General Information

NMOCD District:	District 2	Incident ID:	nAPP2427862444
Landowner:	Federal	API:	30-015-39866
Client:	Devon Energy Production Company, LP	Site Location:	Snapping 10 Federal #003H
Date:	March 12, 2025	Project #:	23E-04518
Client Contact:	Jim Raley	Phone #:	575.689.7597
Vertex PM:	Kent Stallings	Phone #:	346.814.1413

Objective

The objective of the environmental remediation work plan is to identify exceedances found during the site assessment/characterization activity and propose an appropriate remediation technique to address the crude oil release at Snapping 10 Federal #003H. The release occurred when a well kick damaged the stuffing box on the well and resulted in 20 barrels (bbl) of crude oil being released on the facility pad, shown on Figure 1 (Attachment 1). Areas of environmental concern identified and delineated include the well pad around the wellhead. Closure criteria have been selected as per New Mexico Administrative Code (NMAC) 19.15.29. The closure criteria for the site are presented below in Table 1.

Table 1. Closure Criteria for Soils Impacted by a Release DTGW <50 feet bgs

Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Limit
< 50 feet	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

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

Site Assessment/Characterization

Site characterization was completed between October 14, 2024, and February 14, 2025. A total of 27 boreholes were established and samples collected for field screening. In total, 52 samples were submitted to the laboratory for analysis. The sample locations are presented on Figure 1 (Attachment 1). Laboratory analysis results have been compared to the above noted closure criteria and the results from the characterization activity are presented in Table 2 (Attachment 2). Exceedances to reclamation and remediation criteria are identified in the table as bold with grey background. Daily field reports and laboratory data reports are included in Attachments 3 and 4, respectively. All applicable research as it pertains to closure criteria selection is presented in Attachment 5.

Proposed Remedial Activities

General

The release area will be remediated to the most stringent closure criteria. Areas identified with contaminant concentrations above closure criteria will be remediated through excavation. Laboratory results from the site assessment/characterization have been referenced to estimate both the vertical and horizontal limits of the impacts, and the volume of soil to be removed. Soil will be excavated to the extent of the known impacts or in 1 foot increments, whichever is less. Field screening will be utilized to confirm removal of impacted soil below

the applicable closure criteria. Excavated soils will be stored on a 30mil liner prior to disposal at an approved facility. Once excavation is complete, confirmatory samples will be collected and laboratory analysis completed to confirm closure criteria guidelines are met. Excavations will be backfilled with clean soil sourced locally.

nAPP2427862444 (October 4, 2024) – Release onto Pad Around Wellhead

Field screening and laboratory analysis were utilized to find the approximate horizontal and vertical extents of the spill area. A total of 52 samples were collected for analysis. Exceedances to closure criteria identified around the wellhead will be remediated to closure criteria via excavation. Heavy equipment will be used to excavate open areas on the pad to remove contaminated soil. A hydrovac truck may be utilized to identify utility and buried pipelines where necessary, and hand tools will be utilized to remove contaminated soil in close proximity to equipment, buried utilities, and pipelines. Confirmation samples will be collected as per New Mexico Oil Conservation Division (NMOCD) guidance and submitted for laboratory analysis of all applicable parameters. Surfaces of the final extents of the excavation will meet the most stringent NMOCD closure criteria. The remediation area is approximately 16,506 square feet as presented on Figure 1 (Attachment 1). Excavation is planned to be completed within 90 days of approval of this Environmental Site Remediation Work Plan. The estimated volume to be excavated is approximately **1300 cubic yards**.

Should you have any questions or concerns, please do not hesitate to contact the undersigned at 346.814.1413 or kstallings@vertexresource.com.

Lakin Pullman

Lakin Pullman, B.Sc.
ENVIRONMENTAL SPECIALIST, REPORTING

March 12, 2025
Date

Kent Stallings

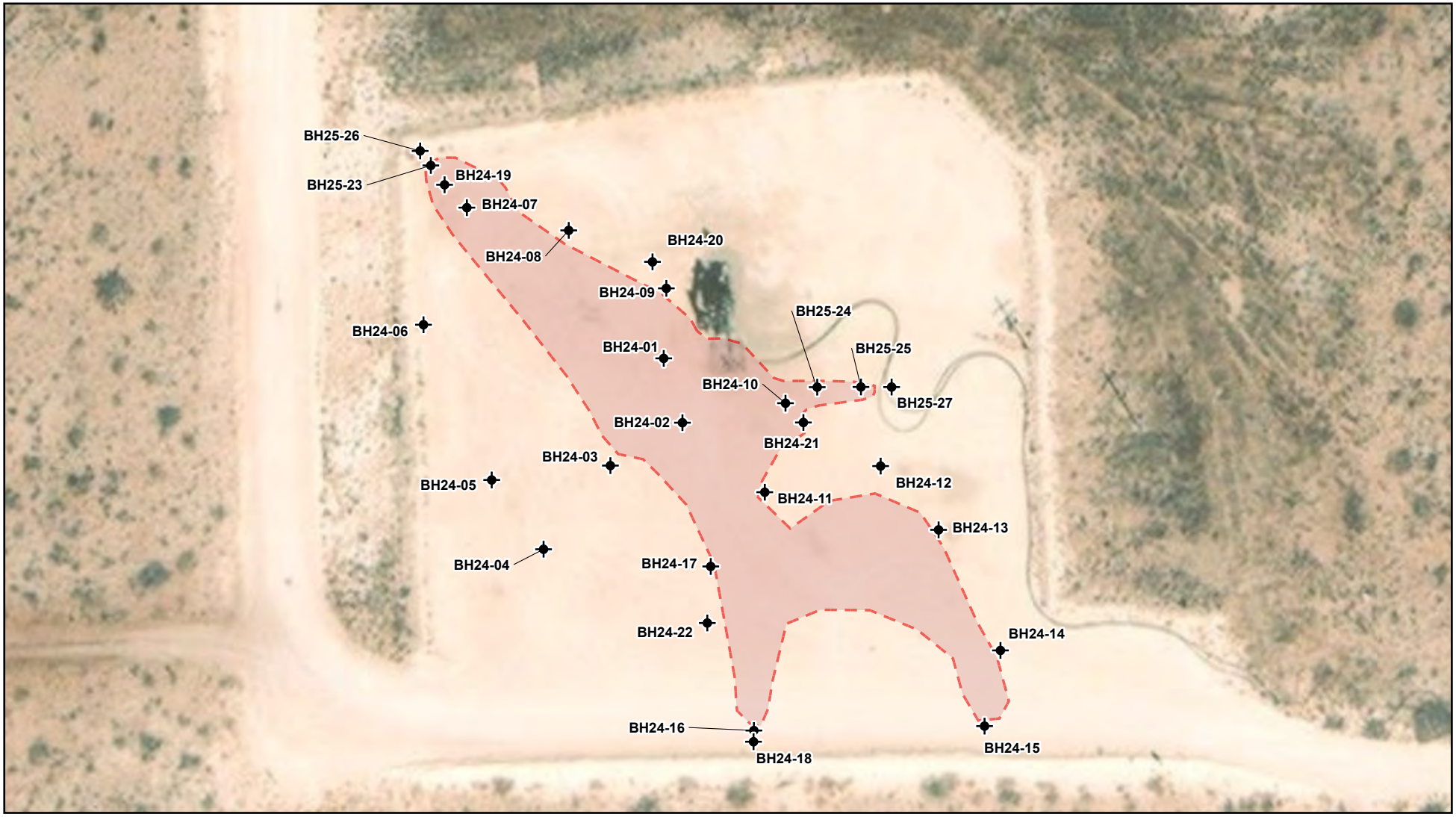
Kent Stallings, P.G.
SENIOR GEOLOGIST, REPORT REVIEW

March 13, 2025
Date

Attachments

Attachment 1. Characterization Sampling Site Schematic
Attachment 2. Initial Characterization Sample Field Screen and Laboratory Results – Depth to Groundwater <50 feet bgs
Attachment 3. Daily Field Reports with Photographs
Attachment 4. Laboratory Data Reports with Chain of Custody Forms
Attachment 5. Closure Criteria Research

ATTACHMENT 1



Borehole

Release Area (~16,506 sq.ft.)

VERTEX

0 25 50 ft

NAD 1983 UTM Zone 13N

Date: Mar 12/25

Map Center:
Lat/Long
32.050628°,-103.767348°

N

Characterization Sampling Site Schematic
Snapping 10 Federal #003H

FIGURE:
1

devon

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

Note: Georeferenced image from Esri, 2022. Approximate site boundary from sketch by Vertex Professional Services Ltd. (Vertex), 2025. Site features from GPS, Vertex, 2025.

VERSATILITY. EXPERTISE.

Document Path: S:\04 - Geomatics\1-Projects\ US PROJECTS\Devon Energy Corporation\2024\24E-04518 - Devon-Snapping 10 Fed 3H\Project\24E-04518 aprx

ATTACHMENT 2

Client Name: Devon Energy Production Company, LP
Site Name: Snapping 10 Federal #003H
NMOCD Tracking #: nAPP2427862444
Project #: 23E-04518
Lab Reports: 01058-0007, 885-13995, and 885-20056

Table 2. Initial Characterization Sample Field Screen and Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Depth to Groundwater <50 feet bgs							
BH24-01	1	October 31, 2024	ND	ND	ND	**545**	**331**	**545**	**876**	**3,700**
	2	February 12, 2025	ND	ND	ND	ND	ND	ND	ND	**2,800**
	4	February 12, 2025	ND	ND	ND	84	ND	84	84	**1,600**
	6	February 12, 2025	ND	ND	ND	53	ND	53	53	470
BH24-02	1	October 31, 2024	ND	ND	ND	ND	ND	ND	ND	**1,150**
	1.5	October 31, 2024	ND	ND	ND	ND	ND	ND	ND	**662**
	4	February 14, 2025	ND	ND	ND	ND	ND	ND	ND	64
BH24-03	1	October 14, 2024	ND	ND	ND	44	ND	44	44	160
BH24-04	1.5	October 14, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-05	1	October 14, 2024	ND	ND	ND	44	ND	44	44	100
BH24-06	1	October 14, 2024	ND	ND	ND	ND	ND	ND	ND	60
BH24-07	1	October 31, 2024	ND	ND	ND	**1,820**	**3,560**	**1,820**	**5,380**	**638**
	2	February 12, 2025	ND	ND	ND	ND	ND	ND	ND	500
	4	February 12, 2025	ND	ND	ND	ND	ND	ND	ND	**620**
BH24-08	1	October 14, 2024	ND	ND	ND	ND	ND	ND	ND	100
BH24-09	1.5	October 31, 2024	ND	ND	ND	ND	ND	ND	ND	545
BH24-10	1	October 31, 2024	ND	ND	ND	ND	ND	ND	ND	**4,960**
	2	February 12, 2025	ND	ND	ND	ND	ND	ND	ND	**1,800**
	4	February 12, 2025	ND	ND	ND	ND	ND	ND	ND	**670**
	6	February 14, 2025	ND	ND	ND	ND	ND	ND	ND	420
BH24-11	0	October 15, 2024	ND	ND	ND	ND	ND	ND	ND	410
	1	October 15, 2024	ND	ND	ND	ND	ND	ND	ND	350
BH24-12	1	October 31, 2024	ND	ND	ND	31.7	ND	31.7	31.7	ND
BH24-13	0	October 15, 2024	ND	ND	ND	ND	ND	ND	ND	410
	1	October 15, 2024	ND	ND	ND	ND	ND	ND	ND	250
	2	October 15, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-14	1	October 15, 2024	ND	ND	ND	ND	ND	ND	ND	360
BH24-15	0	October 15, 2024	ND	ND	ND	ND	ND	ND	ND	130
	1	October 15, 2024	ND	ND	ND	ND	ND	ND	ND	120
	2	October 15, 2024	ND	ND	ND	ND	ND	ND	ND	ND
BH24-16	1	October 14, 2024	ND	ND	ND	ND	ND	ND	ND	65
BH24-17	1.5	October 14, 2024	ND	ND	ND	ND	ND	ND	ND	63
BH24-18	1	October 15, 2024	ND	ND	ND	ND	ND	ND	ND	60
BH24-19	0	October 16, 2024	ND	ND	ND	ND	ND	ND	ND	**1,700**
	1	October 16, 2024	ND	ND	ND	ND	ND	ND	ND	200
BH24-20	0	October 16, 2024	ND	ND	ND	ND	ND	ND	ND	110
	1	October 16, 2024	ND	ND	ND	ND	ND	ND	ND	87

Client Name: Devon Energy Production Company, LP
Site Name: Snapping 10 Federal #003H
NMOCD Tracking #: nAPP2427862444
Project #: 23E-04518
Lab Reports: 01058-0007, 885-13995, and 885-20056

Table 2. Initial Characterization Sample Field Screen and Laboratory Results

Sample Description			Petroleum Hydrocarbons							Inorganic
			Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Depth to Groundwater <50 feet bgs							
BH24-21	0	October 16, 2024	ND	ND	ND	110	80	**110**	**190**	490
	1	October 16, 2024	ND	ND	ND	ND	ND	ND	ND	360
	1.5	October 16, 2024	ND	ND	ND	ND	ND	ND	ND	190
BH24-22	0	October 16, 2024	ND	ND	ND	10	ND	10	10	190
	1	October 16, 2024	ND	ND	ND	ND	ND	ND	ND	230
BH25-23	0	February 14, 2025	ND	ND	ND	ND	ND	ND	ND	**980**
	2	February 14, 2025	ND	ND	ND	ND	ND	ND	ND	430
BH25-24	0	February 14, 2025	ND	ND	ND	ND	ND	ND	ND	**1,100**
	2	February 14, 2025	ND	ND	ND	ND	ND	ND	ND	**1,300**
BH25-25	0	February 14, 2025	ND	ND	ND	ND	ND	ND	ND	**1,300**
	2	February 14, 2025	ND	ND	ND	ND	ND	ND	ND	600
BH24-26	0	February 14, 2025	ND	ND	ND	ND	ND	ND	ND	330
	1	February 14, 2025	ND	ND	ND	ND	ND	ND	ND	430
BH25-27	0	February 14, 2025	ND	ND	ND	ND	ND	ND	ND	160
	2	February 14, 2025	ND	ND	ND	ND	ND	ND	ND	75

"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

ATTACHMENT 3

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	10/14/2024
Site Location Name:	Snapping 10 Fed 3H	Report Run Date:	10/14/2024 9:22 PM
Client Contact Name:	Dale Woodall	API #:	
Client Contact Phone #:	405-318-4697		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/14/2024 8:30 AM
Departed Site	10/14/2024 2:36 PM

Daily Site Visit Report

Site Sketch

Site Sketch

Daily Site Visit Report

Field Notes

13:19 Delineate spill area

13:20 Field screen sample points

Next Steps & Recommendations

1 Finish horizontal/vertical delineation on site

2 Petroflag all samples

Daily Site Visit Report

Site Photos

Viewing Direction: Northeast	**Viewing Direction**: North
	
BH24-01 @ 1’ refusal	BH24-02 @ 1.5’
Viewing Direction: Northeast	**Viewing Direction**: Northeast
	
BH24-03 @ 1’	BH24-04@ 1’

Daily Site Visit Report

Viewing Direction: Northeast	**Viewing Direction**: East
	
BH24-05@ 1’	BH24-06@ 1.5’
Viewing Direction: Southeast	**Viewing Direction**: Southeast
	
BH24-07@ 1’	BH24-08@ 1’

Daily Site Visit Report

Viewing Direction: Southeast	**Viewing Direction**: Northwest
	
BH24-09 @ 1’	BH24-10@ 1’
Viewing Direction: North	**Viewing Direction**: North
	
BH24-17@ 1’	BH24-16@ 1’

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Riley Arnold

Signature:

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	10/15/2024
Site Location Name:	Snapping 10 Fed 3H	Report Run Date:	10/16/2024 12:18 AM
Client Contact Name:	Dale Woodall	API #:	
Client Contact Phone #:	405-318-4697		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	10/15/2024 9:35 AM
Departed Site	10/15/2024 4:11 PM

Daily Site Visit Report

Site Sketch

Site Sketch

Daily Site Visit Report

Field Notes

15:07 Arrived on site at approximately 9:35 am. On site to delineate release. Assessed site and filled out JSA, held safety briefing.

