107 72.7 129 5.72 20 Xylenes, Total 3.2 0.10 2.991 0 108 75.7 126 4.51 20 Surr: 4-Bromofluorobenzene 1.0 0.9970 103 70 130 0 0 Sample ID: Ics-67570 SampType: LCS TestCode: EPA Method 8021B: Volatiles KunNo: 88180 RunNo: 88180 RunNo: 88180 RunNo: 88180 Kg
Toluene 1.1 0.050 0.9970 0 106 73.6 124 4.84 20 Ethylbenzene 1.1 0.050 0.9970 0 107 72.7 129 5.72 20 Xylenes, Total 3.2 0.10 2.991 0 108 75.7 126 4.51 20 Surr: 4-Bromofluorobenzene 1.0 0.9970 103 70 130 0 0 Sample ID: Ics-67570 SampType: LCS TestCode: EPA Method 8021B: Volatiles Volatiles Client ID: LCSS Batch ID: 67570 RunNo: 88180 Prep Date: 5/19/2022 Analysis Date: 5/20/2022 SeqNo: 3125984 Units: mg/Kg
Ethylbenzene 1.1 0.050 0.9970 0 107 72.7 129 5.72 20 Xylenes, Total 3.2 0.10 2.991 0 108 75.7 126 4.51 20 Surr: 4-Bromofluorobenzene 1.0 0.9970 103 70 130 0 0 Sample ID: Ics-67570 SampType: LCS TestCode: EPA Method 8021B: Volatiles Volatiles Client ID: LCSS Batch ID: 67570 RunNo: 88180 Prep Date: 5/19/2022 Analysis Date: 5/20/2022 SeqNo: 3125984 Units: mg/Kg
Xylenes, Total 3.2 0.10 2.991 0 108 75.7 126 4.51 20 Surr: 4-Bromofluorobenzene 1.0 0.9970 103 70 130 0 0 Sample ID: Ics-67570 SampType: LCS TestCode: EPA Method 8021B: Volatiles Client ID: LCSS Batch ID: 67570 RunNo: 88180 Prep Date: 5/19/2022 Analysis Date: 5/20/2022 SeqNo: 3125984 Units: mg/Kg
Surr: 4-Bromofluorobenzene 1.0 0.9970 103 70 130 0 0 Sample ID: Ics-67570 SampType: LCS TestCode: EPA Method 8021B: Volatiles 0 0 0 0 0 0 0 0 0 0 0 0 0
Sample ID: Ics-67570SampType: LCSTestCode: EPA Method 8021B: VolatilesClient ID:LCSSBatch ID: 67570RunNo: 88180Prep Date:5/19/2022Analysis Date: 5/20/2022SeqNo: 3125984Units: mg/Kg
Client ID: LCSS Batch ID: 67570 RunNo: 88180 Prep Date: 5/19/2022 Analysis Date: 5/20/2022 SeqNo: 3125984 Units: mg/Kg
Prep Date: 5/19/2022 Analysis Date: 5/20/2022 SeqNo: 3125984 Units: mg/Kg
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Benzene 0.96 0.025 1.000 0 96.3 80 120
Toluene 0.97 0.050 1.000 0 97.1 80 120
Ethylbenzene 0.97 0.050 1.000 0 96.9 80 120
Xylenes, Total 2.9 0.10 3.000 0 96.4 80 120
Surr: 4-Bromofluorobenzene 0.91 1.000 91.2 70 130
Sample ID: mb-67570 SampType: MBLK TestCode: EPA Method 8021B: Volatiles
Client ID: PBS Batch ID: 67570 RunNo: 88180
Prep Date: 5/19/2022 Analysis Date: 5/20/2022 SeqNo: 3125985 Units: mg/Kg
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Benzene ND 0.025
Toluene ND 0.050
Ethylbenzene ND 0.050
Xylenes, Total ND 0.10
Surr: 4-Bromofluorobenzene 0.91 1.000 91.1 70 130
Sample ID: 2205815-022ams SampType: MS TestCode: EPA Method 8021B: Volatiles
Client ID: BH22-08 0' Batch ID: 67570 RunNo: 88180
Prep Date: 5/19/2022 Analysis Date: 5/20/2022 SeqNo: 3125988 Units: mg/Kg
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual

Qualifiers:

Value exceeds Maximum Contaminant Level. *

D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

- % Recovery outside of range due to dilution or matrix interference S
- Analyte detected in the associated Method Blank в

Е Estimated value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

Reporting Limit RL

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26-May-22

Client:

Project:

Sample ID: 2205815-022ams

Client ID: BH22-08 0'

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Vertex Resources Services, Inc.

SampType: MS

Batch ID: 67570

Tomcat 17 Federal 001

Prep Date: 5/19/2022	Analysis [Date: 5/2	20/2022	S	SeqNo: 3	125988	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.024	0.9747	0	97.2	68.8	120			
Toluene	0.97	0.049	0.9747	0	99.3	73.6	124			
Ethylbenzene	0.98	0.049	0.9747	0	100	72.7	129			
Xylenes, Total	2.9	0.097	2.924	0	99.1	75.7	126			
Surr: 4-Bromofluorobenzene	0.88		0.9747		89.8	70	130			
Sample ID: 2205815-022amsd		Гуре: МS					8021B: Volat	liles		
Sample ID: 2205815-022amsd Client ID: BH22-08 0' Prep Date: 5/19/2022		h ID: 675		R	RunNo: 8 SeqNo: 3	8180	Units: mg/K			
Client ID: BH22-08 0'	Batc	h ID: 675	570 20/2022	R	RunNo: 8	8180			RPDLimit	Qual
Client ID: BH22-08 0' Prep Date: 5/19/2022 Analyte	Batc Analysis [h ID: 67 Date: 5/ 2	570 20/2022	R	RunNo: 8 SeqNo: 3	8180 125989	Units: mg/K	ſg	RPDLimit 20	Qual
Client ID: BH22-08 0' Prep Date: 5/19/2022 Analyte Benzene	Batc Analysis I Result	h ID: 67: Date: 5/2 PQL	570 20/2022 SPK value	R S SPK Ref Val	RunNo: 8 SeqNo: 3 %REC	8180 125989 LowLimit	Units: mg/K HighLimit	′g %RPD		Qual
Client ID: BH22-08 0' Prep Date: 5/19/2022	Batc Analysis I Result 0.96	h ID: 67! Date: 5/2 PQL 0.024	570 20/2022 SPK value 0.9690	R S SPK Ref Val 0	RunNo: 8 SeqNo: 3 <u>%REC</u> 99.2	8180 125989 LowLimit 68.8	Units: mg/K HighLimit 120	5g <u>%RPD</u> 1.43	20	Qual
Client ID: BH22-08 0' Prep Date: 5/19/2022 Analyte Benzene Toluene	Batc Analysis I Result 0.96 0.97	h ID: 67! Date: 5/2 PQL 0.024 0.048	570 20/2022 SPK value 0.9690 0.9690	R S SPK Ref Val 0 0	RunNo: 8 SeqNo: 3 %REC 99.2 100	8180 125989 LowLimit 68.8 73.6	Units: mg/K HighLimit 120 124	5g %RPD 1.43 0.434	20 20	Qual

TestCode: EPA Method 8021B: Volatiles

RunNo: 88180

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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

- Page 33 of 33

WO#: 2205815

26-May-22

ANAL	RONMENT YSIS RATORY	AL	TEL: 50.		4901 Hav erque, N X: 505-3		Sar	mple Log-In Ch	eck List
Client Name:	Vertex Res Services, I		Work Orde	er Number: 2	205815			RcptNo: 1	
Received By:	Joseph A	Iderette	5/18/2022 8:	27:00 AM		ut.	è.		
Completed By:	Desiree D)ominguez	5/18/2022 10	0:44:08 AM		T	3		
Reviewed By:	Cme		5/18/22				4		
Chain of Cus	tody					*			
1. Is Chain of C	ustody comp	olete?		Y	es 🔽	N	•	Not Present	
2. How was the	sample deliv	vered?		C	ourier				
Log In 3. Was an attem	npt made to d	cool the samples	i?	Y	es 🔽	N	•		
4. Were all sam	oles received	l at a temperatur	e of >0° C to 6.0	°C Y	es 🔽	N	• 🗆		
5. Sample(s) in	proper conta	iner(s)?			es 🔽	N	•		
6. Sufficient sam	ple volume f	or indicated test	(s)?	Ye	s 🗸	No			
7. Are samples (except VOA	and ONG) prope	erly preserved?	Ye	s 🔽	No			
8. Was preserva	tive added to	bottles?		Ye	s 🗌	No		NA 🗔	
9. Received at le	ast 1 vial wit	h headspace <1.	/4" for AQ VOA?	Ye	s 🗌	No			
10. Were any san	nple containe	ers received brok	ken?	Ye	es 🗆	No		# of preserved bottles checked	5/18/2
11. Does paperwo (Note discrepa				Ye	s 🗸	No		for pH:	2 unless noted)
2. Are matrices of			f Custody?	Ye	s 🗸	No		Adjusted?	
3. Is it clear what	analyses we	ere requested?		Ye	s 🔽	No			
14. Were all holdir (If no, notify cu				Ye	s 🔽	No		Checked by:	
Special Handl	ing (if app	licable)							
15. Was client no	tified of all di	screpancies with	this order?	Ye	es 🗌	No		NA 🗹	
Person	Notified:			Date:					
By Who	m:			Via: 🗌 e	Mail [] Phone [Fax	In Person	
Regardi Client In	ng: structions:								
16. Additional rer									
17. <u>Cooler Infor</u> Cooler No	nation Temp °C 5.5	Condition S	Seal Intact Sea	I No Seal	Date	Signed	Ву		

Page 1 of 1

Client:	Venez	time Verley	Standard	ard Kush	h 5 Davk			HALL	LEN	VIR	ENVIRONMENTAL VSIS LABODATOR	HALL ENVIRONMENTAL
	(Dellow)	(ma)	Project Name:	1				d renevel				
Mailing Address:			toment	17 Feder	Aderal # MOI	46	4901 Hawkins NE	tins NE	. 9	Juerque	Albuqueraue. NM 87109	
			Project #:			ے 	Tel. 505-3	505-345-3975	10	x 505-3	505-345-4107	
Phone #:			716-C	LT-91800.					Anal	is Request	lest	
email or Fax#:			Project Ma	nager:		100			¢C		()	
QA/QC Package:			MONTO	Membra Perport		-	1.1.1	SN)S '⁺(pser	
□ Standard		Level 4 (Full Validation)	100	1111111		-	<u></u>	lisc	ЬО		IA\tr	
-		Az Compliance	Ľ	L. Rullman		- 14 J	280	11. C	10 ⁵ '		ləsə	
	□ Other		On Ice:	LT Yes	ON D	12.1	8/s	or	-	(40	(Pr	
EDD (Type)			# of Coolers:	S:			əpi	01	103	_) w.	
			Cooler Ten	Cooler Temp(including CF): 5.	5-0555 (°C)	TM	estic	vy 83	3r, 1		Iotilo	
Date Time M	Matrix	Sample Name	Container Type and #	Preservative	HEAL No.	/ XЭТЕ 08:Н91	9 1808 1 1808 1 1	a ehas AADS	31' E' E	S) 0228	O leto	
SETO LESIS	1.5	RH22-01 0'	1Jan		- 001	1	3	1	X	-	L	
5-15-22 08:00 5	Reil	"L IO-LEHS	LEAN		C00-	-			X			
	201	17 10-TCH8	LIMT		- 003	XX			X			
01:30 1	F.	RAD-01 0'	-		hoa-	-				-		
06:15		KHID-CO J'			-005							
00:30		BH22-00 4'			-006							
55:80		RADIAS O'			±00-							
00:00		1 20-264X			-008							
30:40		R#20-03 41			-009							
97:60		BHJA-04 0'			-010							
20:00					110-							
V CARD V	>	RHODOH 41	*		210-	1 2						
Time:	Relinquished by	U:hq pa	Received by:	Via:	Date Time	Remarks:	::					
Dr. 10 Tr	Laby	Lullon	WUUM	MUMMAN	5/17/22 700							
Date: Time: Re ガッカップ 900 (Relinquished by <i>QNLL</i>	t J	Received by:	COVINE	Date Time S./S.T. S.:27							

)	origin of output freeding				1				2.0 x 2 x 2	(3
Client: Verlex	X		」 Standard	d k Rush	h 50ml			ANAL	л Ч Г	INN	LKON	AALL ENVIRONMENTAL	AL
(Nedma)	100		Project Name:							010	LAD	OKALO	KA
Mailing Address:	11		Toment	17 Redow	7 Redound # 001	4	4901 Hawkins NF	www wkine N	alle	VIRONME	www.hallenvironmental.com	07400	
			Project #:					345.30			hue, mini	107	
Phone #:			NTRYAT -	IC MOO	716-01818-27		1 0100-040-000 101	0-0+0-	Anal	Analysis Re	ysis Request	107	
email or Fax#:			Project Manager	ager:		-			⁺C		(11		
QA/QC Package:		Level 4 (Full Validation)		Peoply				SMIS	°°° 20		nəsdA		-
				V V		_	4 Z	100	2' F	-	tne		
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EDD (Type)			# of Coolers:] _	2		səp		_	,0/\			
			Cooler Temp(including CF):	(Including CF): 5.	5-0: 5.5 (°C	ITM	istici		_		1.1		
Date Time N	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	N X 3 TEX /	əq 1808	M) 803 M sHA9	8 ARD 8 21, F, B	A) 0228	S) 0728 Datal Co		
5-Ballon:40	SON	8430-05 0'	1 Jan		-013	1				1			
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5/1/99 10.20	Relinquished by $\int A_{V}$	ed by:	Received by:	Via: V Cour: el	Silate Time								



August 30, 2022

Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL: (505) 506-0040 FAX: Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

RE: Tomcat 17 Fed 1

OrderNo.: 2208929

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 16 sample(s) on 8/16/2022 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

2208929-001

Project:

Lab ID:

Analyses

Analytical Report Lab Order 2208929

Date Reported: 8/30/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-01 Oft Tomcat 17 Fed 1 Collection Date: 8/10/2022 9:10:00 AM Matrix: SOIL Received Date: 8/16/2022 7:25:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) 330 27 mg/Kg 2 8/23/2022 4:00:05 PM Motor Oil Range Organics (MRO) 440 92 ma/Ka 2 8/23/2022 4·00·05 PM

440	92	mg/ĸg	2	8/23/2022 4:00:05 PIVI
75.9	21-129	%Rec	2	8/23/2022 4:00:05 PM
				Analyst: NSB
ND	4.9	mg/Kg	1	8/19/2022 3:45:10 AM
99.3	37.7-212	%Rec	1	8/19/2022 3:45:10 AM
				Analyst: NSB
ND	0.025	mg/Kg	1	8/19/2022 3:45:10 AM
ND	0.049	mg/Kg	1	8/19/2022 3:45:10 AM
ND	0.049	mg/Kg	1	8/19/2022 3:45:10 AM
ND	0.098	mg/Kg	1	8/19/2022 3:45:10 AM
95.1	70-130	%Rec	1	8/19/2022 3:45:10 AM
				Analyst: JTT
ND	60	mg/Kg	20	8/19/2022 10:20:37 PM
	ND 99.3 ND ND ND 95.1	75.921-129ND4.999.337.7-212ND0.025ND0.049ND0.049ND0.09895.170-130	75.9 21-129 %Rec ND 4.9 mg/Kg 99.3 37.7-212 %Rec ND 0.025 mg/Kg ND 0.049 mg/Kg ND 0.049 mg/Kg ND 0.049 mg/Kg ND 0.049 mg/Kg ND 0.098 mg/Kg 95.1 70-130 %Rec	75.9 21-129 %Rec 2 ND 4.9 mg/Kg 1 99.3 37.7-212 %Rec 1 ND 0.025 mg/Kg 1 ND 0.049 mg/Kg 1 ND 0.049 mg/Kg 1 ND 0.049 mg/Kg 1 ND 0.049 mg/Kg 1 ND 0.098 mg/Kg 1 95.1 70-130 %Rec 1

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 range due to dilution or matrix interference S

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

Page 1 of 23

Lab ID:

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Fed 1

2208929-002

Analytical Report Lab Order 2208929

Date Reported: 8/30/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-01 2ft Collection Date: 8/10/2022 9:20:00 AM Matrix: SOIL Received Date: 8/16/2022 7:25:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: DGH
Diesel Range Organics (DRO)	310	29	mg/Kg	2	8/23/2022 4:21:37 PM
Motor Oil Range Organics (MRO)	420	98	mg/Kg	2	8/23/2022 4:21:37 PM
Surr: DNOP	65.2	21-129	%Rec	2	8/23/2022 4:21:37 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/19/2022 4:08:32 AM
Surr: BFB	96.5	37.7-212	%Rec	1	8/19/2022 4:08:32 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.025	mg/Kg	1	8/19/2022 4:08:32 AM
Toluene	ND	0.049	mg/Kg	1	8/19/2022 4:08:32 AM
Ethylbenzene	ND	0.049	mg/Kg	1	8/19/2022 4:08:32 AM
Xylenes, Total	ND	0.098	mg/Kg	1	8/19/2022 4:08:32 AM
Surr: 4-Bromofluorobenzene	92.8	70-130	%Rec	1	8/19/2022 4:08:32 AM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	ND	60	mg/Kg	20	8/19/2022 10:57:51 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

- ND
- Not Detected at the Reporting Limit PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix interference S
- Analyte detected in the associated Method Blank в
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 2 of 23

н Holding times for preparation or analysis exceeded

Lab ID:

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Fed 1

2208929-003

Analytical Report Lab Order 2208929

Date Reported: 8/30/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-02 0ft Collection Date: 8/10/2022 9:30:00 AM Received Date: 8/16/2022 7:25:00 AM

Eub ID . 22 00,2, 003	Soll	1000	ivea Datei	0/10/2	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	8/19/2022 6:25:20 AM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	8/19/2022 6:25:20 AM
Surr: DNOP	95.2	21-129	%Rec	1	8/19/2022 6:25:20 AM
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/19/2022 9:12:00 AM
Surr: BFB	105	37.7-212	%Rec	1	8/19/2022 9:12:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: BRM
Benzene	ND	0.025	mg/Kg	1	8/19/2022 9:12:00 AM
Toluene	ND	0.049	mg/Kg	1	8/19/2022 9:12:00 AM
Ethylbenzene	ND	0.049	mg/Kg	1	8/19/2022 9:12:00 AM
Xylenes, Total	ND	0.098	mg/Kg	1	8/19/2022 9:12:00 AM
Surr: 4-Bromofluorobenzene	98.8	70-130	%Rec	1	8/19/2022 9:12:00 AM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	ND	59	mg/Kg	20	8/19/2022 11:10:16 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

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 3 of 23

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Fed 1

Analytical Report Lab Order 2208929

Date Reported: 8/30/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-02 2ft Collection Date: 8/10/2022 9:40:00 AM Received Date: 8/16/2022 7:25:00 AM

Lab ID: 2208929-004	Matrix: SOIL	Rece	eived Date:	8/16/2	022 7:25:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	8/19/2022 6:49:05 AM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	8/19/2022 6:49:05 AM
Surr: DNOP	96.1	21-129	%Rec	1	8/19/2022 6:49:05 AM
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	8/19/2022 10:11:00 AM
Surr: BFB	101	37.7-212	%Rec	1	8/19/2022 10:11:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: BRM
Benzene	ND	0.023	mg/Kg	1	8/19/2022 10:11:00 AM
Toluene	ND	0.047	mg/Kg	1	8/19/2022 10:11:00 AM
Ethylbenzene	ND	0.047	mg/Kg	1	8/19/2022 10:11:00 AM
Xylenes, Total	ND	0.093	mg/Kg	1	8/19/2022 10:11:00 AM
Surr: 4-Bromofluorobenzene	99.1	70-130	%Rec	1	8/19/2022 10:11:00 AM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	ND	60	mg/Kg	20	8/19/2022 11:22:41 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 4 of 23

Lab ID:

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Fed 1

2208929-005

Analytical Report Lab Order 2208929

Date Reported: 8/30/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-03 0ft Collection Date: 8/10/2022 9:50:00 AM Received Date: 8/16/2022 7:25:00 AM

				0/ - 0/ -	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE C	RGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	8/19/2022 7:12:50 AM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	8/19/2022 7:12:50 AM
Surr: DNOP	98.1	21-129	%Rec	1	8/19/2022 7:12:50 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/19/2022 11:10:00 AM
Surr: BFB	101	37.7-212	%Rec	1	8/19/2022 11:10:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: BRM
Benzene	ND	0.024	mg/Kg	1	8/19/2022 11:10:00 AM
Toluene	ND	0.049	mg/Kg	1	8/19/2022 11:10:00 AM
Ethylbenzene	ND	0.049	mg/Kg	1	8/19/2022 11:10:00 AM
Xylenes, Total	ND	0.097	mg/Kg	1	8/19/2022 11:10:00 AM
Surr: 4-Bromofluorobenzene	95.5	70-130	%Rec	1	8/19/2022 11:10:00 AM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	ND	60	mg/Kg	20	8/19/2022 11:35:05 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

- 11 Holding times for preparation of analysis e.
 ND Not Detected of the Demosting Lineit
- NDNot Detected at the Reporting LimitPQLPractical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

- J Analyte detected below quantitation limits
- P Sample pH Not In Range

RL Reporting Limit

Page 5 of 23

H Holding times for preparation or analysis exceeded

Lab ID:

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Fed 1

2208929-006

Analytical Report Lab Order 2208929

Date Reported: 8/30/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-03 2ft Collection Date: 8/10/2022 10:00:00 AM Received Date: 8/16/2022 7:25:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	8/19/2022 7:36:42 AM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	8/19/2022 7:36:42 AM
Surr: DNOP	94.0	21-129	%Rec	1	8/19/2022 7:36:42 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/19/2022 11:30:00 AM
Surr: BFB	101	37.7-212	%Rec	1	8/19/2022 11:30:00 AM
EPA METHOD 8021B: VOLATILES					Analyst: BRM
Benzene	ND	0.024	mg/Kg	1	8/19/2022 11:30:00 AM
Toluene	ND	0.049	mg/Kg	1	8/19/2022 11:30:00 AM
Ethylbenzene	ND	0.049	mg/Kg	1	8/19/2022 11:30:00 AM
Xylenes, Total	ND	0.098	mg/Kg	1	8/19/2022 11:30:00 AM
Surr: 4-Bromofluorobenzene	98.8	70-130	%Rec	1	8/19/2022 11:30:00 AM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	ND	60	mg/Kg	20	8/19/2022 11:47:30 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

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab ID:

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Fed 1

2208929-007

Analytical Report Lab Order 2208929

Date Reported: 8/30/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-04 0ft Collection Date: 8/10/2022 10:10:00 AM Received Date: 8/16/2022 7:25:00 AM

Euro ID (2200)2) 007	Soll	-		cu Dutei	0/10/2	
Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst: DGH
Diesel Range Organics (DRO)	1200	290		mg/Kg	20	8/23/2022 4:43:10 PM
Motor Oil Range Organics (MRO)	1900	980		mg/Kg	20	8/23/2022 4:43:10 PM
Surr: DNOP	0	21-129	S	%Rec	20	8/23/2022 4:43:10 PM
EPA METHOD 8015D: GASOLINE RANGE	E					Analyst: BRM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/19/2022 11:50:00 AM
Surr: BFB	99.3	37.7-212		%Rec	1	8/19/2022 11:50:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: BRM
Benzene	ND	0.025		mg/Kg	1	8/19/2022 11:50:00 AM
Toluene	ND	0.050		mg/Kg	1	8/19/2022 11:50:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	8/19/2022 11:50:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	8/19/2022 11:50:00 AM
Surr: 4-Bromofluorobenzene	96.2	70-130		%Rec	1	8/19/2022 11:50:00 AM
EPA METHOD 300.0: ANIONS						Analyst: JTT
Chloride	ND	60		mg/Kg	20	8/19/2022 11:59:55 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

- ND Not Detected at the Dependion of analysis e.
- NDNot Detected at the Reporting LimitPQLPractical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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H Holding times for preparation or analysis exceeded

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Fed 1

Analytical Report Lab Order 2208929

Date Reported: 8/30/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-04 2ft Collection Date: 8/10/2022 10:20:00 AM Received Date: 8/16/2022 7:25:00 AM

Lab ID: 2208929-008	Matrix: SOIL	Re	eceive	d Date:	8/16/2	022 7:25:00 AM
Analyses	Result	RL Q	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst: DGH
Diesel Range Organics (DRO)	1300	140		mg/Kg	10	8/29/2022 4:58:33 PM
Motor Oil Range Organics (MRO)	1700	470		mg/Kg	10	8/29/2022 4:58:33 PM
Surr: DNOP	0	21-129	S	%Rec	10	8/29/2022 4:58:33 PM
EPA METHOD 8015D: GASOLINE RANG	E					Analyst: BRM
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/19/2022 12:09:00 PM
Surr: BFB	102	37.7-212		%Rec	1	8/19/2022 12:09:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: BRM
Benzene	ND	0.025		mg/Kg	1	8/19/2022 12:09:00 PM
Toluene	ND	0.050		mg/Kg	1	8/19/2022 12:09:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/19/2022 12:09:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	8/19/2022 12:09:00 PM
Surr: 4-Bromofluorobenzene	97.9	70-130		%Rec	1	8/19/2022 12:09:00 PM
EPA METHOD 300.0: ANIONS						Analyst: NAI
Chloride	ND	60		mg/Kg	20	8/22/2022 2:37:46 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Fed 1

Analytical Report Lab Order 2208929

Date Reported: 8/30/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-05 0ft Collection Date: 8/10/2022 10:30:00 AM Received Date: 8/16/2022 7:25:00 AM

Lab ID: 2208929-009	Matrix: SOIL	Rece	ived Date:	8/16/2	022 7:25:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	8/19/2022 12:41:52 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	8/19/2022 12:41:52 PM
Surr: DNOP	107	21-129	%Rec	1	8/19/2022 12:41:52 PM
EPA METHOD 8015D: GASOLINE RANGI	E				Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/19/2022 12:29:00 PM
Surr: BFB	102	37.7-212	%Rec	1	8/19/2022 12:29:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: BRM
Benzene	ND	0.024	mg/Kg	1	8/19/2022 12:29:00 PM
Toluene	ND	0.049	mg/Kg	1	8/19/2022 12:29:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	8/19/2022 12:29:00 PM
Xylenes, Total	ND	0.097	mg/Kg	1	8/19/2022 12:29:00 PM
Surr: 4-Bromofluorobenzene	97.9	70-130	%Rec	1	8/19/2022 12:29:00 PM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	ND	59	mg/Kg	20	8/22/2022 2:50:07 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 range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range

RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Fed 1

Analytical Report Lab Order 2208929

Date Reported: 8/30/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-05 2ft Collection Date: 8/10/2022 10:40:00 AM Received Date: 8/16/2022 7:25:00 AM

Lab ID: 2208929-010	Matrix: SOIL	Rece	eived Date:	8/16/2	2022 7:25:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	8/19/2022 1:05:49 PM
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	8/19/2022 1:05:49 PM
Surr: DNOP	107	21-129	%Rec	1	8/19/2022 1:05:49 PM
EPA METHOD 8015D: GASOLINE RANG	θE				Analyst: BRM
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	8/19/2022 12:49:00 PM
Surr: BFB	103	37.7-212	%Rec	1	8/19/2022 12:49:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: BRM
Benzene	ND	0.025	mg/Kg	1	8/19/2022 12:49:00 PM
Toluene	ND	0.049	mg/Kg	1	8/19/2022 12:49:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	8/19/2022 12:49:00 PM
Xylenes, Total	ND	0.098	mg/Kg	1	8/19/2022 12:49:00 PM
Surr: 4-Bromofluorobenzene	100	70-130	%Rec	1	8/19/2022 12:49:00 PM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	ND	60	mg/Kg	20	8/22/2022 4:16:32 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 range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Fed 1

Analytical Report Lab Order 2208929

Date Reported: 8/30/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-06 0ft Collection Date: 8/10/2022 10:50:00 AM Received Date: 8/16/2022 7:25:00 AM

Lab ID: 2208929-011	Matrix: SOIL	Rece	eived Date:	8/16/2	022 7:25:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	8/19/2022 4:48:44 PM
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	8/19/2022 4:48:44 PM
Surr: DNOP	97.3	21-129	%Rec	1	8/19/2022 4:48:44 PM
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: BRM
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	8/19/2022 1:09:00 PM
Surr: BFB	104	37.7-212	%Rec	1	8/19/2022 1:09:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: BRM
Benzene	ND	0.025	mg/Kg	1	8/19/2022 1:09:00 PM
Toluene	ND	0.050	mg/Kg	1	8/19/2022 1:09:00 PM
Ethylbenzene	ND	0.050	mg/Kg	1	8/19/2022 1:09:00 PM
Xylenes, Total	ND	0.10	mg/Kg	1	8/19/2022 1:09:00 PM
Surr: 4-Bromofluorobenzene	98.5	70-130	%Rec	1	8/19/2022 1:09:00 PM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	ND	60	mg/Kg	20	8/22/2022 4:28:54 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 range due to dilution or matrix interference

- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Fed 1

Analytical Report Lab Order 2208929

Date Reported: 8/30/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-06 2ft Collection Date: 8/10/2022 11:00:00 AM Received Date: 8/16/2022 7:25:00 AM

Lab ID: 2208929-012	Matrix: SOIL	Received Date: 8/16/2022 7:25:00 AM								
Analyses	Result	RL Qu	al Units	DF	Date Analyzed					
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: DGH					
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	8/19/2022 5:02:43 PM					
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	8/19/2022 5:02:43 PM					
Surr: DNOP	95.7	21-129	%Rec	1	8/19/2022 5:02:43 PM					
EPA METHOD 8015D: GASOLINE RANG	θE				Analyst: BRM					
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/19/2022 1:28:00 PM					
Surr: BFB	105	37.7-212	%Rec	1	8/19/2022 1:28:00 PM					
EPA METHOD 8021B: VOLATILES					Analyst: BRM					
Benzene	ND	0.024	mg/Kg	1	8/19/2022 1:28:00 PM					
Toluene	ND	0.048	mg/Kg	1	8/19/2022 1:28:00 PM					
Ethylbenzene	ND	0.048	mg/Kg	1	8/19/2022 1:28:00 PM					
Xylenes, Total	ND	0.096	mg/Kg	1	8/19/2022 1:28:00 PM					
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	8/19/2022 1:28:00 PM					
EPA METHOD 300.0: ANIONS					Analyst: JMT					
Chloride	ND	60	mg/Kg	20	8/22/2022 1:46:52 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 range due to dilution or matrix interference

- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 8/30/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-07 0' **Project:** Tomcat 17 Fed 1 Collection Date: 8/10/2022 11:10:00 AM Lab ID: 2208929-013 Matrix: SOIL Received Date: 8/16/2022 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) ND 14 mg/Kg 1 8/19/2022 5:16:41 PM Motor Oil Range Organics (MRO) 8/19/2022 5:16:41 PM ND 47 mg/Kg 1 Surr: DNOP 86.8 21-129 %Rec 1 8/19/2022 5:16:41 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND 8/19/2022 2:08:00 PM 4.8 mg/Kg 1 Surr: BFB 100 37.7-212 %Rec 1 8/19/2022 2:08:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: BRM Benzene ND 0.024 8/19/2022 2:08:00 PM mg/Kg 1 Toluene ND 0.048 mg/Kg 1 8/19/2022 2:08:00 PM Ethylbenzene ND 0.048 mg/Kg 1 8/19/2022 2:08:00 PM Xylenes, Total ND 0.096 mg/Kg 8/19/2022 2:08:00 PM 1 Surr: 4-Bromofluorobenzene 97.1 70-130 %Rec 1 8/19/2022 2:08:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT mg/Kg Chloride 8/22/2022 2:24:05 PM ND 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 range due to dilution or matrix interference

B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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Date Reported: 8/30/2022

8/22/2022 2:36:29 PM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-07 2' **Project:** Tomcat 17 Fed 1 Collection Date: 8/10/2022 11:20:00 AM Lab ID: 2208929-014 Matrix: SOIL Received Date: 8/16/2022 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)** ND 14 mg/Kg 1 8/19/2022 5:30:33 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 8/19/2022 5:30:33 PM Surr: DNOP 88.6 21-129 %Rec 1 8/19/2022 5:30:33 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: BRM Gasoline Range Organics (GRO) ND 8/19/2022 2:27:00 PM 4.9 mg/Kg 1 Surr: BFB 101 37.7-212 %Rec 1 8/19/2022 2:27:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: BRM Benzene ND 0.024 8/19/2022 2:27:00 PM mg/Kg 1 Toluene ND 0.049 mg/Kg 1 8/19/2022 2:27:00 PM Ethylbenzene ND 0.049 mg/Kg 1 8/19/2022 2:27:00 PM Xylenes, Total ND 0.098 mg/Kg 8/19/2022 2:27:00 PM 1 Surr: 4-Bromofluorobenzene 97.7 70-130 %Rec 1 8/19/2022 2:27:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT

ND

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

Qualifiers:

Chloride

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

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits

mg/Kg

20

60

- P Sample pH Not In Range
- RL Reporting Limit

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H Holding times for preparation or analysis exceeded

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Fed 1

Analytical Report Lab Order 2208929

Date Reported: 8/30/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-08 0' Collection Date: 8/10/2022 11:30:00 AM Received Date: 8/16/2022 7:25:00 AM

Lab ID: 2208929-015	Matrix: SOIL	Received Date: 8/16/2022 7:25:00 AM							
Analyses	Result	RL Qu	al Units	DF	Date Analyzed				
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH				
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	8/19/2022 5:44:29 PM				
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	8/19/2022 5:44:29 PM				
Surr: DNOP	94.0	21-129	%Rec	1	8/19/2022 5:44:29 PM				
EPA METHOD 8015D: GASOLINE RANGI	E				Analyst: BRM				
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	8/19/2022 2:47:00 PM				
Surr: BFB	101	37.7-212	%Rec	1	8/19/2022 2:47:00 PM				
EPA METHOD 8021B: VOLATILES					Analyst: BRM				
Benzene	ND	0.024	mg/Kg	1	8/19/2022 2:47:00 PM				
Toluene	ND	0.048	mg/Kg	1	8/19/2022 2:47:00 PM				
Ethylbenzene	ND	0.048	mg/Kg	1	8/19/2022 2:47:00 PM				
Xylenes, Total	ND	0.096	mg/Kg	1	8/19/2022 2:47:00 PM				
Surr: 4-Bromofluorobenzene	97.7	70-130	%Rec	1	8/19/2022 2:47:00 PM				
EPA METHOD 300.0: ANIONS					Analyst: JMT				
Chloride	340	60	mg/Kg	20	8/22/2022 2:48:53 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

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Lab ID:

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Fed 1

2208929-016

Analytical Report Lab Order 2208929

Date Reported: 8/30/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-08 2' Collection Date: 8/10/2022 11:40:00 AM Received Date: 8/16/2022 7:25:00 AM

Analyses	Result	RL Qua	d Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	8/19/2022 5:58:26 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	8/19/2022 5:58:26 PM
Surr: DNOP	90.7	21-129	%Rec	1	8/19/2022 5:58:26 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: BRM
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	8/19/2022 3:07:00 PM
Surr: BFB	104	37.7-212	%Rec	1	8/19/2022 3:07:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: BRM
Benzene	ND	0.025	mg/Kg	1	8/19/2022 3:07:00 PM
Toluene	ND	0.050	mg/Kg	1	8/19/2022 3:07:00 PM
Ethylbenzene	ND	0.050	mg/Kg	1	8/19/2022 3:07:00 PM
Xylenes, Total	ND	0.099	mg/Kg	1	8/19/2022 3:07:00 PM
Surr: 4-Bromofluorobenzene	97.9	70-130	%Rec	1	8/19/2022 3:07:00 PM
EPA METHOD 300.0: ANIONS					Analyst: JMT
Chloride	400	60	mg/Kg	20	8/22/2022 3:01:19 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