18:13 Tested BH24-01 to -10 and -16, -17 which were collected the previous day, for chlorides using titration.

18:10 Collected BH24-11 at 0’ and 1’ (hit refusal);
-12 at 0’ and 1’ (refusal);
-13 at 0’, 1, and 2’ (refusal);
-14 at 0’ and 1’(refusal);
-15 at 0’, 1’, and 2’ (refusal); and
-18 at 0’ and 1’ (refusal).

Select samples field screened for chlorides and TPH.

18:14 Samples jarred and will check with PM on which to sent to laboratory for analysis.

Next Steps & Recommendations

1 Continue delineation.

Daily Site Visit Report

Site Photos

Viewing Direction: Southwest	**Viewing Direction**: North
	
Placard	BH24-11 collected at 0’ and 1’. Hit refusal at 1’.
Viewing Direction: North	**Viewing Direction**: Northwest
	
BH24-12 collected at 0’ and 1’. Hit refusal at 1’.	BH24-13 collected at 0’ and 1’. Hit refusal at 1’.

Daily Site Visit Report

Viewing Direction: East

BH24-14 collected at 0’ and 1’. Hit refusal at 1’.

Viewing Direction: Northwest

BH24-15 collected at 0’ and 1’. Hit refusal at 1’.

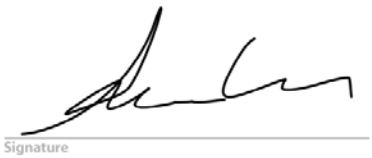
Viewing Direction: North

BH24-18 collected at 0’ and 1’. Hit refusal at 1’.

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Andrew Ludvik

Signature: 
Signature

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	2/12/2025
Site Location Name:	Snapping 10 Fed 3H	Report Run Date:	2/13/2025 4:24 PM
Client Contact Name:	Jim Raley	API #:	
Client Contact Phone #:	575-748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	2/12/2025 9:10 AM
Departed Site	2/12/2025 1:30 PM

Field Notes

18:41 Arrived on site, completed safety paperwork and site walkthrough upon arrival.

18:43 Collected: BH25-01 at 2,4,6ft bgs. BH24-07 at 2 and 3ft bgs (refusal at 3ft bgs). And BH24-10 at 2, and 4ft bgs.

18:43 All samples were screened for chlorides using Silver nitrate titration and tph with a Dexsil Petroflag.

18:44 All samples were jarred to be sent to the lab for further analysis.

18:45 Inclement weather stopped delineation activities for the day.

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: East	**Viewing Direction**: West
	
BH24-07 at 3ft bgs samples collected at 2 and 3ft bgs.	BH24-10 at 6ft bgs. Samples taken at 2, 4, and 6ft bgs.

Daily Site Visit Report

Daily Site Visit Signature

Inspector: John Rewis

Signature:

Daily Site Visit Report

Client	Devon Energy Corporation	Inspection Date	2/14/2025
Site Location Name	Snapping 10 Fed 3H	API #	
Client Contact Name	Dale Woodall	Project Owner	
Client Contact Phone #	405-318-4697	Project Manager	
Project Reference #			
Unique Project ID			

Summary of Times

Arrived at Site	2/14/2025 8:30 AM
Departed Site	2/14/2025 3:30 PM

Field Notes

9:23 Arrived on site, completed safety paperwork and site walkthrough upon arrival.

15:23 Collected BH24-02 at 4ft bgs, BH24-10 at 6ft bgs, and BH25-23 through BH25-27. All samples were field screened for chlorides using silver nitrate titration and samples were screened for TPH using a Dexsil Petroflag.

17:18 All 12 samples were jarred in preparation to be sent to the laboratory for further analysis.

Next Steps & Recommendations

1

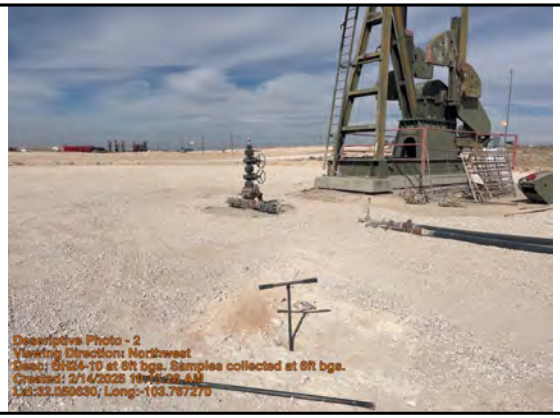
Daily Site Visit Report

Site Photos

Viewing Direction: North

BH24-02 at 4ft bgs. Samples were taken at 4ft bgs.

Viewing Direction: Northwest



BH24-10 at 6ft bgs. Samples collected at 6ft bgs.

Viewing Direction: South

BH25-23 at 2ft bgs. Samples collected at 0 and 2ft bgs.

Viewing Direction: West

BH25-24 at 2ft bgs. Samples collected at 0 and 2ft bgs.

Daily Site Visit Report

Viewing Direction: West	**Viewing Direction**: Northeast
	
BH25-25 at 1.5ft bgs. Samples collected at 0 and 1.5ft bgs. Sample point hit refusal at this depth.	BH25-26 at 1ft bgs. Samples taken at 0 and 1ft bgs. Sample point hit refusal at this depth.
Viewing Direction: West	**Viewing Direction**: South
	
BH25-27 at 2ft bgs. Samples taken at 0 and 2 ft bgs.	Overview of the north portion of the sampling area.

Daily Site Visit Report

Viewing Direction: North

Overview of the sampling area from the south portion of the pad.

Daily Site Visit Report

Daily Site Visit Signature

Inspector: John Rewis

Signature:

ATTACHMENT 4

Report to:

Chad Hensley

5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

Vertex Resource Services Inc.

Project Name:	Snapping10 Fed 3H
Work Order:	E411015
Job Number:	01058-0007
Received:	11/4/2024

Revision: 1

Report Reviewed By:

Walter Hinchman
Laboratory Director
11/8/24

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.
Statement of Data Authenticity: Envirotech Inc, attests the data reported has not been altered in any way.
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.
Envirotech Inc, holds the Utah TNI certification NM00979 for data reported.
Envirotech Inc, holds the Texas TNI certification T104704557 for data reported.

Date Reported: 11/8/24

Chad Hensley
3101 Boyd Drive
Carlsbad, NM 88220

Project Name: Snapping10 Fed 3H
Workorder: E411015
Date Received: 11/4/2024 7:30:00AM

Chad Hensley,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 11/4/2024 7:30:00AM, under the Project Name: Snapping10 Fed 3H.

The analytical test results summarized in this report with the Project Name: Snapping10 Fed 3H apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
Office: 505-632-1881
Cell: 775-287-1762
whinchman@envirotech-inc.com

Raina Schwanz
Laboratory Administrator
Office: 505-632-1881
rainaschwanz@envirotech-inc.com

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Lynn Jarboe
Laboratory Technical Representative
Office: 505-421-LABS(5227)
Cell: 505-320-4759
ljarboe@envirotech-inc.com

Michelle Gonzales
Client Representative
Office: 505-421-LABS(5227)
Cell: 505-947-8222
mgonzales@envirotech-inc.com

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

Vertex Resource Services Inc.	Project Name:	Snapping10 Fed 3H	**Reported:**
3101 Boyd Drive	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Chad Hensley	11/08/24 13:08

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
BH24-01 @ 1'	E411015-01A	Soil	10/31/24	11/04/24	Glass Jar, 2 oz.
BH24-02 @ 1"	E411015-02A	Soil	10/31/24	11/04/24	Glass Jar, 2 oz.
BH24-02 @ 1.5'	E411015-03A	Soil	10/31/24	11/04/24	Glass Jar, 2 oz.
BH24-07 @ 1'	E411015-04A	Soil	10/31/24	11/04/24	Glass Jar, 2 oz.
BH24-09 @ 1.5	E411015-05A	Soil	10/31/24	11/04/24	Glass Jar, 2 oz.
BH24-10 @ 1'	E411015-06A	Soil	10/31/24	11/04/24	Glass Jar, 2 oz.
BH24-12 @ 1'	E411015-07A	Soil	10/31/24	11/04/24	Glass Jar, 2 oz.

Sample Data

Vertex Resource Services Inc.	Project Name:	Snapping10 Fed 3H	
3101 Boyd Drive	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Chad Hensley	11/8/2024 1:08:41PM

BH24-01 @ 1'

E411015-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2445006
Benzene	ND	0.0250	1	11/04/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/04/24	11/05/24	
Toluene	ND	0.0250	1	11/04/24	11/05/24	
o-Xylene	ND	0.0250	1	11/04/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/04/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		*112 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: 1,2-Dichloroethane-d4		*94.8 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: Toluene-d8		*109 %*	*70-130*	*11/04/24*	*11/05/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2445006
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		*112 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: 1,2-Dichloroethane-d4		*94.8 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: Toluene-d8		*109 %*	*70-130*	*11/04/24*	*11/05/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2445005
Diesel Range Organics (C10-C28)	**545**	25.0	1	11/04/24	11/05/24	
Oil Range Organics (C28-C36)	**331**	50.0	1	11/04/24	11/05/24	
Surrogate: n-Nonane		*99.8 %*	*50-200*	*11/04/24*	*11/05/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2445025
Chloride	**3700**	40.0	2	11/04/24	11/05/24	

Sample Data

Vertex Resource Services Inc.	Project Name:	Snapping10 Fed 3H	
3101 Boyd Drive	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Chad Hensley	11/8/2024 1:08:41PM

BH24-02 @ 1''

E411015-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2445006
Benzene	ND	0.0250	1	11/04/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/04/24	11/05/24	
Toluene	ND	0.0250	1	11/04/24	11/05/24	
o-Xylene	ND	0.0250	1	11/04/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/04/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		*112 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: 1,2-Dichloroethane-d4		*94.5 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: Toluene-d8		*108 %*	*70-130*	*11/04/24*	*11/05/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2445006
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		*112 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: 1,2-Dichloroethane-d4		*94.5 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: Toluene-d8		*108 %*	*70-130*	*11/04/24*	*11/05/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2445005
Diesel Range Organics (C10-C28)	ND	25.0	1	11/04/24	11/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/04/24	11/05/24	
Surrogate: n-Nonane		*103 %*	*50-200*	*11/04/24*	*11/05/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2445025
Chloride	**1150**	20.0	1	11/04/24	11/05/24	

Sample Data

Vertex Resource Services Inc.	Project Name:	Snapping10 Fed 3H	
3101 Boyd Drive	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Chad Hensley	11/8/2024 1:08:41PM

BH24-02 @ 1.5'

E411015-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2445006
Benzene	ND	0.0250	1	11/04/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/04/24	11/05/24	
Toluene	ND	0.0250	1	11/04/24	11/05/24	
o-Xylene	ND	0.0250	1	11/04/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/04/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		*113 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: 1,2-Dichloroethane-d4		*90.5 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: Toluene-d8		*109 %*	*70-130*	*11/04/24*	*11/05/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2445006
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		*113 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: 1,2-Dichloroethane-d4		*90.5 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: Toluene-d8		*109 %*	*70-130*	*11/04/24*	*11/05/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2445005
Diesel Range Organics (C10-C28)	ND	25.0	1	11/04/24	11/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/04/24	11/05/24	
Surrogate: n-Nonane		*105 %*	*50-200*	*11/04/24*	*11/05/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2445025
Chloride	**662**	20.0	1	11/04/24	11/05/24	

Sample Data

Vertex Resource Services Inc.	Project Name:	Snapping10 Fed 3H	
3101 Boyd Drive	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Chad Hensley	11/8/2024 1:08:41PM

BH24-07 @ 1'

E411015-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2445006
Benzene	ND	0.0250	1	11/04/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/04/24	11/05/24	
Toluene	ND	0.0250	1	11/04/24	11/05/24	
o-Xylene	ND	0.0250	1	11/04/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/04/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		*109 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: 1,2-Dichloroethane-d4		*95.7 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: Toluene-d8		*107 %*	*70-130*	*11/04/24*	*11/05/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2445006
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		*109 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: 1,2-Dichloroethane-d4		*95.7 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: Toluene-d8		*107 %*	*70-130*	*11/04/24*	*11/05/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2445005
Diesel Range Organics (C10-C28)	**1820**	25.0	1	11/04/24	11/05/24	
Oil Range Organics (C28-C36)	**3560**	50.0	1	11/04/24	11/05/24	
Surrogate: n-Nonane		*106 %*	*50-200*	*11/04/24*	*11/05/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2445025
Chloride	**638**	200	10	11/04/24	11/05/24	

Sample Data

Vertex Resource Services Inc.	Project Name:	Snapping10 Fed 3H	
3101 Boyd Drive	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Chad Hensley	11/8/2024 1:08:41PM

BH24-09 @ 1.5

E411015-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2445006
Benzene	ND	0.0250	1	11/04/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/04/24	11/05/24	
Toluene	ND	0.0250	1	11/04/24	11/05/24	
o-Xylene	ND	0.0250	1	11/04/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/04/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		*112 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: 1,2-Dichloroethane-d4		*96.8 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: Toluene-d8		*109 %*	*70-130*	*11/04/24*	*11/05/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2445006
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		*112 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: 1,2-Dichloroethane-d4		*96.8 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: Toluene-d8		*109 %*	*70-130*	*11/04/24*	*11/05/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2445005
Diesel Range Organics (C10-C28)	ND	25.0	1	11/04/24	11/07/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/04/24	11/07/24	
Surrogate: n-Nonane		*109 %*	*50-200*	*11/04/24*	*11/07/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2445025
Chloride	**545**	20.0	1	11/04/24	11/05/24	

Sample Data

Vertex Resource Services Inc.	Project Name:	Snapping10 Fed 3H	
3101 Boyd Drive	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Chad Hensley	11/8/2024 1:08:41PM

BH24-10 @ 1'

E411015-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2445006
Benzene	ND	0.0250	1	11/04/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/04/24	11/05/24	
Toluene	ND	0.0250	1	11/04/24	11/05/24	
o-Xylene	ND	0.0250	1	11/04/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/04/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		*113 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: 1,2-Dichloroethane-d4		*93.3 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: Toluene-d8		*109 %*	*70-130*	*11/04/24*	*11/05/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2445006
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		*113 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: 1,2-Dichloroethane-d4		*93.3 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: Toluene-d8		*109 %*	*70-130*	*11/04/24*	*11/05/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2445005
Diesel Range Organics (C10-C28)	ND	25.0	1	11/04/24	11/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/04/24	11/05/24	
Surrogate: n-Nonane		*106 %*	*50-200*	*11/04/24*	*11/05/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2445025
Chloride	**4960**	200	10	11/04/24	11/05/24	

Sample Data

Vertex Resource Services Inc.	Project Name:	Snapping10 Fed 3H	
3101 Boyd Drive	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Chad Hensley	11/8/2024 1:08:41PM

BH24-12 @ 1'

E411015-07

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2445006
Benzene	ND	0.0250	1	11/04/24	11/05/24	
Ethylbenzene	ND	0.0250	1	11/04/24	11/05/24	
Toluene	ND	0.0250	1	11/04/24	11/05/24	
o-Xylene	ND	0.0250	1	11/04/24	11/05/24	
p,m-Xylene	ND	0.0500	1	11/04/24	11/05/24	
Total Xylenes	ND	0.0250	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		*115 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: 1,2-Dichloroethane-d4		*93.8 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: Toluene-d8		*109 %*	*70-130*	*11/04/24*	*11/05/24*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2445006
Gasoline Range Organics (C6-C10)	ND	20.0	1	11/04/24	11/05/24	
Surrogate: Bromofluorobenzene		*115 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: 1,2-Dichloroethane-d4		*93.8 %*	*70-130*	*11/04/24*	*11/05/24*	
Surrogate: Toluene-d8		*109 %*	*70-130*	*11/04/24*	*11/05/24*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: NV			Batch: 2445005
Diesel Range Organics (C10-C28)	**31.7**	25.0	1	11/04/24	11/05/24	
Oil Range Organics (C28-C36)	ND	50.0	1	11/04/24	11/05/24	
Surrogate: n-Nonane		*102 %*	*50-200*	*11/04/24*	*11/05/24*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: DT			Batch: 2445025
Chloride	ND	200	10	11/04/24	11/05/24	

QC Summary Data

Vertex Resource Services Inc.	Project Name:	Snapping10 Fed 3H	**Reported:**
3101 Boyd Drive	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Chad Hensley	11/8/2024 1:08:41PM

Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2445006-BLK1)									Prepared: 11/04/24 Analyzed: 11/04/24
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.567*		*0.500*		*113*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.480*		*0.500*		*95.9*	*70-130*			
Surrogate: Toluene-d8	*0.548*		*0.500*		*110*	*70-130*			
LCS (2445006-BS1)									Prepared: 11/04/24 Analyzed: 11/04/24
Benzene	2.44	0.0250	2.50		97.4	70-130			
Ethylbenzene	2.52	0.0250	2.50		101	70-130			
Toluene	2.53	0.0250	2.50		101	70-130			
o-Xylene	2.60	0.0250	2.50		104	70-130			
p,m-Xylene	5.20	0.0500	5.00		104	70-130			
Total Xylenes	7.79	0.0250	7.50		104	70-130			
Surrogate: Bromofluorobenzene	*0.574*		*0.500*		*115*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.479*		*0.500*		*95.8*	*70-130*			
Surrogate: Toluene-d8	*0.544*		*0.500*		*109*	*70-130*			
LCS Dup (2445006-BSD1)									Prepared: 11/04/24 Analyzed: 11/04/24
Benzene	2.44	0.0250	2.50		97.6	70-130	0.164	23	
Ethylbenzene	2.54	0.0250	2.50		101	70-130	0.554	27	
Toluene	2.53	0.0250	2.50		101	70-130	0.0198	24	
o-Xylene	2.64	0.0250	2.50		105	70-130	1.51	27	
p,m-Xylene	5.21	0.0500	5.00		104	70-130	0.346	27	
Total Xylenes	7.85	0.0250	7.50		105	70-130	0.735	27	
Surrogate: Bromofluorobenzene	*0.572*		*0.500*		*114*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.475*		*0.500*		*95.0*	*70-130*			
Surrogate: Toluene-d8	*0.535*		*0.500*		*107*	*70-130*			

QC Summary Data

Vertex Resource Services Inc.	Project Name:	Snapping10 Fed 3H	**Reported:**
3101 Boyd Drive	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Chad Hensley	11/8/2024 1:08:41PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2445006-BLK1)									Prepared: 11/04/24 Analyzed: 11/04/24
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.567*		*0.500*		*113*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.480*		*0.500*		*95.9*	*70-130*			
Surrogate: Toluene-d8	*0.548*		*0.500*		*110*	*70-130*			
LCS (2445006-BS2)									Prepared: 11/04/24 Analyzed: 11/04/24
Gasoline Range Organics (C6-C10)	43.3	20.0	50.0		86.6	70-130			
Surrogate: Bromofluorobenzene	*0.568*		*0.500*		*114*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.475*		*0.500*		*95.0*	*70-130*			
Surrogate: Toluene-d8	*0.552*		*0.500*		*110*	*70-130*			
LCS Dup (2445006-BSD2)									Prepared: 11/04/24 Analyzed: 11/04/24
Gasoline Range Organics (C6-C10)	43.2	20.0	50.0		86.4	70-130	0.224	20	
Surrogate: Bromofluorobenzene	*0.558*		*0.500*		*112*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.458*		*0.500*		*91.5*	*70-130*			
Surrogate: Toluene-d8	*0.550*		*0.500*		*110*	*70-130*			

QC Summary Data

Vertex Resource Services Inc.	Project Name:	Snapping10 Fed 3H	**Reported:**
3101 Boyd Drive	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Chad Hensley	11/8/2024 1:08:41PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: NV

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2445005-BLK1)									Prepared: 11/04/24 Analyzed: 11/04/24
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*51.9*		*50.0*		*104*	*50-200*			
LCS (2445005-BS1)									Prepared: 11/04/24 Analyzed: 11/04/24
Diesel Range Organics (C10-C28)	269	25.0	250		107	38-132			
Surrogate: n-Nonane	*54.3*		*50.0*		*109*	*50-200*			
LCS Dup (2445005-BSD1)									Prepared: 11/04/24 Analyzed: 11/04/24
Diesel Range Organics (C10-C28)	265	25.0	250		106	38-132	1.54	20	
Surrogate: n-Nonane	*54.0*		*50.0*		*108*	*50-200*			

QC Summary Data

Vertex Resource Services Inc.	Project Name:	Snapping10 Fed 3H	**Reported:**
3101 Boyd Drive	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Chad Hensley	11/8/2024 1:08:41PM

Anions by EPA 300.0/9056A

Analyst: DT

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2445025-BLK1)									Prepared: 11/04/24 Analyzed: 11/05/24
Chloride	ND	20.0							
LCS (2445025-BS1)									Prepared: 11/04/24 Analyzed: 11/05/24
Chloride	250	20.0	250		99.9	90-110			
LCS Dup (2445025-BSD1)									Prepared: 11/04/24 Analyzed: 11/05/24
Chloride	251	20.0	250		100	90-110	0.369	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

Vertex Resource Services Inc.	Project Name:	Snapping10 Fed 3H	
3101 Boyd Drive	Project Number:	01058-0007	**Reported:**
Carlsbad NM, 88220	Project Manager:	Chad Hensley	11/08/24 13:08

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite
DNR	Did not react with the addition of acid or base.

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Chain of Custody

Client Information	Invoice Information	Lab Use Only	TAT	State
Client: Vertex (bill to Devon)	Company: Devon Energy	Lab WO# E411015	Job Number 01058-0007	1D 2D 3D Std: x	NM CO UT TX: x
Project Name: Snapping 10 Fed 3H	Address: 5321 Buena Vista			
Project Manager: Chad Hensley	City, State, Zip: Carlsbad , NM, 88220			
Address:	Phone:			
City, State, Zip:	Email: Jim.Raley@dvn.com			
Phone: 575-200-6167	Miscellaneous:			
Email: Rarnold@vertexresource.com, Rplogger@vert				
~~Rarnold~~ RPlogger@vertexresource.com				
CHensley@vertexresource.com				

Sample Information

Analysis and Method

EPA Program

SDWA | CWA | RCRA

Compliance Y or N

PWSID #

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Field Filter	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride 300.0	BGDOC - NM	TCEQ 1005 - TX	RCRA 8 Metals	Cation/Anion Pkg			Remarks
9:45	10.31.24	Soil	1	BH24-01 @ 1'		1	X	x	x		x							
10:02	10.31.24	Soil	1	BH24-02 @ 1"		2	X	x	x		x							
10:10	10.31.24	Soil	1	BH24-02 @ 1.5'		3	X	x	x		x							
10:30	10.31.24	Soil	1	BH24-07 @ 1'		4	X	x	x		x							
10:47	10.31.24	Soil	1	BH24-09 @ 1.5		5	X	x	x		x							
11:00	10.31.24	Soil	1	BH24-10 @ 1'		6	X	x	x		x							
11:25	10.31.24	Soil	1	BH24-12 @ 1'		7	X	x	x		x							

Additional Instructions: WO: 21421108 Jim Raley

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: _____

	Date	Time		Date	Time
Relinquished by: (Signature) R.	11.01.24	17:00	Received by: (Signature) Michelle Gonzales	11-1-24	1200
Relinquished by: (Signature) Michelle Gonzales	11-1-24	1725	Received by: (Signature)	11.1.24	1730
Relinquished by: (Signature)	11.1.24	2400	Received by: (Signature) Noe Soto	11-4-24	0730
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Lab Use Only

Received on ice: (Y) N

T1 _____ T2 _____ T3 _____

AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 14 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 11/4/2024 8:38:37AM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Vertex Resource Services Inc.	Date Received:	11/04/24 07:30	Work Order ID:	E411015
Phone:	(575) 748-0176	Date Logged In:	11/04/24 08:28	Logged In By:	Noe Soto
Email:	chensley@vertexresources.com	Due Date:	11/12/24 17:00 (6 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	Yes	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	No	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	No	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Comments/Resolution

Sampled by name is missing on COC by client.

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Chad Hensley
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 10/25/2024 2:35:00 PM

JOB DESCRIPTION

Snapping 10 Fed 3H

JOB NUMBER

885-13995-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

Generated
10/25/2024 2:35:00 PM

Authorized for release by
Andy Freeman, Business Unit Manager
andy.freeman@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Laboratory Job ID: 885-13995-1

Table of Contents

Definitions/Glossary

Client: Vertex Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-13995-1
Project: Snapping 10 Fed 3H

Job ID: 885-13995-1 Eurofins Albuquerque

Job Narrative
885-13995-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/19/2024 11:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.3°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 885-14629 and analytical batch 885-14585 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-03 1'

Date Collected: 10/14/24 11:55
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-1

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		10/21/24 10:29	10/23/24 03:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*10/21/24 10:29*	*10/23/24 03:30*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/21/24 10:29	10/23/24 03:30	1
Ethylbenzene	ND		0.049		mg/Kg		10/21/24 10:29	10/23/24 03:30	1
Toluene	ND		0.049		mg/Kg		10/21/24 10:29	10/23/24 03:30	1
Xylenes, Total	ND		0.097		mg/Kg		10/21/24 10:29	10/23/24 03:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*10/21/24 10:29*	*10/23/24 03:30*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**44**	**F1**	9.9		mg/Kg		10/21/24 12:47	10/21/24 19:45	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		10/21/24 12:47	10/21/24 19:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*10/21/24 12:47*	*10/21/24 19:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**		60		mg/Kg		10/21/24 14:25	10/22/24 05:01	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-04 1.5'

Date Collected: 10/14/24 12:00
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-2

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.6		mg/Kg		10/21/24 10:29	10/23/24 03:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*10/21/24 10:29*	*10/23/24 03:54*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/21/24 10:29	10/23/24 03:54	1
Ethylbenzene	ND		0.046		mg/Kg		10/21/24 10:29	10/23/24 03:54	1
Toluene	ND		0.046		mg/Kg		10/21/24 10:29	10/23/24 03:54	1
Xylenes, Total	ND		0.093		mg/Kg		10/21/24 10:29	10/23/24 03:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*48 - 145*	*10/21/24 10:29*	*10/23/24 03:54*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		10/22/24 10:57	10/22/24 16:11	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/22/24 10:57	10/22/24 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*	*10/22/24 10:57*	*10/22/24 16:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/22/24 12:27	10/22/24 16:08	20

Client Sample Results

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-05 1'
Lab Sample ID: 885-13995-3
Date Collected: 10/14/24 12:05
Matrix: Solid
Date Received: 10/19/24 11:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.8		mg/Kg		10/21/24 10:29	10/23/24 04:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*10/21/24 10:29*	*10/23/24 04:17*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/21/24 10:29	10/23/24 04:17	1
Ethylbenzene	ND		0.048		mg/Kg		10/21/24 10:29	10/23/24 04:17	1
Toluene	ND		0.048		mg/Kg		10/21/24 10:29	10/23/24 04:17	1
Xylenes, Total	ND		0.096		mg/Kg		10/21/24 10:29	10/23/24 04:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*48 - 145*	*10/21/24 10:29*	*10/23/24 04:17*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**44**		9.8		mg/Kg		10/22/24 10:57	10/22/24 16:24	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/22/24 10:57	10/22/24 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*	*10/22/24 10:57*	*10/22/24 16:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**100**		60		mg/Kg		10/22/24 12:27	10/22/24 16:38	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-06 1'

Date Collected: 10/14/24 12:10
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-4

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		10/21/24 11:25	10/22/24 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*35 - 166*	*10/21/24 11:25*	*10/22/24 13:02*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/21/24 11:25	10/22/24 13:02	1
Ethylbenzene	ND		0.050		mg/Kg		10/21/24 11:25	10/22/24 13:02	1
Toluene	ND		0.050		mg/Kg		10/21/24 11:25	10/22/24 13:02	1
Xylenes, Total	ND		0.099		mg/Kg		10/21/24 11:25	10/22/24 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*10/21/24 11:25*	*10/22/24 13:02*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		10/22/24 10:57	10/22/24 16:36	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/22/24 10:57	10/22/24 16:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*96*		*62 - 134*	*10/22/24 10:57*	*10/22/24 16:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**60**		60		mg/Kg		10/22/24 12:27	10/22/24 16:48	20

Client Sample Results

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-08 1'
Lab Sample ID: 885-13995-5
Date Collected: 10/14/24 12:15
Matrix: Solid
Date Received: 10/19/24 11:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		10/21/24 11:25	10/22/24 14:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*35 - 166*	*10/21/24 11:25*	*10/22/24 14:08*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/21/24 11:25	10/22/24 14:08	1
Ethylbenzene	ND		0.049		mg/Kg		10/21/24 11:25	10/22/24 14:08	1
Toluene	ND		0.049		mg/Kg		10/21/24 11:25	10/22/24 14:08	1
Xylenes, Total	ND		0.098		mg/Kg		10/21/24 11:25	10/22/24 14:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/21/24 11:25*	*10/22/24 14:08*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		10/22/24 10:57	10/22/24 16:48	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/22/24 10:57	10/22/24 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*10/22/24 10:57*	*10/22/24 16:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**100**		60		mg/Kg		10/22/24 12:27	10/22/24 16:57	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-11 0'

Date Collected: 10/15/24 11:00
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-6

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.8		mg/Kg		10/21/24 11:25	10/22/24 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*35 - 166*	*10/21/24 11:25*	*10/22/24 15:13*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/21/24 11:25	10/22/24 15:13	1
Ethylbenzene	ND		0.048		mg/Kg		10/21/24 11:25	10/22/24 15:13	1
Toluene	ND		0.048		mg/Kg		10/21/24 11:25	10/22/24 15:13	1
Xylenes, Total	ND		0.096		mg/Kg		10/21/24 11:25	10/22/24 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*10/21/24 11:25*	*10/22/24 15:13*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		10/22/24 10:57	10/22/24 17:00	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		10/22/24 10:57	10/22/24 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*87*		*62 - 134*	*10/22/24 10:57*	*10/22/24 17:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**410**		60		mg/Kg		10/22/24 12:27	10/22/24 17:07	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-11 1'

Date Collected: 10/15/24 11:05
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-7

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		10/21/24 11:25	10/22/24 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*35 - 166*	*10/21/24 11:25*	*10/22/24 15:35*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/21/24 11:25	10/22/24 15:35	1
Ethylbenzene	ND		0.049		mg/Kg		10/21/24 11:25	10/22/24 15:35	1
Toluene	ND		0.049		mg/Kg		10/21/24 11:25	10/22/24 15:35	1
Xylenes, Total	ND		0.099		mg/Kg		10/21/24 11:25	10/22/24 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/21/24 11:25*	*10/22/24 15:35*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		10/22/24 10:57	10/22/24 17:12	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/22/24 10:57	10/22/24 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*10/22/24 10:57*	*10/22/24 17:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**350**		60		mg/Kg		10/22/24 12:27	10/22/24 17:17	20