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Client: Project:		ex Resources Services, Inc. Icat 17 Fed 1			
Sample ID:	MB-69643	SampType: mblk	TestCode: EPA Method 30	0.0: Anions	
Client ID:	PBS	Batch ID: 69643	RunNo: 90418		
Prep Date:	8/19/2022	Analysis Date: 8/19/2022	SeqNo: 3228127	Jnits: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride		ND 1.5			
Sample ID:	LCS-69643	SampType: Ics	TestCode: EPA Method 30	0.0: Anions	
Client ID:	LCSS	Batch ID: 69643	RunNo: 90418		
Prep Date:	8/19/2022	Analysis Date: 8/19/2022	SeqNo: 3228128	Jnits: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride		14 1.5 15.00	0 93.0 90	110	
Sample ID:	MB-69658	SampType: mblk	TestCode: EPA Method 30	0.0: Anions	
Client ID:	PBS	Batch ID: 69658	RunNo: 90467		
Prep Date:	8/22/2022	Analysis Date: 8/22/2022	SeqNo: 3230756	Jnits: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride		ND 1.5			
Sample ID:	LCS-69658	SampType: Ics	TestCode: EPA Method 30	0.0: Anions	
Client ID:	LCSS	Batch ID: 69658	RunNo: 90467		
Prep Date:	8/22/2022	Analysis Date: 8/22/2022	SeqNo: 3230757 U	Jnits: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride		14 1.5 15.00	0 92.6 90	110	
Sample ID:	MB-69662	SampType: mblk	TestCode: EPA Method 30	0.0: Anions	
Client ID:	PBS	Batch ID: 69662	RunNo: 90487		
Prep Date:	8/22/2022	Analysis Date: 8/22/2022	SeqNo: 3231258	Jnits: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride		ND 1.5			
Sample ID:	LCS-69662	SampType: Ics	TestCode: EPA Method 30	0.0: Anions	
Client ID:	LCSS	Batch ID: 69662	RunNo: 90487		
Prep Date:	8/22/2022	Analysis Date: 8/22/2022	SeqNo: 3231259 U	Jnits: mg/Kg	
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride		14 1.5 15.00	0 91.1 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

2208929

30-Aug-22

Client: Project:	Vertex R Tomcat 1	esources Ser 7 Fed 1	vices,	Inc.							
Sample ID:	MB-69591	SampTyp	e: ME	BLK	Tes	stCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	PBS	Batch I	D: 69	591	F	RunNo: 90	0431				
Prep Date:	8/18/2022	Analysis Dat	e: 8/	19/2022	S	SeqNo: 32	227097	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	ND	15								
Motor Oil Rang	e Organics (MRO)	ND	50								
Surr: DNOP		9.2		10.00		91.8	21	129			
Sample ID:	LCS-69591	SampTyp	e: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batch I	D: 69	591	F	RunNo: 90	0431				
Prep Date:	8/18/2022	Analysis Dat	e: 8/	19/2022	S	SeqNo: 32	227098	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	54	15	50.00	0	107	64.4	127			
Surr: DNOP		5.0		5.000		99.3	21	129			
Sample ID:	MB-69588	SampTyp	e: ME	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	PBS	Batch I	D: 69	588	F	RunNo: 90)394				
Prep Date:	8/17/2022	Analysis Dat	e: 8/	18/2022	Ş	SeqNo: 32	231792	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	ND	15								
-	e Organics (MRO)	ND	50								
Surr: DNOP		8.7		10.00		87.1	21	129			
Sample ID:	LCS-69588	SampTyp	e: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batch I	D: 69	588	F	RunNo: 90)394				
Prep Date:	8/17/2022	Analysis Dat	e: 8/	18/2022	S	SeqNo: 32	231796	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range (Organics (DRO)	47	15	50.00	0	93.8	64.4	127			
Surr: DNOP		4.6		5.000		91.2	21	129			
Sample ID:	LCS-69815	SampTyp	e: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	LCSS	Batch I	D: 69	815	F	RunNo: 90	0634				
Prep Date:	8/29/2022	Analysis Dat	e: 8/	29/2022	S	SeqNo: 32	238730	Units: %Rec	:		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Surr: DNOP

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 range due to dilution or matrix interference

3.7

B Analyte detected in the associated Method Blank

73.9

21

129

E Estimated value

5.000

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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30-Aug-22

Client:	Vertex I	Resources Serv	vices, Inc.							
Project:	Tomcat	17 Fed 1								
Sample ID:	MB-69815	SampType	e: MBLK	Tes	tCode: EP	A Method	8015M/D: Dies	el Range	Organics	
Client ID:	PBS	Batch ID	69815	R	lunNo: 90	634				
Prep Date:	8/29/2022	Analysis Date	e: 8/29/2022	S	SeqNo: 32	38731	Units: %Rec			
Analyte		Result F	PQL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		8.4	10.00		83.6	21	129			
Sample ID:	LCS-69828	SampType	e: LCS	Tes	tCode: EP	A Method	8015M/D: Dies	el Range	Organics	
Client ID:	LCSS	Batch ID	69828	R	unNo: 90	634				
Prep Date:	8/29/2022	Analysis Date	e: 8/30/2022	S	SeqNo: 32	39246	Units: %Rec			
Analyte		Result F	PQL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		3.9	5.000		77.2	21	129			
Sample ID:	MB-69828	SampType	e: MBLK	Tes	tCode: EP	A Method	8015M/D: Dies	el Range	Organics	
Client ID:	PBS	Batch ID	69828	R	unNo: 90	634				
Prep Date:	8/29/2022	Analysis Date	e: 8/30/2022	S	SeqNo: 32	39248	Units: %Rec			
Analyte		Result F	PQL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		9.2	10.00		91.9	21	129			

Qualifiers:

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- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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30-Aug-22

Client: Vertex R Project: Tomcat 1	esources Services 7 Fed 1	s, Inc.							
Sample ID: mb-69551	SampType: M					8015D: Gaso	line Range	ł	
Client ID: PBS	Batch ID: 69			RunNo: 90					
Prep Date: 8/16/2022	Analysis Date: 8	/18/2022		SeqNo: 32	225364	Units: mg/K	(g		
Analyte	Result PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 5.0 1100	1000		107	37.7	212			
Sample ID: Ics-69551	SampType: L	cs	Tes	stCode: EF	A Method	8015D: Gaso	line Range	1	
Client ID: LCSS	Batch ID: 69	9551	F	RunNo: 90)389				
Prep Date: 8/16/2022	Analysis Date: 8	/18/2022	Ş	SeqNo: 32	225365	Units: mg/K	(g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27 5.0	25.00	0	108	72.3	137			
Surr: BFB	2200	1000		215	37.7	212			S
Sample ID: Ics-69575	SampType: L	cs	Tes	stCode: EF	A Method	8015D: Gaso	line Range	1	
Client ID: LCSS	Batch ID: 69	9575	F	RunNo: 90)452				
Prep Date: 8/17/2022	Analysis Date: 8	/19/2022	5	SeqNo: 32	227560	Units: mg/K	۲g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26 5.0		0	103	72.3	137			
Surr: BFB	2200	1000		222	37.7	212			S
Sample ID: mb-69575	SampType: M	BLK	Tes	stCode: EF	A Method	8015D: Gaso	line Range		
Client ID: PBS	Batch ID: 69	9575	F	RunNo: 90)452				
Prep Date: 8/17/2022	Analysis Date: 8	/19/2022	\$	SeqNo: 32	227561	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			100					
Surr: BFB	1000	1000		102	37.7	212			
Sample ID: 2208929-003ams	SampType: M	S	Tes	stCode: EF	A Method	8015D: Gaso	line Range		
Client ID: BH22-02 Oft	Batch ID: 69	9575	F	RunNo: 9()452				
Prep Date: 8/17/2022	Analysis Date: 8	/19/2022	5	SeqNo: 32	227563	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24 4.9		0	98.6	70	130			
Surr: BFB	2200	976.6		225	37.7	212			S
Sample ID: 2208929-003amsd	SampType: M	SD	Tes	stCode: EF	A Method	8015D: Gaso	line Range		
Client ID: BH22-02 0ft	Batch ID: 69	9575	F	RunNo: 9()452				
Prep Date: 8/17/2022	Analysis Date: 8	/19/2022	S	SeqNo: 32	227564	Units: mg/K	٤g		
Analyte	Result PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank

E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

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30-Aug-22

Client: Project:	Vertex Re Tomcat 17		ervices,								
Sample ID:	2208929-003amsd	SampT	уре: МS	D	Tes	tCode: EF	A Method	8015D: Gaso	line Range	!	
Client ID:	BH22-02 0ft	Batch	n ID: 695	69575 RunNo: 90452							
Prep Date:	8/17/2022	Analysis D)ate: 8/ *	19/2022	S	SeqNo: 32	27564	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	23	4.8	24.22	0	95.8	70	130	3.58	20	
Surr: BFB		2100		969.0		218	37.7	212	0	0	S

Qualifiers:

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- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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30-Aug-22

	Resources Se 17 Fed 1	ervices,	Inc.							
Sample ID: mb-69551	SampT	уре: МВ	BLK	Tes	tCode: EF	A Method	8021B: Volati	les		
Client ID: PBS	Batch	ID: 695	551	F	RunNo: 9(
Prep Date: 8/16/2022	Analysis D	ate: 8/1	18/2022	S	SeqNo: 32	25418	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	0.99		1.000		99.3	70	130			-
Sample ID: LCS-69551	SampT	ype: LC	S	Tes	tCode: EF	A Method	8021B: Volati	les		
Client ID: LCSS	Batch	ID: 695	551	F	RunNo: 9(389				
Prep Date: 8/16/2022	Analysis D	ate: 8/1	18/2022	Ś	SeqNo: 32	25419	Units: mg/K	g		
Analyte	Result	PQL	SPK value		%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	80	120			
Toluene	1.0	0.050	1.000	0	105	80	120			
Ethylbenzene	1.1	0.050	1.000	0	105	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		99.6	70	130			
Sample ID: Ics-69575	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: LCSS	Batch	ID: 695	575	F	RunNo: 90	452				
Prep Date: 8/17/2022	Analysis D	ate: 8/1	19/2022	S	SeqNo: 32	227608	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	82.6	80	120			
Toluene	0.85	0.050	1.000	0	85.3	80	120			
Ethylbenzene	0.86	0.050	1.000	0	86.0	80	120			
Xylenes, Total	2.6	0.10	3.000	0	85.5	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		99.1	70	130			
Sample ID: mb-69575	SampT	ype: MB	BLK	Tes	tCode: EF	A Method	8021B: Volati	les		
Client ID: PBS	Batch	ID: 695	575	F	RunNo: 90	452				
Prep Date: 8/17/2022	Analysis D	ate: 8/1	19/2022	S	SeqNo: 32	27609	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	0.99		1.000		99.3	70	130			

- * 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 range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

2208929

30-Aug-22

Client: Project:	Vertex Re Tomcat 17		ervices,	Inc.							
Sample ID: 220892	9-004ams	Samp	Гуре: МS	;	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: BH22-0	02 2ft	Batc	h ID: 695	575	F	RunNo: 9(0452				
Prep Date: 8/17/2	2022	Analysis [Date: 8/ *	19/2022	S	SeqNo: 32	227612	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.83	0.024	0.9681	0	85.7	68.8	120			
Toluene		0.85	0.048	0.9681	0	88.3	73.6	124			
Ethylbenzene		0.89	0.048	0.9681	0	91.8	72.7	129			
Xylenes, Total		2.6	0.097	2.904	0	91.0	75.7	126			
Surr: 4-Bromofluorobe	enzene	0.97		0.9681		99.7	70	130			
Sample ID: 220892	9-004amsd	Samp	Гуре: МS	D	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: BH22-0	02 2ft	Batc	h ID: 695	575	F	RunNo: 9(0452				
Prep Date: 8/17/2	2022	Analysis [Date: 8/ *	19/2022	S	SeqNo: 32	227613	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.81	0.024	0.9579	0	84.1	68.8	120	2.98	20	
Toluene		0.83	0.048	0.9579	0	86.8	73.6	124	2.80	20	
Ethylbenzene		0.86	0.048	0.9579	0	89.8	72.7	129	3.23	20	
Xylenes, Total		2.6	0.096	2.874	0	89.5	75.7	126	2.69	20	
Surr: 4-Bromofluorobe	nzene	0.95		0.9579		99.3	70	130	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 range due to dilution or matrix interference S
- Analyte detected in the associated Method Blank В
- Е Estimated value
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- Reporting Limit RL

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WO#: 2208929

30-Aug-22

HALL ENVIE ANAL	2/2024 2:24:38 PM Ronmental YSIS Ratory	Alb TEL: 505-345-397:	Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com					Page 15 Check List
Client Name:	Vertex Resources Services, Inc.	Work Order Number	: 220	3929			RcptNo	x: 1
Received By:	Juan Rojas	8/16/2022 7:25:00 AM			Hear	5.G		
Completed By:	Cheyenne Cason	8/16/2022 9:31:33 AM			Cheel	1		
Reviewed By:	MOG 8.	16-22						
Chain of Cus								
1. Is Chain of C	ustody complete?		Yes		No		Not Present	
2. How was the	sample delivered?		Cou	ier				
Log In								
3. Was an atten	npt made to cool the samp	bles?	Yes		No		NA 🗌	
4. Were all sam	ples received at a tempera	ature of >0° C to 6.0°C	Yes	~	No			
5. Sample(s) in	proper container(s)?		Yes		No			
6. Sufficient sam	ple volume for indicated t	est(s)?	Yes		No			
7. Are samples (except VOA and ONG) pr	operly preserved?	Yes		No			
8. Was preserva	tive added to bottles?		Yes		No	~	NA 🗌	
9. Received at le	ast 1 vial with headspace	<1/4" for AQ VOA?	Yes		No		NA 🔽	
10. Were any sar	nple containers received t	proken?	Yes		No	~	# of preserved	
	ork match bottle labels?		Yes	~	No		bottles checked for pH:	
	ancies on chain of custody correctly identified on Cha		Yes	~	No		(<2 o Adjusted?	r >12 unless noted)
	t analyses were requested							/
14. Were all holdi	ng times able to be met?						Cheeked by:	Jn 8/16/2
	ustomer for authorization.						/	
	ing (if applicable)			_		_		
F 100 5	tified of all discrepancies	with this order?	Yes		No		NA 🗹	
	Notified:	Date:		0.70				
By Who		Via:	eMa	uil 🗌 F	Phone	Fax	In Person	
Regard Client II	ing:			_		_		
16. Additional re								
17. <u>Cooler Infor</u> Cooler No	Temp °C Condition		eal D	ate	Signed E	By		
1	3.6 Good	Not Present						

.

Page 1 of 1

Received by OCD: 3/12		24:38 PM															Pa	ge 159	
HALL ENVIRONMENTA ANALYSIS LABORATOF www.hallenvironmental.com kins NE - Albuquerque, NM 87109		PO₄, SO₄	s (AC	Metala r, UO AC) DA) DV-ime	RCRA 8 8260 (VG 8260 (VG													111	190 alounary I devive sheps 7:25 Direct Bin Devon
HALL ANAI www.ha	Tel. 505-345-3975		50 / DR4 58082 504.1)	MTBE 5D(GF sticide 5 bod 5											-		Remarks:	- CC: Ken	+ Diract
Fed 1	120-9/820	Spu	De Rodvigue	3.6.0-3.6 (°C)	HEAL NO.	100	202	<u></u>	Cort	500	ast	667	008	600	010	011	Date	Date Time	er 8/16/227.25
Turn-Around Time: K Standard Rush Project Name:	Project #: Z/E-O	Project Manager:	Sampler: Terriculo On Ice: Nes D	# of Coolers: 1 Cooler Temp(including CF):	Container Preservative Type and # Type		-		-									Received by: Via:	HOUN
	Loi	1000	Samplei On Ice:	# of Cool		oft worrya	107	120	154	004	Lit	Õ			122	257	^B	Receiv	7
Client: DONDA Shorty (URV4RX) Mailing Address: On Filo		Level 4 (Full Validation)	□ Az Compliance □ Other		Sample Name	10-12HB	RH12-01	CHIL-OI	RHII-07	RH72-03	RH22-03	10-2248	RHIL-09	CO-1748	CO-7749	BH22-06		ed by:	ann
Client: DONONG		email or Fax#: QA/QC Package: □ Standard		EDD (Type)	Time Matrix	9:10 Soil	9:20 1	05:20	0120	9:50	10:00	10:10	10:20	10:50	10,40	00:11	Time: Relinquished by:	Time: Relinquished by:	ige allu
Client: O	Phone #:	email or Fax#: QA/QC Package			Date	8/10	_	-	-		_	-			-	-	Date:	Date:	MER 1900

÷ R 2 IDC CIIII 3 -----

	Chain	Chain-of-Custody Record	I URIT-Around LIME: S	hog-S-Day				ADA TTO	O O NI NA CAL	
Client:		Devon/ VIII & X	☐ Standard	Rush					ANAL ENVIKONMENTAL	.>
								C.L.C	tal com	-
Mailir	Mailing Address:	s: On Fill	Tomat 17	17 Fed 1	4901	4901 Hawkins NE		nduerai	Albuquerque, NM 87109	
			Project #:		Tel	Tel 505-345-3975		202 Xe	Fax 505-345-4107	
Phone #:	e #:		215-02816-027	16-027			Anal	Analysis Request	guest	
email	email or Fax#:		Project Manager:		-		*O	-	(tr	
aa/a	QA/QC Package:	:	Kent Sta	stanings	NN / 02		PO₄, S		rəsdA\tr	38 PM
Accre	Accreditation:	│ Az Compliance □ Other	Sampler: CD	SN	aa / c	(1.40		(\		
	□ EDD (Type)		olers:	2	в	g p	slet	1.1		
	-		Cooler Temp(including CF):	()) 9.5=0-9°E)ası	oqtə	aM 8	-		
Date	Time	Matrix Sample Name	Container Preservative Type and # Type	HEAL Nous	(XETEX) 08:H9T 99 1808	M) 803 M) 803	з АЯЭЯ	V) 0928 2) 0728	D letoT	
OUR	01110	Soi) BH25-07 0'	405 ICF	00 013	1			1.000	1.00	
-	11:20	-	4	014	1 1		-			
	11:30	BHZZ-08 0'		CIS	///					
	11:40	8422-08 21	1 1	016	1		/			
							>			
						_				
-										
Date:	Time:	Relinquished by:	Received by: Via:	Date Time	Remarks: CC	JC: Kent	CC: Kent	Dates		
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December 16, 2022

Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL: (505) 506-0040 FAX Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

RE: Tomcat 17 Federal 001

OrderNo.: 2212446

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 12 sample(s) on 12/8/2022 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

Date Reported: 12/16/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-09 0' **Project:** Tomcat 17 Federal 001 Collection Date: 12/6/2022 9:20:00 AM Lab ID: 2212446-001 Matrix: SOIL Received Date: 12/8/2022 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/12/2022 1:02:20 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 12/12/2022 1:02:20 PM 21-129 Surr: DNOP 117 %Rec 1 12/12/2022 1:02:20 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 12/12/2022 7:46:30 PM 4.9 mg/Kg 1 Surr: BFB 90.3 37.7-212 %Rec 1 12/12/2022 7:46:30 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 0.025 mg/Kg 12/12/2022 7:46:30 PM 1 Toluene ND 0.049 mg/Kg 1 12/12/2022 7:46:30 PM Ethylbenzene ND 0.049 mg/Kg 1 12/12/2022 7:46:30 PM Xylenes, Total ND 0.099 mg/Kg 1 12/12/2022 7:46:30 PM Surr: 4-Bromofluorobenzene 88.9 70-130 %Rec 1 12/12/2022 7:46:30 PM Analyst: JTT **EPA METHOD 300.0: ANIONS** Chloride 92 60 12/14/2022 4:16:42 PM ma/Ka 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

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

Е Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

Reporting Limit RL

Page 1 of 19

Surr: 4-Bromofluorobenzene

Surr: Dibromofluoromethane

Gasoline Range Organics (GRO)

EPA METHOD 8015D MOD: GASOLINE RANGE

Surr: Toluene-d8

Surr: BFB

Project:

Lab ID:

Analyses

Analytical Report Lab Order 2212446

Date Reported: 12/16/2022

12/9/2022 5:51:57 PM

Analyst: RAA

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-09 2' Tomcat 17 Federal 001 Collection Date: 12/6/2022 9:25:00 AM 2212446-002 Matrix: SOIL Received Date: 12/8/2022 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/12/2022 8:18:25 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/12/2022 8:18:25 PM Surr: DNOP 107 21-129 %Rec 1 12/12/2022 8:18:25 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 76 60 12/14/2022 4:29:06 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: RAA Benzene ND 0.024 mg/Kg 12/9/2022 5:51:57 PM 1 Toluene ND 0.048 mg/Kg 12/9/2022 5:51:57 PM 1 Ethvlbenzene ND 0.048 mg/Kg 1 12/9/2022 5:51:57 PM Xylenes, Total ND 0.097 mg/Kg 1 12/9/2022 5:51:57 PM Surr: 1.2-Dichloroethane-d4 91.4 70-130 %Rec 1 12/9/2022 5:51:57 PM

97.8

101

110

ND

90.9

70-130

70-130

70-130

70-130

48

%Rec

%Rec

%Rec

mg/Kg

%Rec

1

1

1

1

1

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
- 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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Date Reported: 12/16/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-10 0' **Project:** Tomcat 17 Federal 001 Collection Date: 12/6/2022 9:30:00 AM Lab ID: 2212446-003 Matrix: SOIL Received Date: 12/8/2022 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/12/2022 8:31:46 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/12/2022 8:31:46 PM Surr: DNOP 104 21-129 %Rec 1 12/12/2022 8:31:46 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 12/14/2022 4:41:31 PM 96 60 mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: RAA Benzene ND 0.025 mg/Kg 12/9/2022 6:18:59 PM 1 Toluene ND 0.049 mg/Kg 12/9/2022 6:18:59 PM 1 Ethvlbenzene ND 0.049 mg/Kg 1 12/9/2022 6:18:59 PM Xylenes, Total ND 0.098 mg/Kg 1 12/9/2022 6:18:59 PM Surr: 1.2-Dichloroethane-d4 95.5 70-130 %Rec 1 12/9/2022 6:18:59 PM Surr: 4-Bromofluorobenzene 98.8 70-130 %Rec 1 12/9/2022 6:18:59 PM Surr: Dibromofluoromethane 70-130 %Rec 1 12/9/2022 6:18:59 PM 112 Surr: Toluene-d8 107 70-130 %Rec 1 12/9/2022 6:18:59 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 12/9/2022 6:18:59 PM 49 mg/Kg 1

88.9

70-130

%Rec

1

12/9/2022 6:18:59 PM

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

Qualifiers:

Surr: BFB

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
- 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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Surr: Toluene-d8

Surr: BFB

Gasoline Range Organics (GRO)

EPA METHOD 8015D MOD: GASOLINE RANGE

Analytical Report Lab Order 2212446

Date Reported: 12/16/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-10 2' **Project:** Tomcat 17 Federal 001 Collection Date: 12/6/2022 9:35:00 AM Lab ID: 2212446-004 Matrix: SOIL Received Date: 12/8/2022 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/12/2022 8:45:01 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/12/2022 8:45:01 PM Surr: DNOP 107 21-129 %Rec 1 12/12/2022 8:45:01 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 90 12/14/2022 4:53:55 PM 60 mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: RAA Benzene ND 0.025 mg/Kg 12/9/2022 6:45:59 PM 1 Toluene ND 0.050 mg/Kg 12/9/2022 6:45:59 PM 1 Ethvlbenzene ND 0.050 mg/Kg 1 12/9/2022 6:45:59 PM Xylenes, Total ND 0.10 mg/Kg 1 12/9/2022 6:45:59 PM Surr: 1.2-Dichloroethane-d4 94.3 70-130 %Rec 1 12/9/2022 6:45:59 PM Surr: 4-Bromofluorobenzene 98.5 70-130 %Rec 1 12/9/2022 6:45:59 PM Surr: Dibromofluoromethane 106 70-130 %Rec 1 12/9/2022 6:45:59 PM

106

ND

93.2

70-130

70-130

5.0

%Rec

mg/Kg

%Rec

1

1

1

12/9/2022 6:45:59 PM

12/9/2022 6:45:59 PM

12/9/2022 6:45:59 PM

Analyst: RAA

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 POL
- Practical Quanitative Limit S

% 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

RL Reporting Limit Page 4 of 19

Date Reported: 12/16/2022

12/9/2022 7:12:59 PM

12/9/2022 7:12:59 PM

12/9/2022 7:12:59 PM

12/9/2022 7:12:59 PM

Analyst: RAA

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-11 0' **Project:** Tomcat 17 Federal 001 Collection Date: 12/6/2022 9:40:00 AM Lab ID: 2212446-005 Matrix: SOIL Received Date: 12/8/2022 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/12/2022 9:11:31 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/12/2022 9:11:31 PM Surr: DNOP 103 21-129 %Rec 1 12/12/2022 9:11:31 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride ND 60 12/14/2022 5:06:19 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: RAA Benzene ND 0.025 mg/Kg 12/9/2022 7:12:59 PM 1 Toluene ND 0.049 mg/Kg 12/9/2022 7:12:59 PM 1 Ethvlbenzene ND 0.049 mg/Kg 1 12/9/2022 7:12:59 PM Xylenes, Total ND 0.099 mg/Kg 1 12/9/2022 7:12:59 PM Surr: 1.2-Dichloroethane-d4 94.6 70-130 %Rec 1 12/9/2022 7:12:59 PM Surr: A-Bromofluorobenzene 102 70-130 %Rec 1 12/9/2022 7:12:59 PM

91.9

70-130

70-130

70-130

49

%Rec

%Rec

mg/Kg

%Rec

1

1

1

1

Sull: 4-Biomoliuolopenzene	102	
Surr: Dibromofluoromethane	112	
Surr: Toluene-d8	104	
EPA METHOD 8015D MOD: GASOLINE RANGE		
Gasoline Range Organics (GRO)	ND	

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

Qualifiers:

Surr: BFB

- 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 POL
- Practical Quanitative Limit S
- % 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

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Lab ID:

Analyses

Analytical Report Lab Order 2212446

Date Reported: 12/16/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-11 2' **CLIENT:** Vertex Resources Services, Inc. Tomcat 17 Federal 001 Collection Date: 12/6/2022 9:45:00 AM 2212446-006 Matrix: SOIL Received Date: 12/8/2022 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) 12/12/2022 9:24:47 PM ND 14 ma/Ka 1 M M -M A

Diesei Range Organics (DRO)	ND	14	mg/Kg	- T	12/12/2022 9:24:47 PIVI
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/12/2022 9:24:47 PM
Surr: DNOP	111	21-129	%Rec	1	12/12/2022 9:24:47 PM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	75	60	mg/Kg	20	12/14/2022 5:43:32 PM
EPA METHOD 8260B: VOLATILES SHORT LIST					Analyst: RAA
Benzene	ND	0.025	mg/Kg	1	12/9/2022 7:39:59 PM
Toluene	ND	0.049	mg/Kg	1	12/9/2022 7:39:59 PM
Ethylbenzene	ND	0.049	mg/Kg	1	12/9/2022 7:39:59 PM
Xylenes, Total	ND	0.098	mg/Kg	1	12/9/2022 7:39:59 PM
Surr: 1,2-Dichloroethane-d4	89.3	70-130	%Rec	1	12/9/2022 7:39:59 PM
Surr: 4-Bromofluorobenzene	98.6	70-130	%Rec	1	12/9/2022 7:39:59 PM
Surr: Dibromofluoromethane	106	70-130	%Rec	1	12/9/2022 7:39:59 PM
Surr: Toluene-d8	105	70-130	%Rec	1	12/9/2022 7:39:59 PM
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/9/2022 7:39:59 PM
Surr: BFB	89.2	70-130	%Rec	1	12/9/2022 7:39:59 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 S

% 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
- RL Reporting Limit

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2212446

Date Reported: 12/16/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-12 0' Collection Date: 12/6/2022 10:05:00 AM Received Date: 12/8/2022 7:20:00 AM

Lab ID: 2212446-007	Matrix: SOIL	Receiv	ed Date:	12/8/2	022 7:20:00 AM
Analyses	Result	RL Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	12/12/2022 9:38:08 PM
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	12/12/2022 9:38:08 PM
Surr: DNOP	107	21-129	%Rec	1	12/12/2022 9:38:08 PM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	680	60	mg/Kg	20	12/14/2022 6:45:34 PM
EPA METHOD 8260B: VOLATILES S	HORT LIST				Analyst: RAA
Benzene	ND	0.024	mg/Kg	1	12/9/2022 8:06:58 PM
Toluene	ND	0.048	mg/Kg	1	12/9/2022 8:06:58 PM
Ethylbenzene	ND	0.048	mg/Kg	1	12/9/2022 8:06:58 PM
Xylenes, Total	ND	0.097	mg/Kg	1	12/9/2022 8:06:58 PM
Surr: 1,2-Dichloroethane-d4	96.7	70-130	%Rec	1	12/9/2022 8:06:58 PM
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	12/9/2022 8:06:58 PM
Surr: Dibromofluoromethane	118	70-130	%Rec	1	12/9/2022 8:06:58 PM
Surr: Toluene-d8	108	70-130	%Rec	1	12/9/2022 8:06:58 PM
EPA METHOD 8015D MOD: GASOLI	NE RANGE				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/9/2022 8:06:58 PM
Surr: BFB	94.4	70-130	%Rec	1	12/9/2022 8:06:58 PM

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level. 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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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2212446

Date Reported: 12/16/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-12 2' Collection Date: 12/6/2022 10:10:00 AM Received Date: 12/8/2022 7:20:00 AM

Lab ID: 2212446-008	Matrix: SOIL	Recei	ved Date:	12/8/2	022 7:20:00 AM
Analyses	Result	RL Qua	l Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	12/12/2022 9:51:30 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/12/2022 9:51:30 PM
Surr: DNOP	0	21-129 S	%Rec	1	12/12/2022 9:51:30 PM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	ND	60	mg/Kg	20	12/14/2022 6:57:58 PM
EPA METHOD 8260B: VOLATILES S	HORT LIST				Analyst: RAA
Benzene	ND	0.025	mg/Kg	1	12/9/2022 8:33:58 PM
Toluene	ND	0.050	mg/Kg	1	12/9/2022 8:33:58 PM
Ethylbenzene	ND	0.050	mg/Kg	1	12/9/2022 8:33:58 PM
Xylenes, Total	ND	0.099	mg/Kg	1	12/9/2022 8:33:58 PM
Surr: 1,2-Dichloroethane-d4	99.3	70-130	%Rec	1	12/9/2022 8:33:58 PM
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	12/9/2022 8:33:58 PM
Surr: Dibromofluoromethane	116	70-130	%Rec	1	12/9/2022 8:33:58 PM
Surr: Toluene-d8	104	70-130	%Rec	1	12/9/2022 8:33:58 PM
EPA METHOD 8015D MOD: GASOLI	NE RANGE				Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/9/2022 8:33:58 PM
Surr: BFB	92.7	70-130	%Rec	1	12/9/2022 8:33:58 PM

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level. 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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Date Reported: 12/16/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-13 0' **Project:** Tomcat 17 Federal 001 Collection Date: 12/6/2022 10:25:00 AM Lab ID: 2212446-009 Matrix: SOIL Received Date: 12/8/2022 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH **Diesel Range Organics (DRO)** ND 15 mg/Kg 1 12/12/2022 10:04:48 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/12/2022 10:04:48 PM Surr: DNOP 106 21-129 %Rec 1 12/12/2022 10:04:48 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride 12/14/2022 7:10:23 PM 61 60 mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: RAA Benzene ND 0.024 mg/Kg 12/9/2022 9:00:58 PM 1 Toluene ND 0.049 mg/Kg 12/9/2022 9:00:58 PM 1 Ethvlbenzene ND 0.049 mg/Kg 1 12/9/2022 9:00:58 PM Xylenes, Total ND 0.097 mg/Kg 1 12/9/2022 9:00:58 PM Surr: 1.2-Dichloroethane-d4 88.8 70-130 %Rec 1 12/9/2022 9:00:58 PM Surr: 4-Bromofluorobenzene 97.5 70-130 %Rec 1 12/9/2022 9:00:58 PM Surr: Dibromofluoromethane 70-130 %Rec 1 12/9/2022 9:00:58 PM 112 Surr: Toluene-d8 105 70-130 %Rec 1 12/9/2022 9:00:58 PM

EPA METHOD 8015D MOD: GASOLINE RANGE Analyst: RAA Gasoline Range Organics (GRO) ND 12/9/2022 9:00:58 PM 49 mg/Kg 1 Surr: BFB 90.6 70-130 %Rec 1 12/9/2022 9:00:58 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level 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

Е Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 9 of 19

Released to Imaging: 3/14/2024 2:33:57 PM

Date Reported: 12/16/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-13 2' **Project:** Tomcat 17 Federal 001 Collection Date: 12/6/2022 10:30:00 AM Lab ID: 2212446-010 Matrix: SOIL Received Date: 12/8/2022 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/12/2022 10:17:59 PM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 12/12/2022 10:17:59 PM Surr: DNOP 109 21-129 %Rec 1 12/12/2022 10:17:59 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride ND 12/14/2022 7:22:47 PM 60 mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: RAA Benzene ND 0.025 mg/Kg 12/12/2022 3:30:46 PM 1 Toluene ND 0.050 mg/Kg 12/12/2022 3:30:46 PM 1 Ethvlbenzene ND 0.050 mg/Kg 1 12/12/2022 3:30:46 PM Xylenes, Total ND 0.099 mg/Kg 1 12/12/2022 3:30:46 PM Surr: 1.2-Dichloroethane-d4 98.5 70-130 %Rec 1 12/12/2022 3:30:46 PM Surr: 4-Bromofluorobenzene 97.3 70-130 %Rec 1 12/12/2022 3:30:46 PM Surr: Dibromofluoromethane 108 70-130 %Rec 1 12/12/2022 3:30:46 PM Surr: Toluene-d8 106 70-130 %Rec 1 12/12/2022 3:30:46 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 12/12/2022 3:30:46 PM 5.0 mg/Kg 1 Surr: BFB 96.1 70-130 %Rec 1 12/12/2022 3:30:46 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

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

Е Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 10 of 19

Date Reported: 12/16/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-14 0' **Project:** Tomcat 17 Federal 001 Collection Date: 12/6/2022 2:00:00 PM Lab ID: 2212446-011 Matrix: SOIL Received Date: 12/8/2022 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/12/2022 10:31:13 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 12/12/2022 10:31:13 PM Surr: DNOP 109 21-129 %Rec 1 12/12/2022 10:31:13 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride ND 12/14/2022 7:35:11 PM 60 mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: RAA Benzene ND 0.024 mg/Kg 12/12/2022 3:57:54 PM 1 Toluene ND 0.049 mg/Kg 12/12/2022 3:57:54 PM 1 Ethvlbenzene ND 0.049 mg/Kg 1 12/12/2022 3:57:54 PM Xylenes, Total ND 0.097 mg/Kg 1 12/12/2022 3:57:54 PM Surr: 1.2-Dichloroethane-d4 88.9 70-130 %Rec 1 12/12/2022 3:57:54 PM Surr: 4-Bromofluorobenzene 97.9 70-130 %Rec 1 12/12/2022 3:57:54 PM Surr: Dibromofluoromethane 70-130 %Rec 1 12/12/2022 3:57:54 PM 118 12/12/2022 3:57:54 PM

Surr: Toluene-d8	110	70-130	%Rec	1	12/12/2022 3:57:54 PM
EPA METHOD 8015D MOD: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/12/2022 3:57:54 PM
Surr: BFB	95.3	70-130	%Rec	1	12/12/2022 3:57:54 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
- POL Practical Quanitative Limit

S % 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

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Date Reported: 12/16/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-14 2' **Project:** Tomcat 17 Federal 001 Collection Date: 12/6/2022 2:05:00 PM Lab ID: 2212446-012 Matrix: SOIL Received Date: 12/8/2022 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/12/2022 10:44:30 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 12/12/2022 10:44:30 PM Surr: DNOP 109 21-129 %Rec 1 12/12/2022 10:44:30 PM **EPA METHOD 300.0: ANIONS** Analyst: JTT Chloride ND 60 12/14/2022 7:47:35 PM mg/Kg 20 **EPA METHOD 8260B: VOLATILES SHORT LIST** Analyst: RAA Benzene ND 0.024 mg/Kg 12/12/2022 4:24:58 PM 1 Toluene ND 0.049 mg/Kg 12/12/2022 4:24:58 PM 1 Ethvlbenzene ND 0.049 mg/Kg 1 12/12/2022 4:24:58 PM Xylenes, Total ND 0.097 mg/Kg 1 12/12/2022 4:24:58 PM Surr: 1.2-Dichloroethane-d4 96.3 70-130 %Rec 1 12/12/2022 4:24:58 PM Surr: 4-Bromofluorobenzene 96.7 70-130 %Rec 1 12/12/2022 4:24:58 PM Surr: Dibromofluoromethane 70-130 %Rec 1 12/12/2022 4:24:58 PM 113 Surr: Toluene-d8 104 70-130 %Rec 1 12/12/2022 4:24:58 PM **EPA METHOD 8015D MOD: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 12/12/2022 4:24:58 PM 49 mg/Kg 1 Surr: BFB 89.5 70-130 %Rec 1 12/12/2022 4:24:58 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. D 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

Е Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit Page 12 of 19

Client: Project:		Resources Se t 17 Federal (, Inc.							
Sample ID:	MB-72081	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	300.0: Anion	s		
Client ID:	PBS	Batch	ID: 72	081	F	tunNo: 9	3288				
Prep Date:	12/14/2022	Analysis D	ate: 12	2/14/2022	S	eqNo: 3	362629	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID:	LCS-72081	SampT	ype: LC	S	Tes	tCode: El	PA Method	300.0: Anion	s		
Client ID:	LCSS	Batch	ID: 72	081	F	tunNo: 9	3288				
Prep Date:	12/14/2022	Analysis D	ate: 12	2/14/2022	S	eqNo: 3	362630	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		15	1.5	15.00	0	96.9	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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16-Dec-22

Client: Vertex F	Resources Services, Inc.		
Project: Tomcat	17 Federal 001		
Sample ID: LCS-71996	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Orga	nics
Client ID: LCSS	Batch ID: 71996	RunNo: 93225	
Prep Date: 12/9/2022	Analysis Date: 12/12/2022	SeqNo: 3360006 Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPD	Limit Qual
Surr: DNOP	6.2 5.000	124 21 129	
Sample ID: MB-71996	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Orga	nics
Client ID: PBS	Batch ID: 71996	RunNo: 93225	
Prep Date: 12/9/2022	Analysis Date: 12/12/2022	SeqNo: 3360008 Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPD	Limit Qual
Surr: DNOP	12 10.00	122 21 129	
Sample ID: LCS-71999	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Orga	nics
Client ID: LCSS	Batch ID: 71999	RunNo: 93225	
Prep Date: 12/9/2022	Analysis Date: 12/12/2022	SeqNo: 3360523 Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPD	Limit Qual
Diesel Range Organics (DRO)	47 15 50.00	0 95.0 64.4 127	
Surr: DNOP	5.9 5.000	119 21 129	
Sample ID: MB-71999	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Orga	nics
Client ID: PBS	Batch ID: 71999	RunNo: 93225	nics
			nics
Client ID: PBS Prep Date: 12/9/2022 Analyte	Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value	RunNo: 93225 SeqNo: 3360524 Units: mg/Kg	nics Limit Qual
Client ID: PBS Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO)	Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value ND 15	RunNo: 93225 SeqNo: 3360524 Units: mg/Kg	
Client ID: PBS Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO)	Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value	RunNo: 93225 SeqNo: 3360524 Units: mg/Kg	
Client ID: PBS Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)	Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value ND 15 ND 50 11 10.00	RunNo: 93225 SeqNo: 3360524 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPD	Limit Qual
Client ID: PBS Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP	Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value ND 15 ND 50 11 10.00	RunNo: 93225 SeqNo: 3360524 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPD 112 21 129 129	Limit Qual
Client ID: PBS Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID: 2212446-001AMS	Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value ND 15 ND 50 11 10.00 SampType: MS	RunNo: 93225 SeqNo: 3360524 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPD 112 21 129 TestCode: EPA Method 8015M/D: Diesel Range Orga	Limit Qual
Client ID: PBS Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID: 2212446-001AMS Client ID: BH22-09 0'	Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value ND 15 ND 50 11 10.00 SampType: MS Batch ID: 71999 Analysis Date: 12/12/2022	RunNo: 93225 SeqNo: 3360524 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPD 112 21 129 129 129 120 120 TestCode: EPA Method 8015M/D: Diesel Range Orga RunNo: 93225 SeqNo: 3360525 Units: mg/Kg	Limit Qual
Client ID: PBS Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID: 2212446-001AMS Client ID: BH22-09 0' Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO)	Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value ND 15 ND 50 11 10.00 SampType: MS Batch ID: 71999 Analysis Date: 12/12/2022	RunNo: 93225 SeqNo: 3360524 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPD 112 21 129 129 129 120	Limit Qual
Client ID: PBS Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID: 2212446-001AMS Client ID: BH22-09 0' Prep Date: 12/9/2022 Analyte	Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value ND 15 ND 50 11 10.00 SampType: MS Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value	RunNo: 93225 SeqNo: 3360524 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPD 112 21 129 129 129 120	Limit Qual
Client ID: PBS Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID: 2212446-001AMS Client ID: BH22-09 0' Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO)	Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value ND 15 ND 50 11 10.00 SampType: MS Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value 48 15 49.80 6.4 4.980	RunNo: 93225 SeqNo: 3360524 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPD 112 21 129 129 129 120	Limit Qual
Client ID: PBS Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID: 2212446-001AMS Client ID: BH22-09 0' Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO) Surr: DNOP	Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value ND 15 ND 50 11 10.00 SampType: MS Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value 48 15 49.80 6.4 4.980	RunNo: 93225 SeqNo: 3360524 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPD 112 21 129 121	Limit Qual
Client ID: PBS Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID: 2212446-001AMS Client ID: BH22-09 0' Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO) Surr: DNOP Sample ID: 2212446-001AMS	Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value ND 15 ND 50 11 10.00 SampType: MS Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value 48 15 49.80 6.4 4.980 SampType: MSD	RunNo: 93225 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPD 112 21 129 Image: Second S	Limit Qual
Client ID: PBS Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP Sample ID: 2212446-001AMS Client ID: BH22-09 0' Prep Date: 12/9/2022 Analyte Diesel Range Organics (DRO) Surr: DNOP Sample ID: 2212446-001AMS Client ID: BH22-09 0'	Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value ND 15 ND 50 11 10.00 SampType: MS Batch ID: 71999 Analysis Date: 12/12/2022 Result PQL SPK value 48 15 49.80 6.4 4.980 SD SampType: MSD Batch ID: 71999 Analysis Date: 12/12/2022	RunNo: 93225 SeqNo: 3360524 Units: mg/Kg SPK Ref Val %REC LowLimit HighLimit %RPD RPD 112 21 129 129 129 120	Limit 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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Client: Project:	Vertex Res Tomcat 17			, Inc.							
Sample ID: 221244	46-001AMSD	SampTy	ype: M\$	SD	Tes	tCode: El	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID: BH22-	09 0'	Batch	ID: 71	999	F	RunNo: 9	3225				
Prep Date: 12/9/2	2022	Analysis Da	ate: 12	2/12/2022	S	SeqNo: 3	360526	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		5.4		4.241		128	21	129	0	0	
Sample ID: MB-71	989	SampTy	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Client ID: PBS		Batch	ID: 71	989 RunNo: 93210							
Prep Date: 12/9/2	2022	Analysis Da	ate: 12	2/12/2022	S	SeqNo: 3	361735	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics		ND	15								
Motor Oil Range Organi	cs (MRO)	ND	50								
Surr: DNOP		11		10.00		108	21	129			
Sample ID: LCS-7	1989	SampTy	ype: LC	S	Tes	tCode: El	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID: LCSS		Batch	ID: 71	989	F	RunNo: 9	3210				
Prep Date: 12/9/2	2022	Analysis Da	ate: 12	2/12/2022	S	SeqNo: 3	361736	Units: mg/k	٤g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics	(DRO)	47	15	50.00	0	94.3	64.4	127			
Surr: DNOP		5.0		5.000		101	21	129			

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: Vertex	Resources Services, Inc.			
Project: Tomcat	17 Federal 001			
Sample ID: Ics-71958	SampType: LCS	TestCode: EPA Method	8015D: Gasoline Range)
Client ID: LCSS	Batch ID: 71958	RunNo: 93221		
Prep Date: 12/8/2022	Analysis Date: 12/12/2022	SeqNo: 3359719	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Gasoline Range Organics (GRO)	25 5.0 25.00	0 99.8 72.3	137	
Surr: BFB	1900 1000	186 37.7	212	
Sample ID: Ics-71979	SampType: LCS	TestCode: EPA Method	8015D: Gasoline Range	•
Client ID: LCSS	Batch ID: 71979	RunNo: 93221		
Prep Date: 12/9/2022	Analysis Date: 12/12/2022	SeqNo: 3359720	Units: %Rec	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Surr: BFB	1900 1000	194 37.7	212	
Sample ID: mb-71958	SampType: MBLK	TestCode: EPA Method	8015D: Gasoline Range)
Client ID: PBS	Batch ID: 71958	RunNo: 93221		
Prep Date: 12/8/2022	Analysis Date: 12/12/2022	SeqNo: 3359721	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Gasoline Range Organics (GRO)	ND 5.0			
Surr: BFB	880 1000	88.1 37.7	212	
Sample ID: mb-71979	SampType: MBLK	TestCode: EPA Method	8015D: Gasoline Range)
Client ID: PBS	Batch ID: 71979	RunNo: 93221		
Client ID: PBS Prep Date: 12/9/2022	Batch ID: 71979 Analysis Date: 12/12/2022	RunNo: 93221 SeqNo: 3359722	Units: %Rec	
	Analysis Date: 12/12/2022			RPDLimit Qual

Qualifiers:

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

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	esources Services, 17 Federal 001	Inc.							
Sample ID: LCS-71958	SampType: LC	S	Tes	tCode: EF	PA Method	8021B: Volati	iles		
Client ID: LCSS	Batch ID: 719	958	R	RunNo: 93	3221				
Prep Date: 12/8/2022	Analysis Date: 12	2/12/2022	S	SeqNo: 33	360087	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	94.1	80	120			
Toluene	0.95 0.050	1.000	0	95.4	80	120			
Ethylbenzene	0.95 0.050	1.000	0	95.4	80	120			
Xylenes, Total	2.9 0.10	3.000	0	95.9	80	120			
Surr: 4-Bromofluorobenzene	0.88	1.000		88.5	70	130			
Sample ID: LCS-71979	SampType: LC	S	Tes	tCode: EF	PA Method	8021B: Volati	iles		
Client ID: LCSS	Batch ID: 719	979	R	RunNo: 93	3221				
Prep Date: 12/9/2022	Analysis Date: 12	2/12/2022	S	SeqNo: 33	360088	Units: %Rec	:		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.89	1.000		89.3	70	130			
Sample ID: mb-71958	SampType: ME	BLK	Tes	tCode: EF	A Method	8021B: Volati	iles		
Client ID: PBS	Batch ID: 719	958	R	RunNo: 93	3221				
Prep Date: 12/8/2022	Analysis Date: 12	2/12/2022	S	SeqNo: 33	360089	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	0.88	1.000		88.2	70	130			
Sample ID: mb-71979	SampType: ME	BLK	Tes	tCode: EF	A Method	8021B: Volati	iles		
Client ID: PBS	Batch ID: 719	979	R	RunNo: 93	3221				
Prep Date: 12/9/2022	Analysis Date: 12	2/12/2022	S	SeqNo: 33	360090	Units: %Rec	;		
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
- Sample pH Not In Range
- Р Reporting Limit RL

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16-Dec-22

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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
- J
- Р Sample pH Not In Range
- RL

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WO#:

Above Quantitation Range/Estimated Value

- Analyte detected below quantitation limits
- Reporting Limit

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	Resources S 17 Federal	,	Inc.							
Sample ID: LCS-71962	SampType: LCS			TestCode: EPA Method 8015D Mod: Gasoline Range						
Client ID: LCSS	Batch ID: 71962			RunNo: 93195						
Prep Date: 12/8/2022	Analysis Date: 12/9/2022			SeqNo: 3358133			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	105	70	130			
Surr: BFB	490		500.0		97.3	70	130			
Sample ID: mb-71962	SampType: MBLK TestCode: EPA Method 8015D Mod: Ga						Gasoline	Range		
Client ID: PBS	Batch ID: 71962			RunNo: 93195						
Prep Date: 12/8/2022	Analysis Date: 12/9/2022			SeqNo: 3358134			Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	460		500.0		91.8	70	130			

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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16-Dec-22

HALL ENVIRONMENTAL ANALYSIS LABORATORY	TEL: 505-345-3975	4901 Hawkins N uquerque, NM 871	^{NE} 09 San 07	nple Log-In Che	eck List
Client Name: Vertex Resources Services, Inc.	Work Order Number	2212446		RcptNo: 1	
Received By: Tracy Casarrubias	12/8/2022 7:20:00 AM				
Completed By: Tracy Casarrubias	12/8/2022 8:28:17 AM				
Reviewed By: 7N1218122					
Chain of Custody					
1. Is Chain of Custody complete?		Yes 🗹	No 🗌	Not Present	
2. How was the sample delivered?		Courier			
Log In 3. Was an attempt made to cool the samples?		Yes 🗹	No 🗌	NA 🗌	
4. Were all samples received at a temperature of	of >0° C to 6.0°C	Yes 🔽	No 🗌	NA 🗌	
5. Sample(s) in proper container(s)?		Yes 🗹	No 🗌		
6. Sufficient sample volume for indicated test(s)	?	Yes 🗹	No 🗌		
7. Are samples (except VOA and ONG) properly	preserved?	Yes 🗹	No 🗌		
8. Was preservative added to bottles?		Yes 🗌	No 🗹	NA 🗌	
9. Received at least 1 vial with headspace <1/4	for AQ VOA?	Yes	No 🗌	NA 🗹	
10. Were any sample containers received broker	1?	Yes 🗌	No 🔽	# of preserved	/
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗌	bottles checked for pH:	unless noted)
12. Are matrices correctly identified on Chain of C	Custody?	Yes 🗹	No 🗌	Adjusted?	
13. Is it clear what analyses were requested?		Yes 🗹	No 🗌		10 00
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	No 🗌	Checked by:	1 12.08.22
Special Handling (if applicable)					
15. Was client notified of all discrepancies with the	nis order?	Yes	No 🗌		
Person Notified:	Date:				
By Whom:	Via: []eMail [] Pho	one 🗌 Fax	In Person	
Regarding:					
Client Instructions:					
16. Additional remarks:					
17. <u>Cooler Information</u> Cooler No Temp °C Condition Se	al Intact Seal No S	eal Date S	igned By		
1 1.2 Good Yes					
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If necessary, samples submitted to Hall Environmental market subdomented to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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Received	MBBM	3672026	Received@MSTM3672@USY69dyMRecord	Turn-Around Tim	Time:								-	(Page 182 of 309	f 309
Client:		Vertex		Standard	Rush	5 Daw				ANAL		ANAL ENVI	Ľ		ME	VSTS I ARODATODV	
		_	(direct bill to Devon)	Project Name:							halle	www.hallenvironmental.com		l.com	Ş		
Mailing Address	Addres			Tomcat 17 Federal #001	ederal #001			4901	4901 Hawkins NE	kins N		Nbuau	erque	Albuqueraue. NM 87109	7109		
				Project #:				Tel.	505-345-3975	45-35	10	Fax	505-3	505-345-4107	27		
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				Cooler Temp(Including CF): 1	(including CF): 1.	3-0.1- 1.20	TM							ofilo			
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	/ XƏTE	08:HqT	N) 805	d sHAc	S ARD F	A) 0978	S) 0728	D leto]			
12/06/22	9:20	Soil	BH22-09 0'	1, 4oz jar		001	×				4	-					
12/06/22	9:25	Soil	BH22-09 2'	1, 4oz jar		m2	×	×									
12/06/22	9:30	Soil	BH22-10 0'	1, 4oz jar		5003	×	×			×						1
12/06/22	9:35	Soil	BH22-10 2'	1, 4oz jar		604	×	×			×						
12/06/22	9:40	Soil	BH22-11 0'	1, 4oz jar		200	×	×			×						
12/06/22	9:45	Soil	BH22-11 2'	1, 4oz jar		900	×	×			×						
12/06/22	10:05	Soil	BH22-12 0'	1, 4oz jar		100	×	×			×			-			
12/06/22	10:10	Soil	BH22-12 2'	1, 4oz jar		004	×	×			×						
12/06/22	10:25	Soil	BH22-13 0'	1, 4oz jar		000	×	×			×						
12/06/22	10:30	Soil	BH22-13 2'	1, 4oz jar		010	×	×			×			-			
12/06/22	14:00	Soil	BH22-14 0'	1, 4oz jar		011	×	×			×						1
22	14:05	Soil	BH22-14 2'	1, 4oz jar		012	×	×			×						
Date: T		Relinquished	:A pa	Received by:	Via:		Rem	Remarks:									
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January 30, 2023

Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL: (505) 506-0040 FAX

RE: Tomcat 17 Federal 001

OrderNo.: 2301712

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 37 sample(s) on 1/19/2023 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

CLIENT: Vertex Resources Services, Inc.

Project: Tomcat 17 Federal 001

Analytical Report Lab Order 2301712

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-15 0' Collection Date: 1/16/2023 10:25:00 AM **Descrived Deter** 1/10/2022 7:20:00 AM

Lab ID: 2301712-001	Matrix: SOIL	Rece	ived Date:	1/19/2	023 7:20:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	1/23/2023 11:44:21 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	1/23/2023 11:44:21 PM
Surr: DNOP	110	69-147	%Rec	1	1/23/2023 11:44:21 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/21/2023 1:48:03 PM
Surr: BFB	103	37.7-212	%Rec	1	1/21/2023 1:48:03 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	1/21/2023 1:48:03 PM
Toluene	ND	0.049	mg/Kg	1	1/21/2023 1:48:03 PM
Ethylbenzene	ND	0.049	mg/Kg	1	1/21/2023 1:48:03 PM
Xylenes, Total	ND	0.097	mg/Kg	1	1/21/2023 1:48:03 PM
Surr: 4-Bromofluorobenzene	98.2	70-130	%Rec	1	1/21/2023 1:48:03 PM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	ND	61	mg/Kg	20	1/21/2023 6:31:13 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

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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 1 of 44

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2301712

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-15 2' Collection Date: 1/16/2023 10:30:00 AM Received Date: 1/19/2023 7:20:00 AM

Lab ID: 2301712-002	Matrix: SOIL	Rec	eived Date:	1/19/2	.023 7:20:00 AM
Analyses	Result	RL Qu	ual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	1/23/2023 11:54:53 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	1/23/2023 11:54:53 PM
Surr: DNOP	109	69-147	%Rec	1	1/23/2023 11:54:53 PM
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/21/2023 2:34:37 PM
Surr: BFB	106	37.7-212	%Rec	1	1/21/2023 2:34:37 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.025	mg/Kg	1	1/21/2023 2:34:37 PM
Toluene	ND	0.050	mg/Kg	1	1/21/2023 2:34:37 PM
Ethylbenzene	ND	0.050	mg/Kg	1	1/21/2023 2:34:37 PM
Xylenes, Total	ND	0.10	mg/Kg	1	1/21/2023 2:34:37 PM
Surr: 4-Bromofluorobenzene	101	70-130	%Rec	1	1/21/2023 2:34:37 PM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	ND	59	mg/Kg	20	1/21/2023 7:08:14 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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Date Reported: 1/30/2023

1/21/2023 7:45:15 PM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-16 0' **Project:** Tomcat 17 Federal 001 Collection Date: 1/16/2023 10:35:00 AM Lab ID: 2301712-003 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 8.8 mg/Kg 1 1/24/2023 12:05:25 AM Motor Oil Range Organics (MRO) ND 44 mg/Kg 1 1/24/2023 12:05:25 AM 69-147 Surr: DNOP 130 %Rec 1 1/24/2023 12:05:25 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/21/2023 2:57:56 PM 4.9 mg/Kg 1 Surr: BFB 104 37.7-212 %Rec 1 1/21/2023 2:57:56 PM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1/21/2023 2:57:56 PM 1 Toluene ND 0.049 mg/Kg 1 1/21/2023 2:57:56 PM Ethylbenzene ND 0.049 mg/Kg 1 1/21/2023 2:57:56 PM Xylenes, Total ND 0.099 mg/Kg 1 1/21/2023 2:57:56 PM Surr: 4-Bromofluorobenzene 99.0 70-130 %Rec 1 1/21/2023 2:57:56 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI

ND

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ma/Ka

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

Qualifiers:

Chloride

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
- POL
- Practical Quanitative Limit S

% 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

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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2301712

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-16 2' Collection Date: 1/16/2023 10:40:00 AM Received Date: 1/19/2023 7:20:00 AM

Lab ID: 2301712-004	Matrix: SOIL	Rece	ived Date:	1/19/2	023 7:20:00 AM
Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	1/24/2023 12:15:55 AM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	1/24/2023 12:15:55 AM
Surr: DNOP	103	69-147	%Rec	1	1/24/2023 12:15:55 AM
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/21/2023 3:21:16 PM
Surr: BFB	104	37.7-212	%Rec	1	1/21/2023 3:21:16 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.025	mg/Kg	1	1/21/2023 3:21:16 PM
Toluene	ND	0.050	mg/Kg	1	1/21/2023 3:21:16 PM
Ethylbenzene	ND	0.050	mg/Kg	1	1/21/2023 3:21:16 PM
Xylenes, Total	ND	0.10	mg/Kg	1	1/21/2023 3:21:16 PM
Surr: 4-Bromofluorobenzene	98.4	70-130	%Rec	1	1/21/2023 3:21:16 PM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	ND	60	mg/Kg	20	1/21/2023 7:57:35 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 Page 4 of 44

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-17 0' **Project:** Tomcat 17 Federal 001 Collection Date: 1/16/2023 10:45:00 AM Lab ID: 2301712-005 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 9.7 mg/Kg 1 1/24/2023 12:26:24 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 1/24/2023 12:26:24 AM 69-147 Surr: DNOP 105 %Rec 1 1/24/2023 12:26:24 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/21/2023 3:44:35 PM 4.9 mg/Kg 1 Surr: BFB 104 37.7-212 %Rec 1 1/21/2023 3:44:35 PM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1/21/2023 3:44:35 PM 1 Toluene ND 0.049 mg/Kg 1 1/21/2023 3:44:35 PM Ethylbenzene ND 0.049 mg/Kg 1 1/21/2023 3:44:35 PM Xylenes, Total ND 0.098 mg/Kg 1 1/21/2023 3:44:35 PM Surr: 4-Bromofluorobenzene 98.5 70-130 %Rec 1 1/21/2023 3:44:35 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride ND 60 1/21/2023 8:34:37 PM ma/Ka 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

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
- 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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Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-17 2' **Project:** Tomcat 17 Federal 001 Collection Date: 1/16/2023 10:50:00 AM Lab ID: 2301712-006 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 9.8 mg/Kg 1 1/24/2023 12:47:20 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 1/24/2023 12:47:20 AM 69-147 Surr: DNOP 103 %Rec 1 1/24/2023 12:47:20 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/21/2023 4:07:57 PM 4.9 mg/Kg 1 Surr: BFB 104 37.7-212 %Rec 1 1/21/2023 4:07:57 PM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1/21/2023 4:07:57 PM 1 Toluene ND 0.049 mg/Kg 1 1/21/2023 4:07:57 PM Ethylbenzene ND 0.049 mg/Kg 1 1/21/2023 4:07:57 PM Xylenes, Total ND 0.098 mg/Kg 1 1/21/2023 4:07:57 PM 1/21/2023 4:07:57 PM Surr: 4-Bromofluorobenzene 98.2 70-130 %Rec 1 **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride ND 60 1/21/2023 8:46:59 PM ma/Ka 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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EPA METHOD 300.0: ANIONS

Chloride

Analytical Report Lab Order 2301712

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-18 0' **Project:** Tomcat 17 Federal 001 Collection Date: 1/16/2023 11:00:00 AM Lab ID: 2301712-007 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 9.8 mg/Kg 1 1/24/2023 12:57:52 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 1/24/2023 12:57:52 AM 69-147 Surr: DNOP 99.6 %Rec 1 1/24/2023 12:57:52 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/21/2023 4:31:17 PM 4.9 mg/Kg 1 Surr: BFB 105 37.7-212 %Rec 1 1/21/2023 4:31:17 PM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 1/21/2023 4:31:17 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 1/21/2023 4:31:17 PM Ethylbenzene ND 0.049 mg/Kg 1 1/21/2023 4:31:17 PM Xylenes, Total ND 0.097 mg/Kg 1 1/21/2023 4:31:17 PM Surr: 4-Bromofluorobenzene 98.9 70-130 %Rec 1 1/21/2023 4:31:17 PM

ND

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ma/Ka

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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 POL
- Practical Quanitative Limit S

% 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

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Analyst: NAI

1/21/2023 8:59:20 PM

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2301712

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-18 2' Collection Date: 1/16/2023 11:05:00 AM **Received Date:** 1/10/2023 7:20:00 AM

Lab ID: 2301712-008	Matrix: SOIL	Rece	eived Date:	1/19/2	023 7:20:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	1/24/2023 1:08:23 AM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	1/24/2023 1:08:23 AM
Surr: DNOP	101	69-147	%Rec	1	1/24/2023 1:08:23 AM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	1/21/2023 4:54:35 PM
Surr: BFB	103	37.7-212	%Rec	1	1/21/2023 4:54:35 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	1/21/2023 4:54:35 PM
Toluene	ND	0.048	mg/Kg	1	1/21/2023 4:54:35 PM
Ethylbenzene	ND	0.048	mg/Kg	1	1/21/2023 4:54:35 PM
Xylenes, Total	ND	0.096	mg/Kg	1	1/21/2023 4:54:35 PM
Surr: 4-Bromofluorobenzene	97.0	70-130	%Rec	1	1/21/2023 4:54:35 PM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	ND	60	mg/Kg	20	1/21/2023 9:11:40 PM

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

Qualifiers:

* Value exceeds Maximum Contaminant Level. 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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Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-18 4' **Project:** Tomcat 17 Federal 001 Collection Date: 1/16/2023 11:10:00 AM Lab ID: 2301712-009 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 9.4 mg/Kg 1 1/24/2023 1:18:48 AM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 1/24/2023 1:18:48 AM 69-147 Surr: DNOP 100 %Rec 1 1/24/2023 1:18:48 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/21/2023 5:17:49 PM 4.9 mg/Kg 1 Surr: BFB 105 37.7-212 %Rec 1 1/21/2023 5:17:49 PM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 1/21/2023 5:17:49 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 1/21/2023 5:17:49 PM Ethylbenzene ND 0.049 mg/Kg 1 1/21/2023 5:17:49 PM Xylenes, Total ND 0.097 mg/Kg 1 1/21/2023 5:17:49 PM Surr: 4-Bromofluorobenzene 101 70-130 %Rec 1 1/21/2023 5:17:49 PM Analyst: NAI **EPA METHOD 300.0: ANIONS** Chloride ND 60 1/21/2023 9:24:02 PM ma/Ka 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: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2301712

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-19 0' Collection Date: 1/16/2023 11:15:00 AM Received Date: 1/19/2023 7:20:00 AM

Lab ID: 2301712-010	Matrix: SOIL	Rece	eived Date:	1/19/2	023 7:20:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.6	mg/Kg	1	1/24/2023 1:29:11 AM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	1/24/2023 1:29:11 AM
Surr: DNOP	104	69-147	%Rec	1	1/24/2023 1:29:11 AM
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/21/2023 5:41:03 PM
Surr: BFB	104	37.7-212	%Rec	1	1/21/2023 5:41:03 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.025	mg/Kg	1	1/21/2023 5:41:03 PM
Toluene	ND	0.050	mg/Kg	1	1/21/2023 5:41:03 PM
Ethylbenzene	ND	0.050	mg/Kg	1	1/21/2023 5:41:03 PM
Xylenes, Total	ND	0.10	mg/Kg	1	1/21/2023 5:41:03 PM
Surr: 4-Bromofluorobenzene	99.4	70-130	%Rec	1	1/21/2023 5:41:03 PM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	ND	60	mg/Kg	20	1/21/2023 9:36:22 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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EPA METHOD 300.0: ANIONS

Chloride

Analytical Report Lab Order 2301712

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-19 2' **Project:** Tomcat 17 Federal 001 Collection Date: 1/16/2023 11:20:00 AM Lab ID: 2301712-011 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 9.5 mg/Kg 1 1/24/2023 1:39:32 AM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 1/24/2023 1:39:32 AM 69-147 Surr: DNOP 99.0 %Rec 1 1/24/2023 1:39:32 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/21/2023 6:04:18 PM 4.8 mg/Kg 1 Surr: BFB 103 37.7-212 %Rec 1 1/21/2023 6:04:18 PM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 1/21/2023 6:04:18 PM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 1/21/2023 6:04:18 PM Ethylbenzene ND 0.048 mg/Kg 1 1/21/2023 6:04:18 PM Xylenes, Total ND 0.096 mg/Kg 1 1/21/2023 6:04:18 PM 1/21/2023 6:04:18 PM Surr: 4-Bromofluorobenzene 97.7 70-130 %Rec 1

71

60

ma/Ka

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

- 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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Analyst: NAI

1/21/2023 9:48:43 PM

Released to Imaging: 3/14/2024 2:33:57 PM

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report
Lab Order 2301712

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-19 4' Collection Date: 1/16/2023 11:25:00 AM Received Date: 1/19/2023 7:20:00 AM

Lab ID: 2301712-012	Matrix: SOIL	Rece	ived Date:	1/19/2	023 7:20:00 AM
Analyses	Result	RL Qua	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	1/24/2023 1:49:52 AM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	1/24/2023 1:49:52 AM
Surr: DNOP	106	69-147	%Rec	1	1/24/2023 1:49:52 AM
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/21/2023 7:13:49 PM
Surr: BFB	102	37.7-212	%Rec	1	1/21/2023 7:13:49 PM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.025	mg/Kg	1	1/21/2023 7:13:49 PM
Toluene	ND	0.050	mg/Kg	1	1/21/2023 7:13:49 PM
Ethylbenzene	ND	0.050	mg/Kg	1	1/21/2023 7:13:49 PM
Xylenes, Total	ND	0.099	mg/Kg	1	1/21/2023 7:13:49 PM
Surr: 4-Bromofluorobenzene	98.6	70-130	%Rec	1	1/21/2023 7:13:49 PM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	140	60	mg/Kg	20	1/21/2023 10:01:03 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

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Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-20 0' **Project:** Tomcat 17 Federal 001 Collection Date: 1/16/2023 11:30:00 AM Lab ID: 2301712-013 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 10 mg/Kg 1 1/24/2023 2:00:10 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 1/24/2023 2:00:10 AM 69-147 Surr: DNOP 99.7 %Rec 1 1/24/2023 2:00:10 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/21/2023 7:36:56 PM 4.9 mg/Kg 1 Surr: BFB 101 37.7-212 %Rec 1 1/21/2023 7:36:56 PM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 1/21/2023 7:36:56 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 1/21/2023 7:36:56 PM Ethylbenzene ND 0.049 mg/Kg 1 1/21/2023 7:36:56 PM Xylenes, Total ND 0.098 mg/Kg 1 1/21/2023 7:36:56 PM Surr: 4-Bromofluorobenzene 96.8 70-130 %Rec 1 1/21/2023 7:36:56 PM Analyst: NAI **EPA METHOD 300.0: ANIONS** Chloride ND 60 1/21/2023 10:13:24 PM ma/Ka 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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Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-20 2' **Project:** Tomcat 17 Federal 001 Collection Date: 1/16/2023 11:35:00 AM Lab ID: 2301712-014 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 9.4 mg/Kg 1 1/24/2023 2:10:29 AM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 1/24/2023 2:10:29 AM 69-147 Surr: DNOP 104 %Rec 1 1/24/2023 2:10:29 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/21/2023 8:00:03 PM 4.9 mg/Kg 1 Surr: BFB 103 37.7-212 %Rec 1 1/21/2023 8:00:03 PM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 1/21/2023 8:00:03 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 1/21/2023 8:00:03 PM Ethylbenzene ND 0.049 mg/Kg 1 1/21/2023 8:00:03 PM Xylenes, Total ND 0.099 mg/Kg 1 1/21/2023 8:00:03 PM 1/21/2023 8:00:03 PM Surr: 4-Bromofluorobenzene 98.5 70-130 %Rec 1 **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride ND 60 1/21/2023 10:25:44 PM ma/Ka 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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Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-20 4' **Project:** Tomcat 17 Federal 001 Collection Date: 1/16/2023 11:40:00 AM Lab ID: 2301712-015 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 9.8 mg/Kg 1 1/24/2023 2:20:48 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 1/24/2023 2:20:48 AM 69-147 Surr: DNOP 105 %Rec 1 1/24/2023 2:20:48 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/21/2023 8:23:10 PM 4.9 mg/Kg 1 Surr: BFB 101 37.7-212 %Rec 1 1/21/2023 8:23:10 PM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 1/21/2023 8:23:10 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 1/21/2023 8:23:10 PM Ethylbenzene ND 0.049 mg/Kg 1 1/21/2023 8:23:10 PM Xylenes, Total ND 0.098 mg/Kg 1 1/21/2023 8:23:10 PM Surr: 4-Bromofluorobenzene 96.5 70-130 %Rec 1 1/21/2023 8:23:10 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride ND 60 1/21/2023 11:02:45 PM ma/Ka 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
- 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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Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-21 0' **Project:** Tomcat 17 Federal 001 Collection Date: 1/17/2023 8:05:00 AM Lab ID: 2301712-016 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 9.7 mg/Kg 1 1/24/2023 2:31:08 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 1/24/2023 2:31:08 AM 69-147 Surr: DNOP 107 %Rec 1 1/24/2023 2:31:08 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/21/2023 8:46:16 PM 5.0 mg/Kg 1 Surr: BFB 100 37.7-212 %Rec 1 1/21/2023 8:46:16 PM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1/21/2023 8:46:16 PM 1 Toluene ND 0.050 mg/Kg 1 1/21/2023 8:46:16 PM Ethylbenzene ND 0.050 mg/Kg 1 1/21/2023 8:46:16 PM Xylenes, Total ND 0.10 mg/Kg 1 1/21/2023 8:46:16 PM 1/21/2023 8:46:16 PM Surr: 4-Bromofluorobenzene 95.9 70-130 %Rec 1 Analyst: NAI **EPA METHOD 300.0: ANIONS** Chloride 140 60 1/21/2023 11:15:07 PM ma/Ka 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

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

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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EPA METHOD 300.0: ANIONS

Chloride

Analytical Report Lab Order 2301712

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-21 2' **Project:** Tomcat 17 Federal 001 Collection Date: 1/17/2023 8:10:00 AM Lab ID: 2301712-017 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 10 mg/Kg 1 1/24/2023 2:51:45 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 1/24/2023 2:51:45 AM 69-147 Surr: DNOP 88.6 %Rec 1 1/24/2023 2:51:45 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/23/2023 11:23:40 PM 4.9 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 1/23/2023 11:23:40 PM **EPA METHOD 8021B: VOLATILES** Analyst: JJP 1/23/2023 11:23:40 PM Benzene ND 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 1/23/2023 11:23:40 PM Ethylbenzene ND 0.049 mg/Kg 1 1/23/2023 11:23:40 PM Xylenes, Total ND 0.099 mg/Kg 1 1/23/2023 11:23:40 PM Surr: 4-Bromofluorobenzene 95.5 70-130 %Rec 1 1/23/2023 11:23:40 PM

ND

60

ma/Ka

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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 POL
 - Practical Quanitative Limit
- S % 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

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Analyst: NAI

1/24/2023 2:49:12 AM

Lab ID:

CLIENT: Vertex Resources Services, Inc.