Client Sample Results

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-13 0'
Lab Sample ID: 885-13995-8
Date Collected: 10/15/24 11:20
Matrix: Solid
Date Received: 10/19/24 11:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.7		mg/Kg		10/21/24 11:25	10/22/24 15:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*35 - 166*	*10/21/24 11:25*	*10/22/24 15:56*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/21/24 11:25	10/22/24 15:56	1
Ethylbenzene	ND		0.047		mg/Kg		10/21/24 11:25	10/22/24 15:56	1
Toluene	ND		0.047		mg/Kg		10/21/24 11:25	10/22/24 15:56	1
Xylenes, Total	ND		0.094		mg/Kg		10/21/24 11:25	10/22/24 15:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*10/21/24 11:25*	*10/22/24 15:56*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		10/22/24 10:57	10/22/24 17:25	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/22/24 10:57	10/22/24 17:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*10/22/24 10:57*	*10/22/24 17:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**410**		60		mg/Kg		10/22/24 12:27	10/22/24 17:47	20

Client Sample Results

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-13 1'
Lab Sample ID: 885-13995-9
Date Collected: 10/15/24 11:25
Matrix: Solid
Date Received: 10/19/24 11:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.6		mg/Kg		10/21/24 11:25	10/22/24 16:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*35 - 166*	*10/21/24 11:25*	*10/22/24 16:18*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/21/24 11:25	10/22/24 16:18	1
Ethylbenzene	ND		0.046		mg/Kg		10/21/24 11:25	10/22/24 16:18	1
Toluene	ND		0.046		mg/Kg		10/21/24 11:25	10/22/24 16:18	1
Xylenes, Total	ND		0.092		mg/Kg		10/21/24 11:25	10/22/24 16:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*10/21/24 11:25*	*10/22/24 16:18*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2		mg/Kg		10/22/24 10:57	10/22/24 17:37	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		10/22/24 10:57	10/22/24 17:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*10/22/24 10:57*	*10/22/24 17:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**250**		60		mg/Kg		10/22/24 12:27	10/22/24 17:57	20

Client Sample Results

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-13 2.0'
Lab Sample ID: 885-13995-10
Date Collected: 10/15/24 11:30
Matrix: Solid
Date Received: 10/19/24 11:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		10/21/24 11:25	10/22/24 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*35 - 166*	*10/21/24 11:25*	*10/22/24 16:40*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/21/24 11:25	10/22/24 16:40	1
Ethylbenzene	ND		0.049		mg/Kg		10/21/24 11:25	10/22/24 16:40	1
Toluene	ND		0.049		mg/Kg		10/21/24 11:25	10/22/24 16:40	1
Xylenes, Total	ND		0.099		mg/Kg		10/21/24 11:25	10/22/24 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/21/24 11:25*	*10/22/24 16:40*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		10/22/24 10:57	10/22/24 18:01	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/22/24 10:57	10/22/24 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*85*		*62 - 134*	*10/22/24 10:57*	*10/22/24 18:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/22/24 12:27	10/22/24 18:06	20

Client Sample Results

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-14 1'
Lab Sample ID: 885-13995-11
Date Collected: 10/15/24 11:40
Matrix: Solid
Date Received: 10/19/24 11:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.7		mg/Kg		10/21/24 11:25	10/22/24 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*35 - 166*	*10/21/24 11:25*	*10/22/24 17:02*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/21/24 11:25	10/22/24 17:02	1
Ethylbenzene	ND		0.047		mg/Kg		10/21/24 11:25	10/22/24 17:02	1
Toluene	ND		0.047		mg/Kg		10/21/24 11:25	10/22/24 17:02	1
Xylenes, Total	ND		0.093		mg/Kg		10/21/24 11:25	10/22/24 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*10/21/24 11:25*	*10/22/24 17:02*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		10/22/24 10:57	10/22/24 18:13	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		10/22/24 10:57	10/22/24 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*91*		*62 - 134*	*10/22/24 10:57*	*10/22/24 18:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**360**		60		mg/Kg		10/22/24 12:27	10/22/24 18:16	20

Client Sample Results

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-15 0'
Lab Sample ID: 885-13995-12
Date Collected: 10/15/24 11:45
Matrix: Solid
Date Received: 10/19/24 11:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		10/21/24 11:25	10/22/24 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*35 - 166*	*10/21/24 11:25*	*10/22/24 17:23*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/21/24 11:25	10/22/24 17:23	1
Ethylbenzene	ND		0.049		mg/Kg		10/21/24 11:25	10/22/24 17:23	1
Toluene	ND		0.049		mg/Kg		10/21/24 11:25	10/22/24 17:23	1
Xylenes, Total	ND		0.098		mg/Kg		10/21/24 11:25	10/22/24 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/21/24 11:25*	*10/22/24 17:23*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		10/22/24 10:57	10/22/24 18:25	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/22/24 10:57	10/22/24 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*10/22/24 10:57*	*10/22/24 18:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**130**		60		mg/Kg		10/22/24 12:27	10/22/24 18:26	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-15 1'

Date Collected: 10/15/24 11:50
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-13

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.6		mg/Kg		10/21/24 11:25	10/22/24 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*35 - 166*	*10/21/24 11:25*	*10/22/24 17:45*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/21/24 11:25	10/22/24 17:45	1
Ethylbenzene	ND		0.046		mg/Kg		10/21/24 11:25	10/22/24 17:45	1
Toluene	ND		0.046		mg/Kg		10/21/24 11:25	10/22/24 17:45	1
Xylenes, Total	ND		0.092		mg/Kg		10/21/24 11:25	10/22/24 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*10/21/24 11:25*	*10/22/24 17:45*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		10/22/24 10:57	10/22/24 18:37	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		10/22/24 10:57	10/22/24 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*	*10/22/24 10:57*	*10/22/24 18:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		60		mg/Kg		10/22/24 12:27	10/22/24 18:56	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-15 2'

Date Collected: 10/15/24 11:55
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-14

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.8		mg/Kg		10/21/24 11:25	10/22/24 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*35 - 166*	*10/21/24 11:25*	*10/22/24 18:29*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/21/24 11:25	10/22/24 18:29	1
Ethylbenzene	ND		0.048		mg/Kg		10/21/24 11:25	10/22/24 18:29	1
Toluene	ND		0.048		mg/Kg		10/21/24 11:25	10/22/24 18:29	1
Xylenes, Total	ND		0.096		mg/Kg		10/21/24 11:25	10/22/24 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/21/24 11:25*	*10/22/24 18:29*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		10/22/24 10:57	10/22/24 18:50	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/22/24 10:57	10/22/24 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*10/22/24 10:57*	*10/22/24 18:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		60		mg/Kg		10/22/24 12:27	10/22/24 19:05	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-16 1'

Date Collected: 10/14/24 12:00
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-15

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.6		mg/Kg		10/21/24 11:25	10/22/24 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*35 - 166*	*10/21/24 11:25*	*10/22/24 18:50*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/21/24 11:25	10/22/24 18:50	1
Ethylbenzene	ND		0.046		mg/Kg		10/21/24 11:25	10/22/24 18:50	1
Toluene	ND		0.046		mg/Kg		10/21/24 11:25	10/22/24 18:50	1
Xylenes, Total	ND		0.093		mg/Kg		10/21/24 11:25	10/22/24 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*10/21/24 11:25*	*10/22/24 18:50*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		10/22/24 10:57	10/22/24 19:02	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/22/24 10:57	10/22/24 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*94*		*62 - 134*	*10/22/24 10:57*	*10/22/24 19:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**65**		60		mg/Kg		10/22/24 12:27	10/22/24 19:15	20

Client Sample Results

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-17 1.5'
Lab Sample ID: 885-13995-16
Date Collected: 10/14/24 12:05
Matrix: Solid
Date Received: 10/19/24 11:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.8		mg/Kg		10/21/24 11:25	10/22/24 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*35 - 166*	*10/21/24 11:25*	*10/22/24 19:12*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/21/24 11:25	10/22/24 19:12	1
Ethylbenzene	ND		0.048		mg/Kg		10/21/24 11:25	10/22/24 19:12	1
Toluene	ND		0.048		mg/Kg		10/21/24 11:25	10/22/24 19:12	1
Xylenes, Total	ND		0.097		mg/Kg		10/21/24 11:25	10/22/24 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*10/21/24 11:25*	*10/22/24 19:12*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		10/22/24 10:57	10/22/24 19:14	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/22/24 10:57	10/22/24 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*10/22/24 10:57*	*10/22/24 19:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**63**		60		mg/Kg		10/22/24 12:27	10/22/24 19:45	20

Client Sample Results

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-18 1'
Lab Sample ID: 885-13995-17
Date Collected: 10/15/24 12:05
Matrix: Solid
Date Received: 10/19/24 11:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.8		mg/Kg		10/21/24 11:25	10/22/24 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*35 - 166*	*10/21/24 11:25*	*10/22/24 19:33*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/21/24 11:25	10/22/24 19:33	1
Ethylbenzene	ND		0.048		mg/Kg		10/21/24 11:25	10/22/24 19:33	1
Toluene	ND		0.048		mg/Kg		10/21/24 11:25	10/22/24 19:33	1
Xylenes, Total	ND		0.097		mg/Kg		10/21/24 11:25	10/22/24 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*10/21/24 11:25*	*10/22/24 19:33*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		10/22/24 10:57	10/22/24 19:26	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/22/24 10:57	10/22/24 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*10/22/24 10:57*	*10/22/24 19:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**60**		60		mg/Kg		10/22/24 12:27	10/22/24 19:55	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-19 0'

Date Collected: 10/16/24 09:40
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-18

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.8		mg/Kg		10/21/24 11:25	10/22/24 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*35 - 166*	*10/21/24 11:25*	*10/22/24 19:55*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/21/24 11:25	10/22/24 19:55	1
Ethylbenzene	ND		0.048		mg/Kg		10/21/24 11:25	10/22/24 19:55	1
Toluene	ND		0.048		mg/Kg		10/21/24 11:25	10/22/24 19:55	1
Xylenes, Total	ND		0.097		mg/Kg		10/21/24 11:25	10/22/24 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*10/21/24 11:25*	*10/22/24 19:55*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		10/22/24 10:57	10/22/24 19:38	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/22/24 10:57	10/22/24 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*10/22/24 10:57*	*10/22/24 19:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1700**		60		mg/Kg		10/22/24 12:27	10/22/24 20:04	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-19 1'

Date Collected: 10/16/24 09:45
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-19

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.7		mg/Kg		10/21/24 11:25	10/22/24 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*35 - 166*	*10/21/24 11:25*	*10/22/24 20:17*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/21/24 11:25	10/22/24 20:17	1
Ethylbenzene	ND		0.047		mg/Kg		10/21/24 11:25	10/22/24 20:17	1
Toluene	ND		0.047		mg/Kg		10/21/24 11:25	10/22/24 20:17	1
Xylenes, Total	ND		0.094		mg/Kg		10/21/24 11:25	10/22/24 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*10/21/24 11:25*	*10/22/24 20:17*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		10/22/24 10:57	10/22/24 19:50	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/22/24 10:57	10/22/24 19:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*10/22/24 10:57*	*10/22/24 19:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**200**		60		mg/Kg		10/22/24 12:27	10/22/24 20:14	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-20 0'

Date Collected: 10/16/24 09:50
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-20

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.7		mg/Kg		10/21/24 11:25	10/22/24 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*35 - 166*	*10/21/24 11:25*	*10/22/24 20:39*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		10/21/24 11:25	10/22/24 20:39	1
Ethylbenzene	ND		0.047		mg/Kg		10/21/24 11:25	10/22/24 20:39	1
Toluene	ND		0.047		mg/Kg		10/21/24 11:25	10/22/24 20:39	1
Xylenes, Total	ND		0.093		mg/Kg		10/21/24 11:25	10/22/24 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*48 - 145*	*10/21/24 11:25*	*10/22/24 20:39*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		10/22/24 10:57	10/22/24 20:14	1
Motor Oil Range Organics [C28-C40]	ND		46		mg/Kg		10/22/24 10:57	10/22/24 20:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*99*		*62 - 134*	*10/22/24 10:57*	*10/22/24 20:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**110**		60		mg/Kg		10/22/24 12:27	10/22/24 20:24	20

Client Sample Results

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-20 1'
Lab Sample ID: 885-13995-21
Date Collected: 10/16/24 09:55
Matrix: Solid
Date Received: 10/19/24 11:35

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		10/21/24 11:25	10/22/24 21:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*35 - 166*	*10/21/24 11:25*	*10/22/24 21:01*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/21/24 11:25	10/22/24 21:01	1
Ethylbenzene	ND		0.049		mg/Kg		10/21/24 11:25	10/22/24 21:01	1
Toluene	ND		0.049		mg/Kg		10/21/24 11:25	10/22/24 21:01	1
Xylenes, Total	ND		0.099		mg/Kg		10/21/24 11:25	10/22/24 21:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*10/21/24 11:25*	*10/22/24 21:01*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		10/22/24 10:57	10/22/24 20:27	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/22/24 10:57	10/22/24 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*10/22/24 10:57*	*10/22/24 20:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**87**		60		mg/Kg		10/22/24 12:27	10/22/24 20:34	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-21 0'

Date Collected: 10/16/24 10:00
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-22

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		10/21/24 11:25	10/22/24 21:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*35 - 166*	*10/21/24 11:25*	*10/22/24 21:23*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/21/24 11:25	10/22/24 21:23	1
Ethylbenzene	ND		0.049		mg/Kg		10/21/24 11:25	10/22/24 21:23	1
Toluene	ND		0.049		mg/Kg		10/21/24 11:25	10/22/24 21:23	1
Xylenes, Total	ND		0.097		mg/Kg		10/21/24 11:25	10/22/24 21:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*	*10/21/24 11:25*	*10/22/24 21:23*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**110**		9.6		mg/Kg		10/22/24 15:57	10/22/24 22:03	1
Motor Oil Range Organics [C28-C40]	**80**		48		mg/Kg		10/22/24 15:57	10/22/24 22:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*10/22/24 15:57*	*10/22/24 22:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**490**		60		mg/Kg		10/23/24 10:05	10/23/24 12:49	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-21 1'

Date Collected: 10/16/24 10:05
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-23

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.7		mg/Kg		10/21/24 11:25	10/22/24 21:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*35 - 166*	*10/21/24 11:25*	*10/22/24 21:44*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		10/21/24 11:25	10/22/24 21:44	1
Ethylbenzene	ND		0.047		mg/Kg		10/21/24 11:25	10/22/24 21:44	1
Toluene	ND		0.047		mg/Kg		10/21/24 11:25	10/22/24 21:44	1
Xylenes, Total	ND		0.095		mg/Kg		10/21/24 11:25	10/22/24 21:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*10/21/24 11:25*	*10/22/24 21:44*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		10/22/24 15:57	10/22/24 22:15	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		10/22/24 15:57	10/22/24 22:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*10/22/24 15:57*	*10/22/24 22:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**360**		60		mg/Kg		10/23/24 10:05	10/23/24 13:22	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-21 1.5'

Date Collected: 10/16/24 10:10
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-24

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		10/21/24 16:01	10/22/24 23:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*35 - 166*	*10/21/24 16:01*	*10/22/24 23:55*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/21/24 16:01	10/23/24 18:57	1
Ethylbenzene	ND		0.050		mg/Kg		10/21/24 16:01	10/23/24 18:57	1
Toluene	ND		0.050		mg/Kg		10/21/24 16:01	10/23/24 18:57	1
Xylenes, Total	ND		0.099		mg/Kg		10/21/24 16:01	10/23/24 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*	*10/21/24 16:01*	*10/23/24 18:57*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7		mg/Kg		10/22/24 15:57	10/22/24 22:28	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/22/24 15:57	10/22/24 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*	*10/22/24 15:57*	*10/22/24 22:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**190**		60		mg/Kg		10/23/24 10:05	10/23/24 13:34	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-22 0'

Date Collected: 10/16/24 10:15
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-25

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		10/21/24 16:01	10/23/24 01:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*35 - 166*	*10/21/24 16:01*	*10/23/24 01:00*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/21/24 16:01	10/23/24 19:19	1
Ethylbenzene	ND		0.050		mg/Kg		10/21/24 16:01	10/23/24 19:19	1
Toluene	ND		0.050		mg/Kg		10/21/24 16:01	10/23/24 19:19	1
Xylenes, Total	ND		0.10		mg/Kg		10/21/24 16:01	10/23/24 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*	*10/21/24 16:01*	*10/23/24 19:19*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**10**		9.7		mg/Kg		10/22/24 15:57	10/22/24 22:40	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		10/22/24 15:57	10/22/24 22:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*101*		*62 - 134*	*10/22/24 15:57*	*10/22/24 22:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**190**		60		mg/Kg		10/23/24 10:05	10/23/24 13:45	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Client Sample ID: BH24-22 1'

Date Collected: 10/16/24 10:20
Date Received: 10/19/24 11:35

Lab Sample ID: 885-13995-26

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		10/21/24 16:03	10/23/24 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*35 - 166*	*10/21/24 16:03*	*10/23/24 02:06*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/21/24 16:03	10/23/24 20:23	1
Ethylbenzene	ND		0.050		mg/Kg		10/21/24 16:03	10/23/24 20:23	1
Toluene	ND		0.050		mg/Kg		10/21/24 16:03	10/23/24 20:23	1
Xylenes, Total	ND		0.099		mg/Kg		10/21/24 16:03	10/23/24 20:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*48 - 145*	*10/21/24 16:03*	*10/23/24 20:23*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		10/22/24 15:57	10/22/24 22:52	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		10/22/24 15:57	10/22/24 22:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*106*		*62 - 134*	*10/22/24 15:57*	*10/22/24 22:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**230**		60		mg/Kg		10/23/24 10:05	10/23/24 13:56	20

QC Sample Results

Client: Vertex

Job ID: 885-13995-1

Project/Site: Snapping 10 Fed 3H

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: LCS 885-14592/2-A
Matrix: Solid
Analysis Batch: 14740

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14592

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			25.0	25.6		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*202*		*35 - 166*

Lab Sample ID: MB 885-14620/1-A
Matrix: Solid
Analysis Batch: 14760

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14620

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		10/21/24 11:25	10/22/24 12:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*35 - 166*	*10/21/24 11:25*	*10/22/24 12:41*	*1*

Lab Sample ID: LCS 885-14620/2-A
Matrix: Solid
Analysis Batch: 14760

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14620

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			25.0	28.8		mg/Kg		115	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*240*		*35 - 166*

Lab Sample ID: 885-13995-4 MS
Matrix: Solid
Analysis Batch: 14831

Client Sample ID: BH24-06 1'
Prep Type: Total/NA
Prep Batch: 14620

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	ND		24.8	26.5		mg/Kg		107	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*236*		*35 - 166*

Lab Sample ID: 885-13995-4 MSD
Matrix: Solid
Analysis Batch: 14831

Client Sample ID: BH24-06 1'
Prep Type: Total/NA
Prep Batch: 14620

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	ND		25.0	29.2		mg/Kg		117	70 - 130	10	20

QC Sample Results

Client: Vertex

Job ID: 885-13995-1

Project/Site: Snapping 10 Fed 3H

Method: 8015M/D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: 885-13995-4 MSD
Matrix: Solid
Analysis Batch: 14831

Client Sample ID: BH24-06 1'
Prep Type: Total/NA
Prep Batch: 14620

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	248		35 - 166

Lab Sample ID: MB 885-14658/1-A
Matrix: Solid
Analysis Batch: 14761

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14658

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		10/21/24 16:01	10/22/24 23:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		35 - 166	10/21/24 16:01	10/22/24 23:33	1

Lab Sample ID: LCS 885-14658/2-A
Matrix: Solid
Analysis Batch: 14761

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14658

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			25.0	31.1		mg/Kg		124	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	244		35 - 166

Lab Sample ID: 885-13995-24 MS
Matrix: Solid
Analysis Batch: 14761

Client Sample ID: BH24-21 1.5'
Prep Type: Total/NA
Prep Batch: 14658

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	ND		24.9	32.3		mg/Kg		130	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	251		35 - 166

Lab Sample ID: 885-13995-24 MSD
Matrix: Solid
Analysis Batch: 14761

Client Sample ID: BH24-21 1.5'
Prep Type: Total/NA
Prep Batch: 14658

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	ND		25.0	29.8		mg/Kg		119	70 - 130	8	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	251		35 - 166

QC Sample Results

Client: Vertex

Job ID: 885-13995-1

Project/Site: Snapping 10 Fed 3H

Method: 8015M/D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: MB 885-4592/1-A
Matrix: Solid
Analysis Batch: 14740

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4592

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		05/08/24 12:36	10/22/24 17:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*05/08/24 12:36*	*10/22/24 17:40*	*1*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: LCS 885-14592/3-A
Matrix: Solid
Analysis Batch: 14741

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14592

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.08		mg/Kg		108	70 - 130		
Ethylbenzene			1.00	1.08		mg/Kg		108	70 - 130		
m-Xylene & p-Xylene			2.00	2.13		mg/Kg		107	70 - 130		
o-Xylene			1.00	1.05		mg/Kg		105	70 - 130		
Toluene			1.00	1.09		mg/Kg		109	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*48 - 145*

Lab Sample ID: MB 885-14620/1-A
Matrix: Solid
Analysis Batch: 14762

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14620

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/21/24 11:25	10/22/24 12:41	1
Ethylbenzene	ND		0.050		mg/Kg		10/21/24 11:25	10/22/24 12:41	1
Toluene	ND		0.050		mg/Kg		10/21/24 11:25	10/22/24 12:41	1
Xylenes, Total	ND		0.10		mg/Kg		10/21/24 11:25	10/22/24 12:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*48 - 145*	*10/21/24 11:25*	*10/22/24 12:41*	*1*

Lab Sample ID: LCS 885-14620/3-A
Matrix: Solid
Analysis Batch: 14762

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14620

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.03		mg/Kg		103	70 - 130		
Ethylbenzene			1.00	1.03		mg/Kg		103	70 - 130		
m-Xylene & p-Xylene			2.00	2.05		mg/Kg		103	70 - 130		
o-Xylene			1.00	1.01		mg/Kg		101	70 - 130		
Toluene			1.00	1.03		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*48 - 145*

QC Sample Results

Client: Vertex

Job ID: 885-13995-1

Project/Site: Snapping 10 Fed 3H

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: LCS 885-14620/3-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 14833

Prep Batch: 14620

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.990		mg/Kg		99	70 - 130		
Ethylbenzene			1.00	1.01		mg/Kg		101	70 - 130		
m-Xylene & p-Xylene			2.00	2.00		mg/Kg		100	70 - 130		
o-Xylene			1.00	1.00		mg/Kg		100	70 - 130		
Toluene			1.00	1.00		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*48 - 145*

Lab Sample ID: 885-13995-5 MS

Client Sample ID: BH24-08 1'

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 14762

Prep Batch: 14620

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.977	1.10		mg/Kg		113	70 - 130		
Ethylbenzene	ND		0.977	1.12		mg/Kg		114	70 - 130		
m-Xylene & p-Xylene	ND		1.95	2.23		mg/Kg		114	70 - 130		
o-Xylene	ND		0.977	1.10		mg/Kg		112	70 - 130		
Toluene	ND		0.977	1.10		mg/Kg		112	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*

Lab Sample ID: 885-13995-5 MSD

Client Sample ID: BH24-08 1'

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 14762

Prep Batch: 14620

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.978	1.07		mg/Kg		109	70 - 130	3	20
Ethylbenzene	ND		0.978	1.10		mg/Kg		113	70 - 130	1	20
m-Xylene & p-Xylene	ND		1.96	2.18		mg/Kg		111	70 - 130	2	20
o-Xylene	ND		0.978	1.09		mg/Kg		111	70 - 130	1	20
Toluene	ND		0.978	1.09		mg/Kg		112	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*48 - 145*

Lab Sample ID: 885-13995-25 MS

Client Sample ID: BH24-22 0'

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 14833

Prep Batch: 14658

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.992	1.04		mg/Kg		105	70 - 130		
Ethylbenzene	ND		0.992	1.03		mg/Kg		104	70 - 130		
m-Xylene & p-Xylene	ND		1.98	2.05		mg/Kg		103	70 - 130		
o-Xylene	ND		0.992	1.02		mg/Kg		103	70 - 130		
Toluene	ND		0.992	1.03		mg/Kg		104	70 - 130		

QC Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-13995-25 MS
Matrix: Solid
Analysis Batch: 14833

Client Sample ID: BH24-22 0'
Prep Type: Total/NA
Prep Batch: 14658

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*99*		*48 - 145*

Lab Sample ID: 885-13995-25 MSD
Matrix: Solid
Analysis Batch: 14833

Client Sample ID: BH24-22 0'
Prep Type: Total/NA
Prep Batch: 14658

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.991	1.08		mg/Kg		109	70 - 130	4	20
Ethylbenzene	ND		0.991	1.10		mg/Kg		111	70 - 130	6	20
m-Xylene & p-Xylene	ND		1.98	2.17		mg/Kg		109	70 - 130	5	20
o-Xylene	ND		0.991	1.09		mg/Kg		110	70 - 130	6	20
Toluene	ND		0.991	1.08		mg/Kg		109	70 - 130	5	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*101*		*48 - 145*

Lab Sample ID: MB 885-14725/1-A
Matrix: Solid
Analysis Batch: 14833

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14725

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		10/22/24 13:38	10/23/24 18:35	1
Ethylbenzene	ND		0.050		mg/Kg		10/22/24 13:38	10/23/24 18:35	1
Toluene	ND		0.050		mg/Kg		10/22/24 13:38	10/23/24 18:35	1
Xylenes, Total	ND		0.10		mg/Kg		10/22/24 13:38	10/23/24 18:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*98*		*48 - 145*	*10/22/24 13:38*	*10/23/24 18:35*	*1*

Lab Sample ID: MB 885-4592/1-A
Matrix: Solid
Analysis Batch: 14741

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4592

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		05/08/24 12:36	10/22/24 17:40	1
Ethylbenzene	ND		0.050		mg/Kg		05/08/24 12:36	10/22/24 17:40	1
Toluene	ND		0.050		mg/Kg		05/08/24 12:36	10/22/24 17:40	1
Xylenes, Total	ND		0.10		mg/Kg		05/08/24 12:36	10/22/24 17:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*	*05/08/24 12:36*	*10/22/24 17:40*	*1*

QC Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-14629/1-A
Matrix: Solid
Analysis Batch: 14585

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14629

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		10/21/24 12:47	10/21/24 14:39	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		10/21/24 12:47	10/21/24 14:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*90*		*62 - 134*	*10/21/24 12:47*	*10/21/24 14:39*	*1*

Lab Sample ID: LCS 885-14629/2-A
Matrix: Solid
Analysis Batch: 14585

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14629

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	45.8		mg/Kg		92	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*92*		*62 - 134*

Lab Sample ID: 885-13995-1 MS
Matrix: Solid
Analysis Batch: 14585

Client Sample ID: BH24-03 1'
Prep Type: Total/NA
Prep Batch: 14629

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	44	F1	47.0	77.7		mg/Kg		71	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*85*		*62 - 134*

Lab Sample ID: 885-13995-1 MSD
Matrix: Solid
Analysis Batch: 14585

Client Sample ID: BH24-03 1'
Prep Type: Total/NA
Prep Batch: 14629

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	44	F1	47.1	61.9	F1	mg/Kg		37	44 - 136	23	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*

Lab Sample ID: MB 885-14703/1-A
Matrix: Solid
Analysis Batch: 14695

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14703

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		10/22/24 10:57	10/22/24 15:47	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		10/22/24 10:57	10/22/24 15:47	1

QC Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 885-14703/1-A
Matrix: Solid
Analysis Batch: 14695

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14703

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	95		62 - 134	10/22/24 10:57	10/22/24 15:47	1

Lab Sample ID: LCS 885-14703/2-A
Matrix: Solid
Analysis Batch: 14695

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14703

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	36.3		mg/Kg		73	60 - 135		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	95		62 - 134

Lab Sample ID: 885-13995-21 MS
Matrix: Solid
Analysis Batch: 14695

Client Sample ID: BH24-20 1'
Prep Type: Total/NA
Prep Batch: 14703

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		48.4	45.7		mg/Kg		95	44 - 136		

Surrogate	MS %Recovery	MS Qualifier	Limits
Di-n-octyl phthalate (Surr)	95		62 - 134

Lab Sample ID: 885-13995-21 MSD
Matrix: Solid
Analysis Batch: 14695

Client Sample ID: BH24-20 1'
Prep Type: Total/NA
Prep Batch: 14703

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		47.8	55.3		mg/Kg		116	44 - 136	19	32

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Di-n-octyl phthalate (Surr)	113		62 - 134

Lab Sample ID: MB 885-14742/1-A
Matrix: Solid
Analysis Batch: 14695

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14742

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		10/22/24 15:57	10/22/24 21:39	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		10/22/24 15:57	10/22/24 21:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	112		62 - 134	10/22/24 15:57	10/22/24 21:39	1

QC Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 885-14742/2-A
Matrix: Solid
Analysis Batch: 14695

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14742

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	57.5		mg/Kg		115	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*118*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-14640/1-A
Matrix: Solid
Analysis Batch: 14643

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14640

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		10/21/24 14:25	10/22/24 00:08	1

Lab Sample ID: LCS 885-14640/2-A
Matrix: Solid
Analysis Batch: 14643

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14640

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	30.3		mg/Kg		101	90 - 110		

Lab Sample ID: MB 885-14709/1-A
Matrix: Solid
Analysis Batch: 14713

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14709

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		10/22/24 12:27	10/22/24 15:49	1

Lab Sample ID: LCS 885-14709/2-A
Matrix: Solid
Analysis Batch: 14713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14709

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	29.3		mg/Kg		98	90 - 110		

Lab Sample ID: 885-13995-12 MS
Matrix: Solid
Analysis Batch: 14713

Client Sample ID: BH24-15 0'
Prep Type: Total/NA
Prep Batch: 14709

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	130		30.2	164	4	mg/Kg		114	50 - 150		

Lab Sample ID: 885-13995-12 MSD
Matrix: Solid
Analysis Batch: 14713

Client Sample ID: BH24-15 0'
Prep Type: Total/NA
Prep Batch: 14709

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	130		30.1	155	4	mg/Kg		83	50 - 150	6	20

QC Sample Results

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 885-14766/1-A
Matrix: Solid
Analysis Batch: 14776

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14766

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		10/23/24 10:05	10/23/24 12:27	1

Lab Sample ID: LCS 885-14766/2-A
Matrix: Solid
Analysis Batch: 14776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14766

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	28.8		mg/Kg		96	90 - 110		

Lab Sample ID: 885-13995-22 MS
Matrix: Solid
Analysis Batch: 14776

Client Sample ID: BH24-21 0'
Prep Type: Total/NA
Prep Batch: 14766

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	490		29.9	532	4	mg/Kg		127	50 - 150		

QC Association Summary

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

GC VOA

Prep Batch: 4592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-4592/1-A	Method Blank	Total/NA	Solid	5030C	