2301712-018

Tomcat 17 Federal 001

Analytical Report Lab Order 2301712

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-21 4' Collection Date: 1/17/2023 8:15:00 AM Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM

Result	RL Qu	al Units	DF	Date Analyzed
GANICS				Analyst: DGH
ND	10	mg/Kg	1	1/24/2023 3:23:14 AM
ND	50	mg/Kg	1	1/24/2023 3:23:14 AM
92.8	69-147	%Rec	1	1/24/2023 3:23:14 AM
				Analyst: JJP
ND	4.9	mg/Kg	1	1/24/2023 12:33:20 AM
103	37.7-212	%Rec	1	1/24/2023 12:33:20 AM
				Analyst: JJP
ND	0.024	mg/Kg	1	1/24/2023 12:33:20 AM
ND	0.049	mg/Kg	1	1/24/2023 12:33:20 AM
ND	0.049	mg/Kg	1	1/24/2023 12:33:20 AM
ND	0.098	mg/Kg	1	1/24/2023 12:33:20 AM
96.1	70-130	%Rec	1	1/24/2023 12:33:20 AM
				Analyst: NAI
ND	60	mg/Kg	20	1/24/2023 3:01:34 AM
	GANICS ND 92.8 ND 103 ND ND ND ND 96.1	ND 10 ND 50 92.8 69-147 ND 4.9 103 37.7-212 ND 0.024 ND 0.049 ND 0.049 ND 0.098 96.1 70-130	SGANICS ND 10 mg/Kg ND 50 mg/Kg 92.8 69-147 %Rec ND 4.9 mg/Kg 103 37.7-212 %Rec ND 0.024 mg/Kg ND 0.049 mg/Kg ND 0.049 mg/Kg ND 0.049 mg/Kg ND 0.098 mg/Kg 96.1 70-130 %Rec	ND 10 mg/Kg 1 ND 50 mg/Kg 1 92.8 69-147 %Rec 1 ND 4.9 mg/Kg 1 103 37.7-212 %Rec 1 ND 0.024 mg/Kg 1 ND 0.049 mg/Kg 1 ND 0.098 mg/Kg 1 96.1 70-130 %Rec 1

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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Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-22 0' **Project:** Tomcat 17 Federal 001 Collection Date: 1/17/2023 8:20:00 AM Lab ID: 2301712-019 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 9.3 mg/Kg 1 1/24/2023 3:33:49 AM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 1/24/2023 3:33:49 AM 69-147 Surr: DNOP 93.0 %Rec 1 1/24/2023 3:33:49 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/24/2023 1:42:58 AM 4.8 mg/Kg 1 Surr: BFB 101 37.7-212 %Rec 1 1/24/2023 1:42:58 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP 1/24/2023 1:42:58 AM Benzene ND 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 1/24/2023 1:42:58 AM Ethylbenzene ND 0.048 mg/Kg 1 1/24/2023 1:42:58 AM Xylenes, Total ND 0.096 mg/Kg 1 1/24/2023 1:42:58 AM Surr: 4-Bromofluorobenzene 93.7 70-130 %Rec 1 1/24/2023 1:42:58 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride ND 60 1/24/2023 3:13:56 AM ma/Ka 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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Date Reported: 1/30/2023

1/24/2023 3:26:17 AM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-22 2' **Project:** Tomcat 17 Federal 001 Collection Date: 1/17/2023 8:25:00 AM Lab ID: 2301712-020 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 10 mg/Kg 1 1/24/2023 3:44:25 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 1/24/2023 3:44:25 AM 69-147 Surr: DNOP 93.5 %Rec 1 1/24/2023 3:44:25 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/24/2023 2:06:07 AM 4.9 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 1/24/2023 2:06:07 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1/24/2023 2:06:07 AM 1 Toluene ND 0.049 mg/Kg 1 1/24/2023 2:06:07 AM Ethylbenzene ND 0.049 mg/Kg 1 1/24/2023 2:06:07 AM Xylenes, Total ND 0.098 mg/Kg 1 1/24/2023 2:06:07 AM Surr: 4-Bromofluorobenzene 95.1 70-130 %Rec 1 1/24/2023 2:06:07 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI

ND

60

ma/Ka

20

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

Qualifiers:

Chloride

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 POL

Practical Quanitative Limit S

% 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

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Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

-						
CLIENT:	Vertex Resources Services, Inc.		Client S	Sample ID:	BH22	-22 4'
Project:	Tomcat 17 Federal 001		Colle	ction Date:	1/17/2	023 8:30:00 AM
Lab ID:	2301712-021	Matrix: SOIL	Rece	eived Date:	1/19/2	023 7:20:00 AM
Analyses		Result	RL Qu	al Units	DF	Date Analyzed
EPA ME	THOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel R	ange Organics (DRO)	ND	9.9	mg/Kg	1	1/26/2023 3:54:56 PM
Motor O	il Range Organics (MRO)	ND	50	mg/Kg	1	1/26/2023 3:54:56 PM
Surr:	DNOP	117	69-147	%Rec	1	1/26/2023 3:54:56 PM
EPA ME	THOD 8015D: GASOLINE RANG	E				Analyst: JJP
Gasoline	e Range Organics (GRO)	ND	4.9	mg/Kg	1	1/24/2023 2:29:20 AM
Surr:	BFB	102	37.7-212	%Rec	1	1/24/2023 2:29:20 AM
EPA ME	THOD 8021B: VOLATILES					Analyst: JJP
Benzene	e	ND	0.024	mg/Kg	1	1/24/2023 2:29:20 AM
Toluene		ND	0.049	mg/Kg	1	1/24/2023 2:29:20 AM
Ethylber	nzene	ND	0.049	mg/Kg	1	1/24/2023 2:29:20 AM
Xylenes,	, Total	ND	0.098	mg/Kg	1	1/24/2023 2:29:20 AM
Surr:	4-Bromofluorobenzene	94.9	70-130	%Rec	1	1/24/2023 2:29:20 AM
EPA ME	THOD 300.0: ANIONS					Analyst: NAI
Chloride		ND	60	mg/Kg	20	1/24/2023 4:03:18 AM

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

Qualifiers:

* Value exceeds Maximum Contaminant Level. 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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Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-23 0' **Project:** Tomcat 17 Federal 001 Collection Date: 1/17/2023 8:40:00 AM Lab ID: 2301712-022 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 8.7 mg/Kg 1 1/24/2023 4:05:54 AM Motor Oil Range Organics (MRO) ND 44 mg/Kg 1 1/24/2023 4:05:54 AM 69-147 Surr: DNOP 94.7 %Rec 1 1/24/2023 4:05:54 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/24/2023 2:52:32 AM 4.9 mg/Kg 1 Surr: BFB 103 37.7-212 %Rec 1 1/24/2023 2:52:32 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP 1/24/2023 2:52:32 AM Benzene ND 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 1/24/2023 2:52:32 AM Ethylbenzene ND 0.049 mg/Kg 1 1/24/2023 2:52:32 AM Xylenes, Total ND 0.098 mg/Kg 1 1/24/2023 2:52:32 AM Surr: 4-Bromofluorobenzene 96.5 70-130 %Rec 1 1/24/2023 2:52:32 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride ND 60 1/24/2023 8:20:54 PM ma/Ka 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

- 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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Date Reported: 1/30/2023

1/24/2023 8:33:15 PM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-23 2' Collection Date: 1/17/2023 8:45:00 AM **Project:** Tomcat 17 Federal 001 Lab ID: 2301712-023 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 9.3 mg/Kg 1 1/24/2023 4:16:45 AM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 1/24/2023 4:16:45 AM 69-147 Surr: DNOP 96.3 %Rec 1 1/24/2023 4:16:45 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/24/2023 3:15:44 AM 5.0 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 1/24/2023 3:15:44 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1/24/2023 3:15:44 AM 1 Toluene ND 0.050 mg/Kg 1 1/24/2023 3:15:44 AM Ethylbenzene ND 0.050 mg/Kg 1 1/24/2023 3:15:44 AM Xylenes, Total ND 0.099 mg/Kg 1 1/24/2023 3:15:44 AM Surr: 4-Bromofluorobenzene 95.0 70-130 %Rec 1 1/24/2023 3:15:44 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT

ND

60

ma/Ka

20

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

Qualifiers:

Chloride

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 POL

Practical Quanitative Limit S

% 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

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Lab ID:

Analytical Report Lab Order 2301712

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

Tomcat 17 Federal 001

2301712-024

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-23 4' Collection Date: 1/17/2023 8:50:00 AM Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM

Analyses	Result	RL	Qual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	ANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	1/24/2023 4:27:34 AM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	1/24/2023 4:27:34 AM
Surr: DNOP	98.0	69-147	%Rec	1	1/24/2023 4:27:34 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/24/2023 3:38:57 AM
Surr: BFB	101	37.7-212	%Rec	1	1/24/2023 3:38:57 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.025	mg/Kg	1	1/24/2023 3:38:57 AM
Toluene	ND	0.049	mg/Kg	1	1/24/2023 3:38:57 AM
Ethylbenzene	ND	0.049	mg/Kg	1	1/24/2023 3:38:57 AM
Xylenes, Total	ND	0.099	mg/Kg	1	1/24/2023 3:38:57 AM
Surr: 4-Bromofluorobenzene	94.7	70-130	%Rec	1	1/24/2023 3:38:57 AM
EPA METHOD 300.0: ANIONS					Analyst: JMT
Chloride	ND	60	mg/Kg	20	1/24/2023 8:45:35 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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Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-24 0' **Project:** Tomcat 17 Federal 001 Collection Date: 1/17/2023 8:55:00 AM Lab ID: 2301712-025 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 9.4 mg/Kg 1 1/24/2023 4:38:21 AM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 1/24/2023 4:38:21 AM 69-147 Surr: DNOP 80.6 %Rec 1 1/24/2023 4:38:21 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/24/2023 4:02:09 AM 4.8 mg/Kg 1 Surr: BFB 103 37.7-212 %Rec 1 1/24/2023 4:02:09 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 1/24/2023 4:02:09 AM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 1/24/2023 4:02:09 AM Ethylbenzene ND 0.048 mg/Kg 1 1/24/2023 4:02:09 AM Xylenes, Total ND 0.097 mg/Kg 1 1/24/2023 4:02:09 AM Surr: 4-Bromofluorobenzene 96.4 70-130 %Rec 1 1/24/2023 4:02:09 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 61 60 1/24/2023 8:57:55 PM ma/Ka 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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Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-24 2' **Project:** Tomcat 17 Federal 001 Collection Date: 1/17/2023 9:00:00 AM Lab ID: 2301712-026 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 9.7 mg/Kg 1 1/24/2023 4:59:36 AM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 1/24/2023 4:59:36 AM 69-147 Surr: DNOP 97.4 %Rec 1 1/24/2023 4:59:36 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/24/2023 4:25:18 AM 5.0 mg/Kg 1 Surr: BFB 101 37.7-212 %Rec 1 1/24/2023 4:25:18 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1/24/2023 4:25:18 AM 1 Toluene ND 0.050 mg/Kg 1 1/24/2023 4:25:18 AM Ethylbenzene ND 0.050 mg/Kg 1 1/24/2023 4:25:18 AM Xylenes, Total ND 0.10 mg/Kg 1 1/24/2023 4:25:18 AM Surr: 4-Bromofluorobenzene 95.0 70-130 %Rec 1 1/24/2023 4:25:18 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride ND 60 1/24/2023 9:34:56 PM ma/Ka 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

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

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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Released to Imaging: 3/14/2024 2:33:57 PM

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-24 4' **Project:** Tomcat 17 Federal 001 Collection Date: 1/17/2023 9:05:00 AM Lab ID: 2301712-027 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 8.6 mg/Kg 1 1/24/2023 5:10:23 AM Motor Oil Range Organics (MRO) ND 43 mg/Kg 1 1/24/2023 5:10:23 AM Surr: DNOP 88.3 69-147 %Rec 1 1/24/2023 5:10:23 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/24/2023 5:11:43 AM 4.9 mg/Kg 1 Surr: BFB 99.6 37.7-212 %Rec 1 1/24/2023 5:11:43 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.025 mg/Kg 1/24/2023 5:11:43 AM 1 Toluene ND 0.049 mg/Kg 1 1/24/2023 5:11:43 AM Ethylbenzene ND 0.049 mg/Kg 1 1/24/2023 5:11:43 AM Xylenes, Total ND 0.099 mg/Kg 1 1/24/2023 5:11:43 AM Surr: 4-Bromofluorobenzene 93.3 70-130 %Rec 1 1/24/2023 5:11:43 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride ND 60 1/24/2023 9:47:17 PM ma/Ka 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

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

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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CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2301712

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-25 0' Collection Date: 1/17/2023 9:15:00 AM Received Date: 1/19/2023 7.20.00 AM

Lab ID: 2301712-028	Matrix: SOIL Result	Received Date: 1/19/2023 7:20:00 AM				
Analyses		RL Qu	al Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH	
Diesel Range Organics (DRO)	ND	9.5	mg/Kg	1	1/24/2023 5:21:09 AM	
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	1/24/2023 5:21:09 AM	
Surr: DNOP	91.4	69-147	%Rec	1	1/24/2023 5:21:09 AM	
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst: JJP	
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/24/2023 5:34:57 AM	
Surr: BFB	100	37.7-212	%Rec	1	1/24/2023 5:34:57 AM	
EPA METHOD 8021B: VOLATILES					Analyst: JJP	
Benzene	ND	0.024	mg/Kg	1	1/24/2023 5:34:57 AM	
Toluene	ND	0.049	mg/Kg	1	1/24/2023 5:34:57 AM	
Ethylbenzene	ND	0.049	mg/Kg	1	1/24/2023 5:34:57 AM	
Xylenes, Total	ND	0.097	mg/Kg	1	1/24/2023 5:34:57 AM	
Surr: 4-Bromofluorobenzene	93.5	70-130	%Rec	1	1/24/2023 5:34:57 AM	
EPA METHOD 300.0: ANIONS					Analyst: JMT	
Chloride	ND	60	mg/Kg	20	1/24/2023 9:59:38 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 Page 28 of 44

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-25 2' **Project:** Tomcat 17 Federal 001 Collection Date: 1/17/2023 9:20:00 AM Lab ID: 2301712-029 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 10 mg/Kg 1 1/24/2023 5:31:57 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 1/24/2023 5:31:57 AM 69-147 Surr: DNOP 87.0 %Rec 1 1/24/2023 5:31:57 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/24/2023 5:58:10 AM 4.8 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 1/24/2023 5:58:10 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1/24/2023 5:58:10 AM 1 Toluene ND 0.048 mg/Kg 1 1/24/2023 5:58:10 AM Ethylbenzene ND 0.048 mg/Kg 1 1/24/2023 5:58:10 AM Xylenes, Total ND 0.095 mg/Kg 1 1/24/2023 5:58:10 AM Surr: 4-Bromofluorobenzene 95.8 70-130 %Rec 1 1/24/2023 5:58:10 AM Analyst: JMT **EPA METHOD 300.0: ANIONS** Chloride ND 60 1/24/2023 10:11:59 PM ma/Ka 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

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

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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Released to Imaging: 3/14/2024 2:33:57 PM

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2301712

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BH22-25 4' Collection Date: 1/17/2023 9:25:00 AM Received Date: 1/19/2023 7:20:00 AM

Lab ID: 2301712-030	Matrix: SOIL	Received Date: 1/19/2023 7:20:00 AM				
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst						
Diesel Range Organics (DRO)	ND	9.3	mg/Kg	1	1/24/2023 5:42:41 AM	
Motor Oil Range Organics (MRO)	ND	46	mg/Kg	1	1/24/2023 5:42:41 AM	
Surr: DNOP	85.5	69-147	%Rec	1	1/24/2023 5:42:41 AM	
EPA METHOD 8015D: GASOLINE RANGE	l .				Analyst: JJP	
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	1/24/2023 6:21:24 AM	
Surr: BFB	104	37.7-212	%Rec	1	1/24/2023 6:21:24 AM	
EPA METHOD 8021B: VOLATILES					Analyst: JJP	
Benzene	ND	0.024	mg/Kg	1	1/24/2023 6:21:24 AM	
Toluene	ND	0.048	mg/Kg	1	1/24/2023 6:21:24 AM	
Ethylbenzene	ND	0.048	mg/Kg	1	1/24/2023 6:21:24 AM	
Xylenes, Total	ND	0.097	mg/Kg	1	1/24/2023 6:21:24 AM	
Surr: 4-Bromofluorobenzene	96.8	70-130	%Rec	1	1/24/2023 6:21:24 AM	
EPA METHOD 300.0: ANIONS					Analyst: JMT	
Chloride	ND	60	mg/Kg	20	1/24/2023 10:24:19 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 Page 30 of 44

Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-26 4' **Project:** Tomcat 17 Federal 001 Collection Date: 1/16/2023 9:45:00 AM Lab ID: 2301712-031 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) 43 9.2 mg/Kg 1 1/24/2023 5:53:25 AM Motor Oil Range Organics (MRO) 74 46 mg/Kg 1 1/24/2023 5:53:25 AM Surr: DNOP 93.0 69-147 %Rec 1 1/24/2023 5:53:25 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/24/2023 6:44:38 AM 4.8 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 1/24/2023 6:44:38 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1/24/2023 6:44:38 AM 1 Toluene ND 0.048 mg/Kg 1 1/24/2023 6:44:38 AM Ethylbenzene ND 0.048 mg/Kg 1 1/24/2023 6:44:38 AM Xylenes, Total ND 0.095 mg/Kg 1 1/24/2023 6:44:38 AM Surr: 4-Bromofluorobenzene 96.0 70-130 %Rec 1 1/24/2023 6:44:38 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 520 60 1/24/2023 10:36:40 PM ma/Ka 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

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

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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Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-26 6' **Project:** Tomcat 17 Federal 001 Collection Date: 1/16/2023 9:50:00 AM Lab ID: 2301712-032 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) 13 9.7 mg/Kg 1 1/24/2023 6:14:37 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 1/24/2023 6:14:37 AM 69-147 Surr: DNOP 71.4 %Rec 1 1/24/2023 6:14:37 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/24/2023 7:07:54 AM 4.8 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 1/24/2023 7:07:54 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 1/24/2023 7:07:54 AM 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 1/24/2023 7:07:54 AM Ethylbenzene ND 0.048 mg/Kg 1 1/24/2023 7:07:54 AM Xylenes, Total ND 0.096 mg/Kg 1 1/24/2023 7:07:54 AM Surr: 4-Bromofluorobenzene 95.1 70-130 %Rec 1 1/24/2023 7:07:54 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 430 60 1/24/2023 10:49:01 PM ma/Ka 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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Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-26 8' **Project:** Tomcat 17 Federal 001 Collection Date: 1/16/2023 9:55:00 AM Lab ID: 2301712-033 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) 17 8.8 mg/Kg 1 1/24/2023 6:25:19 AM Motor Oil Range Organics (MRO) ND 44 mg/Kg 1 1/24/2023 6:25:19 AM 69-147 Surr: DNOP 111 %Rec 1 1/24/2023 6:25:19 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/24/2023 7:31:11 AM 5.0 mg/Kg 1 Surr: BFB 101 37.7-212 %Rec 1 1/24/2023 7:31:11 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 1/24/2023 7:31:11 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 1/24/2023 7:31:11 AM Ethylbenzene ND 0.050 mg/Kg 1 1/24/2023 7:31:11 AM Xylenes, Total ND 0.099 mg/Kg 1 1/24/2023 7:31:11 AM Surr: 4-Bromofluorobenzene 96.3 70-130 %Rec 1 1/24/2023 7:31:11 AM Analyst: JMT **EPA METHOD 300.0: ANIONS** Chloride 250 60 1/24/2023 11:01:22 PM ma/Ka 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

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

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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Date Reported: 1/30/2023

1/24/2023 11:13:44 PM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-27 4' **Project:** Tomcat 17 Federal 001 Collection Date: 1/16/2023 10:05:00 AM Lab ID: 2301712-034 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 9.3 mg/Kg 1 1/24/2023 6:36:17 AM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 1/24/2023 6:36:17 AM 69-147 Surr: DNOP 77.6 %Rec 1 1/24/2023 6:36:17 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/24/2023 7:54:24 AM 5.0 mg/Kg 1 Surr: BFB 104 37.7-212 %Rec 1 1/24/2023 7:54:24 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP 1/24/2023 7:54:24 AM Benzene ND 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 1/24/2023 7:54:24 AM Ethylbenzene ND 0.050 mg/Kg 1 1/24/2023 7:54:24 AM Xylenes, Total ND 0.10 mg/Kg 1 1/24/2023 7:54:24 AM Surr: 4-Bromofluorobenzene 96.2 70-130 %Rec 1 1/24/2023 7:54:24 AM Analyst: JMT **EPA METHOD 300.0: ANIONS**

1100

60

ma/Ka

20

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

Qualifiers:

Chloride

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 POL Practical Quanitative Limit
- S % 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

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Date Reported: 1/30/2023

1/24/2023 11:26:04 PM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-27 6' **Project:** Tomcat 17 Federal 001 Collection Date: 1/16/2023 10:10:00 AM Lab ID: 2301712-035 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 9.8 mg/Kg 1 1/24/2023 6:46:58 AM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 1/24/2023 6:46:58 AM 69-147 Surr: DNOP 78.5 %Rec 1 1/24/2023 6:46:58 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/24/2023 8:17:37 AM 4.8 mg/Kg 1 Surr: BFB 104 37.7-212 %Rec 1 1/24/2023 8:17:37 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP 1/24/2023 8:17:37 AM Benzene ND 0.024 mg/Kg 1 Toluene ND 0.048 mg/Kg 1 1/24/2023 8:17:37 AM Ethylbenzene ND 0.048 mg/Kg 1 1/24/2023 8:17:37 AM Xylenes, Total ND 0.095 mg/Kg 1 1/24/2023 8:17:37 AM Surr: 4-Bromofluorobenzene 98.2 70-130 %Rec 1 1/24/2023 8:17:37 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT

220

60

ma/Ka

20

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

Qualifiers:

Chloride

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 POL Practical Quanitative Limit

S % 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

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Date Reported: 1/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BH22-27 8' **Project:** Tomcat 17 Federal 001 Collection Date: 1/16/2023 10:15:00 AM Lab ID: 2301712-036 Matrix: SOIL Received Date: 1/19/2023 7:20:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) ND 9.2 mg/Kg 1 1/24/2023 6:57:36 AM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 1/24/2023 6:57:36 AM Surr: DNOP 71.5 69-147 %Rec 1 1/24/2023 6:57:36 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/24/2023 8:40:49 AM 4.9 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 1/24/2023 8:40:49 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 0.024 mg/Kg 1/24/2023 8:40:49 AM 1 Toluene ND 0.049 mg/Kg 1 1/24/2023 8:40:49 AM Ethylbenzene ND 0.049 mg/Kg 1 1/24/2023 8:40:49 AM Xylenes, Total ND 0.098 mg/Kg 1 1/24/2023 8:40:49 AM Surr: 4-Bromofluorobenzene 96.2 70-130 %Rec 1 1/24/2023 8:40:49 AM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride 92 60 1/25/2023 12:03:04 AM ma/Ka 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:

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, In

Vertex Resources Services, Inc.

nc.	WO#:	2301712 30-Jan-23
TestCode: EPA Method 300.0: Anions		

Project: Tomca	at 17 Federal 001			
Sample ID: MB-72744	SampType: mblk	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 72744	RunNo: 94110		
Prep Date: 1/21/2023	Analysis Date: 1/21/2023	SeqNo: 3398072	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID: LCS-72744	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Client ID: LCSS	Batch ID: 72744	RunNo: 94110		
Prep Date: 1/21/2023	Analysis Date: 1/21/2023	SeqNo: 3398073	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	14 1.5 15.00	0 95.7 90	110	
Sample ID: MB-72764	SampType: mblk	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 72764	RunNo: 94135		
Prep Date: 1/23/2023	Analysis Date: 1/23/2023	SeqNo: 3399030	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID: LCS-72764	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Client ID: LCSS	Batch ID: 72764	RunNo: 94135		
Prep Date: 1/23/2023	Analysis Date: 1/23/2023	SeqNo: 3399031	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	14 1.5 15.00	0 94.0 90	110	
Sample ID: MB-72790	SampType: mblk	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 72790	RunNo: 94168		
Prep Date: 1/24/2023	Analysis Date: 1/24/2023	SeqNo: 3400495	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
Sample ID: LCS-72790	SampType: Ics	TestCode: EPA Method	300.0: Anions	
Client ID: LCSS	Batch ID: 72790	RunNo: 94168		
Prep Date: 1/24/2023	Analysis Date: 1/24/2023	SeqNo: 3400496	Units: mg/Kg	
			HighLimit %RPD	RPDLimit Qual
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLIMIL Quai

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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Client: Project:	Vertex Re Tomcat 17		· · · · · ·	, Inc.							
Sample ID:	2301712-017AMS	SampT	Гуре: МS	6	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	BH22-21 2'	Batch	h ID: 727	725	F	unNo: 94	4119				
Prep Date:	1/20/2023	Analysis D)ate: 1/	24/2023	S	eqNo: 3	399109	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Drganics (DRO)	42	9.6	48.12	0	88.2	54.2	135			
Surr: DNOP		4.6		4.812		96.0	69	147			
Sample ID:	2301712-017AMSD	SampT	Гуре: МS	SD	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	BH22-21 2'	Batch	h ID: 727	725	F	unNo: 94	4119				
Prep Date:	1/20/2023	Analysis D)ate: 1/	24/2023	S	eqNo: 3	399110	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	42	9.8	49.16	0	85.7	54.2	135	0.741	29.2	
Surr: DNOP		4.4		4.916		90.0	69	147	0	0	
Sample ID:	LCS-72725	SampT	Type: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Batch	h ID: 727	725	F	unNo: 94	4119				
Prep Date:	1/20/2023	Analysis D)ate: 1/	23/2023	S	eqNo: 3	399134	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	40	10	50.00	0	80.7	61.9	130			
Surr: DNOP		5.0		5.000		99.5	69	147			
Sample ID:	LCS-72726	SampT	Гуре: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Batch	h ID: 727	726	F	unNo: 94	4119				
Prep Date:	1/20/2023	Analysis D)ate: 1/	23/2023	S	eqNo: 3	399135	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	41	10	50.00	0	83.0	61.9	130			
Surr: DNOP		5.4		5.000		107	69	147			
Sample ID:	LCS-72740	SampT	Type: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID:	LCSS	Batch	h ID: 727	740	F	unNo: 9 4	4119		_		
Prep Date:											
		Analysis D		23/2023	S	eqNo: 3	399136	Units: %Red	C		
Analyte					SPK Ref Val	eqNo: 3 : %REC	399136 LowLimit	Units: %Red HighLimit	c %RPD	RPDLimit	Qual
Analyte Surr: DNOP		Analysis D	Date: 1/ 2							RPDLimit	Qual
,	1/20/2023	Analysis D Result 5.4	Date: 1/ 2	SPK value 5.000	SPK Ref Val	%REC 108	LowLimit 69	HighLimit	%RPD		Qual
Surr: DNOP	1/20/2023 MB-72725	Analysis D Result 5.4 SampT	Date: 1/2 PQL	SPK value 5.000 BLK	SPK Ref Val	%REC 108 tCode: EF	LowLimit 69 PA Method	HighLimit 147	%RPD		Qual
Surr: DNOP Sample ID:	1/20/2023 MB-72725	Analysis D Result 5.4 SampT	Date: 1 /2 PQL Type: ME h ID: 72 7	SPK value 5.000 BLK 725	SPK Ref Val Tes	%REC 108	LowLimit 69 PA Method 4119	HighLimit 147	%RPD		Qual
Surr: DNOP Sample ID: Client ID:	1/20/2023 MB-72725 PBS	Analysis D Result 5.4 SampT Batch	Date: 1 /2 PQL Type: ME h ID: 72 7	SPK value 5.000 3LK 725 23/2023	SPK Ref Val Tes	%REC 108 tCode: EF	LowLimit 69 PA Method 4119	HighLimit 147 8015M/D: Die	%RPD		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

2301712

30-Jan-23

WO#:

	Resources Services, Inc. 17 Federal 001	
Sample ID: MB-72725	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 72725	RunNo: 94119
Prep Date: 1/20/2023	Analysis Date: 1/23/2023	SeqNo: 3399138 Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Motor Oil Range Organics (MRO)	ND 50	
Surr: DNOP	9.6 10.00	95.9 69 147
Sample ID: MB-72726	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 72726	RunNo: 94119
Prep Date: 1/20/2023	Analysis Date: 1/23/2023	SeqNo: 3399139 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	aa a
Surr: DNOP	9.9 10.00	98.5 69 147
Sample ID: MB-72740	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 72740	RunNo: 94119
Prep Date: 1/20/2023	Analysis Date: 1/23/2023	SeqNo: 3399140 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	12 10.00	116 69 147
Sample ID: LCS-72755	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 72755	RunNo: 94153
Prep Date: 1/23/2023	Analysis Date: 1/24/2023	SeqNo: 3399719 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	6.5 5.000	129 69 147
Sample ID: LCS-72769	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 72769	RunNo: 94153
Prep Date: 1/23/2023	Analysis Date: 1/24/2023	SeqNo: 3399720 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	5.5 5.000	109 69 147
Sample ID: MB-72755	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 72755	RunNo: 94153
Prep Date: 1/23/2023	Analysis Date: 1/24/2023	SeqNo: 3399722 Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Surr: DNOP	13 10.00	126 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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2301712

30-Jan-23

WO#:

2301712

30-Jan-23

WO#:

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:		Resources Se t 17 Federal (, Inc.							
Sample ID: MB-	72769	SampT	ype: MI	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	esel Range	e Organics	
Client ID: PBS	6	Batch	ID: 72	769	F	unNo: 94	4153				
Prep Date: 1/2	23/2023	Analysis D	ate: 1/	24/2023	S	eqNo: 3	399723	Units: %Red	•		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		11		10.00		106	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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	Resources Services, Inc. 17 Federal 001		
Sample ID: Ics-72717	SampType: LCS	TestCode: EPA Method	8015D: Gasoline Range
Client ID: LCSS	Batch ID: 72717	RunNo: 94108	
Prep Date: 1/19/2023	Analysis Date: 1/21/2023	SeqNo: 3397801	Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO) Surr: BFB	205.025.0019001000	0 80.0 72.3 191 37.7	137 212
Sample ID: mb-72717	SampType: MBLK	TestCode: EPA Method	8015D: Gasoline Range
Client ID: PBS	Batch ID: 72717	RunNo: 94108	
Prep Date: 1/19/2023	Analysis Date: 1/21/2023	SeqNo: 3397804	Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 5.0 1000 1000	100 37.7	212
Sample ID: Ics-72722	SampType: LCS	TestCode: EPA Method	8015D: Gasoline Range
Client ID: LCSS	Batch ID: 72722	RunNo: 94128	
Prep Date: 1/19/2023	Analysis Date: 1/23/2023	SeqNo: 3398775	Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	21 5.0 25.00	0 83.8 72.3	137
Surr: BFB	2000 1000	195 37.7	212
Sample ID: Ics-72733	SampType: LCS	TestCode: EPA Method	8015D: Gasoline Range
Client ID: LCSS	Batch ID: 72733	RunNo: 94128	
Prep Date: 1/20/2023	Analysis Date: 1/23/2023	SeqNo: 3398776	Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Surr: BFB	2000 1000	197 37.7	212
Sample ID: mb-72722	SampType: MBLK	TestCode: EPA Method	8015D: Gasoline Range
Client ID: PBS	Batch ID: 72722	RunNo: 94128	-
Prep Date: 1/19/2023	Analysis Date: 1/23/2023	SeqNo: 3398777	Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Gasoline Range Organics (GRO)	ND 5.0		-
Surr: BFB	1000 1000	102 37.7	212
Sample ID: mb-72733	SampType: MBLK	TestCode: EPA Method	8015D: Gasoline Range
Client ID: PBS	Batch ID: 72733	RunNo: 94128	
Prep Date: 1/20/2023	Analysis Date: 1/23/2023	SeqNo: 3398778	Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Surr: BFB	1100 1000	107 37.7	212

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 41 of 44

2301712

30-Jan-23

WO#:

Client: Project:		esources So 7 Federal (,	Inc.							
Sample ID: 2	2301712-017ams	SampT	уре: МS	;	Tes	tCode: EF	PA Method	8015D: Gaso	oline Rang	e	
Client ID:	3H22-21 2'	Batch	D: 72	722	F	RunNo: 94	4128				
Prep Date:	1/19/2023	Analysis D	ate: 1/	23/2023	S	SeqNo: 3	398780	Units: mg/ #	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range	Organics (GRO)	18	4.9	24.65	0	73.0	70	130			
Surr: BFB		1900		986.2		192	37.7	212			
Sample ID: 2	2301712-017amsd	I SampT	уре: МS	D	Tes	tCode: EF	PA Method	8015D: Gasc	line Rang	e	
Client ID:	3H22-21 2'	Batch	ID: 72	722	F	RunNo: 94	4128				
Prep Date:	1/19/2023	Analysis D	ate: 1/	24/2023	S	SeqNo: 3	398781	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range	Organics (GRO)	18	4.9	24.39	0	72.6	70	130	1.74	20	
Surr: BFB		1900		975.6		198	37.7	212	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
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- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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2301712

30-Jan-23

WO#:

P

	Resources Servic 17 Federal 001	es, Inc.							
Sample ID: LCS-72717	SampType:	LCS	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch ID:	72717	F	RunNo: 9 4	4108				
Prep Date: 1/19/2023	Analysis Date:	1/21/2023	S	SeqNo: 3	397873	Units: mg/K	g		
Analyte	Result PQ	_ SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89 0.02	25 1.000	0	89.1	80	120			
Toluene	0.93 0.05	50 1.000	0	92.9	80	120			
Ethylbenzene	0.93 0.05	50 1.000	0	93.1	80	120			
Xylenes, Total	2.8 0.1	0 3.000	0	92.2	80	120			
Surr: 4-Bromofluorobenzene	0.99	1.000		99.2	70	130			
Sample ID: mb-72717	SampType:	MBLK	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch ID:	72717	F	RunNo: 9 4	4108				
Prep Date: 1/19/2023	Analysis Date:	1/21/2023	S	SeqNo: 3	397876	Units: mg/K	g		
Analyte	Result PQ	_ SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND 0.02	25							
Toluene	ND 0.05	50							
Ethylbenzene	ND 0.05	-							
Xylenes, Total	ND 0.1								
Surr: 4-Bromofluorobenzene	0.97	1.000		96.7	70	130			
Sample ID: LCS-72722	SampType:	LCS	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch ID:	72722	F	RunNo: 9 4	4128				
Prep Date: 1/19/2023	Analysis Date:	1/23/2023	5	SeqNo: 3	398825	Units: mg/K	g		
Analyte	Result PQ	_ SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89 0.02	25 1.000	0	88.6	80	120			
Toluene	0.92 0.05	50 1.000	0	92.1	80	120			
Ethylbenzene	0.93 0.05			93.0	80	120			
Xylenes, Total	2.8 0.1			92.4	80	120			
Surr: 4-Bromofluorobenzene	1.0	1.000		99.9	70	130			
Sample ID: LCS-72733	SampType:	LCS	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: LCSS	Batch ID:	72733	F	RunNo: 9 4	4128				
Prep Date: 1/20/2023	Analysis Date:	1/23/2023	5	SeqNo: 3	398826	Units: %Red	•		
Analyte	Result PQ	_ SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.98	1.000		97.8	70	130			
Sample ID: mb-72722	SampType:	MBLK	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: PBS	Batch ID:	72722		RunNo: 9 4					
Prep Date: 1/19/2023	Analysis Date:			SeqNo: 3		Units: mg/K	g		
Analyte	Result PQ	_ SPK value	SPK Ref Val			HighLimit	- %RPD	RPDLimit	Qual
						3			

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#: 2301712

30-Jan-23

	esources S 7 Federal	,	Inc.							
Sample ID: mb-72722	SampT	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: PBS	Batcl	h ID: 72	722	R	unNo: 94	4128				
Prep Date: 1/19/2023	Analysis E	Date: 1/	23/2023	S	eqNo: 3	398827	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	0.95		1.000		95.0	70	130			
Sample ID: mb-72733	SampT	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8021B: Volat	iles		
Client ID: PBS	Batcl	h ID: 72	733	R	lunNo: 94	1128				
Prep Date: 1/20/2023	Analysis E	Date: 1/	23/2023	S	eqNo: 3	398828	Units: %Red	•		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		99.2	70	130			
Sample ID: 2301712-018ams	Comp			Taa						
Sample ID. 2301/12-010ams	Sampi	Гуре: МS	•	Tes		'A Method	8021B: Volat	iles		
Client ID: BH22-21 4'		h ID: 72			lunNo: 94		8021B: Volat	lles		
		h ID: 72	722	R		4128	Units: mg/K			
Client ID: BH22-21 4'	Batcl	h ID: 72	722 24/2023	R	unNo: 94	4128			RPDLimit	Qual
Client ID: BH22-21 4' Prep Date: 1/19/2023	Batcl Analysis [h ID: 72 Date: 1/	722 24/2023	R	tunNo: 94 SeqNo: 3	4128 398831	Units: mg/K	g	RPDLimit	Qual
Client ID: BH22-21 4' Prep Date: 1/19/2023 Analyte	Batcl Analysis I Result	h ID: 72 Date: 1/ PQL	722 24/2023 SPK value	R S SPK Ref Val	RunNo: 94 SeqNo: 3: %REC	4128 398831 LowLimit	Units: mg/K HighLimit	g	RPDLimit	Qual
Client ID: BH22-21 4' Prep Date: 1/19/2023 Analyte Benzene	Batcl Analysis E Result 0.85	h ID: 72 Date: 1/ PQL 0.024	722 24/2023 SPK value 0.9747	R SPK Ref Val 0	2unNo: 94 SeqNo: 3: %REC 86.9	4128 398831 LowLimit 68.8	Units: mg/K HighLimit 120	g	RPDLimit	Qual
Client ID: BH22-21 4' Prep Date: 1/19/2023 Analyte Benzene Toluene	Batcl Analysis E Result 0.85 0.91	h ID: 72 Date: 1/ PQL 0.024 0.049	722 24/2023 SPK value 0.9747 0.9747	R S SPK Ref Val 0 0.01660	RunNo: 94 SeqNo: 3: %REC 86.9 91.2	4128 398831 LowLimit 68.8 73.6	Units: mg/K HighLimit 120 124	g	RPDLimit	Qual
Client ID: BH22-21 4' Prep Date: 1/19/2023 Analyte Benzene Toluene Ethylbenzene	Batch Analysis E Result 0.85 0.91 0.91	h ID: 72 Date: 1 / PQL 0.024 0.049 0.049	722 24/2023 SPK value 0.9747 0.9747 0.9747	R S SPK Ref Val 0 0.01660 0	RunNo: 94 SeqNo: 3: <u>%REC</u> 86.9 91.2 93.3	4128 398831 LowLimit 68.8 73.6 72.7	Units: mg/K <u>HighLimit</u> 120 124 129	g	RPDLimit	Qual
Client ID: BH22-21 4' Prep Date: 1/19/2023 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Batcl Analysis I Result 0.85 0.91 0.91 2.7 0.94	h ID: 72 Date: 1 / PQL 0.024 0.049 0.049	722 24/2023 SPK value 0.9747 0.9747 0.9747 2.924 0.9747	R SPK Ref Val 0 0.01660 0 0	RunNo: 94 SeqNo: 3: %REC 86.9 91.2 93.3 92.8 96.9	4128 398831 LowLimit 68.8 73.6 72.7 75.7 70	Units: mg/K HighLimit 120 124 129 126	. % RPD	RPDLimit	Qual
Client ID: BH22-21 4' Prep Date: 1/19/2023 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene	Batcl Analysis E Result 0.85 0.91 0.91 2.7 0.94	PQL 0.024 0.049 0.097	722 24/2023 SPK value 0.9747 0.9747 0.9747 2.924 0.9747	R SPK Ref Val 0 0.01660 0 0 0 Test	RunNo: 94 SeqNo: 3: %REC 86.9 91.2 93.3 92.8 96.9	4128 398831 LowLimit 68.8 73.6 72.7 75.7 70 PA Method	Units: mg/K HighLimit 120 124 129 126 130	. % RPD	RPDLimit	Qual
Client ID: BH22-21 4' Prep Date: 1/19/2023 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 2301712-018amsd	Batcl Analysis E Result 0.85 0.91 0.91 2.7 0.94	h ID: 72 Date: 1/ PQL 0.024 0.049 0.049 0.097 Type: MS h ID: 72	722 24/2023 SPK value 0.9747 0.9747 0.9747 2.924 0.9747 5D 722	R SPK Ref Val 0 0.01660 0 0 0 Test R	RunNo: 94 GeqNo: 3: %REC 86.9 91.2 93.3 92.8 96.9 tCode: EF	4128 398831 68.8 73.6 72.7 75.7 70 PA Method 4128	Units: mg/K HighLimit 120 124 129 126 130	iles	RPDLimit	Qual
Client ID: BH22-21 4' Prep Date: 1/19/2023 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 2301712-018amsd Client ID: BH22-21 4'	Batcl Analysis I 0.85 0.91 0.91 2.7 0.94 I SampT Batcl	h ID: 72 Date: 1/ PQL 0.024 0.049 0.049 0.097 Type: MS h ID: 72	722 24/2023 SPK value 0.9747 0.9747 2.924 0.9747 5D 722 24/2023	R SPK Ref Val 0 0.01660 0 0 0 Test R	RunNo: 94 GeqNo: 3: %REC 86.9 91.2 93.3 92.8 96.9 tCode: EF	4128 398831 68.8 73.6 72.7 75.7 70 PA Method 4128	Units: mg/K HighLimit 120 124 129 126 130 8021B: Volat	iles	RPDLimit	Qual
Client ID: BH22-21 4' Prep Date: 1/19/2023 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 2301712-018amsd Client ID: BH22-21 4' Prep Date: 1/19/2023	Batcl Analysis I Result 0.85 0.91 0.91 2.7 0.94 I SampT Batcl Analysis I	h ID: 72 Date: 1/ PQL 0.024 0.049 0.049 0.049 0.049 0.097	722 24/2023 SPK value 0.9747 0.9747 2.924 0.9747 5D 722 24/2023	R SPK Ref Val 0 0.01660 0 0 Tesi R S	RunNo: 94 SeqNo: 3: %REC 86.9 91.2 93.3 92.8 96.9 tCode: EF RunNo: 94 SeqNo: 3:	4128 398831 LowLimit 68.8 73.6 72.7 75.7 70 PA Method 4128 398832	Units: mg/K HighLimit 120 124 129 126 130 8021B: Volat Units: mg/K	íg %RPD illes		
Client ID: BH22-21 4' Prep Date: 1/19/2023 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 2301712-018amsd Client ID: BH22-21 4' Prep Date: 1/19/2023 Analyte	Batcl Analysis I 0.85 0.91 0.91 2.7 0.94 I Samp Batcl Analysis I Result	h ID: 72 Date: 1/ PQL 0.024 0.049 0.049 0.049 0.097 Type: MS h ID: 72 Date: 1/ PQL	722 24/2023 SPK value 0.9747 0.9747 2.924 0.9747 5D 722 24/2023 SPK value	R SPK Ref Val 0 0.01660 0 0 Test R SPK Ref Val	2unNo: 94 SeqNo: 3: %REC 86.9 91.2 93.3 92.8 96.9 tCode: EF 2unNo: 94 SeqNo: 3: %REC	4128 398831 LowLimit 68.8 73.6 72.7 75.7 70 PA Method 4128 398832 LowLimit	Units: mg/K HighLimit 120 124 129 126 130 8021B: Volat Units: mg/K HighLimit	iles %RPD	RPDLimit	
Client ID: BH22-21 4' Prep Date: 1/19/2023 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 2301712-018amsd Client ID: BH22-21 4' Prep Date: 1/19/2023 Analyte Benzene	Batcl Analysis I 0.85 0.91 0.91 2.7 0.94 I SampT Batcl Analysis I Result 0.70	h ID: 72: Date: 1/ PQL 0.024 0.049 0.049 0.097 Type: MS h ID: 72: Date: 1/ PQL 0.024	722 24/2023 SPK value 0.9747 0.9747 2.924 0.9747 2.924 0.9747 5D 722 24/2023 SPK value 0.9756	R SPK Ref Val 0 0.01660 0 0 Test R SPK Ref Val 0	2unNo: 94 SeqNo: 3: %REC 86.9 91.2 93.3 92.8 96.9 tCode: EF 3unNo: 94 SeqNo: 3: %REC 71.3	4128 398831 LowLimit 68.8 73.6 72.7 75.7 70 PA Method 4128 398832 LowLimit 68.8	Units: mg/K HighLimit 120 124 129 126 130 8021B: Volat Units: mg/K HighLimit 120	5 g %RPD illes 5g %RPD 19.6	RPDLimit 20	
Client ID: BH22-21 4' Prep Date: 1/19/2023 Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromofluorobenzene Sample ID: 2301712-018amsd Client ID: BH22-21 4' Prep Date: 1/19/2023 Analyte Benzene Toluene	Batcl Analysis I 0.85 0.91 0.91 2.7 0.94 I Samp1 Batcl Analysis I Result 0.70 0.81	h ID: 72: Date: 1/ PQL 0.024 0.049 0.049 0.097 Type: MS h ID: 72: Date: 1/ PQL 0.024 0.024 0.024	722 24/2023 SPK value 0.9747 0.9747 2.924 0.9747 5D 722 24/2023 SPK value 0.9756 0.9756	R SPK Ref Val 0 0.01660 0 0 Test SPK Ref Val 0 0.01660	2unNo: 94 SeqNo: 3 %REC 86.9 91.2 93.3 92.8 96.9 Code: EF SunNo: 94 SeqNo: 3 %REC 71.3 81.8	4128 398831 LowLimit 68.8 73.6 72.7 75.7 70 PA Method 4128 398832 LowLimit 68.8 73.6	Units: mg/K HighLimit 120 124 129 126 130 8021B: Volat Units: mg/K HighLimit 120 124	5g %RPD illes 5g %RPD 19.6 10.6	RPDLimit 20 20	

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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2301712

30-Jan-23

WO#:

				: 505-345-397 Vebsite: www.h	5 FAX: 505		Sam	ple Log-In Check List
	Vertex Reso Services, Inc		Work	Order Numbe	r: 230171	2		RcptNo: 1
Received By:	Juan Rojas	5	1/19/202	3 7:20:00 AN	Л	4	lanay S_/	
Completed By:	Sean Livin	gston	1/19/202	23 8:27:53 AM	И		Sala	20t
Reviewed By:	KPG	1.19	1.23					v
Chain of Cust	ody				_		_	_
1. Is Chain of Cu	stody comple	ete?			Yes 🗹	']	No 🗌	Not Present
2. How was the s	ample delive	ered?			<u>Courier</u>			
Log In 3. Was an attemp	pt made to co	ool the sample	es?		Yes 🗹]	No 🗌	NA 🗌
4. Were all sample	les received	at a temperat	ure of >0°C t	o 6.0°C	Yes 🔽]	No 🗌	na 🗆
5. Sample(s) in p	roper contair	ner(s)?			Yes 🗹]	No 🗌	
6. Sufficient samp	ole volume fo	or indicated te	st(s)?		Yes 🗹		No 🗌	
7. Are samples (e	except VOA a	and ONG) pro	perly preserve	d?	Yes 🗹		No 🗌	
8. Was preservati	ive added to	bottles?			Yes 🗌		No 🗹	NA 🗌
9. Received at lea	ast 1 vial with	headspace <	<1/4" for AQ V	OA?	Yes 🗌		No 🗌	NA 🗹
10. Were any sam	ple containe	rs received br	roken?		Yes		No 🗹 🛛	# of preserved
11. Does paperwor	rk match bott	tle labels?			Yes 🗹		No 🗆	bottles checked for pH:
(Note discrepation		••			_			(<2 or >12 unless noted) Adjusted?
12. Are matrices co					Yes 🗹			Aujusieu
13. Is it clear what 14. Were all holdin			?		Yes 🗹 Yes 🗹		No 🗌 No 🔲	checked by: Jul 19/23
(If no, notify cu	-				163 🖭			
Special Handli	ng (if app	licable)						
15. Was client not	ified of all dis	screpancies w	vith this order?		Yes]	No 🗌	
Person I	Notified:			Date: 🖡				
By Who	*			Via:	🗌 eMail	Phone	e 🗌 Fax	In Person
Regardir		ويريد والمراجع والم						and the second
	structions:							
16. Additional ren								
17. <u>Cooler Inform</u> Cooler No	nation Temp °C	Condition	Seal Intact	Seal No	Seal Date	Cior	ned By	
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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Received Hach 361-201 Stody Record	StodyRecord	Turn-Around Time:			HALL	ENVT	DONME	Page 229 of 309
Client: Vertex		X Standard Kush	5 Davy		ANALYSIS	YSIS	LABORATORY	TORY
(direct bil	(direct bill to Devon)				www.hall	www.hallenvironmental.com	ental.com	
Mailing Address:		Tomcat 17 Federal #001		4901 Ha	4901 Hawkins NE -		Albuquerque, NM 87109	
		Project #:		Tel. 50	Tel. 505-345-3975	Fax 50	505-345-4107	
Phone #:		22E-02816-27			A	Analysis Request	equest	
email or Fax#:		Project Manager:		(0)		[₽] OS	(<u></u> 1u	
QA/QC Package:		Kent Stallings		AM \	SMI	S '⊅C	∋sq⊁	
□ Standard	Level 4 (Full Validation)	<u>kstallings@vertex.ca</u>		50	S02		/\fue	
Accreditation:	mpliance	Sampler: L.Pullman		IO /				
NELAC		_	D No	02	10 (
🗆 EDD (Type)		# of Coolers:	morty	(GI	015	('	_	
		Cooler Temp(Including CF): V	1-0-7.9	191	8 Yo	40/		
Date Time Matrix	Sample Name	Container Preservative Type and # Type	HEAL No. 23の1 子(て	ВТЕХ / 1PH:80 9 1808	EDB (A	8520 (/ 8560 (/	s) 0728 Total C	
01/16/23 10:25 Soil	BH22-15 0'	1, 4oz jar	100	××		×		
01/16/23 10:30 Soil	BH22-15 2'	1, 4oz jar	200	××		×		
01/16/23 10:35 Soil	BH22-16 0'	1, 4oz jar	007	××		×		
01/16/23 10:40 Soil	BH22-16 2'	1, 4oz jar	hao	X X		×		
01/16/23 10:45 Soil	BH22-17 0'	1, 4oz jar	00S	××		×		
01/16/23 10:50 Soil	BH22-17 2'	1, 4oz jar	200	××		×		
01/16/23 11:00 Soil	BH22-18 0'	1, 4oz jar	700	××		×		
01/16/23 11:05 Soil	BH22-18 2'	1, 4oz jar	B	××		×		
01/16/23 11:10 Soil	BH22-18 4'	1, 4oz jar	ی ک ک	××		×		
01/16/23 11:15 Soil	BH22-19 0'	1, 4oz jar	010	X X		×		
01/16/23 11:20 Soil	BH22-19 2'	1, 4oz jar	200 10/1 01/1	××		×		
01/16/23 11:25 Soil	BH22-19 4'	1, 4oz jar		X X		×		
Time:	ed by.	Received by: Via:	Date Time	Remarks:				
13 07:00	M	CUMMUN	1/18/13 700	Direct bill to Devon, Dale Woodall cc. kstallings@vertex.ca for Final Report	Devon, Dali s@vertex.ca	e Woodall for Final	Report	
Date: Time: Relinquished by:		Received by Via:	Date Time	0				
Relts 19m CULU		A ROUNIER	U19123 7120			-		
v sar		conmental may be subcontracted to other accredited laboratories.	This serves as notice of this possibility.		b-contracted data	will be clearly n	Any sub-contracted data will be clearly notated on the analytical report	al report.

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

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Received	CGPN	999-2029	Received Charles 261-2241 Stold & Record	Turn-Around Time:	Time:						-	2	Ę	Č	Page 230 of 309
Client:		Vertex		K Standard	X Rush	5 Daw				Z	E E	IS	S	AB	ANALYSIS LABORATORY
		(direct bi	(direct bill to Devon)	Project Name:						~~~~	/.halle	nviror	nem	www.hallenvironmental.com	
Mailing Address:	ddress			Tomcat 17 Federal #001	ederal #001		Ξ.	4901	4901 Hawkins NE -	kins N		Albuqu	nerqu	le, NM	Albuquerque, NM 87109
				Project #:				Tel.		505-345-3975		Fax	505	505-345-4107	107
Phone #:				22E-02816-27	~						An	Analysis	Req	Request	
email or Fax#:	-ax#:			Project Manager	ger:		(1	(0			0.	† 01		(ju	
QA/QC Package:	ickage:			Kent Stallings			802		S.9.	SM		e 'tr		əsq	
□ Standard	ard		Level 4 (Full Validation)	<u>kstallings@vertex.ca</u>	rtex.ca) ទ,ខ		<u>од</u>	150.		, די		/ ди	
Accreditation:	tion:	🗆 Az Co	mpliance		ullman		IME					201	(əsəl	
	0	□ Other		On Ice:	1 Yes	D No	. / :					3' 1	AC	Hı)	
🗆 EDD (Type)	Type)			# of Coolers:	1	tracty	38.							w.	
-				Cooler Temp(including CF):	Including CF):	んけこのした	LΜ							ofilo	
Date T	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX /	08:H9T	9081 Pe	d sHA9	S ARDR	8560 (A Cl' E' E	S) 0728	D letoT	
01/16/23	11:30	Soil	BH22-20 0'	1, 4oz jar		013	×	×				×			
01/16/23	11:35	Soil	BH22-20 2'	1, 4oz jar		014	×	×			~	×			
01/16/23	11:40	Soil	BH22-20 4'	1, 4oz jar		012	×	X				×			
01/17/23	8:05	Soil	BH22-21 0'	1, 4oz jar		2)(5	×	X			~	×			
01/17/23	8:10	Soil	BH22-21 2'	1, 4oz jar		110	×	×				×			
01/17/23	8:15	Soil	BH22-21 4'	1, 4oz jar		うしゃ	×	×			~	×			
01/17/23	8:20	Soil	BH22-22 0'	1, 4oz jar		D(9	×	X				×			
01/17/23	8:25	Soil	BH22-22 2'	1, 4oz jar		C2 0	×	×				×			
01/17/23	8:30	Soil	BH22-22 4'	1, 4oz jar		1-201	×	×				×			
01/17/23	8:40	Soil	BH22-23 0'	1, 4oz jar		220	×	×				×			
01/17/23	8:45	Soil	BH22-23 2'	1, 4oz jar		520	×	X				×			
/23	8:50	Soil	BH22-23 4'	1, 4oz jar		אזכי	×	×				×			
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3 If necessary, samples submitted to Hall Environmental may be subcontracted to pureracc

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01/17/23	9:15	Soil	BH22-25 0'	1, 4oz jar		120	×	×				×				
01/17/23	9:20	Soil	BH22-25 2'	1, 4oz jar		020	×	×				×				
01/17/23	9:25	Soil	BH22-25 4'	1, 4oz jar		030	×	×	_			×				
01/16/23	9:45	Soil	BH22-26 4'	1, 4oz jar		150	×	×				×				
01/16/23	9:50	Soil	BH22-26 6'	1, 4oz jar		032	×	×				×				
01/16/23	9:55	Soil	BH22-26 8'	1, 4oz jar		520	×	×				×				
01/16/23	10:05	Soil	BH22-27 4'	1, 4oz jar		225	×	×				×				
01/16/23	10:10	Soil	BH22-27 6'	1, 4oz jar		535	×	×				×				
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	f necessary	r, samples sut	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.	contracted to other a	ccredited laboratorie	es. This serves as notice of thi	s poss	bility. A	uy sub	-contrac	ted data	will be	clearly r	notated o	n the analytical report	÷

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) If necessary, samples submitted to Hall Environmental may be subcontracted to

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- m	10:00	Soil BH22-26 9', HOLD	1. 4oz iar	034	$\left \times \right $						
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December 21, 2022

Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL: (505) 506-0040 FAX:

RE: Tomcat 17 Federal 001

OrderNo.: 2212806

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 17 sample(s) on 12/14/2022 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

Project:

Lab ID:

CLIENT: Vertex Resources Services, Inc.

2212806-001

Tomcat 17 Federal 001

Analytical Report Lab Order 2212806

Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: WS22-01 0-2' Collection Date: 12/12/2022 7:45:00 AM Received Date: 12/14/2022 7:30:00 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	15	mg/Kg	1	12/16/2022 6:01:13 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/16/2022 6:01:13 PM
Surr: DNOP	109	21-129	%Rec	1	12/16/2022 6:01:13 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: CCM
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/16/2022 12:47:00 PM
Surr: BFB	103	37.7-212	%Rec	1	12/16/2022 12:47:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: CCM
Benzene	ND	0.025	mg/Kg	1	12/16/2022 12:47:00 PM
Toluene	ND	0.050	mg/Kg	1	12/16/2022 12:47:00 PM
Ethylbenzene	ND	0.050	mg/Kg	1	12/16/2022 12:47:00 PM
Xylenes, Total	ND	0.099	mg/Kg	1	12/16/2022 12:47:00 PM
Surr: 4-Bromofluorobenzene	108	70-130	%Rec	1	12/16/2022 12:47:00 PM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	110	60	mg/Kg	20	12/16/2022 12:29:01 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

Page 1 of 21

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Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-02 0-2' **Project:** Tomcat 17 Federal 001 Collection Date: 12/12/2022 7:55:00 AM Lab ID: 2212806-002 Matrix: SOIL Received Date: 12/14/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/16/2022 6:32:52 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/16/2022 6:32:52 PM Surr: DNOP 123 21-129 %Rec 1 12/16/2022 6:32:52 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/16/2022 1:46:00 PM 5.0 mg/Kg 1 Surr: BFB 96.8 37.7-212 %Rec 1 12/16/2022 1:46:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/16/2022 1:46:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/16/2022 1:46:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/16/2022 1:46:00 PM Xylenes, Total ND mg/Kg 1 12/16/2022 1:46:00 PM 0.099 Surr: 4-Bromofluorobenzene 106 70-130 %Rec 1 12/16/2022 1:46:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/16/2022 1:06:14 PM ND 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 2 of 21

Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-03 0-2' **Project:** Tomcat 17 Federal 001 Collection Date: 12/12/2022 8:00:00 AM Lab ID: 2212806-003 Matrix: SOIL Received Date: 12/14/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH **Diesel Range Organics (DRO)** ND 15 mg/Kg 1 12/16/2022 6:43:31 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/16/2022 6:43:31 PM Surr: DNOP 104 21-129 %Rec 1 12/16/2022 6:43:31 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/16/2022 2:45:00 PM 5.0 mg/Kg 1 Surr: BFB 102 37.7-212 %Rec 1 12/16/2022 2:45:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/16/2022 2:45:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/16/2022 2:45:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/16/2022 2:45:00 PM Xylenes, Total ND mg/Kg 1 12/16/2022 2:45:00 PM 0.099 Surr: 4-Bromofluorobenzene 110 70-130 %Rec 1 12/16/2022 2:45:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/16/2022 1:43:26 PM 170 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 21

Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-04 0-2' **Project:** Tomcat 17 Federal 001 Collection Date: 12/12/2022 8:05:00 AM Lab ID: 2212806-004 Matrix: SOIL Received Date: 12/14/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 15 mg/Kg 1 12/16/2022 6:54:12 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/16/2022 6:54:12 PM Surr: DNOP 104 21-129 %Rec 1 12/16/2022 6:54:12 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/16/2022 3:05:00 PM 4.9 mg/Kg 1 Surr: BFB 109 37.7-212 %Rec 1 12/16/2022 3:05:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/16/2022 3:05:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/16/2022 3:05:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/16/2022 3:05:00 PM Xylenes, Total ND 0.098 mg/Kg 1 12/16/2022 3:05:00 PM Surr: 4-Bromofluorobenzene 110 70-130 %Rec 1 12/16/2022 3:05:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/16/2022 2:20:39 PM 150 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 4 of 21

Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-05 0-2' **Project:** Tomcat 17 Federal 001 Collection Date: 12/12/2022 8:10:00 AM Lab ID: 2212806-005 Matrix: SOIL Received Date: 12/14/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/16/2022 7:04:53 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 12/16/2022 7:04:53 PM Surr: DNOP 101 21-129 %Rec 1 12/16/2022 7:04:53 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/16/2022 3:24:00 PM 4.9 mg/Kg 1 Surr: BFB 93.9 37.7-212 %Rec 1 12/16/2022 3:24:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/16/2022 3:24:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/16/2022 3:24:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/16/2022 3:24:00 PM Xylenes, Total ND 0.099 mg/Kg 1 12/16/2022 3:24:00 PM Surr: 4-Bromofluorobenzene 103 70-130 %Rec 1 12/16/2022 3:24:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/16/2022 2:33:04 PM ND 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 5 of 21

Project:

Lab ID:

CLIENT: Vertex Resources Services, Inc.

2212806-006

Tomcat 17 Federal 001

Analytical Report Lab Order 2212806

Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: WS22-06 0-4' Collection Date: 12/12/2022 9:00:00 AM Matrix: SOIL Received Date: 12/14/2022 7:30:00 AM

Result	RL Qu	al Units	DF	Date Analyzed
GANICS				Analyst: DGH
ND	15	mg/Kg	1	12/16/2022 7:15:33 PM
ND	49	mg/Kg	1	12/16/2022 7:15:33 PM
103	21-129	%Rec	1	12/16/2022 7:15:33 PM
				Analyst: CCM
ND	4.8	mg/Kg	1	12/16/2022 3:44:00 PM
101	37.7-212	%Rec	1	12/16/2022 3:44:00 PM
				Analyst: CCM
ND	0.024	mg/Kg	1	12/16/2022 3:44:00 PM
ND	0.048	mg/Kg	1	12/16/2022 3:44:00 PM
ND	0.048	mg/Kg	1	12/16/2022 3:44:00 PM
ND	0.097	mg/Kg	1	12/16/2022 3:44:00 PM
107	70-130	%Rec	1	12/16/2022 3:44:00 PM
				Analyst: NAI
ND	61	mg/Kg	20	12/16/2022 2:45:28 PM
	GANICS ND 103 ND 101 ND ND ND ND 107	GANICS ND 15 ND 49 103 21-129 ND 4.8 101 37.7-212 ND 0.024 ND 0.048 ND 0.048 ND 0.097 107 70-130	MD 15 mg/Kg ND 49 mg/Kg 103 21-129 %Rec ND 4.8 mg/Kg 101 37.7-212 %Rec ND 0.024 mg/Kg ND 0.048 mg/Kg ND 0.097 mg/Kg 107 70-130 %Rec	GANICS ND 15 mg/Kg 1 ND 49 mg/Kg 1 103 21-129 %Rec 1 ND 4.8 mg/Kg 1 101 37.7-212 %Rec 1 ND 0.024 mg/Kg 1 ND 0.048 mg/Kg 1 ND 0.048 mg/Kg 1 ND 0.097 mg/Kg 1 107 70-130 %Rec 1

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 21

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Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-07 0-4' **Project:** Tomcat 17 Federal 001 Collection Date: 12/12/2022 9:05:00 AM Lab ID: 2212806-007 Matrix: SOIL Received Date: 12/14/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/16/2022 7:26:14 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/16/2022 7:26:14 PM Surr: DNOP 106 21-129 %Rec 1 12/16/2022 7:26:14 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/16/2022 4:04:00 PM 4.9 mg/Kg 1 Surr: BFB 101 37.7-212 %Rec 1 12/16/2022 4:04:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/16/2022 4:04:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/16/2022 4:04:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/16/2022 4:04:00 PM Xylenes, Total ND 0.099 mg/Kg 1 12/16/2022 4:04:00 PM Surr: 4-Bromofluorobenzene 110 70-130 %Rec 1 12/16/2022 4:04:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/16/2022 2:57:53 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 Sample Diluted Due to Matrix
 H Holding times for preparation or analysis exceed.

H Holding times for preparation or analysis exceeded

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 Not Detected at the Reporting Limit

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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 7 of 21

Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-08 0-4' **Project:** Tomcat 17 Federal 001 Collection Date: 12/12/2022 9:10:00 AM Lab ID: 2212806-008 Matrix: SOIL Received Date: 12/14/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH **Diesel Range Organics (DRO)** ND 14 mg/Kg 1 12/16/2022 7:36:51 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/16/2022 7:36:51 PM Surr: DNOP 21-129 %Rec 1 12/16/2022 7:36:51 PM 112 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/16/2022 4:23:00 PM 5.0 mg/Kg 1 Surr: BFB 103 37.7-212 %Rec 1 12/16/2022 4:23:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/16/2022 4:23:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/16/2022 4:23:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/16/2022 4:23:00 PM Xylenes, Total ND mg/Kg 1 12/16/2022 4:23:00 PM 0.10 Surr: 4-Bromofluorobenzene 110 70-130 %Rec 1 12/16/2022 4:23:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/16/2022 3:10:17 PM 150 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: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-09 0-4' **Project:** Tomcat 17 Federal 001 Collection Date: 12/12/2022 9:15:00 AM Lab ID: 2212806-009 Matrix: SOIL Received Date: 12/14/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH **Diesel Range Organics (DRO)** ND 15 mg/Kg 1 12/16/2022 7:57:56 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/16/2022 7:57:56 PM Surr: DNOP 105 21-129 %Rec 1 12/16/2022 7:57:56 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/16/2022 4:43:00 PM 4.8 mg/Kg 1 Surr: BFB 96.7 37.7-212 %Rec 1 12/16/2022 4:43:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 0.024 12/16/2022 4:43:00 PM mg/Kg 1 Toluene ND 0.048 mg/Kg 1 12/16/2022 4:43:00 PM Ethylbenzene ND 0.048 mg/Kg 1 12/16/2022 4:43:00 PM Xylenes, Total ND 0.097 mg/Kg 1 12/16/2022 4:43:00 PM Surr: 4-Bromofluorobenzene 105 70-130 %Rec 1 12/16/2022 4:43:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/16/2022 3:22:42 PM ND 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 9 of 21

Project:

Lab ID:

CLIENT: Vertex Resources Services, Inc.

2212806-010

Tomcat 17 Federal 001

Analytical Report Lab Order 2212806

Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: WS22-10 0-4' Collection Date: 12/12/2022 9:30:00 AM Matrix: SOIL Received Date: 12/14/2022 7:30:00 AM Recult **DI** Qual Unite DE Date Analyzed

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	12/16/2022 8:08:36 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/16/2022 8:08:36 PM
Surr: DNOP	125	21-129	%Rec	1	12/16/2022 8:08:36 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: CCM
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/16/2022 5:02:00 PM
Surr: BFB	97.4	37.7-212	%Rec	1	12/16/2022 5:02:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: CCM
Benzene	ND	0.025	mg/Kg	1	12/16/2022 5:02:00 PM
Toluene	ND	0.050	mg/Kg	1	12/16/2022 5:02:00 PM
Ethylbenzene	ND	0.050	mg/Kg	1	12/16/2022 5:02:00 PM
Xylenes, Total	ND	0.099	mg/Kg	1	12/16/2022 5:02:00 PM
Surr: 4-Bromofluorobenzene	107	70-130	%Rec	1	12/16/2022 5:02:00 PM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	ND	60	mg/Kg	20	12/16/2022 3:35:06 PM

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

Qualifiers:

Value exceeds Maximum Contaminant Level. 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:

CLIENT: Vertex Resources Services, Inc.

2212806-011

Tomcat 17 Federal 001

Analytical Report Lab Order 2212806

Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: WS22-11 0-4'Collection Date: 12/12/2022 9:35:00 AMMatrix: SOILReceived Date: 12/14/2022 7:30:00 AMResultRL Qual UnitsDFDate Analyzed

Result	RL	Qual	Units	DF	Date Analyzed
GANICS					Analyst: DGH
ND	14		mg/Kg	1	12/16/2022 8:19:13 PM
ND	48		mg/Kg	1	12/16/2022 8:19:13 PM
155	21-129	S	%Rec	1	12/16/2022 8:19:13 PM
					Analyst: CCM
ND	5.0		mg/Kg	1	12/16/2022 5:42:00 PM
106	37.7-212		%Rec	1	12/16/2022 5:42:00 PM
					Analyst: CCM
ND	0.025		mg/Kg	1	12/16/2022 5:42:00 PM
ND	0.050		mg/Kg	1	12/16/2022 5:42:00 PM
ND	0.050		mg/Kg	1	12/16/2022 5:42:00 PM
ND	0.099		mg/Kg	1	12/16/2022 5:42:00 PM
107	70-130		%Rec	1	12/16/2022 5:42:00 PM
					Analyst: NAI
250	60		mg/Kg	20	12/16/2022 4:12:19 PM
	GANICS ND 155 ND 106 ND ND ND ND 107	SANICS ND 14 ND 48 155 21-129 ND 5.0 106 37.7-212 ND 0.025 ND 0.050 ND 0.050 ND 0.099 107 70-130	SGANICS ND 14 ND 48 155 21-129 S ND 5.0 106 37.7-212 ND 0.025 ND 0.050 ND 0.050 ND 0.099 107 70-130	SGANICS ND 14 mg/Kg ND 48 mg/Kg 155 21-129 S %Rec ND 5.0 mg/Kg 106 37.7-212 %Rec ND 0.025 mg/Kg ND 0.050 mg/Kg ND 0.050 mg/Kg ND 0.050 mg/Kg ND 0.099 mg/Kg 107 70-130 %Rec	SGANICS ND 14 mg/Kg 1 ND 48 mg/Kg 1 155 21-129 S %Rec 1 ND 5.0 mg/Kg 1 106 37.7-212 %Rec 1 ND 0.025 mg/Kg 1 ND 0.050 mg/Kg 1 ND 0.050 mg/Kg 1 ND 0.050 mg/Kg 1 ND 0.099 mg/Kg 1 ND 0.099 mg/Kg 1 107 70-130 %Rec 1

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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Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-12 2-4' **Project:** Tomcat 17 Federal 001 Collection Date: 12/12/2022 9:40:00 AM Lab ID: 2212806-012 Matrix: SOIL Received Date: 12/14/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/16/2022 8:29:51 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/16/2022 8:29:51 PM Surr: DNOP 109 21-129 %Rec 1 12/16/2022 8:29:51 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/16/2022 6:01:00 PM 4.9 mg/Kg 1 Surr: BFB 98.4 37.7-212 %Rec 1 12/16/2022 6:01:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 0.024 12/16/2022 6:01:00 PM mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/16/2022 6:01:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/16/2022 6:01:00 PM Xylenes, Total ND 0.097 mg/Kg 1 12/16/2022 6:01:00 PM Surr: 4-Bromofluorobenzene 108 70-130 %Rec 1 12/16/2022 6:01:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/16/2022 5:14:21 PM ND 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 Sample Diluted Due to Matrix
 H Holding times for preparation or analysis exceed.

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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Date Reported: 12/21/2022

12/16/2022 5:51:34 PM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-13 0-4' **Project:** Tomcat 17 Federal 001 Collection Date: 12/12/2022 10:00:00 AM Lab ID: 2212806-013 Matrix: SOIL Received Date: 12/14/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/16/2022 8:40:28 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/16/2022 8:40:28 PM Surr: DNOP 97.1 21-129 %Rec 1 12/16/2022 8:40:28 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/16/2022 6:21:00 PM 4.9 mg/Kg 1 Surr: BFB 95.2 37.7-212 %Rec 1 12/16/2022 6:21:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 0.024 12/16/2022 6:21:00 PM mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/16/2022 6:21:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/16/2022 6:21:00 PM Xylenes, Total ND 0.098 mg/Kg 1 12/16/2022 6:21:00 PM Surr: 4-Bromofluorobenzene 107 70-130 %Rec 1 12/16/2022 6:21:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI

ND

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

Qualifiers:

Chloride

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

mg/Kg

20

61

Р Sample pH Not In Range

RL Reporting Limit Page 13 of 21

Project:

Lab ID:

CLIENT: Vertex Resources Services, Inc.