Prep Batch: 14592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-1	BH24-03 1'	Total/NA	Solid	5030C	
885-13995-2	BH24-04 1.5'	Total/NA	Solid	5030C	
885-13995-3	BH24-05 1'	Total/NA	Solid	5030C	
LCS 885-14592/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-14592/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Prep Batch: 14620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-4	BH24-06 1'	Total/NA	Solid	5030C	
885-13995-5	BH24-08 1'	Total/NA	Solid	5030C	
885-13995-6	BH24-11 0'	Total/NA	Solid	5030C	
885-13995-7	BH24-11 1'	Total/NA	Solid	5030C	
885-13995-8	BH24-13 0'	Total/NA	Solid	5030C	
885-13995-9	BH24-13 1'	Total/NA	Solid	5030C	
885-13995-10	BH24-13 2.0'	Total/NA	Solid	5030C	
885-13995-11	BH24-14 1'	Total/NA	Solid	5030C	
885-13995-12	BH24-15 0'	Total/NA	Solid	5030C	
885-13995-13	BH24-15 1'	Total/NA	Solid	5030C	
885-13995-14	BH24-15 2'	Total/NA	Solid	5030C	
885-13995-15	BH24-16 1'	Total/NA	Solid	5030C	
885-13995-16	BH24-17 1.5'	Total/NA	Solid	5030C	
885-13995-17	BH24-18 1'	Total/NA	Solid	5030C	
885-13995-18	BH24-19 0'	Total/NA	Solid	5030C	
885-13995-19	BH24-19 1'	Total/NA	Solid	5030C	
885-13995-20	BH24-20 0'	Total/NA	Solid	5030C	
885-13995-21	BH24-20 1'	Total/NA	Solid	5030C	
885-13995-22	BH24-21 0'	Total/NA	Solid	5030C	
885-13995-23	BH24-21 1'	Total/NA	Solid	5030C	
MB 885-14620/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-14620/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-14620/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-13995-4 MS	BH24-06 1'	Total/NA	Solid	5030C	
885-13995-4 MSD	BH24-06 1'	Total/NA	Solid	5030C	
885-13995-5 MS	BH24-08 1'	Total/NA	Solid	5030C	
885-13995-5 MSD	BH24-08 1'	Total/NA	Solid	5030C	

Prep Batch: 14658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-24	BH24-21 1.5'	Total/NA	Solid	5030C	
885-13995-25	BH24-22 0'	Total/NA	Solid	5030C	
885-13995-26	BH24-22 1'	Total/NA	Solid	5030C	
MB 885-14658/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-14658/2-A	Lab Control Sample	Total/NA	Solid	5030C	
885-13995-24 MS	BH24-21 1.5'	Total/NA	Solid	5030C	
885-13995-24 MSD	BH24-21 1.5'	Total/NA	Solid	5030C	
885-13995-25 MS	BH24-22 0'	Total/NA	Solid	5030C	
885-13995-25 MSD	BH24-22 0'	Total/NA	Solid	5030C	

QC Association Summary

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

GC VOA

Prep Batch: 14725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-14725/1-A	Method Blank	Total/NA	Solid	5030C	

Analysis Batch: 14740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-1	BH24-03 1'	Total/NA	Solid	8015M/D	14592
885-13995-2	BH24-04 1.5'	Total/NA	Solid	8015M/D	14592
885-13995-3	BH24-05 1'	Total/NA	Solid	8015M/D	14592
MB 885-4592/1-A	Method Blank	Total/NA	Solid	8015M/D	4592
LCS 885-14592/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	14592

Analysis Batch: 14741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-1	BH24-03 1'	Total/NA	Solid	8021B	14592
885-13995-2	BH24-04 1.5'	Total/NA	Solid	8021B	14592
885-13995-3	BH24-05 1'	Total/NA	Solid	8021B	14592
MB 885-4592/1-A	Method Blank	Total/NA	Solid	8021B	4592
LCS 885-14592/3-A	Lab Control Sample	Total/NA	Solid	8021B	14592

Analysis Batch: 14760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-4	BH24-06 1'	Total/NA	Solid	8015M/D	14620
885-13995-5	BH24-08 1'	Total/NA	Solid	8015M/D	14620
885-13995-6	BH24-11 0'	Total/NA	Solid	8015M/D	14620
885-13995-7	BH24-11 1'	Total/NA	Solid	8015M/D	14620
885-13995-8	BH24-13 0'	Total/NA	Solid	8015M/D	14620
885-13995-9	BH24-13 1'	Total/NA	Solid	8015M/D	14620
885-13995-10	BH24-13 2.0'	Total/NA	Solid	8015M/D	14620
885-13995-11	BH24-14 1'	Total/NA	Solid	8015M/D	14620
885-13995-12	BH24-15 0'	Total/NA	Solid	8015M/D	14620
885-13995-13	BH24-15 1'	Total/NA	Solid	8015M/D	14620
885-13995-14	BH24-15 2'	Total/NA	Solid	8015M/D	14620
885-13995-15	BH24-16 1'	Total/NA	Solid	8015M/D	14620
885-13995-16	BH24-17 1.5'	Total/NA	Solid	8015M/D	14620
885-13995-17	BH24-18 1'	Total/NA	Solid	8015M/D	14620
885-13995-18	BH24-19 0'	Total/NA	Solid	8015M/D	14620
885-13995-19	BH24-19 1'	Total/NA	Solid	8015M/D	14620
885-13995-20	BH24-20 0'	Total/NA	Solid	8015M/D	14620
885-13995-21	BH24-20 1'	Total/NA	Solid	8015M/D	14620
885-13995-22	BH24-21 0'	Total/NA	Solid	8015M/D	14620
885-13995-23	BH24-21 1'	Total/NA	Solid	8015M/D	14620
MB 885-14620/1-A	Method Blank	Total/NA	Solid	8015M/D	14620
LCS 885-14620/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	14620

Analysis Batch: 14761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-24	BH24-21 1.5'	Total/NA	Solid	8015M/D	14658
885-13995-25	BH24-22 0'	Total/NA	Solid	8015M/D	14658
885-13995-26	BH24-22 1'	Total/NA	Solid	8015M/D	14658
MB 885-14658/1-A	Method Blank	Total/NA	Solid	8015M/D	14658
LCS 885-14658/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	14658
885-13995-24 MS	BH24-21 1.5'	Total/NA	Solid	8015M/D	14658

QC Association Summary

Client: Vertex Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

GC VOA (Continued)

Analysis Batch: 14761 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-24 MSD	BH24-21 1.5'	Total/NA	Solid	8015M/D	14658

Analysis Batch: 14762

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-4	BH24-06 1'	Total/NA	Solid	8021B	14620
885-13995-5	BH24-08 1'	Total/NA	Solid	8021B	14620
885-13995-6	BH24-11 0'	Total/NA	Solid	8021B	14620
885-13995-7	BH24-11 1'	Total/NA	Solid	8021B	14620
885-13995-8	BH24-13 0'	Total/NA	Solid	8021B	14620
885-13995-9	BH24-13 1'	Total/NA	Solid	8021B	14620
885-13995-10	BH24-13 2.0'	Total/NA	Solid	8021B	14620
885-13995-11	BH24-14 1'	Total/NA	Solid	8021B	14620
885-13995-12	BH24-15 0'	Total/NA	Solid	8021B	14620
885-13995-13	BH24-15 1'	Total/NA	Solid	8021B	14620
885-13995-14	BH24-15 2'	Total/NA	Solid	8021B	14620
885-13995-15	BH24-16 1'	Total/NA	Solid	8021B	14620
885-13995-16	BH24-17 1.5'	Total/NA	Solid	8021B	14620
885-13995-17	BH24-18 1'	Total/NA	Solid	8021B	14620
885-13995-18	BH24-19 0'	Total/NA	Solid	8021B	14620
885-13995-19	BH24-19 1'	Total/NA	Solid	8021B	14620
885-13995-20	BH24-20 0'	Total/NA	Solid	8021B	14620
885-13995-21	BH24-20 1'	Total/NA	Solid	8021B	14620
885-13995-22	BH24-21 0'	Total/NA	Solid	8021B	14620
885-13995-23	BH24-21 1'	Total/NA	Solid	8021B	14620
MB 885-14620/1-A	Method Blank	Total/NA	Solid	8021B	14620
LCS 885-14620/3-A	Lab Control Sample	Total/NA	Solid	8021B	14620
885-13995-5 MS	BH24-08 1'	Total/NA	Solid	8021B	14620
885-13995-5 MSD	BH24-08 1'	Total/NA	Solid	8021B	14620

Analysis Batch: 14831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-4 MS	BH24-06 1'	Total/NA	Solid	8015M/D	14620
885-13995-4 MSD	BH24-06 1'	Total/NA	Solid	8015M/D	14620

Analysis Batch: 14833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-24	BH24-21 1.5'	Total/NA	Solid	8021B	14658
885-13995-25	BH24-22 0'	Total/NA	Solid	8021B	14658
885-13995-26	BH24-22 1'	Total/NA	Solid	8021B	14658
MB 885-14725/1-A	Method Blank	Total/NA	Solid	8021B	14725
LCS 885-14620/3-A	Lab Control Sample	Total/NA	Solid	8021B	14620
885-13995-25 MS	BH24-22 0'	Total/NA	Solid	8021B	14658
885-13995-25 MSD	BH24-22 0'	Total/NA	Solid	8021B	14658

GC Semi VOA

Analysis Batch: 14585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-1	BH24-03 1'	Total/NA	Solid	8015M/D	14629
MB 885-14629/1-A	Method Blank	Total/NA	Solid	8015M/D	14629
LCS 885-14629/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	14629

QC Association Summary

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

GC Semi VOA (Continued)

Analysis Batch: 14585 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-1 MS	BH24-03 1'	Total/NA	Solid	8015M/D	14629
885-13995-1 MSD	BH24-03 1'	Total/NA	Solid	8015M/D	14629

Prep Batch: 14629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-1	BH24-03 1'	Total/NA	Solid	SHAKE	
MB 885-14629/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-14629/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-13995-1 MS	BH24-03 1'	Total/NA	Solid	SHAKE	
885-13995-1 MSD	BH24-03 1'	Total/NA	Solid	SHAKE	

Analysis Batch: 14695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-2	BH24-04 1.5'	Total/NA	Solid	8015M/D	14703
885-13995-3	BH24-05 1'	Total/NA	Solid	8015M/D	14703
885-13995-4	BH24-06 1'	Total/NA	Solid	8015M/D	14703
885-13995-5	BH24-08 1'	Total/NA	Solid	8015M/D	14703
885-13995-6	BH24-11 0'	Total/NA	Solid	8015M/D	14703
885-13995-7	BH24-11 1'	Total/NA	Solid	8015M/D	14703
885-13995-8	BH24-13 0'	Total/NA	Solid	8015M/D	14703
885-13995-9	BH24-13 1'	Total/NA	Solid	8015M/D	14703
885-13995-10	BH24-13 2.0'	Total/NA	Solid	8015M/D	14703
885-13995-11	BH24-14 1'	Total/NA	Solid	8015M/D	14703
885-13995-12	BH24-15 0'	Total/NA	Solid	8015M/D	14703
885-13995-13	BH24-15 1'	Total/NA	Solid	8015M/D	14703
885-13995-14	BH24-15 2'	Total/NA	Solid	8015M/D	14703
885-13995-15	BH24-16 1'	Total/NA	Solid	8015M/D	14703
885-13995-16	BH24-17 1.5'	Total/NA	Solid	8015M/D	14703
885-13995-17	BH24-18 1'	Total/NA	Solid	8015M/D	14703
885-13995-18	BH24-19 0'	Total/NA	Solid	8015M/D	14703
885-13995-19	BH24-19 1'	Total/NA	Solid	8015M/D	14703
885-13995-20	BH24-20 0'	Total/NA	Solid	8015M/D	14703
885-13995-21	BH24-20 1'	Total/NA	Solid	8015M/D	14703
885-13995-22	BH24-21 0'	Total/NA	Solid	8015M/D	14742
885-13995-23	BH24-21 1'	Total/NA	Solid	8015M/D	14742
885-13995-24	BH24-21 1.5'	Total/NA	Solid	8015M/D	14742
885-13995-25	BH24-22 0'	Total/NA	Solid	8015M/D	14742
885-13995-26	BH24-22 1'	Total/NA	Solid	8015M/D	14742
MB 885-14703/1-A	Method Blank	Total/NA	Solid	8015M/D	14703
MB 885-14742/1-A	Method Blank	Total/NA	Solid	8015M/D	14742
LCS 885-14703/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	14703
LCS 885-14742/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	14742
885-13995-21 MS	BH24-20 1'	Total/NA	Solid	8015M/D	14703
885-13995-21 MSD	BH24-20 1'	Total/NA	Solid	8015M/D	14703

Prep Batch: 14703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-2	BH24-04 1.5'	Total/NA	Solid	SHAKE	
885-13995-3	BH24-05 1'	Total/NA	Solid	SHAKE	
885-13995-4	BH24-06 1'	Total/NA	Solid	SHAKE	
885-13995-5	BH24-08 1'	Total/NA	Solid	SHAKE	

QC Association Summary

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

GC Semi VOA (Continued)

Prep Batch: 14703 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-6	BH24-11 0'	Total/NA	Solid	SHAKE	
885-13995-7	BH24-11 1'	Total/NA	Solid	SHAKE	
885-13995-8	BH24-13 0'	Total/NA	Solid	SHAKE	
885-13995-9	BH24-13 1'	Total/NA	Solid	SHAKE	
885-13995-10	BH24-13 2.0'	Total/NA	Solid	SHAKE	
885-13995-11	BH24-14 1'	Total/NA	Solid	SHAKE	
885-13995-12	BH24-15 0'	Total/NA	Solid	SHAKE	
885-13995-13	BH24-15 1'	Total/NA	Solid	SHAKE	
885-13995-14	BH24-15 2'	Total/NA	Solid	SHAKE	
885-13995-15	BH24-16 1'	Total/NA	Solid	SHAKE	
885-13995-16	BH24-17 1.5'	Total/NA	Solid	SHAKE	
885-13995-17	BH24-18 1'	Total/NA	Solid	SHAKE	
885-13995-18	BH24-19 0'	Total/NA	Solid	SHAKE	
885-13995-19	BH24-19 1'	Total/NA	Solid	SHAKE	
885-13995-20	BH24-20 0'	Total/NA	Solid	SHAKE	
885-13995-21	BH24-20 1'	Total/NA	Solid	SHAKE	
MB 885-14703/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-14703/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-13995-21 MS	BH24-20 1'	Total/NA	Solid	SHAKE	
885-13995-21 MSD	BH24-20 1'	Total/NA	Solid	SHAKE	

Prep Batch: 14742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-22	BH24-21 0'	Total/NA	Solid	SHAKE	
885-13995-23	BH24-21 1'	Total/NA	Solid	SHAKE	
885-13995-24	BH24-21 1.5'	Total/NA	Solid	SHAKE	
885-13995-25	BH24-22 0'	Total/NA	Solid	SHAKE	
885-13995-26	BH24-22 1'	Total/NA	Solid	SHAKE	
MB 885-14742/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-14742/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

HPLC/IC

Prep Batch: 14640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-1	BH24-03 1'	Total/NA	Solid	300_Prep	
MB 885-14640/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-14640/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 14643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-1	BH24-03 1'	Total/NA	Solid	300.0	14640
MB 885-14640/1-A	Method Blank	Total/NA	Solid	300.0	14640
LCS 885-14640/2-A	Lab Control Sample	Total/NA	Solid	300.0	14640

Prep Batch: 14709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-2	BH24-04 1.5'	Total/NA	Solid	300_Prep	
885-13995-3	BH24-05 1'	Total/NA	Solid	300_Prep	
885-13995-4	BH24-06 1'	Total/NA	Solid	300_Prep	
885-13995-5	BH24-08 1'	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Project/Site: Snapping 10 Fed 3H

Job ID: 885-13995-1

HPLC/IC (Continued)