2212806-014

Tomcat 17 Federal 001

Analytical Report Lab Order 2212806

Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BS22-01 2' Collection Date: 12/12/2022 8:30:00 AM Received Date: 12/14/2022 7:30:00 AM

2212000 011	Matrix: 5012	necc	Trea Date.	12/11/	2022 7:50:00 7101
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	12/16/2022 8:51:01 PM
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/16/2022 8:51:01 PM
Surr: DNOP	104	21-129	%Rec	1	12/16/2022 8:51:01 PM
EPA METHOD 8015D: GASOLINE RANG	GE				Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/16/2022 6:41:00 PM
Surr: BFB	99.8	37.7-212	%Rec	1	12/16/2022 6:41:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: CCM
Benzene	ND	0.024	mg/Kg	1	12/16/2022 6:41:00 PM
Toluene	ND	0.048	mg/Kg	1	12/16/2022 6:41:00 PM
Ethylbenzene	ND	0.048	mg/Kg	1	12/16/2022 6:41:00 PM
Xylenes, Total	ND	0.097	mg/Kg	1	12/16/2022 6:41:00 PM
Surr: 4-Bromofluorobenzene	107	70-130	%Rec	1	12/16/2022 6:41:00 PM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	ND	59	mg/Kg	20	12/16/2022 6:03:58 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:

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2212806

Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BS22-02 2' Collection Date: 12/12/2022 8:35:00 AM Received Date: 12/14/2022 7:30:00 AM

Lab ID: 2212806-015	Matrix: SOIL	Rece	eived Date:	12/14/	2022 7:30:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	12/16/2022 9:01:37 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/16/2022 9:01:37 PM
Surr: DNOP	98.8	21-129	%Rec	1	12/16/2022 9:01:37 PM
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst: CCM
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/16/2022 7:00:00 PM
Surr: BFB	98.3	37.7-212	%Rec	1	12/16/2022 7:00:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: CCM
Benzene	ND	0.025	mg/Kg	1	12/16/2022 7:00:00 PM
Toluene	ND	0.049	mg/Kg	1	12/16/2022 7:00:00 PM
Ethylbenzene	ND	0.049	mg/Kg	1	12/16/2022 7:00:00 PM
Xylenes, Total	ND	0.099	mg/Kg	1	12/16/2022 7:00:00 PM
Surr: 4-Bromofluorobenzene	107	70-130	%Rec	1	12/16/2022 7:00:00 PM
EPA METHOD 300.0: ANIONS					Analyst: NAI
Chloride	100	60	mg/Kg	20	12/16/2022 6:16:22 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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Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-03 2' **Project:** Tomcat 17 Federal 001 Collection Date: 12/12/2022 8:40:00 AM Lab ID: 2212806-016 Matrix: SOIL Received Date: 12/14/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/16/2022 9:12:10 PM Motor Oil Range Organics (MRO) ND 48 mg/Kg 1 12/16/2022 9:12:10 PM Surr: DNOP 21-129 %Rec 1 12/16/2022 9:12:10 PM 118 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/16/2022 7:20:00 PM 5.0 mg/Kg 1 Surr: BFB 99.9 37.7-212 %Rec 1 12/16/2022 7:20:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 12/16/2022 7:20:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/16/2022 7:20:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/16/2022 7:20:00 PM Xylenes, Total ND mg/Kg 1 12/16/2022 7:20:00 PM 0.10 Surr: 4-Bromofluorobenzene 108 70-130 %Rec 1 12/16/2022 7:20:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/16/2022 6:28:46 PM ND 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 16 of 21

Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-04 2' **Project:** Tomcat 17 Federal 001 Collection Date: 12/12/2022 8:45:00 AM Lab ID: 2212806-017 Matrix: SOIL Received Date: 12/14/2022 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/16/2022 9:22:44 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/16/2022 9:22:44 PM Surr: DNOP 97.6 21-129 %Rec 1 12/16/2022 9:22:44 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: CCM Gasoline Range Organics (GRO) ND 12/16/2022 7:40:00 PM 4.9 mg/Kg 1 Surr: BFB 105 37.7-212 %Rec 1 12/16/2022 7:40:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: CCM Benzene ND 0.024 12/16/2022 7:40:00 PM mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/16/2022 7:40:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/16/2022 7:40:00 PM Xylenes, Total ND 0.098 mg/Kg 1 12/16/2022 7:40:00 PM Surr: 4-Bromofluorobenzene 108 70-130 %Rec 1 12/16/2022 7:40:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/16/2022 6:41:10 PM ND 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 17 of 21

Hall Er	nvironmen	ntal Analysi	is La	aborato	ry, Inc.						21-Dec-22
Client: Project:		x Resources Serv at 17 Federal 00		Inc.							
Sample ID:	MB-72139	SampTyp	e: mb	lk	Tes	tCode: EF	PA Method	300.0: Anions	i		
Client ID:	PBS	Batch I	D: 721	39	F	RunNo: 9 :	3360				
Prep Date:	12/16/2022	Analysis Date	e: 12	/16/2022	S	SeqNo: 3	367761	Units: mg/K	g		
Analyte			PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID:	LCS-72139	SampTyp	e: Ics		Tes	tCode: EF	PA Method	300.0: Anions	i		
Client ID:	LCSS	Batch II	D: 721	39	F	RunNo: 9 :	3360				
Prep Date:	12/16/2022	Analysis Date	e: 12	/16/2022	S	SeqNo: 3	367762	Units: mg/K	g		
Analyte		Result I	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		15	1.5	15.00	0	97.4	90	110			
Sample ID:	MB-72145	SampTyp	e: mb	lk	Tes	tCode: EF	PA Method	300.0: Anions	i		
Client ID:	PBS	Batch II	D: 721	45	F	RunNo: 9 :	3360				
Prep Date:	12/16/2022	Analysis Date	e: 12	/16/2022	S	SeqNo: 3	367791	Units: mg/K	g		
Analyte		Result I	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND 1.5		
Sample ID: LCS-72145	SampType: Ics	TestCode: EPA Method	I 300.0: Anions
Client ID: LCSS	Batch ID: 72145	RunNo: 93360	
Prep Date: 12/16/2022	Analysis Date: 12/16/2022	SeqNo: 3367792	Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Chloride	15 1.5 15.00	0 97.0 90	110

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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2212806

WO#:

Client: Project:		sources Se 7 Federal (Inc.									
Sample ID:	LCS-72125	SampTy	/pe: LC	S	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID:	LCSS	Batch ID: 72125			RunNo: 93380								
Prep Date:	12/15/2022	Analysis Date: 12/16/2022			SeqNo: 3367303			Units: mg/Kg					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range	Organics (DRO)	41	15	50.00	0	82.3	64.4	127					
Surr: DNOP		5.0		5.000		101	21	129					
Sample ID:	ID: MB-72125 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics												
Client ID:	PBS	Batch ID: 72125			RunNo: 93380								
Prep Date:	12/15/2022	Analysis Date: 12/16/2022			SeqNo: 3367305			Units: mg/Kg					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range	Organics (DRO)	ND	15										
Motor Oil Rang	ge Organics (MRO)	ND	50										
Surr: DNOP		9.6		10.00		95.7	21	129					
Sample ID:	2212806-001AMS	SampTy	/pe: MS	;	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID:	WS22-01 0-2'	Batch ID: 72125			RunNo: 93380								
Prep Date:	12/15/2022	Analysis Date: 12/16/2022			SeqNo: 3369622			Units: mg/Kg					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range	Organics (DRO)	31	15	48.73	0	62.9	36.1	154					
Surr: DNOP		4.5		4.873		91.4	21	129					
Sample ID:	2212806-001AMSD	2212806-001AMSD SampType: MSD					TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID:	WS22-01 0-2'	0-2' Batch ID: 72125			RunNo: 93380								
Prep Date:	12/15/2022	Analysis Date: 12/16/2022			SeqNo: 3369623 Units: mg/Kg			٤g					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
•	Organics (DRO)	46	14	47.71	0	97.0	36.1	154	40.6	33.9	R		
Surr: DNOP	1	6.1		4.771		128	21	129	0	0			

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WO#:

Client: Project:	Vertex Re Tomcat 17			Inc.							
Sample ID:	lcs-72084	SampT	ype: LC	S	Tes	tCode: EF	A Method	8015D: Gasol	ine Range		
Client ID:	LCSS	Batch	n ID: 720)84	F	RunNo: 93	374				
Prep Date:	12/14/2022	Analysis D	ate: 12	/16/2022	S	SeqNo: 33	866972	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	23	5.0	25.00	0	93.6	72.3	137			
Surr: BFB		2200		1000		219	37.7	212			S
Sample ID:	mb-72084	SampT	ype: ME	BLK	Tes	tCode: EF	A Method	8015D: Gasol	ine Range		
Client ID:	PBS	Batch	n ID: 720)84	F	RunNo: 93	374				
Prep Date:	12/14/2022	Analysis D	ate: 12	/16/2022	S	SeqNo: 33	66973	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range	e Organics (GRO)	ND	5.0								
Surr: BFB		1000		1000		101	37.7	212			
5000 Di Di		1000		1000			0.11				
	2212806-001ams		ype: MS		Tes			8015D: Gasol	ine Range		
Sample ID:	2212806-001ams WS22-01 0-2'	SampT	ype: MS 1D: 720	5			PA Method		ine Range		
Sample ID:		SampT	n ID: 72(5)84	F	tCode: EF	PA Method		-		
Sample ID: Client ID:	WS22-01 0-2'	SampT Batch	n ID: 72(5 084 1/16/2022	F	tCode: EF RunNo: 93 SeqNo: 33	PA Method	8015D: Gasol	-	RPDLimit	Qual
Sample ID: Client ID: Prep Date: Analyte	WS22-01 0-2'	SampT Batch Analysis D	n ID: 720 Date: 12	5 084 1/16/2022	F	tCode: EF RunNo: 93 SeqNo: 33	PA Method 3374 366975	8015D: Gasol Units: mg/K	g		Qual
Sample ID: Client ID: Prep Date: Analyte	WS22-01 0-2' 12/14/2022	SampT Batch Analysis D Result	n ID: 72(Date: 12 PQL	5 084 2/16/2022 SPK value	F S SPK Ref Val	tCode: EF RunNo: 93 SeqNo: 33 %REC	PA Method 3 374 366975 LowLimit	8015D: Gasol Units: mg/K HighLimit	g		Qual
Sample ID: Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB	WS22-01 0-2' 12/14/2022	SampT Batch Analysis D Result 24 2200	n ID: 72(Date: 12 PQL	5 084 2/16/2022 SPK value 24.70 988.1	F SPK Ref Val 0	tCode: EF RunNo: 93 SeqNo: 33 %REC 95.3 222	24 Method 3 3374 366975 LowLimit 70 37.7	8015D: Gasol Units: mg/K HighLimit 130	g %RPD	RPDLimit	
Sample ID: Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID:	WS22-01 0-2' 12/14/2022 e Organics (GRO)	SampT Batch Analysis D Result 24 2200 SampT	Date: 12 PQL 4.9	5 084 2/16/2022 SPK value 24.70 988.1	F SPK Ref Val 0 Tes	tCode: EF RunNo: 93 SeqNo: 33 %REC 95.3 222	24 Method 3 3374 366975 LowLimit 70 37.7 24 Method 3	8015D: Gasol Units: mg/K HighLimit 130 212	g %RPD	RPDLimit	
Sample ID: Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID:	WS22-01 0-2' 12/14/2022 e Organics (GRO) 2212806-001amsd	SampT Batch Analysis D Result 24 2200 SampT	PQL 4.9 7ype: MS	5 084 2/16/2022 SPK value 24.70 988.1 5D 084	F SPK Ref Val 0 Tes F	tCode: EF RunNo: 93 SeqNo: 33 %REC 95.3 222 tCode: EF	PA Method 3 3774 366975 LowLimit 70 37.7 PA Method 3 3374	8015D: Gasol Units: mg/K HighLimit 130 212	g %RPD ine Range	RPDLimit	
Sample ID: Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID: Client ID:	WS22-01 0-2' 12/14/2022 e Organics (GRO) 2212806-001amsd WS22-01 0-2'	SampT Batch Analysis D Result 24 2200 SampT Batch	PQL 4.9 7ype: MS	5 084 2/16/2022 SPK value 24.70 988.1 50 084 2/16/2022	F SPK Ref Val 0 Tes F	tCode: EF RunNo: 93 SeqNo: 33 %REC 95.3 222 tCode: EF RunNo: 93 SeqNo: 33	PA Method 3 3774 366975 LowLimit 70 37.7 PA Method 3 3374	8015D: Gasol Units: mg/K HighLimit 130 212 8015D: Gasol	g %RPD ine Range	RPDLimit	
Sample ID: Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID: Client ID: Prep Date: Analyte	WS22-01 0-2' 12/14/2022 e Organics (GRO) 2212806-001amsd WS22-01 0-2'	SampT Batch Analysis D Result 24 2200 SampT Batch Analysis D	PQL 4.9 720 720 720 720 720 720 720 720 720 720	5 084 2/16/2022 SPK value 24.70 988.1 50 084 2/16/2022	F SPK Ref Val 0 Tes F	tCode: EF RunNo: 93 SeqNo: 33 %REC 95.3 222 tCode: EF RunNo: 93 SeqNo: 33	PA Method 3 3374 366975 LowLimit 70 37.7 PA Method 3 3374 366976	8015D: Gasol Units: mg/K HighLimit 130 212 8015D: Gasol Units: mg/K	g %RPD line Range	RPDLimit	S

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Client: Project:	Vertex Re Tomcat 17			Inc.							
Sample ID:	lcs-72084	SampT	Type: LC	s	Tes	tCode: EP	A Method	8021B: Volat	iles		
Client ID:	LCSS	Batcl	h ID: 720	84	F	RunNo: 9 3	374				
Prep Date:	12/14/2022	Analysis [Date: 12	/16/2022	S	SeqNo: 33	66994	Units: mg/K	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.92	0.025	1.000	0	92.1	80	120			
Toluene		0.94	0.050	1.000	0	94.0	80	120			
Ethylbenzene		0.94	0.050	1.000	0	94.1	80	120			
Xylenes, Total		2.8	0.10	3.000	0	93.8	80	120			
Surr: 4-Brom	nofluorobenzene	1.1		1.000		106	70	130			
Sample ID:	mb-72084	SampT	Гуре: МВ	LK	TestCode: EPA Method 8021B: Volatiles						
Client ID:	PBS	Batcl	h ID: 720	84	RunNo: 93374						
Prep Date:	12/14/2022	Analysis [Date: 12	/16/2022	S	SeqNo: 3366995 Units: mg/Kg					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brom	nofluorobenzene	1.1		1.000		106	70	130			
Sample ID:	2212806-002ams	SampT	Гуре: MS	;	Tes	tCode: EP	A Method	8021B: Volat	iles		
Sample ID: Client ID:	2212806-002ams WS22-02 0-2'		Гуре: МS h ID: 720			tCode: EF RunNo: 93		8021B: Volat	iles		
			h ID: 720)84	F		374	8021B: Volat			
Client ID:	WS22-02 0-2'	Batcl	h ID: 720)84 /16/2022	F	RunNo: 93	374			RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene	WS22-02 0-2'	Batcl Analysis I Result 1.0	h ID: 720 Date: 12 PQL 0.025	984 /16/2022 SPK value 0.9950	F SPK Ref Val 0	RunNo: 93 SeqNo: 33 %REC 103	374 667000 LowLimit 68.8	Units: mg/K HighLimit 120	ſg	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene	WS22-02 0-2'	Batcl Analysis I Result 1.0 1.0	h ID: 720 Date: 12 PQL 0.025 0.050	084 /16/2022 SPK value 0.9950 0.9950	F S SPK Ref Val	RunNo: 93 SeqNo: 33 %REC 103 105	67000 LowLimit 68.8 73.6	Units: mg/K HighLimit 120 124	ſg	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene	WS22-02 0-2'	Batch Analysis I Result 1.0 1.0 1.1	h ID: 720 Date: 12 PQL 0.025 0.050 0.050	084 /16/2022 SPK value 0.9950 0.9950 0.9950	F SPK Ref Val 0 0 0	RunNo: 93 SeqNo: 33 %REC 103 105 106	374 67000 LowLimit 68.8 73.6 72.7	Units: mg/K HighLimit 120 124 129	ſg	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	WS22-02 0-2' 12/14/2022	Batcl Analysis I Result 1.0 1.0 1.1 3.2	h ID: 720 Date: 12 PQL 0.025 0.050	084 /16/2022 SPK value 0.9950 0.9950 0.9950 2.985	F SPK Ref Val 0 0	RunNo: 93 SeqNo: 33 %REC 103 105 106 107	a774 a67000 LowLimit 68.8 73.6 72.7 75.7	Units: mg/K HighLimit 120 124 129 126	ſg	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	WS22-02 0-2'	Batch Analysis I Result 1.0 1.0 1.1	h ID: 720 Date: 12 PQL 0.025 0.050 0.050	084 /16/2022 SPK value 0.9950 0.9950 0.9950	F SPK Ref Val 0 0 0	RunNo: 93 SeqNo: 33 %REC 103 105 106	374 67000 LowLimit 68.8 73.6 72.7	Units: mg/K HighLimit 120 124 129	ſg	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom	WS22-02 0-2' 12/14/2022	Batcl Analysis I Result 1.0 1.0 1.1 3.2 1.1	h ID: 720 Date: 12 PQL 0.025 0.050 0.050	084 /16/2022 SPK value 0.9950 0.9950 2.985 0.9950	F SPK Ref Val 0 0 0 0	RunNo: 93 SeqNo: 33 %REC 103 105 106 107 108	267000 LowLimit 68.8 73.6 72.7 75.7 70	Units: mg/K HighLimit 120 124 129 126	g %RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom	WS22-02 0-2' 12/14/2022 nofluorobenzene	Batch Analysis I Result 1.0 1.0 1.1 3.2 1.1 Samp ¹	h ID: 720 Date: 12 PQL 0.025 0.050 0.050 0.10	084 /16/2022 SPK value 0.9950 0.9950 2.985 0.9950	F SPK Ref Val 0 0 0 0 0 Tes	RunNo: 93 SeqNo: 33 %REC 103 105 106 107 108	2374 267000 268.8 73.6 72.7 75.7 70 24 Method	Units: mg/K HighLimit 120 124 129 126 130	g %RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brorr Sample ID:	WS22-02 0-2' 12/14/2022 hofluorobenzene 2212806-002amsd	Batch Analysis I Result 1.0 1.0 1.1 3.2 1.1 Samp ¹	h ID: 720 Date: 12 PQL 0.025 0.050 0.050 0.10 Fype: MS h ID: 720	084 /16/2022 SPK value 0.9950 0.9950 2.985 0.9950 SD	F SPK Ref Val 0 0 0 0 Tes F	RunNo: 93 SeqNo: 33 %REC 103 105 106 107 108 tCode: EF	2374 267000 68.8 73.6 72.7 75.7 70 24 Method 3374	Units: mg/K HighLimit 120 124 129 126 130	íg %RPD iles	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID: Client ID:	WS22-02 0-2' 12/14/2022 nofluorobenzene 2212806-002amsd WS22-02 0-2'	Batcl Analysis I Result 1.0 1.0 1.1 3.2 1.1 Samp Batcl	h ID: 720 Date: 12 PQL 0.025 0.050 0.050 0.10 Fype: MS h ID: 720	084 /16/2022 SPK value 0.9950 0.9950 2.985 0.9950 3.0050 3.00500 3.0050 3.0050 3.0050 3.0050 3.0050 3.0050 3.0050 3.00	F SPK Ref Val 0 0 0 0 Tes F	RunNo: 93 SeqNo: 33 %REC 103 105 106 107 108 tCode: EF	2374 267000 68.8 73.6 72.7 75.7 70 24 Method 3374	Units: mg/K HighLimit 120 124 129 126 130 8021B: Volat	íg %RPD iles	RPDLimit	Qual
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID: Client ID: Prep Date:	WS22-02 0-2' 12/14/2022 nofluorobenzene 2212806-002amsd WS22-02 0-2'	Batcl Analysis I Result 1.0 1.0 1.1 3.2 1.1 Samp Batcl Analysis I	h ID: 720 Date: 12 PQL 0.025 0.050 0.050 0.10 Type: MS h ID: 720 Date: 12	084 /16/2022 SPK value 0.9950 0.9950 2.985 0.9950 3.0050 3.00500 3.0050 3.0050 3.0050 3.0050 3.0050 3.0050 3.0050 3.00	F SPK Ref Val 0 0 0 0 0 Tes F	RunNo: 93 SeqNo: 33 %REC 103 105 106 107 108 tCode: EP RunNo: 93 SeqNo: 33	2374 267000 2000 2000 2000 2000 2000 2000 20	Units: mg/K HighLimit 120 124 129 126 130 8021B: Volat Units: mg/K	Sg %RPD iles		
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID: Client ID: Prep Date: Analyte	WS22-02 0-2' 12/14/2022 nofluorobenzene 2212806-002amsd WS22-02 0-2'	Batcl Analysis I Result 1.0 1.0 1.1 3.2 1.1 Samp Batcl Analysis I Result	h ID: 720 Date: 12 PQL 0.025 0.050 0.050 0.10 Fype: MS h ID: 720 Date: 12 PQL	084 /16/2022 SPK value 0.9950 0.9950 2.985 0.9950 50 84 /16/2022 SPK value	F SPK Ref Val 0 0 0 0 Tes F SPK Ref Val	RunNo: 93 SeqNo: 33 %REC 103 105 106 107 108 tCode: EF RunNo: 93 SeqNo: 33 %REC	2374 267000 2000 2010 2010 2010 2010 2010 2010	Units: mg/K HighLimit 120 124 129 126 130 8021B: Volat Units: mg/K HighLimit	Sg %RPD iles Sg %RPD	RPDLimit	
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID: Client ID: Prep Date: Analyte Benzene	WS22-02 0-2' 12/14/2022 nofluorobenzene 2212806-002amsd WS22-02 0-2'	Batcl Analysis I Result 1.0 1.0 1.1 3.2 1.1 Samp Batcl Analysis I Result 1.0	h ID: 720 Date: 12 PQL 0.025 0.050 0.050 0.10 Fype: MS h ID: 720 Date: 12 PQL 0.025	084 /16/2022 SPK value 0.9950 0.9950 2.985 0.9950 0.9950 50 84 /16/2022 SPK value 0.9930	F SPK Ref Val 0 0 0 0 Tes F SPK Ref Val 0	RunNo: 93 SeqNo: 33 %REC 103 105 106 107 108 tCode: EF RunNo: 93 SeqNo: 33 %REC 102	374 667000 LowLimit 68.8 73.6 72.7 75.7 70 24 Method 374 667001 LowLimit 68.8	Units: mg/K HighLimit 120 124 129 126 130 8021B: Volat Units: mg/K HighLimit 120	5g %RPD iles 5g %RPD 0.816	RPDLimit 20	
Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID: Client ID: Prep Date: Analyte Benzene Toluene	WS22-02 0-2' 12/14/2022 nofluorobenzene 2212806-002amsd WS22-02 0-2'	Batcl Analysis I Result 1.0 1.0 1.1 3.2 1.1 Samp ^T Batcl Analysis I Result 1.0 1.0	h ID: 720 Date: 12 PQL 0.025 0.050 0.050 0.10 Fype: MS h ID: 720 Date: 12 PQL 0.025 0.050	084 /16/2022 SPK value 0.9950 0.9950 2.985 0.9950 0.9950 0.9950 0.9950 2.985 0.9950 0.9930 0.9930 0.9930 0.9930	SPK Ref Val 0 0 0 0 0 Tes SPK Ref Val 0 0	RunNo: 93 SeqNo: 33 %REC 103 105 106 107 108 tCode: EF RunNo: 93 SeqNo: 33 %REC 102 106	374 567000 LowLimit 68.8 73.6 72.7 75.7 70 74 Method 374 567001 LowLimit 68.8 73.6	Units: mg/K HighLimit 120 124 129 126 130 8021B: Volat Units: mg/K HighLimit 120 124	5g %RPD iles 5g %RPD 0.816 0.306	RPDLimit 20 20	

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21-Dec-22

HALL ENVIRONMENTA ANALYSIS LABORATORY	L <i>TEL:</i> :		01 Hawkins NE cque, NM 87109 : 505-345-4107	Sam	nple Log-In Cl	heck List
Client Name: Vertex Reso Services, Inc		der Number: 22	12806		RcptNo:	1
Received By: Cheyenne (Cason 12/14/2022	2 7:30:00 AM	G	fend		
Completed By: Sean Living	aston 12/14/2023	2 8:16:32 AM		feml S		
Reviewed By: TML	12/14/12)01	Jon	
Chain of Custody			_	_	_	
1. Is Chain of Custody comple	te?	Ye	s 🗹	No	Not Present	
2. How was the sample delive	red?	<u>Co</u>	urier			
Log In 3. Was an attempt made to co	ol the samples?	Ye	s 🔽	No 🗌	NA 🗍	
4. Were all samples received a		5.0°C Yes mples were col	s	No 🗹	NA 🗌	
5. Sample(s) in proper contain				No 🗌	r crimed.	
6. Sufficient sample volume for	indicated test(s)?	Yes		No 🗌		
7 Are samples (except VOA a		Yes		No 🗌		
8. Was preservative added to b	pottles?	Yes		No 🗹	na 🗆	
9. Received at least 1 vial with	headspace <1/4" for AQ VOA	A? Yes		No 🗌	NA 🗹	
10. Were any sample container	s received broken?	Ye	, 🗆	No 🗹 🏻	# of preserved	/
11. Does paperwork match bottl (Note discrepancies on chai		Yes		No 🗆	bottles checked for pH: (<2 or 3	>12 unless noted)
12. Are matrices correctly identit	fied on Chain of Custody?	Yes		No 🗆	Adjusted?	/
13. Is it clear what analyses wer	e requested?	Yes		No 🗌		Λι
14. Were all holding times able (If no, notify customer for au		Yes		No 🗆	Checked by:	12.14-73
Special Handling (if appl	icable)					
15. Was client notified of all dis		Ye	s 🗌	No 🗌	NA 🗹	
Person Notified: By Whom: Regarding:		Date: Via: 📋 el	Aail 🗌 Phone	e 🗌 Fax	In Person	
Client Instructions:						
17. <u>Cooler Information</u>						
Cooler No Temp °C	Condition Seal Intact S	Seal No Seal	Date Sigi	ned By	1	
	Good					

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		(direct bil	(direct bill to Devon)	Project Name:						~~~~	www.hallenvironmental.com	inviro	nmen	tal.cor	E			
Mailing Address	ddress:			Tomcat 17 Feder	ederal #001			490	1 Hav	4901 Hawkins NE		Albuq	nerqu	e, NM	Albuquerque, NM 87109	0		
				Project #:			_	Tel.		505-345-3975	975	Fax	505-	505-345-4107	107			
Phone #:				22E-02816-27	2						An	alysi	Analysis Request	uest				
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Date T	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	/ X3T8	08:Hq1	9081 Po	N) 803 A SHAC	S ARDE	3560 (<i>/</i> 21' F, E	S) 0728	D letal C				
		Soil	WS22-01 0-2'				×	-			+				-			
	7:55	Soil	WS22-02 0-2'	1, 4oz jar		200	×	×				×						
12/12/22	8:00	Soil	WS22-03 0-2'	1, 4oz jar		2003	×	×				×						
12/12/22	8:05	Soil	WS22-04 0-2'	1, 4oz jar		500	×	×				×						
12/12/22	8:10	Soil	WS22-05 0-2'	1, 4oz jar		205	×	×				×						
12/12/22	9:00	Soil	WS22-06 0-4'	1, 4oz jar		000	×	×				×						
12/12/22	9:05	Soil	WS22-07 0-4'	1, 4oz jar		тоо т	×	×				×						
12/12/22	9:10	Soil	WS22-08 0-4'	1, 4oz jar		2003	×	×				×						
12/12/22	9:15	Soil	WS22-09 0-4'	1, 4oz jar		500	×	×				×						
12/12/22	9:30	Soil	WS22-10 0-4'	1, 4oz jar		010	×	×				×						
12/12/22	9:35	Soil	WS22-11 0-4'	1, 4oz jar		011	×	×				×			_			
/22	0	Soil	WS22-12 2-4'	1, 4oz jar			×	×				×					_	
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his serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited faboratories.

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Date Time	e Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	N X 3 T 8	08:H9T	9 1808 1 P	M) 803 d sHA9	3 АЯЭЯ	CI' E' E	A) 0228	2) 0728 O lefoT				
12/12/22 10:00	00 Soil	WS22-13 0-4'	1, 4oz jar		0(3	×	×				×						
12/12/22 8:30	0 Soil	BS22-01 2'	1, 4oz jar		014	×	×				×						
12/12/22 8:35	5 Soil	BS22-02 2'	1, 4oz jar		510	×	×				×						
12/12/22 8:40	0 Soil	BS22-03 2'	1, 4oz jar		010	×	×				×						
12/12/22 8:45	5 Soil	BS22-04 2'	1, 4oz jar		4,0	×	×				×						
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If neces	sarv. samples st	If necessary, samples submitted to Hall Environmental may be subcontracted to other accred	contracted to other a	ccredited Taboratorie	is. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.	s poss	bility. A	-qns Au	contracte	ed data	will be o	learly n	otated or	the analy	ical repo	ť	



December 21, 2022

Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL: (505) 506-0040 FAX:

RE: Tomcat 17 Federal 1

OrderNo.: 2212905

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 5 sample(s) on 12/15/2022 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

Analytical Report Lab Order 2212905

Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-05 4' **Project:** Tomcat 17 Federal 1 Collection Date: 12/13/2022 9:20:00 AM Lab ID: 2212905-001 Matrix: SOIL Received Date: 12/15/2022 7:55:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: SB Diesel Range Organics (DRO) ND 15 mg/Kg 1 12/16/2022 6:59:57 PM Motor Oil Range Organics (MRO) ND 49 mg/Kg 1 12/16/2022 6:59:57 PM Surr: DNOP 105 21-129 %Rec 1 12/16/2022 6:59:57 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 12/17/2022 8:02:46 AM 4.9 mg/Kg 1 Surr: BFB 82.3 37.7-212 %Rec 1 12/17/2022 8:02:46 AM **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 12/17/2022 8:02:46 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/17/2022 8:02:46 AM Ethylbenzene ND 0.049 mg/Kg 1 12/17/2022 8:02:46 AM Xylenes, Total ND 0.098 mg/Kg 12/17/2022 8:02:46 AM 1 Surr: 4-Bromofluorobenzene 80.2 70-130 %Rec 1 12/17/2022 8:02:46 AM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 12/16/2022 8:08:00 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 Sample Diluted Due to Matrix
 H Holding times for preparation or analysis exceed

H Holding times for preparation or analysis exceeded

NDNot Detected at the Reporting LimitPQLPractical 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 1 of 9

Lab ID:

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 1

2212905-002

Analytical Report Lab Order 2212905

Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BS22-06 4' Collection Date: 12/13/2022 1:30:00 PM Received Date: 12/15/2022 7:55:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE O	RGANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	15	mg/Kg	1	12/16/2022 7:23:51 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	12/16/2022 7:23:51 PM
Surr: DNOP	111	21-129	%Rec	1	12/16/2022 7:23:51 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/17/2022 9:11:46 AM
Surr: BFB	80.3	37.7-212	%Rec	1	12/17/2022 9:11:46 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.024	mg/Kg	1	12/17/2022 9:11:46 AM
Toluene	ND	0.048	mg/Kg	1	12/17/2022 9:11:46 AM
Ethylbenzene	ND	0.048	mg/Kg	1	12/17/2022 9:11:46 AM
Xylenes, Total	ND	0.097	mg/Kg	1	12/17/2022 9:11:46 AM
Surr: 4-Bromofluorobenzene	84.0	70-130	%Rec	1	12/17/2022 9:11:46 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	4400	150	mg/Kg	50	12/19/2022 10:51:23 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

Page 2 of 9

Lab ID:

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 1

2212905-003

Analytical Report Lab Order 2212905

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 12/21/2022 Client Sample ID: BS22-07 4' Collection Date: 12/13/2022 2:50:00 PM

Received Date: 12/15/2022 7:55:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORG	GANICS				Analyst: SB
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	12/16/2022 7:47:39 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/16/2022 7:47:39 PM
Surr: DNOP	102	21-129	%Rec	1	12/16/2022 7:47:39 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	12/17/2022 10:20:56 AM
Surr: BFB	80.0	37.7-212	%Rec	1	12/17/2022 10:20:56 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.024	mg/Kg	1	12/17/2022 10:20:56 AM
Toluene	ND	0.048	mg/Kg	1	12/17/2022 10:20:56 AM
Ethylbenzene	ND	0.048	mg/Kg	1	12/17/2022 10:20:56 AM
Xylenes, Total	ND	0.097	mg/Kg	1	12/17/2022 10:20:56 AM
Surr: 4-Bromofluorobenzene	83.0	70-130	%Rec	1	12/17/2022 10:20:56 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	2700	150	mg/Kg	50	12/19/2022 11:03:44 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 Page 3 of 9

Lab ID:

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 1

2212905-004

Analytical Report Lab Order 2212905

Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BS22-08 4' Collection Date: 12/13/2022 11:00:00 AM Received Date: 12/15/2022 7:55:00 AM

Analyses	Result	RL (Qual Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: DGH
Diesel Range Organics (DRO)	43	14	mg/Kg	1	12/18/2022 5:01:51 PM
Motor Oil Range Organics (MRO)	100	47	mg/Kg	1	12/18/2022 5:01:51 PM
Surr: DNOP	109	21-129	%Rec	1	12/18/2022 5:01:51 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/17/2022 10:44:02 AM
Surr: BFB	80.0	37.7-212	%Rec	1	12/17/2022 10:44:02 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.024	mg/Kg	1	12/17/2022 10:44:02 AM
Toluene	ND	0.049	mg/Kg	1	12/17/2022 10:44:02 AM
Ethylbenzene	ND	0.049	mg/Kg	1	12/17/2022 10:44:02 AM
Xylenes, Total	ND	0.098	mg/Kg	1	12/17/2022 10:44:02 AM
Surr: 4-Bromofluorobenzene	82.7	70-130	%Rec	1	12/17/2022 10:44:02 AM
EPA METHOD 300.0: ANIONS					Analyst: CAS
Chloride	4900	300	mg/Kg	100	12/19/2022 11:16:05 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 Page 4 of 9

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 1

Analytical Report Lab Order 2212905

Date Reported: 12/21/2022

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BS22-09 4' Collection Date: 12/13/2022 9:25:00 AM Received Date: 12/15/2022 7:55:00 AM

Lab ID: 2212905-005	Matrix: SOIL	Received Date: 12/15/2022 7:55:00 AM							
Analyses	Result	RL Qu	al Units	DF	Date Analyzed				
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH				
Diesel Range Organics (DRO)	18	15	mg/Kg	1	12/19/2022 4:05:09 PM				
Motor Oil Range Organics (MRO)	54	49	mg/Kg	1	12/19/2022 4:05:09 PM				
Surr: DNOP	101	21-129	%Rec	1	12/19/2022 4:05:09 PM				
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: NSB				
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/17/2022 11:07:11 AM				
Surr: BFB	79.3	37.7-212	%Rec	1	12/17/2022 11:07:11 AM				
EPA METHOD 8021B: VOLATILES					Analyst: NSB				
Benzene	ND	0.025	mg/Kg	1	12/17/2022 11:07:11 AM				
Toluene	ND	0.049	mg/Kg	1	12/17/2022 11:07:11 AM				
Ethylbenzene	ND	0.049	mg/Kg	1	12/17/2022 11:07:11 AM				
Xylenes, Total	ND	0.098	mg/Kg	1	12/17/2022 11:07:11 AM				
Surr: 4-Bromofluorobenzene	82.2	70-130	%Rec	1	12/17/2022 11:07:11 AM				
EPA METHOD 300.0: ANIONS					Analyst: CAS				
Chloride	3200	150	mg/Kg	50	12/19/2022 11:28:26 AM				

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
 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 5 of 9

Client: Project:		x Resources Se at 17 Federal 1		Inc.							
Sample ID:	MB-72145	SampTy	/pe: mb	lk	Tes	tCode: EP	A Method	300.0: Anions	5		
Client ID:	PBS	Batch	ID: 72 1	145	F	RunNo: 93	360				
Prep Date:	12/16/2022	Analysis Da	ate: 12	/16/2022	S	SeqNo: 33	867791	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID:	LCS-72145	SampTy	pe: Ics		Tes	tCode: EP	A Method	300.0: Anions	6		
Client ID:	LCSS	Batch	ID: 72 1	145	F	RunNo: 9 3	360				
Prep Date:	12/16/2022	Analysis Da	ate: 12	/16/2022	S	SeqNo: 33	867792	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		15	1.5	15.00	0	97.0	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

2212905

21-Dec-22

Client: Project:		esources S 7 Federal	,	Inc.							
Sample ID: L	CS-72133	SampT	Гуре: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: L	CSS	Batch	h ID: 72	133	F	RunNo: 93	3356				
Prep Date:	12/15/2022	Analysis D	Date: 12	/16/2022	S	SeqNo: 33	366255	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Org	ganics (DRO)	44	15	50.00	0	88.0	64.4	127			
Surr: DNOP		4.6		5.000		92.7	21	129			
Sample ID: N	/IB-72133	SampT	Type: ME	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: P	PBS	Batch	h ID: 72 ′	133	F	RunNo: 93	3356				
Prep Date:	12/15/2022	Analysis D	Date: 12	/16/2022	S	SeqNo: 33	366256	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Org	ganics (DRO)	ND	15								
Motor Oil Range	Organics (MRO)	ND	50								
Surr: DNOP		13		10.00		133	21	129			S
Sample ID: L	CS-72140	SampT	Гуре: LC	s	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: L	CSS	Batch	h ID: 72 ′	140	F	RunNo: 9 3	3393				
Prep Date:	12/16/2022	Analysis D	Date: 12	/19/2022	S	SeqNo: 33	368186	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Org	ganics (DRO)	38	15	50.00	0	76.4	64.4	127			
Surr: DNOP		5.2		5.000		103	21	129			
Sample ID: N	/IB-72140	SampT	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: P	PBS	Batch	h ID: 72 ′	140	F	RunNo: 9 3	3393				
Prep Date:	12/16/2022	Analysis D	Date: 12	/19/2022	S	SeqNo: 33	368187	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Org	ganics (DRO)	ND	15								
Motor Oil Range	Organics (MRO)	ND	50								
Surr: DNOP		9.6		10.00		96.2	21	129			

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

Page 265 of 309

2212905

21-Dec-22

Client:	Vertex Re		,	Inc.									
Project:	Tomcat 1'	7 Federal	1										
Sample ID:	mb-72124	SampT	Гуре: МВ	LK	Tes	tCode: EF	PA Method	d 8015D: Gasoline Range					
Client ID:	PBS	Batcl	h ID: 721	24	F	RunNo: 9 :	3355						
Prep Date:	12/15/2022	Analysis E	Date: 12	/17/2022	5	SeqNo: 3366805		Units: mg/K	g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
-	e Organics (GRO)	ND	5.0	1000		70.7	07.7	04.0					
Surr: BFB		790		1000		78.7	37.7	212					
Sample ID:	lcs-72124	SampT	Type: LC	S	Tes	tCode: EF	PA Method	8015D: Gasol	line Range				
Client ID:	LCSS	Batcl	h ID: 721	24	F	RunNo: 9 :	3355						
Prep Date:	12/15/2022	Analysis E	Date: 12	/17/2022	5	SeqNo: 3	366806	Units: mg/K	g				
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	86.7	72.3	137					
Surr: BFB		1700		1000		170	37.7	212					
Sample ID:	2212905-001ams	SampT	Гуре: МS	;	Tes	tCode: EF	PA Method	8015D: Gaso	line Range				
Client ID:	BS22-05 4'	Batcl	h ID: 721	24	F	RunNo: 93	3355						
Prep Date:	12/15/2022	Analysis E	Date: 12	/17/2022	Ş	SeqNo: 33	366808	Units: mg/K	g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Rang	e Organics (GRO)	23	4.9	24.56	0	93.0	70	130					
Surr: BFB		1700		982.3		176	37.7	212					
Sample ID:	2212905-001amsd	SampT	Гуре: МS	D	Tes	tCode: EF	PA Method	8015D: Gaso	line Range				
Client ID:	BS22-05 4'	Batcl	Batch ID: 72124			RunNo: 93355							
Prep Date:	12/15/2022	Analysis E	Date: 12	/17/2022	5	SeqNo: 3	366809	Units: mg/K	g				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.9	24.61	0	89.6	70	130	3.57	20	
Surr: BFB	1700		984.3		176	37.7	212	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. 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