Prep Batch: 14709 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-6	BH24-11 0'	Total/NA	Solid	300_Prep	
885-13995-7	BH24-11 1'	Total/NA	Solid	300_Prep	
885-13995-8	BH24-13 0'	Total/NA	Solid	300_Prep	
885-13995-9	BH24-13 1'	Total/NA	Solid	300_Prep	
885-13995-10	BH24-13 2.0'	Total/NA	Solid	300_Prep	
885-13995-11	BH24-14 1'	Total/NA	Solid	300_Prep	
885-13995-12	BH24-15 0'	Total/NA	Solid	300_Prep	
885-13995-13	BH24-15 1'	Total/NA	Solid	300_Prep	
885-13995-14	BH24-15 2'	Total/NA	Solid	300_Prep	
885-13995-15	BH24-16 1'	Total/NA	Solid	300_Prep	
885-13995-16	BH24-17 1.5'	Total/NA	Solid	300_Prep	
885-13995-17	BH24-18 1'	Total/NA	Solid	300_Prep	
885-13995-18	BH24-19 0'	Total/NA	Solid	300_Prep	
885-13995-19	BH24-19 1'	Total/NA	Solid	300_Prep	
885-13995-20	BH24-20 0'	Total/NA	Solid	300_Prep	
885-13995-21	BH24-20 1'	Total/NA	Solid	300_Prep	
MB 885-14709/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-14709/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-13995-12 MS	BH24-15 0'	Total/NA	Solid	300_Prep	
885-13995-12 MSD	BH24-15 0'	Total/NA	Solid	300_Prep	

Analysis Batch: 14713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-2	BH24-04 1.5'	Total/NA	Solid	300.0	14709
885-13995-3	BH24-05 1'	Total/NA	Solid	300.0	14709
885-13995-4	BH24-06 1'	Total/NA	Solid	300.0	14709
885-13995-5	BH24-08 1'	Total/NA	Solid	300.0	14709
885-13995-6	BH24-11 0'	Total/NA	Solid	300.0	14709
885-13995-7	BH24-11 1'	Total/NA	Solid	300.0	14709
885-13995-8	BH24-13 0'	Total/NA	Solid	300.0	14709
885-13995-9	BH24-13 1'	Total/NA	Solid	300.0	14709
885-13995-10	BH24-13 2.0'	Total/NA	Solid	300.0	14709
885-13995-11	BH24-14 1'	Total/NA	Solid	300.0	14709
885-13995-12	BH24-15 0'	Total/NA	Solid	300.0	14709
885-13995-13	BH24-15 1'	Total/NA	Solid	300.0	14709
885-13995-14	BH24-15 2'	Total/NA	Solid	300.0	14709
885-13995-15	BH24-16 1'	Total/NA	Solid	300.0	14709
885-13995-16	BH24-17 1.5'	Total/NA	Solid	300.0	14709
885-13995-17	BH24-18 1'	Total/NA	Solid	300.0	14709
885-13995-18	BH24-19 0'	Total/NA	Solid	300.0	14709
885-13995-19	BH24-19 1'	Total/NA	Solid	300.0	14709
885-13995-20	BH24-20 0'	Total/NA	Solid	300.0	14709
885-13995-21	BH24-20 1'	Total/NA	Solid	300.0	14709
MB 885-14709/1-A	Method Blank	Total/NA	Solid	300.0	14709
LCS 885-14709/2-A	Lab Control Sample	Total/NA	Solid	300.0	14709
885-13995-12 MS	BH24-15 0'	Total/NA	Solid	300.0	14709
885-13995-12 MSD	BH24-15 0'	Total/NA	Solid	300.0	14709

Prep Batch: 14766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-22	BH24-21 0'	Total/NA	Solid	300_Prep	

QC Association Summary

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

HPLC/IC (Continued)

Prep Batch: 14766 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-23	BH24-21 1'	Total/NA	Solid	300_Prep	
885-13995-24	BH24-21 1.5'	Total/NA	Solid	300_Prep	
885-13995-25	BH24-22 0'	Total/NA	Solid	300_Prep	
885-13995-26	BH24-22 1'	Total/NA	Solid	300_Prep	
MB 885-14766/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-14766/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	
885-13995-22 MS	BH24-21 0'	Total/NA	Solid	300_Prep	

Analysis Batch: 14776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-13995-22	BH24-21 0'	Total/NA	Solid	300.0	14766
885-13995-23	BH24-21 1'	Total/NA	Solid	300.0	14766
885-13995-24	BH24-21 1.5'	Total/NA	Solid	300.0	14766
885-13995-25	BH24-22 0'	Total/NA	Solid	300.0	14766
885-13995-26	BH24-22 1'	Total/NA	Solid	300.0	14766
MB 885-14766/1-A	Method Blank	Total/NA	Solid	300.0	14766
LCS 885-14766/2-A	Lab Control Sample	Total/NA	Solid	300.0	14766
885-13995-22 MS	BH24-21 0'	Total/NA	Solid	300.0	14766

Lab Chronicle

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-03 1'
Lab Sample ID: 885-13995-1
Date Collected: 10/14/24 11:55
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14592	JP	EET ALB	10/21/24 10:29
Total/NA	Analysis	8015M/D		1	14740	JP	EET ALB	10/23/24 03:30
Total/NA	Prep	5030C			14592	JP	EET ALB	10/21/24 10:29
Total/NA	Analysis	8021B		1	14741	JP	EET ALB	10/23/24 03:30
Total/NA	Prep	SHAKE			14629	KR	EET ALB	10/21/24 12:47
Total/NA	Analysis	8015M/D		1	14585	KR	EET ALB	10/21/24 19:45
Total/NA	Prep	300_Prep			14640	EH	EET ALB	10/21/24 14:25
Total/NA	Analysis	300.0		20	14643	EH	EET ALB	10/22/24 05:01

Client Sample ID: BH24-04 1.5'
Lab Sample ID: 885-13995-2
Date Collected: 10/14/24 12:00
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14592	JP	EET ALB	10/21/24 10:29
Total/NA	Analysis	8015M/D		1	14740	JP	EET ALB	10/23/24 03:54
Total/NA	Prep	5030C			14592	JP	EET ALB	10/21/24 10:29
Total/NA	Analysis	8021B		1	14741	JP	EET ALB	10/23/24 03:54
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 16:11
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 16:08

Client Sample ID: BH24-05 1'
Lab Sample ID: 885-13995-3
Date Collected: 10/14/24 12:05
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14592	JP	EET ALB	10/21/24 10:29
Total/NA	Analysis	8015M/D		1	14740	JP	EET ALB	10/23/24 04:17
Total/NA	Prep	5030C			14592	JP	EET ALB	10/21/24 10:29
Total/NA	Analysis	8021B		1	14741	JP	EET ALB	10/23/24 04:17
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 16:24
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 16:38

Client Sample ID: BH24-06 1'
Lab Sample ID: 885-13995-4
Date Collected: 10/14/24 12:10
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 13:02

Lab Chronicle

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-06 1'
Lab Sample ID: 885-13995-4
Date Collected: 10/14/24 12:10
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 13:02
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 16:36
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 16:48

Client Sample ID: BH24-08 1'
Lab Sample ID: 885-13995-5
Date Collected: 10/14/24 12:15
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 14:08
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 14:08
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 16:48
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 16:57

Client Sample ID: BH24-11 0'
Lab Sample ID: 885-13995-6
Date Collected: 10/15/24 11:00
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 15:13
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 15:13
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 17:00
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 17:07

Client Sample ID: BH24-11 1'
Lab Sample ID: 885-13995-7
Date Collected: 10/15/24 11:05
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 15:35
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 15:35

Lab Chronicle

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-11 1'
Lab Sample ID: 885-13995-7
Date Collected: 10/15/24 11:05
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 17:12
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 17:17

Client Sample ID: BH24-13 0'
Lab Sample ID: 885-13995-8
Date Collected: 10/15/24 11:20
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 15:56
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 15:56
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 17:25
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 17:47

Client Sample ID: BH24-13 1'
Lab Sample ID: 885-13995-9
Date Collected: 10/15/24 11:25
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 16:18
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 16:18
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 17:37
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 17:57

Client Sample ID: BH24-13 2.0'
Lab Sample ID: 885-13995-10
Date Collected: 10/15/24 11:30
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 16:40
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 16:40
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 18:01

Lab Chronicle

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-13 2.0'
Lab Sample ID: 885-13995-10
Date Collected: 10/15/24 11:30
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 18:06

Client Sample ID: BH24-14 1'
Lab Sample ID: 885-13995-11
Date Collected: 10/15/24 11:40
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 17:02
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 17:02
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 18:13
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 18:16

Client Sample ID: BH24-15 0'
Lab Sample ID: 885-13995-12
Date Collected: 10/15/24 11:45
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 17:23
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 17:23
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 18:25
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 18:26

Client Sample ID: BH24-15 1'
Lab Sample ID: 885-13995-13
Date Collected: 10/15/24 11:50
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 17:45
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 17:45
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 18:37
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 18:56

Lab Chronicle

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-15 2'
Lab Sample ID: 885-13995-14
Date Collected: 10/15/24 11:55
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 18:29
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 18:29
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 18:50
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 19:05

Client Sample ID: BH24-16 1'
Lab Sample ID: 885-13995-15
Date Collected: 10/14/24 12:00
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 18:50
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 18:50
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 19:02
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 19:15

Client Sample ID: BH24-17 1.5'
Lab Sample ID: 885-13995-16
Date Collected: 10/14/24 12:05
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 19:12
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 19:12
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 19:14
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 19:45

Client Sample ID: BH24-18 1'
Lab Sample ID: 885-13995-17
Date Collected: 10/15/24 12:05
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 19:33

Lab Chronicle

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-18 1'
Lab Sample ID: 885-13995-17
Date Collected: 10/15/24 12:05
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 19:33
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 19:26
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 19:55

Client Sample ID: BH24-19 0'
Lab Sample ID: 885-13995-18
Date Collected: 10/16/24 09:40
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 19:55
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 19:55
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 19:38
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 20:04

Client Sample ID: BH24-19 1'
Lab Sample ID: 885-13995-19
Date Collected: 10/16/24 09:45
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 20:17
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 20:17
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 19:50
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 20:14

Client Sample ID: BH24-20 0'
Lab Sample ID: 885-13995-20
Date Collected: 10/16/24 09:50
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 20:39
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 20:39

Lab Chronicle

Client: Vertex

Job ID: 885-13995-1

Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-20 0'

Lab Sample ID: 885-13995-20

Date Collected: 10/16/24 09:50

Matrix: Solid

Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 20:14
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 20:24

Client Sample ID: BH24-20 1'

Lab Sample ID: 885-13995-21

Date Collected: 10/16/24 09:55

Matrix: Solid

Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 21:01
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 21:01
Total/NA	Prep	SHAKE			14703	EM	EET ALB	10/22/24 10:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 20:27
Total/NA	Prep	300_Prep			14709	EH	EET ALB	10/22/24 12:27
Total/NA	Analysis	300.0		20	14713	EH	EET ALB	10/22/24 20:34

Client Sample ID: BH24-21 0'

Lab Sample ID: 885-13995-22

Date Collected: 10/16/24 10:00

Matrix: Solid

Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 21:23
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 21:23
Total/NA	Prep	SHAKE			14742	EM	EET ALB	10/22/24 15:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 22:03
Total/NA	Prep	300_Prep			14766	EH	EET ALB	10/23/24 10:05
Total/NA	Analysis	300.0		20	14776	JT	EET ALB	10/23/24 12:49

Client Sample ID: BH24-21 1'

Lab Sample ID: 885-13995-23

Date Collected: 10/16/24 10:05

Matrix: Solid

Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8015M/D		1	14760	AT	EET ALB	10/22/24 21:44
Total/NA	Prep	5030C			14620	JP	EET ALB	10/21/24 11:25
Total/NA	Analysis	8021B		1	14762	AT	EET ALB	10/22/24 21:44
Total/NA	Prep	SHAKE			14742	EM	EET ALB	10/22/24 15:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 22:15

Lab Chronicle

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Client Sample ID: BH24-21 1'
Lab Sample ID: 885-13995-23
Date Collected: 10/16/24 10:05
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			14766	EH	EET ALB	10/23/24 10:05
Total/NA	Analysis	300.0		20	14776	JT	EET ALB	10/23/24 13:22

Client Sample ID: BH24-21 1.5'
Lab Sample ID: 885-13995-24
Date Collected: 10/16/24 10:10
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14658	AT	EET ALB	10/21/24 16:01
Total/NA	Analysis	8015M/D		1	14761	AT	EET ALB	10/22/24 23:55
Total/NA	Prep	5030C			14658	AT	EET ALB	10/21/24 16:01
Total/NA	Analysis	8021B		1	14833	AT	EET ALB	10/23/24 18:57
Total/NA	Prep	SHAKE			14742	EM	EET ALB	10/22/24 15:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 22:28
Total/NA	Prep	300_Prep			14766	EH	EET ALB	10/23/24 10:05
Total/NA	Analysis	300.0		20	14776	JT	EET ALB	10/23/24 13:34

Client Sample ID: BH24-22 0'
Lab Sample ID: 885-13995-25
Date Collected: 10/16/24 10:15
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14658	AT	EET ALB	10/21/24 16:01
Total/NA	Analysis	8015M/D		1	14761	AT	EET ALB	10/23/24 01:00
Total/NA	Prep	5030C			14658	AT	EET ALB	10/21/24 16:01
Total/NA	Analysis	8021B		1	14833	AT	EET ALB	10/23/24 19:19
Total/NA	Prep	SHAKE			14742	EM	EET ALB	10/22/24 15:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 22:40
Total/NA	Prep	300_Prep			14766	EH	EET ALB	10/23/24 10:05
Total/NA	Analysis	300.0		20	14776	JT	EET ALB	10/23/24 13:45

Client Sample ID: BH24-22 1'
Lab Sample ID: 885-13995-26
Date Collected: 10/16/24 10:20
Matrix: Solid
Date Received: 10/19/24 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			14658	AT	EET ALB	10/21/24 16:03
Total/NA	Analysis	8015M/D		1	14761	AT	EET ALB	10/23/24 02:06
Total/NA	Prep	5030C			14658	AT	EET ALB	10/21/24 16:03
Total/NA	Analysis	8021B		1	14833	AT	EET ALB	10/23/24 20:23
Total/NA	Prep	SHAKE			14742	EM	EET ALB	10/22/24 15:57
Total/NA	Analysis	8015M/D		1	14695	EM	EET ALB	10/22/24 22:52
Total/NA	Prep	300_Prep			14766	EH	EET ALB	10/23/24 10:05
Total/NA	Analysis	300.0		20	14776	JT	EET ALB	10/23/24 13:56

Lab Chronicle

Client: Vertex
Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-13995-1
Project/Site: Snapping 10 Fed 3H

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics (GRO)-C6-C10
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Chain-of-Custody Record

Client: ~~Devon~~ Vertex
(direct bill to Devon)
Mailing Address: 3101 Boyd Dr.
Carlsbad, NM, 88220
Phone #: 575.725.5001
email or Fax#:
QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☑ Rush 5 DAY
Project Name: ~~Snapping Federal 10H~~
Snapping 10 Fed 3H
Project #: 24E-04518
Project Manager: Chad Hensley
Chensley@vertexresource.com
Sampler: AC
On Ice: ☑ Yes ☐ No mojo
# of Coolers: 1
Cooler Temp(including CF): 0.4-0.1=0.3 (°C)

HALL ENVIRONME
ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107
885-13995 COC