2212905

21-Dec-22

Client:														
Project:	Tomcat 17	/ Federal	1											
Sample ID: n	nb-72124	SampT	Гуре: МВ	IK	Tes	tCode: EP	PA Method	8021B: Volati	iles					
Client ID: F	PBS	Batch	h ID: 721	24	F	RunNo: 93	3355							
Prep Date:	12/15/2022	Analysis D	Date: 12	/17/2022	S	SeqNo: 33	866878	Units: mg/Kg						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene		ND	0.025											
Toluene		ND	0.050											
Ethylbenzene		ND	0.050											
Xylenes, Total		ND	0.10											
Surr: 4-Bromot	fluorobenzene	0.82		1.000		81.6	70	130						
Sample ID: L	-CS-72124	SampT	SampType: LCS TestCode: EPA Method 8021B: Volatiles											
Client ID: L	CSS	Batch	h ID: 721	24	F	RunNo: 93	3355							
Prep Date:	12/15/2022	Analysis D)ate: 12	/17/2022	7/2022 SeqNo: 3366879 Units: mg/Kg									
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene		0.84	0.025	1.000	0	84.5	80	120						
Toluene		0.87	0.050	1.000	0	86.8	80	120						
Ethylbenzene		0.85	0.050	1.000	0	84.9	80	120						
Xylenes, Total		2.6	0.10	3.000	0	85.1	80	120						
Surr: 4-Bromo	fluorobenzene	0.83		1.000		83.4	70	130						
Sample ID: 2	2212905-002ams	SampT	Гуре: МЅ	;	Tes	tCode: EP	PA Method	8021B: Volati	iles					
Client ID: E	3S22-06 4'	Batch	h ID: 721	24	F	RunNo: 93355								
Prep Date:	12/15/2022	Analysis D	Date: 12	/17/2022	S	SeqNo: 33	866882	Units: mg/K	g					
Analyte														
		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
		Result 0.89	PQL 0.024	SPK value 0.9718	SPK Ref Val 0	%REC 91.2	LowLimit 68.8	HighLimit 120	%RPD	RPDLimit	Qual			
Benzene								-	%RPD	RPDLimit	Qual			
Benzene Toluene		0.89 0.93 0.92	0.024	0.9718	0	91.2	68.8 73.6 72.7	120	%RPD	RPDLimit	Qual			
Benzene Toluene Ethylbenzene Xylenes, Total		0.89 0.93 0.92 2.8	0.024 0.049	0.9718 0.9718	0 0	91.2 95.6	68.8 73.6	120 124	%RPD	RPDLimit	Qual			
Benzene Toluene Ethylbenzene	fluorobenzene	0.89 0.93 0.92	0.024 0.049 0.049	0.9718 0.9718 0.9718	0 0 0	91.2 95.6 95.2	68.8 73.6 72.7	120 124 129	%RPD	RPDLimit	Qual			
Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromo	fluorobenzene	0.89 0.93 0.92 2.8 0.81	0.024 0.049 0.049	0.9718 0.9718 0.9718 2.915 0.9718	0 0 0 0.01814	91.2 95.6 95.2 94.7 83.7	68.8 73.6 72.7 75.7 70	120 124 129 126		RPDLimit	Qual			
Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromot	2212905-002amsd	0.89 0.93 0.92 2.8 0.81 SampT	0.024 0.049 0.049 0.097	0.9718 0.9718 0.9718 2.915 0.9718	0 0 0.01814 Tes	91.2 95.6 95.2 94.7 83.7	68.8 73.6 72.7 75.7 70 PA Method	120 124 129 126 130		RPDLimit	Qual			
Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromot Sample ID: 2 Client ID: E	2212905-002amsd	0.89 0.93 0.92 2.8 0.81 SampT	0.024 0.049 0.049 0.097	0.9718 0.9718 0.9718 2.915 0.9718 5D 24	0 0 0.01814 Tes	91.2 95.6 95.2 94.7 83.7 tCode: EF	68.8 73.6 72.7 75.7 70 24 Method 3355	120 124 129 126 130	iles	RPDLimit	Qual			
Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromot Sample ID: 2 Client ID: E	2212905-002amsd 3S22-06 4'	0.89 0.93 0.92 2.8 0.81 SampT Batch Analysis D Result	0.024 0.049 0.049 0.097 Type: MS h ID: 721 Date: 12 PQL	0.9718 0.9718 0.9718 2.915 0.9718 5D 24 /17/2022 SPK value	0 0 0.01814 Tes	91.2 95.6 95.2 94.7 83.7 tCode: EF RunNo: 93	68.8 73.6 72.7 75.7 70 24 Method 3355 366883 LowLimit	120 124 129 126 130 8021B: Volati	iles Sg %RPD	RPDLimit	Qual			
Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromoi Sample ID: 2 Client ID: E Prep Date: Analyte	2212905-002amsd 3S22-06 4'	0.89 0.93 0.92 2.8 0.81 SampT Batch Analysis D Result 0.92	0.024 0.049 0.049 0.097 Fype: MS h ID: 721 Date: 12 PQL 0.024	0.9718 0.9718 0.9718 2.915 0.9718 24 /17/2022 SPK value 0.9737	0 0 0.01814 Tes	91.2 95.6 95.2 94.7 83.7 tCode: EF RunNo: 93 SeqNo: 33 %REC 94.7	68.8 73.6 72.7 75.7 70 24 Method 3355 366883 LowLimit 68.8	120 124 129 126 130 8021B: Volati Units: mg/K HighLimit 120	iles G %RPD 3.92	RPDLimit 20				
Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromor Sample ID: 2 Client ID: E Prep Date:	2212905-002amsd 3S22-06 4'	0.89 0.93 0.92 2.8 0.81 SampT Batch Analysis D Result	0.024 0.049 0.049 0.097 Type: MS h ID: 721 Date: 12 PQL	0.9718 0.9718 0.9718 2.915 0.9718 5D 24 /17/2022 SPK value	0 0 0.01814 Tes F SPK Ref Val	91.2 95.6 95.2 94.7 83.7 tCode: EP RunNo: 93 SeqNo: 33 %REC	68.8 73.6 72.7 75.7 70 24 Method 3355 366883 LowLimit	120 124 129 126 130 8021B: Volati Units: mg/K HighLimit	iles Sg %RPD	RPDLimit				
Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromot Sample ID: 2 Client ID: E Prep Date: Analyte Benzene Toluene	2212905-002amsd 3S22-06 4'	0.89 0.93 0.92 2.8 0.81 SampT Batch Analysis D Result 0.92	0.024 0.049 0.049 0.097 Fype: MS h ID: 721 Date: 12 PQL 0.024	0.9718 0.9718 0.9718 2.915 0.9718 24 /17/2022 SPK value 0.9737	0 0 0.01814 Tes F SPK Ref Val 0	91.2 95.6 95.2 94.7 83.7 tCode: EF RunNo: 93 SeqNo: 33 %REC 94.7	68.8 73.6 72.7 75.7 70 24 Method 3355 366883 LowLimit 68.8	120 124 129 126 130 8021B: Volati Units: mg/K HighLimit 120	iles G %RPD 3.92	RPDLimit 20				
Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromot Sample ID: 2 Client ID: E Prep Date: Analyte Benzene	2212905-002amsd 3S22-06 4'	0.89 0.93 0.92 2.8 0.81 SampT Batch Analysis D Result 0.92 0.98	0.024 0.049 0.097 Type: MS h ID: 721 Date: 12 PQL 0.024 0.049	0.9718 0.9718 0.9718 2.915 0.9718 5D 24 /17/2022 SPK value 0.9737 0.9737	0 0 0.01814 Tes F SPK Ref Val 0 0	91.2 95.6 95.2 94.7 83.7 tCode: EF RunNo: 93 SeqNo: 33 %REC 94.7 100	68.8 73.6 72.7 75.7 70 74 Method 3355 366883 LowLimit 68.8 73.6	120 124 129 126 130 8021B: Volati Units: mg/K HighLimit 120 124	iles (g %RPD 3.92 5.16	RPDLimit 20 20				

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

2212905

21-Dec-22

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Albi TEL: 505-345-3975 Website: www.ha	4901 Hawkin uquerque, NM 8 FAX: 505-345-	ns NE 87109 San 4107	nple Log-In Ch	neck List
Client Name: Vertex Resources Services, Inc.	Work Order Number:	2212905		RcptNo:	1
Received By: Tracy Casarrubias	12/15/2022 7:55:00 AM	А			
Completed By: Tracy Casarrubias	12/15/2022 8:10:38 AM	И			
Reviewed By: 12.15.27					
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 >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	y 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 broke	n?	Yes 🗋	No 🗹	# of preserved	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗌	bottles checked for pH: (<2.er>	12 unless noted)
12. Are matrices correctly identified on Chain of	Custody?	Yes 🗹	No 🗌	Adjusted?	
13. Is it clear what analyses were requested?		Yes 🗹	No 🗌		
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	No 🗌	Checked by:	24 12.15.22
Special Handling (if applicable)					
15. Was client notified of all discrepancies with t	his order?	Yes 🗌	No 🗌	NA 🗹	
Person Notified:	Date:				
By Whom:	Via:	eMail 📋 🕯	Phone 🗌 Fax	In Person	
Regarding:					
Client Instructions:					
16. Additional remarks:					
17. <u>Cooler Information</u> Cooler No Temp ^o C Condition Se 1 1.1 Good Yes		Seal Date	Signed By		
				line a	

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Page 269 of 309		AALL ENVIKONMEN I AL ANALYSIS LABORATORY		20m JM 87109	-4107	t															ldirwood	
		STS LA		www.rialierivironmental.com ns NE - Albuquerque NM 87109	Fax 505-345-4107	Analysis Request	¢C	PO4, So	(AO	(A(76, Br 260 (VC 270 (Se 761 Col	.8 .8								Laura Caldirwood	Woodaird
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				4901 He	Tel. 50!		-	PCB's 0 / МR(8021	NDR	08) D) D) D S		T >	-							Remarks: Scn	and
	jund Time:	dard Kush 5 DUL	Vame:	cat 17 Federal 1		21E - 02816 - 27	Aanager:	Kent Stallings	SPC		Cooler Temp(Including CF): 1-1 - 0 - 1 (°C)	r Preservative HEAL No.	in no		003	004	COC				Via: Date Time	
	Turn-Around T	Z Standard	Project N	Tomcat	Project #:	17	٦		Sampler:	Un Ice: # of Coolare:	Cooler T	Container	402 jar	5-							Received by:	Received by:
Received by OCD: 3/12/2024 2:24:38 PM	Chain-of-Custody Record	Client: VENTEX (DEVON)		Mailing Address: OM $\dot{ki} \dot{\mathcal{M}}$	Λ	Phone #:	email or Fax#: CC: SCarttar@vertx.Co	QA/QC Package:	Į į			Date Time Matrix Samula Name	3 9.20 Soil	0	14:50 BS22-07 4'	11:00 3522-08 4'	1 9:25 1 BS22 - 09 4'			ŀ	12/13 18:20 Sally Ortion	Date: Time: Relinquished/by: Received by: Via: Cuum

anaiyucai report. ~ 2 5 Released to Imaging: 3/14/2024 2:33:57 PM

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January 06, 2023

Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL: (505) 506-0040 FAX:

RE: Tomcat 17 Federal 1

OrderNo.: 2212E06

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 8 sample(s) on 12/28/2022 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

Date Reported: 1/6/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-10 4' **Project:** Tomcat 17 Federal 1 Collection Date: 12/22/2022 9:00:00 AM Lab ID: 2212E06-001 Matrix: SOIL Received Date: 12/28/2022 6:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) 61 15 mg/Kg 1 12/30/2022 1:49:02 PM Motor Oil Range Organics (MRO) 160 50 mg/Kg 1 12/30/2022 1:49:02 PM 21-129 Surr: DNOP 128 %Rec 1 12/30/2022 1:49:02 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 12/29/2022 1:02:00 PM 4.9 mg/Kg 1 Surr: BFB 113 37.7-212 %Rec 1 12/29/2022 1:02:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 12/29/2022 1:02:00 PM 0.024 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/29/2022 1:02:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/29/2022 1:02:00 PM Xylenes, Total ND 0.097 mg/Kg 12/29/2022 1:02:00 PM 1 Surr: 4-Bromofluorobenzene 119 70-130 %Rec 1 12/29/2022 1:02:00 PM **EPA METHOD 300.0: ANIONS** Analyst: NAI Chloride mg/Kg 4200 150 50 1/5/2023 3:11:16 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

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 15

Date Reported: 1/6/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-11 4' **Project:** Tomcat 17 Federal 1 Collection Date: 12/22/2022 9:05:00 AM Lab ID: 2212E06-002 Matrix: SOIL Received Date: 12/28/2022 6:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) 280 15 mg/Kg 1 1/4/2023 11:27:56 AM Motor Oil Range Organics (MRO) 480 49 mg/Kg 1 1/4/2023 11:27:56 AM Surr: DNOP 100 21-129 %Rec 1 1/4/2023 11:27:56 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 12/29/2022 2:04:00 PM 5.0 mg/Kg 1 Surr: BFB 101 37.7-212 %Rec 1 12/29/2022 2:04:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 12/29/2022 2:04:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/29/2022 2:04:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/29/2022 2:04:00 PM Xylenes, Total ND mg/Kg 1 12/29/2022 2:04:00 PM 0.099 Surr: 4-Bromofluorobenzene 113 70-130 %Rec 1 12/29/2022 2:04:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride mg/Kg 1/3/2023 10:04:32 AM 2500 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. Sample Diluted Due to Matrix

D Sample Diluted Due to Matrix
 H Holding times for preparation or analysis exceed.

H Holding times for preparation or analysis exceeded

NDNot Detected at the Reporting LimitPQLPractical 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 2 of 15

Date Reported: 1/6/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-12 4' **Project:** Tomcat 17 Federal 1 Collection Date: 12/22/2022 9:10:00 AM Lab ID: 2212E06-003 Matrix: SOIL Received Date: 12/28/2022 6:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) 250 15 mg/Kg 1 1/4/2023 12:10:00 PM Motor Oil Range Organics (MRO) 480 49 mg/Kg 1 1/4/2023 12:10:00 PM Surr: DNOP 104 21-129 %Rec 1 1/4/2023 12:10:00 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 12/29/2022 4:22:00 PM 4.9 mg/Kg 1 Surr: BFB 108 37.7-212 %Rec 1 12/29/2022 4:22:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 12/29/2022 4:22:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/29/2022 4:22:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/29/2022 4:22:00 PM Xylenes, Total ND 0.098 mg/Kg 1 12/29/2022 4:22:00 PM Surr: 4-Bromofluorobenzene 118 70-130 %Rec 1 12/29/2022 4:22:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride mg/Kg 1/3/2023 10:16:56 AM 5400 300 100

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

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Date Reported: 1/6/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: BS22-13 4' **Project:** Tomcat 17 Federal 1 Collection Date: 12/22/2022 9:15:00 AM Lab ID: 2212E06-004 Matrix: SOIL Received Date: 12/28/2022 6:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses **EPA METHOD 8015M/D: DIESEL RANGE ORGANICS** Analyst: DGH Diesel Range Organics (DRO) 200 14 mg/Kg 1 12/30/2022 3:55:41 PM Motor Oil Range Organics (MRO) 470 48 mg/Kg 1 12/30/2022 3:55:41 PM Surr: DNOP 21-129 %Rec 1 12/30/2022 3:55:41 PM 116 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 12/29/2022 5:01:00 PM 4.9 mg/Kg 1 Surr: BFB 103 37.7-212 %Rec 1 12/29/2022 5:01:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 12/29/2022 5:01:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/29/2022 5:01:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/29/2022 5:01:00 PM Xylenes, Total ND 0.098 mg/Kg 1 12/29/2022 5:01:00 PM Surr: 4-Bromofluorobenzene 113 70-130 %Rec 1 12/29/2022 5:01:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride mg/Kg 4200 150 50 1/3/2023 10:29:20 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

D Sample Diluted Due to Matrix
 H Holding times for preparation or analysis exceed

H Holding times for preparation or analysis exceeded

NDNot Detected at the Reporting LimitPQLPractical 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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Lab ID:

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 1

2212E06-005

Analytical Report Lab Order 2212E06

Date Reported: 1/6/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: WS22-14 4' Collection Date: 12/22/2022 9:30:00 AM Received Date: 12/28/2022 6:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE OR	GANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	12/29/2022 2:57:52 PM
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	12/29/2022 2:57:52 PM
Surr: DNOP	112	21-129	%Rec	1	12/29/2022 2:57:52 PM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	12/29/2022 5:21:00 PM
Surr: BFB	107	37.7-212	%Rec	1	12/29/2022 5:21:00 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.025	mg/Kg	1	12/29/2022 5:21:00 PM
Toluene	ND	0.050	mg/Kg	1	12/29/2022 5:21:00 PM
Ethylbenzene	ND	0.050	mg/Kg	1	12/29/2022 5:21:00 PM
Xylenes, Total	ND	0.10	mg/Kg	1	12/29/2022 5:21:00 PM
Surr: 4-Bromofluorobenzene	115	70-130	%Rec	1	12/29/2022 5:21:00 PM
EPA METHOD 300.0: ANIONS					Analyst: JMT
Chloride	130	60	mg/Kg	20	12/30/2022 11:28:32 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

Page 5 of 15

Lab ID:

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 1

2212E06-006

Analytical Report Lab Order 2212E06

Date Reported: 1/6/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: WS22-15 4' Collection Date: 12/22/2022 9:35:00 AM Received Date: 12/28/2022 6:50:00 AM

Eub ID: 2212E00 000	Muuliki Boll									
Analyses	Result	RL Qu	al Units	DF	Date Analyzed					
EPA METHOD 8015M/D: DIESEL RANGI	EORGANICS				Analyst: DGH					
Diesel Range Organics (DRO)	ND	14	mg/Kg	1	12/29/2022 3:08:25 PM					
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	12/29/2022 3:08:25 PM					
Surr: DNOP	111	21-129	%Rec	1	12/29/2022 3:08:25 PM					
EPA METHOD 8015D: GASOLINE RANG	Ε				Analyst: RAA					
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/29/2022 5:40:00 PM					
Surr: BFB	104	37.7-212	%Rec	1	12/29/2022 5:40:00 PM					
EPA METHOD 8021B: VOLATILES					Analyst: RAA					
Benzene	ND	0.025	mg/Kg	1	12/29/2022 5:40:00 PM					
Toluene	ND	0.049	mg/Kg	1	12/29/2022 5:40:00 PM					
Ethylbenzene	ND	0.049	mg/Kg	1	12/29/2022 5:40:00 PM					
Xylenes, Total	ND	0.098	mg/Kg	1	12/29/2022 5:40:00 PM					
Surr: 4-Bromofluorobenzene	115	70-130	%Rec	1	12/29/2022 5:40:00 PM					
EPA METHOD 300.0: ANIONS					Analyst: JMT					
Chloride	170	60	mg/Kg	20	12/31/2022 12:05:44 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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Date Reported: 1/6/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-16 4' **Project:** Tomcat 17 Federal 1 Collection Date: 12/22/2022 9:40:00 AM Lab ID: 2212E06-007 Matrix: SOIL Received Date: 12/28/2022 6:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 14 mg/Kg 1 12/29/2022 4:06:02 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 12/29/2022 4:06:02 PM Surr: DNOP 130 21-129 S %Rec 1 12/29/2022 4:06:02 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 12/29/2022 6:00:00 PM 5.0 mg/Kg 1 Surr: BFB 110 37.7-212 %Rec 1 12/29/2022 6:00:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 12/29/2022 6:00:00 PM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 12/29/2022 6:00:00 PM Ethylbenzene ND 0.050 mg/Kg 1 12/29/2022 6:00:00 PM Xylenes, Total ND mg/Kg 1 12/29/2022 6:00:00 PM 0.099 Surr: 4-Bromofluorobenzene 118 70-130 %Rec 1 12/29/2022 6:00:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride mg/Kg 12/31/2022 12:18:08 AM 410 61 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 Sample Diluted Due to Matrix
 H Holding times for preparation or analysis exceed.

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit POL Practical Quanitative Limit

PQL Practical Quanitative Limit S % Recovery outside of standard limits

% 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: 1/6/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-17 4' **Project:** Tomcat 17 Federal 1 Collection Date: 12/22/2022 9:45:00 AM Lab ID: 2212E06-008 Matrix: SOIL Received Date: 12/28/2022 6:50:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) 640 300 mg/Kg 20 12/29/2022 4:55:27 PM Motor Oil Range Organics (MRO) 1400 990 mg/Kg 20 12/29/2022 4:55:27 PM Surr: DNOP 0 21-129 S %Rec 20 12/29/2022 4:55:27 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 12/29/2022 6:20:00 PM 4.9 mg/Kg 1 Surr: BFB 105 37.7-212 %Rec 1 12/29/2022 6:20:00 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA Benzene ND 12/29/2022 6:20:00 PM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 12/29/2022 6:20:00 PM Ethylbenzene ND 0.049 mg/Kg 1 12/29/2022 6:20:00 PM Xylenes, Total ND 0.099 mg/Kg 1 12/29/2022 6:20:00 PM Surr: 4-Bromofluorobenzene 120 70-130 %Rec 1 12/29/2022 6:20:00 PM **EPA METHOD 300.0: ANIONS** Analyst: JMT Chloride mg/Kg 12/31/2022 12:30:32 AM 170 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 8 of 15

Client:		x Resources Services, Inc.	
Project:	Tome	at 17 Federal 1	
Sample ID:	MB-72391	SampType: mblk	TestCode: EPA Method 300.0: Anions
Client ID:	PBS	Batch ID: 72391	RunNo: 93647
Prep Date:	12/30/2022	Analysis Date: 12/30/2022	SeqNo: 3380712 Units: mg/Kg
Analyte		Result PQL SPK value	e SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride		ND 1.5	
Sample ID:	LCS-72391	SampType: Ics	TestCode: EPA Method 300.0: Anions
Client ID:	LCSS	Batch ID: 72391	RunNo: 93647
Prep Date:	12/30/2022	Analysis Date: 12/30/2022	SeqNo: 3380713 Units: mg/Kg
Analyte		Result PQL SPK value	e SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride		15 1.5 15.00	0 101 90 110
Sample ID:	MB-72385	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID:	PBS	Batch ID: 72385	RunNo: 93648
Prep Date:	12/29/2022	Analysis Date: 12/30/2022	SeqNo: 3380968 Units: mg/Kg
Analyte		Result PQL SPK value	e SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride		ND 1.5	
Sample ID:	LCS-72385	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID:	LCSS	Batch ID: 72385	RunNo: 93648
Prep Date:	12/29/2022	Analysis Date: 12/30/2022	SeqNo: 3380969 Units: mg/Kg
Analyte		Result PQL SPK value	e SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride		15 1.5 15.00	0 96.7 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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2212E06

06-Jan-23

Project: Tomcat 17		ces, Inc.								
	Federal 1									
Sample ID: LCS-72351	SampType:	LCS	Tes	tCode: EF	PA Method	8015M/D: Dies	el Range	Organics		
Client ID: LCSS	Batch ID:			RunNo: 93			orrange	erguniee		
	Analysis Date:			SeqNo: 33		Units: mg/Kg				
Analyte			SPK Ref Val	•	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	50	15 50.00	0	99.9	64.4	127			Quai	
Surr: DNOP	6.5	5.000		131	21	129			S	
Sample ID: MB-72351	SampType:	MBLK	Tes	tCode: EF	PA Method	8015M/D: Dies	el Range	Organics		
Client ID: PBS	Batch ID:	72351	F	RunNo: 93	3614					
Prep Date: 12/28/2022	Analysis Date:	12/29/2022	S	SeqNo: 33	378146	Units: mg/Kg				
Analyte	Result PC	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO) Surr: DNOP	ND 12	50 10.00		118	21	129				
Sample ID: LCS-72383	SampType:					8015M/D: Dies	el Range	Organics		
Client ID: LCSS	Batch ID:			RunNo: 93	-					
Prep Date: 12/29/2022	Analysis Date:		2	SeqNo: 33	879607	Units: %Rec				
Analyte			SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	6.2	5.000		125	21	129				
Sample ID: MB-72383	SampType:	MBLK	Tes	tCode: EF	PA Method	8015M/D: Dies	el Range	Organics		
Client ID: PBS	Batch ID:	72383	F	RunNo: 93	3644					
Prep Date: 12/29/2022	Analysis Date:	12/30/2022	S	SeqNo: 33	379608	Units: %Rec				
Analyte	Result PC	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	12	10.00		121	21	129				
Sample ID: LCS-72412	SampType:	LCS	Tes	tCode: EF	PA Method	8015M/D: Dies	el Range	Organics		
Client ID: LCSS	Batch ID:	72412	F	RunNo: 93	3700					
Prep Date: 1/3/2023	Analysis Date:	1/4/2023	S	SeqNo: 33	882185	Units: mg/Kg				
Analyte	Result PC	QL SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	40	15 50.00	0	80.3	64.4	127				
Surr: DNOP	5.1	5.000		103	21	129				
Sample ID: MB-72412	SampType:	MBLK	Tes	tCode: EF	PA Method	8015M/D: Dies	el Range	Organics		
		72412	F	RunNo: 9 3	3700					
Client ID: PBS	Batch ID:									
Client ID: PBS	Batch ID: Analysis Date:		S	SeqNo: 33	882187	Units: mg/Kg				
Client ID: PBS	Analysis Date:	1/4/2023	SPK Ref Val	SeqNo: 33 %REC	382187 LowLimit	Units: mg/Kg HighLimit	%RPD	RPDLimit	Qual	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

- S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

Sample pH Not In Range

P Sample pH Not In RL Reporting Limit Page 10 of 15

2212E06

06-Jan-23

WO#:

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	oject: Tomcat 17 Federal 1 ample ID: MB-72412 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range ient ID: PBS Batch ID: 72412 RunNo: 93700 ep Date: 1/3/2023 Analysis Date: 1/4/2023 SeqNo: 3382187 Units: mg/Kg halyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD									
Sample ID: MB-72412	Samp	Гуре: МЕ	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID: PBS	Batcl	Batch ID: 72412			RunNo: 9 3	3700				
Prep Date: 1/3/2023	Analysis [Analysis Date: 1/4/2023			SeqNo: 33	882187	Units: mg/K			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		99.7	21	129			

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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2212E06

06-Jan-23

Client:	Vertex Re	sources Se	ervices	, Inc.									
Project:	Tomcat 1'	7 Federal	l										
Sample ID:	100 70241	SampT		<u>```</u>	Tor	tCode: E	PA Mothod	8015D: Gasoli	no Bongo				
•	LCSS		ID: 72			RunNo: 9		ou iod. Gason	ne Kange				
Prep Date:	12/28/2022	Analysis D		-		SeqNo: 3		Units: mg/Kg					
	12/20/2022					•					. .		
Analyte	ge Organics (GRO)	Result 26	PQL 5.0	SPK value 25.00	SPK Ref Val	%REC 104	LowLimit 72.3	HighLimit 137	%RPD	RPDLimit	Qual		
Surr: BFB		2300	0.0	1000	Ū	225	37.7	212			S		
Sample ID:	mb-72341	SampT	ype: MI	BLK	Tes	TestCode: EPA Method 8015D: Gasoline Range							
Client ID:	PBS	Batch	ID: 72	341	F	RunNo: 9	3636						
Prep Date:	12/28/2022	Analysis D	ate: 12	2/29/2022	:	SeqNo: 3	378987	Units: mg/Kg	9				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
•	ge Organics (GRO)	ND	5.0										
Surr: BFB		1100		1000		113	37.7	212					
Sample ID:	2212E06-001ams	SampT	ype: M	s	Tes								
Client ID:	BS22-10 4'	Batch	ID: 72	341	F	RunNo: 9	3636						
Prep Date:	12/28/2022	Analysis D	ate: 12	2/29/2022	:	SeqNo: 3	378993	Units: mg/Kg					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
-	ge Organics (GRO)	27	4.8	24.22	0	110	70	130			_		
Surr: BFB		2300		969.0		236	37.7	212			S		
Sample ID:	2212E06-001amsd	SampT	ype: M	SD	Tes	stCode: El	PA Method	8015D: Gasoli	ne Range				
Client ID:	BS22-10 4'	Batch	ID: 72	341	F	RunNo: 9	3636						
Prep Date:	12/28/2022	Analysis D	ate: 12	2/29/2022	\$	SeqNo: 3	378994	Units: mg/Kg	9				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
-	ge Organics (GRO)	29	4.9	24.46	0	118	70	130	7.35	20	-		
Surr: BFB		2400		978.5		241	37.7	212	0	0	S		
Sample ID:	lcs-72377	SampT	ype: LC	s	TestCode: EPA Method 8015D: Gasoline Range								
Client ID:	LCSS	Batch	ID: 72	377	F	RunNo: 9	3664						
Prep Date:	12/29/2022	Analysis D	ate: 12	2/30/2022	:	SeqNo: 3	380310	Units: %Rec					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Surr: BFB		2300		1000		230	37.7	212			S		
			-	-	TestCode: EPA Method 8015D: Gasoline Range								
Sample ID:	mb-72377	SampT	ype: MI	BLK	Tes	stCode: El	PA Method	8015D: Gasoli	ne Range				
Sample ID: Client ID:	mb-72377 PBS		ype: M I ID: 72			RunNo: 9		8015D: Gason	ne Range				
			ID: 72	377	F		3664	Units: %Rec	ne Range				
Client ID:	PBS	Batch	ID: 72	377 2/30/2022	F	RunNo: 9	3664		ne Range %RPD	RPDLimit	Qual		

- * 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

06-Jan-23

2212E06

Client: Project:		x Resources Services, at 17 Federal 1	, Inc.									
Sample ID:	lcs-72382	SampType: LC	s	Tes	tCode: EF	PA Method	8015D: Gasoli	ne Range				
Client ID:	LCSS	Batch ID: 72	382	F	lunNo: 9 3	3664						
Prep Date:	12/29/2022	Analysis Date: 12	2/30/2022	S	SeqNo: 33	380334	Units: %Rec					
Analyte		Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Surr: BFB		2300	1000		230	37.7	212			S		
Sample ID:	mb-72382	SampType: ME	BLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID:	PBS	Batch ID: 72	382	RunNo: 93664								
Prep Date:	12/29/2022	Analysis Date: 12	2/30/2022	5	SeqNo: 33	80335	Units: %Rec					
Analyte		Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Surr: BFB		1100	1000		108	37.7	212					

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

- -
- ing Limit

2212E06

06-Jan-23

Client: Project:	Vertex Re Tomcat 17			Inc.											
Sample ID:	lcs-72341	Samp	Гуре: LC	s	Tes	tCode: EP	A Method	8021B: Volati	les						
Client ID:	LCSS	Batcl	h ID: 723	841	F	RunNo: 9 3	636								
Prep Date:	12/28/2022	Analysis [Date: 12	/29/2022	S	SeqNo: 33	79011	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	110	80	120							
Toluene		1.1	0.050	1.000	0	111	80	120							
Ethylbenzene		1.1	0.050	1.000	0	111	80	120							
Xylenes, Total		3.4	0.10	3.000	0	112	80	120							
Surr: 4-Bromo	ofluorobenzene	1.2		1.000		124	70	130							
Sample ID:	mb-72341	SampT	Гуре: МЕ	BLK	TestCode: EPA Method 8021B: Volatiles										
Client ID:	PBS	Batcl	h ID: 723	841	F	RunNo: 93	636								
Prep Date:	12/28/2022	Analysis [Date: 12	/29/2022	S	SeqNo: 33	79012	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-Bromo	ofluorobenzene	1.2		1.000		124	70	130							
Sample ID:	2212E06-002ams	SampType: MS TestCode: EPA Method 8021B: Volatiles													
1															
Client ID:	BS22-11 4'	Batcl	h ID: 723	841	F	RunNo: 93	636								
Client ID: I Prep Date:	BS22-11 4' 12/28/2022	Batcl Analysis [RunNo: 93 SeqNo: 33		Units: mg/K	g						
	-			/29/2022				Units: mg/K HighLimit	g %RPD	RPDLimit	Qual				
Prep Date: Analyte Benzene	-	Analysis I Result 1.1	Date: 12 PQL 0.025	/29/2022 SPK value 0.9921	SPK Ref Val	SeqNo: 33 %REC 109	5 79019 LowLimit 68.8	HighLimit 120	-	RPDLimit	Qual				
Prep Date: Analyte Benzene Toluene	-	Analysis I Result 1.1 1.1	Date: 12 PQL 0.025 0.050	/29/2022 SPK value 0.9921 0.9921	SPK Ref Val 0 0	SeqNo: 33 %REC 109 111	LowLimit 68.8 73.6	HighLimit 120 124	-	RPDLimit	Qual				
Prep Date: Analyte Benzene Toluene Ethylbenzene	-	Analysis I Result 1.1 1.1 1.1	Date: 12 PQL 0.025 0.050 0.050	/29/2022 SPK value 0.9921 0.9921 0.9921	SPK Ref Val 0 0 0	SeqNo: 33 %REC 109 111 110	279019 LowLimit 68.8 73.6 72.7	HighLimit 120 124 129	-	RPDLimit	Qual				
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	12/28/2022	Analysis E Result 1.1 1.1 1.1 3.3	Date: 12 PQL 0.025 0.050	29/2022 SPK value 0.9921 0.9921 0.9921 2.976	SPK Ref Val 0 0	SeqNo: 33 %REC 109 111 110 110	LowLimit 68.8 73.6 72.7 75.7	HighLimit 120 124 129 126	-	RPDLimit	Qual				
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	-	Analysis I Result 1.1 1.1 1.1	Date: 12 PQL 0.025 0.050 0.050	/29/2022 SPK value 0.9921 0.9921 0.9921	SPK Ref Val 0 0 0	SeqNo: 33 %REC 109 111 110	279019 LowLimit 68.8 73.6 72.7	HighLimit 120 124 129	-	RPDLimit	Qual				
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromo	12/28/2022	Analysis I Result 1.1 1.1 1.1 3.3 1.2	Date: 12 PQL 0.025 0.050 0.050	/29/2022 SPK value 0.9921 0.9921 0.9921 2.976 0.9921	SPK Ref Val 0 0 0 0	SeqNo: 33 %REC 109 111 110 110 118	LowLimit 68.8 73.6 72.7 75.7 70	HighLimit 120 124 129 126	%RPD	RPDLimit	Qual				
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromo	12/28/2022	Analysis I Result 1.1 1.1 1.1 3.3 1.2 Samp ¹	Date: 12 PQL 0.025 0.050 0.050 0.099	/29/2022 SPK value 0.9921 0.9921 2.976 0.9921 5D	SPK Ref Val 0 0 0 0 0 Tes	SeqNo: 33 %REC 109 111 110 110 118	LowLimit 68.8 73.6 72.7 75.7 70 24 Method	HighLimit 120 124 129 126 130	%RPD	RPDLimit	Qual				
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromo	12/28/2022 Dfluorobenzene 2212E06-002amsd	Analysis I Result 1.1 1.1 1.1 3.3 1.2 Samp ¹	Date: 12 PQL 0.025 0.050 0.050 0.099	/29/2022 SPK value 0.9921 0.9921 2.976 0.9921 5D 541	SPK Ref Val 0 0 0 0 0 Tes F	SeqNo: 33 %REC 109 111 110 110 118 tCode: EP	LowLimit 68.8 73.6 72.7 75.7 70 PA Method	HighLimit 120 124 129 126 130	%RPD	RPDLimit	Qual				
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromo Sample ID: 2 Client ID: 1	12/28/2022 ofluorobenzene 2212E06-002amsd BS22-11 4'	Analysis I Result 1.1 1.1 1.1 3.3 1.2 Samp ¹ Batcl	Date: 12 PQL 0.025 0.050 0.050 0.099 Fype: MS h ID: 723 Date: 12 PQL	/29/2022 SPK value 0.9921 0.9921 2.976 0.9921 50 541 /29/2022 SPK value	SPK Ref Val 0 0 0 0 0 Tes F	SeqNo: 33 %REC 109 111 110 110 118 tCode: EP RunNo: 93 SeqNo: 33 %REC	CowLimit 68.8 73.6 72.7 75.7 70 CA Method 6636 679020 LowLimit	HighLimit 120 124 129 126 130 8021B: Volati Units: mg/K HighLimit	%RPD	RPDLimit	Qual				
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromo Sample ID: 2 Client ID: 1 Prep Date: Analyte Benzene	12/28/2022 ofluorobenzene 2212E06-002amsd BS22-11 4'	Analysis I Result 1.1 1.1 1.1 3.3 1.2 Samp Batcl Analysis I Result 1.2	Date: 12 PQL 0.025 0.050 0.050 0.099 Fype: MS h ID: 72: Date: 12 PQL 0.025	/29/2022 SPK value 0.9921 0.9921 2.976 0.9921 50 541 /29/2022 SPK value 0.9891	SPK Ref Val 0 0 0 0 Tes F SPK Ref Val 0	SeqNo: 33 %REC 109 111 110 110 118 tCode: EF RunNo: 93 SeqNo: 33	CowLimit CowLimit 68.8 73.6 72.7 75.7 70 CA Method 636 679020 LowLimit 68.8	HighLimit 120 124 129 126 130 8021B: Volati Units: mg/K HighLimit 120	%RPD	RPDLimit 20	Qual				
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromo Sample ID: 2 Client ID: 1 Prep Date: Analyte	12/28/2022 ofluorobenzene 2212E06-002amsd BS22-11 4'	Analysis I Result 1.1 1.1 1.1 3.3 1.2 SampT Batcl Analysis I Result 1.2 1.2	Date: 12 PQL 0.025 0.050 0.050 0.099 Fype: MS h ID: 72: Date: 12 PQL 0.025 0.049	/29/2022 SPK value 0.9921 0.9921 2.976 0.9921 5D 341 /29/2022 SPK value 0.9891 0.9891 0.9891	SPK Ref Val 0 0 0 0 0 Tes F SPK Ref Val	SeqNo: 33 %REC 109 111 110 110 118 tCode: EP RunNo: 93 SeqNo: 33 %REC	279019 LowLimit 68.8 73.6 72.7 75.7 70 24 Method 2636 279020 LowLimit 68.8 73.6	HighLimit 120 124 129 126 130 8021B: Volati Units: mg/K HighLimit	%RPD //es //g %RPD 11.6 11.9	RPDLimit	Qual				
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromo Sample ID: 2 Client ID: 1 Prep Date: Analyte Benzene	12/28/2022 ofluorobenzene 2212E06-002amsd BS22-11 4'	Analysis I Result 1.1 1.1 1.1 3.3 1.2 Samp Batcl Analysis I Result 1.2	Date: 12 PQL 0.025 0.050 0.050 0.099 Fype: MS h ID: 72: Date: 12 PQL 0.025	/29/2022 SPK value 0.9921 0.9921 2.976 0.9921 5D 541 /29/2022 SPK value 0.9891	SPK Ref Val 0 0 0 0 Tes F SPK Ref Val 0	SeqNo: 33 %REC 109 111 110 110 118 tCode: EP RunNo: 93 SeqNo: 33 %REC 123	CowLimit CowLimit 68.8 73.6 72.7 75.7 70 CA Method 636 679020 LowLimit 68.8	HighLimit 120 124 129 126 130 8021B: Volati Units: mg/K HighLimit 120	%RPD les %RPD 11.6	RPDLimit 20	Qual				
Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bromc Sample ID: 2 Client ID: 1 Prep Date: Analyte Benzene Toluene	12/28/2022 ofluorobenzene 2212E06-002amsd BS22-11 4'	Analysis I Result 1.1 1.1 1.1 3.3 1.2 SampT Batcl Analysis I Result 1.2 1.2	Date: 12 PQL 0.025 0.050 0.050 0.099 Fype: MS h ID: 72: Date: 12 PQL 0.025 0.049	/29/2022 SPK value 0.9921 0.9921 2.976 0.9921 5D 341 /29/2022 SPK value 0.9891 0.9891 0.9891	SPK Ref Val 0 0 0 0 0 Tes F SPK Ref Val 0 0	SeqNo: 33 %REC 109 111 110 110 118 tCode: EF RunNo: 93 SeqNo: 33 %REC 123 125	279019 LowLimit 68.8 73.6 72.7 75.7 70 24 Method 2636 279020 LowLimit 68.8 73.6	HighLimit 120 124 129 126 130 8021B: Volati Units: mg/K HighLimit 120 124	%RPD //es //g %RPD 11.6 11.9	RPDLimit 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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2212E06

06-Jan-23

Client:	Vertex R	esources Servic	es, Inc.							
Project:	Tomcat 1	7 Federal 1								
Sample ID:	lcs-72377	SampType:	LCS	Test	Code: EP	A Method	8021B: Volatil	es		
Client ID:	LCSS	Batch ID:	72377	R	unNo: 93	664				
Prep Date:	12/29/2022	Analysis Date:	12/30/2022		eqNo: 33		Units: %Rec			
	IL/LJ/LULL				·					
Analyte		Result PQ		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bror	nofluorobenzene	1.2	1.000		122	70	130			
Sample ID:	mb-72377	SampType:	MBLK	Test	Code: EP	A Method	8021B: Volatil	es		
Client ID:	PBS	Batch ID:	72377	R	unNo: 93	664				
Prep Date:	12/29/2022	Analysis Date:	12/30/2022	S	eqNo: 33	80365	Units: %Rec			
Analyte		Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bror	nofluorobenzene	1.2	1.000		122	70	130			
Sample ID:	lcs-72382	SampType:	LCS	Test	Code: EP	A Method	8021B: Volatil	es		
Client ID:	LCSS	Batch ID:	72382	R	unNo: 93	664				
Prep Date:	12/29/2022	Analysis Date:	12/30/2022	S	eqNo: 33	80388	Units: %Rec			
Analyte		Result PQ	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bron	nofluorobenzene	1.2	1.000		123	70	130			
Sample ID:	mb-72382	SampType:	MBLK	Test	tCode: EP	A Method	8021B: Volatil	es		
Client ID:	PBS	Batch ID:	72382	R	unNo: 93	664				
Prep Date:	12/29/2022	Analysis Date:	12/30/2022	S	eqNo: 33	80389	Units: %Rec			
Ameliate		Desult DO		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Analyte		Result PQ	L SPK value	SFR Rei Vai	%REC	LOWLITTIL	i iigii∟iiiii	/0NFD	REDLIIIII	Quai

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
- RL

Page 15 of 15

2212E06

06-Jan-23

WO#:

Analyte detected below quantitation limits

- Р Sample pH Not In Range
 - Reporting Limit

HALL ENVIRONMENTA ANALYSIS LABORATORY	L TEL:		1 Hawkins NE ue, NM 87109 505-345-4107	Sam	ple Log-In C	heck List
Client Name: Vertex Resc Services, In		order Number: 2212	E06		RcptNo:	1
Received By: Isaiah Orti	z 12/28/203	22 6:50:00 AM	1	E-0,	X	
Completed By: Isaiah Orti Reviewed By: // /2 -2 3		22 7:33:56 AM	1	E- 0-	~	
Chain of Custody						
1. Is Chain of Custody comple	ete?	Yes	V N	lo 🗌	Not Present	
2. How was the sample delive	ered?	Cour	ier			
Log In 3. Was an attempt made to co	ool the samples?	Yes	V N	lo 🗌	na 🗆	
4. Were all samples received	at a temperature of >0° C to	6.0°C Yes	✓ N	lo 🗌	NA 🗌	
5. Sample(s) in proper contain	ner(s)?	Yes	✓ N	lo 🗌		
6. Sufficient sample volume fo	r indicated test(s)?	Yes	✓ N ⁴	•		
7. Are samples (except VOA a	nd ONG) properly preserved	? Yes	No. 100 No.	•		
8. Was preservative added to	bottles?	Yes		•	NA 🗌	
9. Received at least 1 vial with	headspace <1/4" for AQ VC	A? Yes		•	NA 🗹	
10. Were any sample contained	rs received broken?	Yes	<u>п</u> и	lo 🗹 🛛	# of preserved	
11. Does paperwork match bott (Note discrepancies on cha		Yes	V N		bottles checked for pH:	>12 unless noted)
12. Are matrices correctly ident	ified on Chain of Custody?	Yes	V N	• 🗆	Adjusted?	
13. Is it clear what analyses we	re requested?	Yes	✓ N	• 🗆		
14. Were all holding times able (If no, notify customer for a		Yes	V No		Checked by:	12 12/28/12
Special Handling (if app	licable)					
15. Was client notified of all dis	screpancies with this order?	Yes	П м	lo 🗌		
Person Notified: By Whom: Regarding: Client Instructions:		Date: Via: 🗌 eMa	iil 🗌 Phone [_] Fax [In Person	
16. Additional remarks:						
17. <u>Cooler Information</u> Cooler No Temp °C 1 3.3	Condition Seal Intact Good Yes	Seal No Seal Da	ite Signe	d By		

Received by OCD: 3/12/2024 2:24:38 PM

Page 286 of 309

Received by OCD: 3/12/2024 2:24:38 PM

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cac fa 107 agus	HALL ENVIRONMENTAL		www.naiienvironmentai.com 4901 Hawkins NE - Albuquerque, NM 87109	Anal		S '⁵Od SWIS	(1.1) 8270 2,	504 s 1 ., 1 ., 1 ., 1	- \C 103 103 103 103	lethd 3 Me 3r, N (AOY)	8081 P 2014 b 2014 b 2014 b 2016 (V 2014 C 2014 C										Laura Calderwood	and that Woodall	al Clevent to the ford vertice
Turn-Around Time:	Standard Kush 5 0au	~	+ 17 Federal #	216-02816-27		NR / 0	л SPC	Ves DNo	el	(Including CF): 3.3 ± (°C) T B	Container Preservative HEAL No.	- ice/ / /		E CONTRACTOR OF	how	Sec		1.00	200		Via: Date Time Remarks	Lime	MP 1910 auron (Crein 12/28/22 0650 all scenestered vertered
Chain-of-Custody Record	Client: Vertex (Devon)		Mailing Address: ON Lill	Phone #:	email or Fax#: CC: Scartfor @vertw.ca	QA/QC Package:		D NELAC D Other	EDD (Type)		Date Time Matrix Sample Name	12/22 9:00 Soil BS22-10 4'	-	1. 9:10 BS22-12 4'	9:15 BS22-13 4'	9:30 WS22-14 4'	9:35 WS22-15 4'	9:40 WS22-10 4'	1 9:45 1 WS22-17 4'		Date: Time: Relinquished by: 12trupp 10:42 Salus Cantran	kelinquikhed by:	man 1940 arrive



January 17, 2023

Kent Stallings Vertex Resources Services, Inc. 3101 Boyd Drive Carlsbad, NM 88220 TEL: (505) 506-0040 FAX:

RE: Tomcat 17 Federal 001

OrderNo.: 2301323

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 7 sample(s) on 1/10/2023 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 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

Analytical Report Lab Order 2301323

Date Reported: 1/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-17 0-4' **Project:** Tomcat 17 Federal 001 Collection Date: 1/7/2023 7:15:00 AM Lab ID: 2301323-001 Matrix: SOIL Received Date: 1/10/2023 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 9.3 mg/Kg 1 1/12/2023 11:27:07 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 1/12/2023 11:27:07 PM Surr: DNOP 69-147 %Rec 1 1/12/2023 11:27:07 PM 118 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/13/2023 1:53:43 AM 5.0 mg/Kg 1 Surr: BFB 96.3 37.7-212 %Rec 1 1/13/2023 1:53:43 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 1/13/2023 1:53:43 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 1/13/2023 1:53:43 AM Ethylbenzene ND 0.050 mg/Kg 1 1/13/2023 1:53:43 AM Xylenes, Total ND mg/Kg 1 1/13/2023 1:53:43 AM 0.10 Surr: 4-Bromofluorobenzene 95.5 70-130 %Rec 1 1/13/2023 1:53:43 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT mg/Kg Chloride 1/13/2023 4:41:06 PM ND 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

Analytical Report Lab Order 2301323

Date Reported: 1/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-18 0-4' **Project:** Tomcat 17 Federal 001 Collection Date: 1/7/2023 7:20:00 AM Lab ID: 2301323-002 Matrix: SOIL Received Date: 1/10/2023 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst: DGH Diesel Range Organics (DRO) ND 9.5 mg/Kg 1 1/12/2023 11:37:51 PM Motor Oil Range Organics (MRO) ND 47 mg/Kg 1 1/12/2023 11:37:51 PM Surr: DNOP 98.6 69-147 %Rec 1 1/12/2023 11:37:51 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/13/2023 2:16:48 AM 5.0 mg/Kg 1 Surr: BFB 97.1 37.7-212 %Rec 1 1/13/2023 2:16:48 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 1/13/2023 2:16:48 AM 0.025 mg/Kg 1 Toluene ND 0.050 mg/Kg 1 1/13/2023 2:16:48 AM Ethylbenzene ND 0.050 mg/Kg 1 1/13/2023 2:16:48 AM Xylenes, Total ND mg/Kg 1 1/13/2023 2:16:48 AM 0.10 Surr: 4-Bromofluorobenzene 96.6 70-130 %Rec 1 1/13/2023 2:16:48 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT mg/Kg Chloride 1/13/2023 4:53:30 PM ND 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 2 of 11

Project:

CLIENT: Vertex Resources Services, Inc.

Tomcat 17 Federal 001

Analytical Report Lab Order 2301323

Date Reported: 1/17/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: WS22-19 0-4' Collection Date: 1/7/2023 7:25:00 AM Received Date: 1/10/2023 7:30:00 AM

Lab ID: 2301323-003	Matrix: SOIL	Rece	eived Date:	1/10/2	023 7:30:00 AM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	1/12/2023 11:48:36 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	1/12/2023 11:48:36 PM
Surr: DNOP	104	69-147	%Rec	1	1/12/2023 11:48:36 PM
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: JJP
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	1/13/2023 2:39:52 AM
Surr: BFB	97.1	37.7-212	%Rec	1	1/13/2023 2:39:52 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.025	mg/Kg	1	1/13/2023 2:39:52 AM
Toluene	ND	0.050	mg/Kg	1	1/13/2023 2:39:52 AM
Ethylbenzene	ND	0.050	mg/Kg	1	1/13/2023 2:39:52 AM
Xylenes, Total	ND	0.099	mg/Kg	1	1/13/2023 2:39:52 AM
Surr: 4-Bromofluorobenzene	96.6	70-130	%Rec	1	1/13/2023 2:39:52 AM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	ND	60	mg/Kg	20	1/13/2023 5:05:55 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

Page 3 of 11

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Analytical Report Lab Order 2301323

Date Reported: 1/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-20 0-4' **Project:** Tomcat 17 Federal 001 Collection Date: 1/7/2023 7:30:00 AM Lab ID: 2301323-004 Matrix: SOIL Received Date: 1/10/2023 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS **Diesel Range Organics (DRO)** ND 9.2 mg/Kg 1 1/12/2023 11:59:19 PM Motor Oil Range Organics (MRO) ND 46 mg/Kg 1 1/12/2023 11:59:19 PM Surr: DNOP 108 69-147 %Rec 1 1/12/2023 11:59:19 PM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/13/2023 3:25:56 AM 4.9 mg/Kg 1 Surr: BFB 95.6 37.7-212 %Rec 1 1/13/2023 3:25:56 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 1/13/2023 3:25:56 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 1/13/2023 3:25:56 AM Ethylbenzene ND 0.049 mg/Kg 1 1/13/2023 3:25:56 AM Xylenes, Total ND 0.099 mg/Kg 1 1/13/2023 3:25:56 AM Surr: 4-Bromofluorobenzene 94.9 70-130 %Rec 1 1/13/2023 3:25:56 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT mg/Kg Chloride 1/13/2023 5:18:19 PM 120 61 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 4 of 11

Analytical Report Lab Order 2301323

Date Reported: 1/17/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. Client Sample ID: WS22-21 0-4' **Project:** Tomcat 17 Federal 001 Collection Date: 1/7/2023 7:35:00 AM Lab ID: 2301323-005 Matrix: SOIL Received Date: 1/10/2023 7:30:00 AM Result **RL** Qual Units DF **Date Analyzed** Analyses Analyst: DGH EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Diesel Range Organics (DRO) ND 10 mg/Kg 1 1/13/2023 12:10:01 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 1/13/2023 12:10:01 AM Surr: DNOP 120 69-147 %Rec 1 1/13/2023 12:10:01 AM **EPA METHOD 8015D: GASOLINE RANGE** Analyst: JJP Gasoline Range Organics (GRO) ND 1/13/2023 3:48:54 AM 4.9 mg/Kg 1 Surr: BFB 94.1 37.7-212 %Rec 1 1/13/2023 3:48:54 AM **EPA METHOD 8021B: VOLATILES** Analyst: JJP Benzene ND 1/13/2023 3:48:54 AM 0.025 mg/Kg 1 Toluene ND 0.049 mg/Kg 1 1/13/2023 3:48:54 AM Ethylbenzene ND 0.049 mg/Kg 1 1/13/2023 3:48:54 AM Xylenes, Total ND 0.098 mg/Kg 1 1/13/2023 3:48:54 AM Surr: 4-Bromofluorobenzene 93.7 70-130 %Rec 1 1/13/2023 3:48:54 AM **EPA METHOD 300.0: ANIONS** Analyst: JTT mg/Kg Chloride 1/13/2023 5:30:44 PM 72 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 5 of 11

Project:

Lab ID:

CLIENT: Vertex Resources Services, Inc.

2301323-006

Tomcat 17 Federal 001

Analytical Report Lab Order 2301323

Date Reported: 1/17/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BS22-14 4' Collection Date: 1/7/2023 7:45:00 AM Matrix: SOIL Received Date: 1/10/2023 7:30:00 AM

Result	RL Qua	al Units	DF	Date Analyzed
GANICS				Analyst: DGH
ND	10	mg/Kg	1	1/13/2023 12:20:41 AM
ND	50	mg/Kg	1	1/13/2023 12:20:41 AM
105	69-147	%Rec	1	1/13/2023 12:20:41 AM
				Analyst: JJP
ND	4.9	mg/Kg	1	1/13/2023 4:11:56 AM
94.9	37.7-212	%Rec	1	1/13/2023 4:11:56 AM
				Analyst: JJP
ND	0.025	mg/Kg	1	1/13/2023 4:11:56 AM
ND	0.049	mg/Kg	1	1/13/2023 4:11:56 AM
ND	0.049	mg/Kg	1	1/13/2023 4:11:56 AM
ND	0.099	mg/Kg	1	1/13/2023 4:11:56 AM
94.8	70-130	%Rec	1	1/13/2023 4:11:56 AM
				Analyst: JTT
1800	61	mg/Kg	20	1/13/2023 5:43:08 PM
	GANICS ND 105 ND 94.9 ND ND ND ND 94.8	GANICS ND 10 ND 50 105 69-147 ND 4.9 94.9 37.7-212 ND 0.025 ND 0.049 ND 0.049 ND 0.049 ND 0.099 94.8 70-130	GANICS ND 10 mg/Kg ND 50 mg/Kg 105 69-147 %Rec ND 4.9 mg/Kg 94.9 37.7-212 %Rec ND 0.025 mg/Kg ND 0.049 mg/Kg ND 0.049 mg/Kg ND 0.049 mg/Kg ND 0.099 mg/Kg 94.8 70-130 %Rec	Second

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 6 of 11

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Project:

Lab ID:

CLIENT: Vertex Resources Services, Inc.

2301323-007

Tomcat 17 Federal 001

Analytical Report Lab Order 2301323

Date Reported: 1/17/2023

Hall Environmental Analysis Laboratory, Inc.

Client Sample ID: BS22-15 4' Collection Date: 1/7/2023 7:50:00 AM Received Date: 1/10/2023 7:30:00 AM

Euro ID : 2501525 007		1000	civea Dutei	1/10/2	023 7.30.00 FIM
Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst: DGH
Diesel Range Organics (DRO)	9.8	8.9	mg/Kg	1	1/13/2023 12:31:21 AM
Motor Oil Range Organics (MRO)	ND	44	mg/Kg	1	1/13/2023 12:31:21 AM
Surr: DNOP	114	69-147	%Rec	1	1/13/2023 12:31:21 AM
EPA METHOD 8015D: GASOLINE RANGE					Analyst: JJP
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/13/2023 4:34:56 AM
Surr: BFB	93.9	37.7-212	%Rec	1	1/13/2023 4:34:56 AM
EPA METHOD 8021B: VOLATILES					Analyst: JJP
Benzene	ND	0.024	mg/Kg	1	1/13/2023 4:34:56 AM
Toluene	ND	0.049	mg/Kg	1	1/13/2023 4:34:56 AM
Ethylbenzene	ND	0.049	mg/Kg	1	1/13/2023 4:34:56 AM
Xylenes, Total	ND	0.097	mg/Kg	1	1/13/2023 4:34:56 AM
Surr: 4-Bromofluorobenzene	93.3	70-130	%Rec	1	1/13/2023 4:34:56 AM
EPA METHOD 300.0: ANIONS					Analyst: JTT
Chloride	1400	60	mg/Kg	20	1/13/2023 5:55:33 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

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Client: Project:		ex Resources Servio ncat 17 Federal 001	ces, Inc.							
Sample ID:	MB-72612	SampType:	MBLK	Tes	tCode: EPA	Method	300.0: Anions	;		
Client ID:	PBS	Batch ID:	72612	F	RunNo: 939	54				
Prep Date:	1/13/2023	Analysis Date:	1/13/2023	Ş	SeqNo: 339	2167	Units: mg/K	g		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5							
Sample ID:	LCS-72612	SampType:	LCS	Tes	tCode: EPA	Method	300.0: Anions	;		
Client ID:	LCSS	Batch ID:	72612	F	RunNo: 939	54				
Prep Date:	1/13/2023	Analysis Date:	1/13/2023	Ş	SeqNo: 339	2168	Units: mg/K	g		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5 15.00	0	96.1	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

Page 8 of 11

2301323

17-Jan-23

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:		Resources Se 17 Federal 0	,	Inc.							
Sample ID:	LCS-72585	SampTy	/pe: LC	s	Tes	tCode: EF	PA Method	8015M/D: Die:	sel Range	Organics	
Client ID:	LCSS	Batch	ID: 725	585	F	RunNo: 93	8911				
Prep Date:	1/12/2023	Analysis Da	ate: 1/*	12/2023	Ş	SeqNo: 33	390353	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		5.6		5.000		111	69	147			
Sample ID:	MB-72585	SampTy	/pe: ME	BLK	Tes	tCode: EF	PA Method	8015M/D: Die:	sel Range	Organics	
Client ID:	PBS	Batch	ID: 725	585	F	RunNo: 93	8911				
Prep Date:	1/12/2023	Analysis Da	ate: 1/ '	12/2023	S	SeqNo: 33	390355	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	1	11		10.00		106	69	147			
Sample ID:	LCS-72584	SampTy	/pe: LC	S	Tes	tCode: EF	PA Method	8015M/D: Die:	sel Range	Organics	
Client ID:	LCSS	Batch	ID: 725	584	F	RunNo: 93	3911				
Prep Date:	1/11/2023	Analysis Da	ate: 1/ '	12/2023	5	SeqNo: 33	891719	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
•	Organics (DRO)	41	10	50.00	0	82.0	61.9	130			
Surr: DNOP		5.3		5.000		106	69	147			
Sample ID:	MB-72584	SampTy	/pe: ME	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	sel Range	Organics	
Client ID:	PBS	Batch	ID: 725	584	F	RunNo: 93	8911				
Prep Date:	1/11/2023	Analysis Da	ate: 1/	12/2023	5	SeqNo: 33	391724	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
-	Organics (DRO)	ND	10								
wotor Oli Rang	ge Organics (MRO)	ND	50								

Motor Oil Range Organics (MRO) Surr: DNOP

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

11

10.00

Analyte detected in the associated Method Blank В

113

69

147

- 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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2301323

17-Jan-23

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

	x Resources Services, at 17 Federal 001	Inc.							
Sample ID: Ics-72577	SampType: LC	-				8015D: Gaso	ine Range		
Client ID: LCSS	Batch ID: 72	577	F	RunNo: 9 3	3928				
Prep Date: 1/11/2023	Analysis Date: 1/	12/2023	Ş	SeqNo: 33	391322	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24 5.0	25.00	0	95.6	72.3	137			
Surr: BFB	2000	1000		195	37.7	212			
Sample ID: mb-72577	SampType: M	BLK	Tes	tCode: EF	PA Method	8015D: Gaso	ine Range		
Client ID: PBS	Batch ID: 72	577	F	RunNo: 9 3	3928				
Prep Date: 1/11/2023	Analysis Date: 1/	12/2023	S	SeqNo: 33	391323	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	37.7	212			

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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2301323

17-Jan-23

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

	Vertex Resources Comcat 17 Federa		Inc.							
Sample ID: LCS-725	77 Samp	Type: LC	S	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID: LCSS	Bate	ch ID: 725	577	F	RunNo: 93	928				
Prep Date: 1/11/202	Analysis	Date: 1/	12/2023	S	SeqNo: 33	91519	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.2	80	120			
Toluene	0.97	0.050	1.000	0	96.9	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.1	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.7	80	120			
Surr: 4-Bromofluorobenz	ene 1.0		1.000		99.9	70	130			
Sample ID: mb-7257	7 Samp	туре: МЕ	BLK	Tes	tCode: EF	A Method	8021B: Volati	les		
Client ID: PBS	Bat	ch ID: 725	577	F	RunNo: 9 3	928				
Prep Date: 1/11/202	23 Analysis	Date: 1/	12/2023	5	SeqNo: 33	91520	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-Bromofluorobenz	ene 1.0		1.000		99.5	70	130			

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 11 of 11

2301323

17-Jan-23

	ANAL	RONMENT/ YSIS RATORY	AL.	TEI	ll Environme L: 505-345-3 Website: www	490 Albuquerq 3975 FAX:)1 Hawk jue, NM 505-34.	kins NE 87109 5-4107	Sar	nple Log-In C	heck List	
Clie	ent Name:	Vertex Res Services, Ir		Work	Order Num	ber: 230	1323			RcptNo:	1	
Rec	eived By:	Juan Roja	s	1/10/20	23 7:30:00	AM		Hean	E.G	not		
Con	npleted By:	Sean Livir	ngston	1/10/20:	23 8:31:11	AM		S	_L	not		
Rev	iewed By:	Jn 11	0/23							0		
<u>Cha</u>	<u>in of Cus</u>	tody										
1. k	s Chain of C	ustody comp	lete?			Yes		No		Not Present		
2. ⊦	low was the	sample deliv	ered?			<u>Cou</u>	rier					
	g In Vas an atten	npt made to c	ool the sampl	es?		Yes		No		NA 🗌		
4. W	lere all sam	ples received	at a temperat	ure of >0° C 1	to 6.0°C	Yes		No		NA 🗆		
5. s	ample(s) in	proper contai	ner(s)?			Yes		No				
6. S	ufficient sam	nple volume f	or indicated te	st(s)?		Yes		No				
7. Ai	re samples (except VOA	and ONG) pro	perly preserve	ed?	Yes	\checkmark	No				
8. W	las preserva	tive added to	bottles?			Yes		No	\checkmark	NA 🗌		
9. R	eceived at le	east 1 vial with	h headspace <	<1/4" for AQ V	'OA?	Yes		No		NA 🔽		
10. W	Vere any sar	nple containe	ers received br	oken?		Yes	\Box	No	\checkmark	# of preserved	/	1
		ork match bot ancies on cha	tle labels? iin of custody)			Yes		No		bottles checked for pH:	>12 unless noted)	
			tified on Chair	of Custody?		Yes		No		Adjusted?		
13. Is	it clear wha	t analyses we	ere requested?	>		Yes	\checkmark	No		6		
		ng times able ustomer for a				Yes		No		Checked by:	KPa 1.10.2	73
<u>Spec</u>	ial Handl	ling (if app	licable)									
15.V	Vas client no	otified of all di	screpancies w	ith this order?		Yes		No		NA 🗹		
	Person	Notified:			Date	-			and the second se			
	By Who	om: 🔰		an ta bha an an ta tha an ta t	Via:	🔲 eMa	ail 🗌	Phone] Fax	In Person		
	Regard	ing:							and and a line			
		nstructions:										
16. /	Additional re	marks:										
17. <u>c</u>	Cooler Infor			5								
	Cooler No		Condition	Seal Intact	Seal No	Seal D	ate	Signed	Ву	33		
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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Received	M-989	3672024	Received CHSR13672CUSHOODYACOOD	Turn-Around Time:	Time:					5	-		5	6	Pag ENVTRONMEN	Page 301 of 309	f 309
Client:		Vertex		X Standard		5 Davy					Å E	ANALYSIS	S S	₽₹	ABORAT	TORY	~
		(direct b	(direct bill to Devon)	Project Name:	-	•				~	v.halle	enviro	nme	www.hallenvironmental.com	E		
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				Project #:			_	Tel.	505-345-3975	345-3		Fax	x 50	Fax 505-345-4107	4107		
Phone #:	ŧ.			22E-02816-27	7						An	ıalysi	s Re	Analysis Request			
email or Fax#:	r Fax#:			Project Manager:	ger:		(1	(0				*O	_	(tu			
QA/QC	QA/QC Package:			Kent Stallings	(0)		805		s,g;	SM		S '*(əsq			
Standard	Idard		Level 4 (Full Validation)	<u>kstallings@vertex.ca</u>	ertex.ca) s,{		БС	IS0		. БС		A'tn			
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				On Ice:	Tes	ON D	13					' E	40				
	EDD (Type)			# of Coolers:	_	Murty	38				_						
				Cooler Temp(including CF):		0-62 0°C	LM			_							
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2301323	X 3T8 /	08:H9T	8081 Pd M) 803	d eHA9	8 АЯЭЯ	Cl' L' E	v) 0328 2) 0728	Total Co			
01/07/23	7:15	Soil	WS22-17 0-4'	1, 4oz jar		100	×	×				I					
01/07/23	7:20	Soil	WS22-18 0-4'	1, 4oz jar		۲ <i>c</i> γ	×	×				×					
01/07/23	7:25	Soil	WS22-19 0-4'	1, 4oz jar		207	×	×				×					
01/07/23	7:30	Soil	WS22-20 0-4'	1, 4oz jar		h co	×	×				×					
01/07/23	7:35	Soil	WS22-21 0-4'	1, 4oz jar		500	×	×				×					
01/07/23	7:45	Soil	BS22-14 4'	1, 4oz jar		200 0	х	×				×					
01/07/23	7:50	Soil	BS22-15 4'	1, 4oz jar		する	×	X				×					
													_				
	Time:	Relinquish	ed by:	Received by:	Via:	, Date Time	Ren	Remarks:	-					_		_	-
∞	\$	Internal	ma/	INUNN	, V	1/9/23 700	Dire	ct bill	Direct bill to Devon, Dale Woodall	evon,	Dale	Woo	dall	0000			
Pate: Time:			ed by:	Received by:	Via:	Date Date	-		200		2	5	0	Inda			
-	f necessary.	samples sub	f necessary samples submitted to Hall Environmental may be swhontracted to other		Accredited laboratories 1	- 1.	e noes	vility, Ar	-qua v	ntractor	tata w	alo ed lli	on vire	tated or	she analytics	renort	

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

QUESTIONS

Action 322635

QUESTIO	NS
Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	322635
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	nKJ1524345298
Incident Name	NKJ1524345298 TOMCAT 17 FEDERAL #001 @ 30-025-34690
Incident Type	Oil Release
Incident Status	Remediation Closure Report Received
Incident Well	[30-025-34690] TOMCAT 17 FEDERAL #001

Location of Release Source

Please answer all the questions in this group.	
Site Name	TOMCAT 17 FEDERAL #001
Date Release Discovered	08/26/2015
Surface Owner	Federal

Incident Details

Please answer all the questions in this group

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

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission. Cause: Equipment Failure | Tank (Any) | Crude Oil | Released: 90 BBL | Recovered: 10 BBL | Crude Oil Released (bbls) Details Lost: 80 BBL Produced Water Released (bbls) Details Not answered. Is the concentration of chloride in the produced water >10,000 mg/l Not answered. Condensate Released (bbls) Details Not answered. Natural Gas Vented (Mcf) Details Not answered. Natural Gas Flared (Mcf) Details Not answered. Other Released Details Not answered. Are there additional details for the questions above (i.e. any answer containing Not answered. Other, Specify, Unknown, and/or Fire, or any negative lost amounts)

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

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QUESTIONS, Page 2

Action 322635

QUESTIONS (continued)	
Operator: DEVON ENERGY PRODUCTION COMPANY, LP	OGRID: 6137
333 West Sheridan Ave. Oklahoma City, OK 73102	Action Number: 322635
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Initial Response

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.	

The responsible party must undertake the following actions immediately unless they could create a	safety hazard that would result in injury.
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.
	diation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of eted or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of evaluation in the follow-up C-141 submission.
to report and/or file certain release notifications and perform corrective actions for rele the OCD does not relieve the operator of liability should their operations have failed to	knowledge and understand that pursuant to OCD rules and regulations all operators are required eases 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 rt does not relieve the operator of responsibility for compliance with any other federal, state, or
I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dvn.com

Date: 03/12/2024

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

QUESTIONS, Page 3

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Action 322635

QUESTIONS (continued)	
Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	322635
	Action Type:
	[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 approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 1 and 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 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	Greater than 5 (mi.)
A subsurface mine	Between 1 and 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	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Νο

Remediation Plan

Please answer all the questions the	hat apply or are indicated. This information must be provided to	o the appropriate district office no later than 90 days after the release discovery date.
Requesting a remediation	plan approval with this submission	Yes
Attach a comprehensive report de	monstrating the lateral and vertical extents of soil contamination	on associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.
Have the lateral and vertica	al extents of contamination been fully delineated	Yes
Was this release entirely c	ontained within a lined containment area	No
Soil Contamination Sampling	g: (Provide the highest observable value for each, in m	illigrams per kilograms.)
Chloride	(EPA 300.0 or SM4500 CI B)	5400
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	16300
GRO+DRO	(EPA SW-846 Method 8015M)	8300
BTEX	(EPA SW-846 Method 8021B or 8260B)	0
Deverage	(EDA 0)4(040 Matheral 0004D an 0000D)	
Benzene	(EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 I		
Per Subsection B of 19.15.29.11 I which includes the anticipated tin	YMAC unless the site characterization report includes complete	
Per Subsection B of 19.15.29.11 I which includes the anticipated tim On what estimated date wi	NMAC unless the site characterization report includes complete relines for beginning and completing the remediation.	ed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMA
Per Subsection B of 19.15.29.11 I which includes the anticipated tin On what estimated date wi On what date will (or did) t	NMAC unless the site characterization report includes complete relines for beginning and completing the remediation. ill the remediation commence	ad efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMA0 07/16/2020
Per Subsection B of 19.15.29.11 I which includes the anticipated tim On what estimated date wi On what date will (or did) ti On what date will (or was)	NMAC unless the site characterization report includes complete helines for beginning and completing the remediation. ill the remediation commence he final sampling or liner inspection occur	ed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMA(07/16/2020 01/17/2023
Per Subsection B of 19.15.29.11 I which includes the anticipated tim On what estimated date wi On what date will (or did) t On what date will (or was) What is the estimated surfa	NMAC unless the site characterization report includes complete nelines for beginning and completing the remediation. Ill the remediation commence he final sampling or liner inspection occur the remediation complete(d)	ed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAG 07/16/2020 01/17/2023 01/07/2023
Per Subsection B of 19.15.29.11 I which includes the anticipated tim On what estimated date wi On what date will (or did) ti On what date will (or was) What is the estimated surfa What is the estimated volu	NMAC unless the site characterization report includes complete relines for beginning and completing the remediation. Ill the remediation commence he final sampling or liner inspection occur the remediation complete(d) ace area (in square feet) that will be reclaimed	ad efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMA 07/16/2020 01/17/2023 01/07/2023 2600
Per Subsection B of 19.15.29.11 I which includes the anticipated tim On what estimated date wi On what date will (or did) ti On what date will (or was) What is the estimated surfa What is the estimated volu What is the estimated surfa	NMAC unless the site characterization report includes complete relines for beginning and completing the remediation. Ill the remediation commence he final sampling or liner inspection occur the remediation complete(d) ace area (in square feet) that will be reclaimed me (in cubic yards) that will be reclaimed	ad efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAQ 07/16/2020 01/17/2023 01/07/2023 2600 339

significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 322635

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462		
QUESTIONS (continued)		
Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137 Action Number: 322635 Action Type:	
	[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 This remediation will (or is expected to) utilize the following processes to remediate		
(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.)	Yes	
(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.	forts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC,	
to report and/or file certain release notifications and perform corrective actions for releat the OCD does not relieve the operator of liability should their operations have failed to a	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	
I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dvn.com Date: 03/12/2024	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accorsignificantly deviate from the remediation plan proposed, then it should consult with the division to a	ordance with the physical realities encountered during remediation. If the responsible party has any need to letermine if another remediation plan submission is required.	

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

QUESTIONS, Page 5

Action 322635

QUESTIONS (continued)	
Operator: DEVON ENERGY PRODUCTION COMPANY, LP	OGRID: 6137
333 West Sheridan Ave. Oklahoma City, OK 73102	Action Number: 322635
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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QUESTIONS, Page 6

Action 322635

QUESTIONS (continued)	
Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	322635
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information		
Last sampling notification (C-141N) recorded	322620	
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	01/07/2023	
What was the (estimated) number of samples that were to be gathered	7	
What was the sampling surface area in square feet	1	

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all re	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	2600	
What was the total volume (cubic yards) remediated	339	
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 closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.		
to report and/or file certain release notifications and perform corrective actions for releas 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 repor	knowledge 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 ially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed ng notification to the OCD when reclamation and re-vegetation are complete.	

I hereby agree and sign off to the above statement	Name: Dale Woodall
	Title: EHS Professional
	Email: Dale.Woodall@dvn.com
	Date: 03/12/2024

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QUESTIONS, Page 7

Action 322635

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QUESTIONS (continued)		
Operator: DEVON ENERGY PRODUCTION COMPANY, LP	OGRID: 6137	
333 West Sheridan Ave. Oklahoma City, OK 73102	Action Number: 322635	
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	
QUESTIONS		
Paglamation Papart		

Only answer the questions in this group if all reclamation steps have been completed. Requesting a reclamation approval with this submission No

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CONDITIONS

Action 322635

CONDITIONS Operator: OGRID: DEVON ENERGY PRODUCTION COMPANY, LP 6137 333 West Sheridan Ave. Action Number: Oklahoma City, OK 73102 322635 Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS		
Created By	Condition	Condition Date
crystal.walker	Closure Approved. Final remediation and reclamation shall take place in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the site is no longer being used for oil and gas operations.	3/14/2024