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10.14.24	11:55	Soil	BH24-03 1'	1, 4oz jar	Ice	1	X	X					X			
10.14.24	12:00	Soil	BH24-04 1.5'	1, 4oz jar		2	X	X					X			
10.14.24	12:05	Soil	BH24-05 1'	1, 4oz jar		3	X	X					X			
10.14.24	12:10	Soil	BH24-06 1'	1, 4oz jar		4	X	X					X			
10.14.24	12:15	Soil	BH24-08 1'	1, 4oz jar		5	X	X					X			
10.15.24	11:00	Soil	BH24-11 0'	1, 4oz jar		6	X	X					X			
10.15.24	11:05	Soil	BH24-11 1'	1, 4oz jar		7	X	X					X			
10.15.24	11:20	Soil	BH24-13 0'	1, 4oz jar		8	X	X					X			
10.15.24	11:25	Soil	BH24-13 1'	1, 4oz jar		9	X	X					X			
10.15.24	11:30	Soil	BH24-13 2.0'	1, 4oz jar		10	X	X					X			
10.15.24	11:40	Soil	BH24-14 1'	1, 4oz jar		11	X	X					X			
10.15.24	11:45	Soil	BH24-15 0'	1, 4oz jar		12	X	X					X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
10/18/24	930	Aspen Curl			10/18/24	930
10/18/24	1900			courier	10/19/24	11:35

Remarks: Direct bill to Devon Energy
cc: Chensley@vertexresource.com
WO# 214211087

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

Chain-of-Custody Record

Client: Verley (Bill to Devon)

Mailing Address: 3101 Boyd Drive Carlsbad, NM, 88220

Phone #: 575.725.5001

email or Fax#:

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

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☑ Rush 5 Days

Project Name: ~~Snapping Federal 1611~~ Snapping 10 Fed 3H

Project #: 24E-04518

Project Manager: Chad Hensley
CHensley@Verleyresource.com

Sampler: AC

On Ice: ☑ Yes ☐ No mgo

# of Coolers: 1

Cooler Temp(including CF): 0.4 - 0.1 = 0.3 (°C)

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10.15.24	11:50	Soil	BH24-15 1'	1,4oz jar	Ice	13	X	X					X			
10.15.24	11:55	Soil	BH24-15 2'	1,4oz jar		14	X	X					X			
10.15.24	12:00	Soil	BH24-16 1'	1,4oz jar		15	X	X					X			
10.15.24	12:05	Soil	BH24-17 1.5'	1,4oz jar		16	X	X					X			
10.15.24	12:05	Soil	BH24-18 1'	1,4oz jar		17	X	X					X			
10.16.24	9:46	Soil	BH24-19 0'	1,4oz jar		18	X	X					X			
10.16.24	9:45	Soil	BH24-19 1'	1,4oz jar		19	X	X					X			
10.16.24	9:50	Soil	BH24-20 0'	1,4oz jar		20	X	X					X			
10.16.24	9:55	Soil	BH24-20 1'	1,4oz jar		21	X	X					X			
10.16.24	10:00	Soil	BH24-21 0'	1,4oz jar		22	X	X					X			
10.16.24	10:05	Soil	BH24-21 1'	1,4oz jar		23	X	X					X			
10.16.24	10:10	Soil	BH24-21 1.5'	1,4oz jar		24	X	X					X			

Date	Time	Relinquished by	Received by	Via	Date	Time
10/18/24	930	Aspen Curl			10/18/24	930
10/18/24	1900			Courier	10/19/24	11:35

Remarks: Direct bill to Devon Energy
cc: CHensley@Verleyresource.com
WO #: 21421108

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

Chain-of-Custody Record

Client: Verter

Chill to Devon

Mailing Address: 3101 Boyd Dr.

Carlsbad, NM 88220

Phone #: 575-725-5001

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☑ Standard ☑ Rush 5 Days

Project Name: ~~Snapping Federal Lott~~
Snapping 10 Fed 31H

Project #: 24E-04518

Project Manager: Chad Hensley
CHensley@verterresource.com

Sampler: AC

On Ice: ☑ Yes ☐ No angle

# of Coolers: 1

Cooler Temp(including CF): 0.4-0.1=0.3 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
10-16-24	10:15	Soil	BH24-22 0'	1,402 jar	Ice	25	X	X					X			
10-16-24	10:20	Soil	BH24-22 1'	1,402 jar	Ice	26	X	X					X			

Date	Time	Relinquished by	Received by	Via	Date	Time
10/18/24	930	Aspen Carl			10/18/24	930
10/18/24	1900			Via. courier	10/19/24	11:35

Remarks: Direct bill to Devon Energy
cc: CHensley@verterresource.com
WO# 21421107

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

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-13995-1

Login Number: 13995 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: Casarrubias, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 2/25/2025 4:25:54 PM

JOB DESCRIPTION

Snapping 10 Federal 3H

JOB NUMBER

885-20056-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

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Client: Vertex
Project/Site: Snapping 10 Federal 3H

Laboratory Job ID: 885-20056-1

Table of Contents

Definitions/Glossary

Client: Vertex Job ID: 885-20056-1
Project/Site: Snapping 10 Federal 3H

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-20056-1
Project: Snapping 10 Federal 3H

Job ID: 885-20056-1 Eurofins Albuquerque

Job Narrative
885-20056-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 2/18/2025 7:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.9°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
Method 8015D_DRO: The continuing calibration verification (CCV) associated with batch 885-21141 recovered outside acceptance criteria, exceeding drift criteria, for surrogate. Since the analytes within the CCV met criteria and the associated samples had passing surrogate, the data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH24-10 6'

Date Collected: 02/14/25 09:20
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-1

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		02/19/25 10:27	02/20/25 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*35 - 166*	*02/19/25 10:27*	*02/20/25 14:48*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		02/19/25 10:27	02/20/25 14:48	1
Ethylbenzene	ND		0.050		mg/Kg		02/19/25 10:27	02/20/25 14:48	1
Toluene	ND		0.050		mg/Kg		02/19/25 10:27	02/20/25 14:48	1
Xylenes, Total	ND		0.10		mg/Kg		02/19/25 10:27	02/20/25 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*48 - 145*	*02/19/25 10:27*	*02/20/25 14:48*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		02/20/25 11:18	02/20/25 13:29	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		02/20/25 11:18	02/20/25 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*02/20/25 11:18*	*02/20/25 13:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**420**		59		mg/Kg		02/19/25 09:59	02/19/25 17:23	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH24-02 4'
Date Collected: 02/14/25 09:40
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-2
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		02/19/25 10:27	02/20/25 16:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*02/19/25 10:27*	*02/20/25 16:00*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		02/19/25 10:27	02/20/25 16:00	1
Ethylbenzene	ND		0.050		mg/Kg		02/19/25 10:27	02/20/25 16:00	1
Toluene	ND		0.050		mg/Kg		02/19/25 10:27	02/20/25 16:00	1
Xylenes, Total	ND		0.10		mg/Kg		02/19/25 10:27	02/20/25 16:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*48 - 145*	*02/19/25 10:27*	*02/20/25 16:00*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		02/20/25 11:18	02/20/25 13:39	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		02/20/25 11:18	02/20/25 13:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*99*		*62 - 134*	*02/20/25 11:18*	*02/20/25 13:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**64**		61		mg/Kg		02/19/25 09:59	02/19/25 17:53	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH25-23 0'
Date Collected: 02/14/25 10:00
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-3
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.7		mg/Kg		02/19/25 10:27	02/20/25 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*02/19/25 10:27*	*02/20/25 17:10*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		02/19/25 10:27	02/20/25 17:10	1
Ethylbenzene	ND		0.047		mg/Kg		02/19/25 10:27	02/20/25 17:10	1
Toluene	ND		0.047		mg/Kg		02/19/25 10:27	02/20/25 17:10	1
Xylenes, Total	ND		0.094		mg/Kg		02/19/25 10:27	02/20/25 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*02/19/25 10:27*	*02/20/25 17:10*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		02/20/25 11:18	02/20/25 13:50	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		02/20/25 11:18	02/20/25 13:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*02/20/25 11:18*	*02/20/25 13:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**980**		60		mg/Kg		02/19/25 09:59	02/19/25 18:03	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH25-23 2'
Date Collected: 02/14/25 10:20
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-4
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		02/19/25 10:27	02/20/25 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*02/19/25 10:27*	*02/20/25 17:34*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		02/19/25 10:27	02/20/25 17:34	1
Ethylbenzene	ND		0.049		mg/Kg		02/19/25 10:27	02/20/25 17:34	1
Toluene	ND		0.049		mg/Kg		02/19/25 10:27	02/20/25 17:34	1
Xylenes, Total	ND		0.097		mg/Kg		02/19/25 10:27	02/20/25 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*48 - 145*	*02/19/25 10:27*	*02/20/25 17:34*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5		mg/Kg		02/20/25 11:18	02/20/25 14:01	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		02/20/25 11:18	02/20/25 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*99*		*62 - 134*	*02/20/25 11:18*	*02/20/25 14:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**430**		60		mg/Kg		02/19/25 09:59	02/19/25 18:13	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH25-24 0'
Date Collected: 02/14/25 10:40
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-5
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.7		mg/Kg		02/19/25 10:27	02/20/25 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*02/19/25 10:27*	*02/20/25 17:58*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		02/19/25 10:27	02/20/25 17:58	1
Ethylbenzene	ND		0.047		mg/Kg		02/19/25 10:27	02/20/25 17:58	1
Toluene	ND		0.047		mg/Kg		02/19/25 10:27	02/20/25 17:58	1
Xylenes, Total	ND		0.095		mg/Kg		02/19/25 10:27	02/20/25 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*02/19/25 10:27*	*02/20/25 17:58*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		02/20/25 11:18	02/20/25 14:11	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		02/20/25 11:18	02/20/25 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*99*		*62 - 134*	*02/20/25 11:18*	*02/20/25 14:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1100**		60		mg/Kg		02/19/25 09:59	02/19/25 18:23	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH25-24 2'

Date Collected: 02/14/25 11:00
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-6

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.7		mg/Kg		02/19/25 10:27	02/20/25 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*35 - 166*	*02/19/25 10:27*	*02/20/25 18:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		02/19/25 10:27	02/20/25 18:22	1
Ethylbenzene	ND		0.047		mg/Kg		02/19/25 10:27	02/20/25 18:22	1
Toluene	ND		0.047		mg/Kg		02/19/25 10:27	02/20/25 18:22	1
Xylenes, Total	ND		0.094		mg/Kg		02/19/25 10:27	02/20/25 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*48 - 145*	*02/19/25 10:27*	*02/20/25 18:22*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		02/20/25 11:18	02/20/25 14:44	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		02/20/25 11:18	02/20/25 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*99*		*62 - 134*	*02/20/25 11:18*	*02/20/25 14:44*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1300**		60		mg/Kg		02/19/25 09:59	02/19/25 18:32	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH25-25 0'
Date Collected: 02/14/25 11:20
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-7
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.8		mg/Kg		02/19/25 10:27	02/20/25 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*02/19/25 10:27*	*02/20/25 18:46*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		02/19/25 10:27	02/20/25 18:46	1
Ethylbenzene	ND		0.048		mg/Kg		02/19/25 10:27	02/20/25 18:46	1
Toluene	ND		0.048		mg/Kg		02/19/25 10:27	02/20/25 18:46	1
Xylenes, Total	ND		0.096		mg/Kg		02/19/25 10:27	02/20/25 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*02/19/25 10:27*	*02/20/25 18:46*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		02/20/25 11:18	02/20/25 19:15	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		02/20/25 11:18	02/20/25 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*02/20/25 11:18*	*02/20/25 19:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1300**		60		mg/Kg		02/19/25 09:59	02/19/25 18:42	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH25-25 2'

Date Collected: 02/14/25 11:40
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-8

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		02/19/25 10:27	02/20/25 19:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*35 - 166*	*02/19/25 10:27*	*02/20/25 19:09*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		02/19/25 10:27	02/20/25 19:09	1
Ethylbenzene	ND		0.049		mg/Kg		02/19/25 10:27	02/20/25 19:09	1
Toluene	ND		0.049		mg/Kg		02/19/25 10:27	02/20/25 19:09	1
Xylenes, Total	ND		0.099		mg/Kg		02/19/25 10:27	02/20/25 19:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*02/19/25 10:27*	*02/20/25 19:09*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3		mg/Kg		02/20/25 11:18	02/20/25 15:16	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		02/20/25 11:18	02/20/25 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*113*		*62 - 134*	*02/20/25 11:18*	*02/20/25 15:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**600**		60		mg/Kg		02/19/25 09:59	02/19/25 18:52	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH25-26 0'
Date Collected: 02/14/25 12:00
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-9
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.8		mg/Kg		02/19/25 10:27	02/20/25 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*35 - 166*	*02/19/25 10:27*	*02/20/25 19:33*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		02/19/25 10:27	02/20/25 19:33	1
Ethylbenzene	ND		0.048		mg/Kg		02/19/25 10:27	02/20/25 19:33	1
Toluene	ND		0.048		mg/Kg		02/19/25 10:27	02/20/25 19:33	1
Xylenes, Total	ND		0.096		mg/Kg		02/19/25 10:27	02/20/25 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*48 - 145*	*02/19/25 10:27*	*02/20/25 19:33*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		02/20/25 11:18	02/20/25 15:27	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		02/20/25 11:18	02/20/25 15:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*	*02/20/25 11:18*	*02/20/25 15:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**330**		60		mg/Kg		02/19/25 09:59	02/19/25 19:22	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH25-26 1'

Lab Sample ID: 885-20056-10
Matrix: Solid
Date Collected: 02/14/25 12:20
Date Received: 02/18/25 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		02/19/25 10:27	02/20/25 19:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*02/19/25 10:27*	*02/20/25 19:57*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		02/19/25 10:27	02/20/25 19:57	1
Ethylbenzene	ND		0.050		mg/Kg		02/19/25 10:27	02/20/25 19:57	1
Toluene	ND		0.050		mg/Kg		02/19/25 10:27	02/20/25 19:57	1
Xylenes, Total	ND		0.10		mg/Kg		02/19/25 10:27	02/20/25 19:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*02/19/25 10:27*	*02/20/25 19:57*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		02/20/25 11:18	02/20/25 15:38	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		02/20/25 11:18	02/20/25 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*102*		*62 - 134*	*02/20/25 11:18*	*02/20/25 15:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**430**		60		mg/Kg		02/19/25 09:59	02/19/25 19:31	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH25-27 0'
Date Collected: 02/14/25 12:40
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-11
Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		02/19/25 10:27	02/20/25 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*02/19/25 10:27*	*02/20/25 20:44*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		02/19/25 10:27	02/20/25 20:44	1
Ethylbenzene	ND		0.049		mg/Kg		02/19/25 10:27	02/20/25 20:44	1
Toluene	ND		0.049		mg/Kg		02/19/25 10:27	02/20/25 20:44	1
Xylenes, Total	ND		0.099		mg/Kg		02/19/25 10:27	02/20/25 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*48 - 145*	*02/19/25 10:27*	*02/20/25 20:44*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.9		mg/Kg		02/20/25 11:18	02/20/25 15:48	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		02/20/25 11:18	02/20/25 15:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*105*		*62 - 134*	*02/20/25 11:18*	*02/20/25 15:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**		60		mg/Kg		02/19/25 09:59	02/19/25 19:41	20

Client Sample Results

Client: Vertex
Job ID: 885-20056-1
Project/Site: Snapping 10 Federal 3H

Client Sample ID: BH25-27 2'
Lab Sample ID: 885-20056-12
Date Collected: 02/14/25 13:00
Matrix: Solid
Date Received: 02/18/25 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.7		mg/Kg		02/19/25 10:27	02/20/25 21:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*02/19/25 10:27*	*02/20/25 21:08*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023		mg/Kg		02/19/25 10:27	02/20/25 21:08	1
Ethylbenzene	ND		0.047		mg/Kg		02/19/25 10:27	02/20/25 21:08	1
Toluene	ND		0.047		mg/Kg		02/19/25 10:27	02/20/25 21:08	1
Xylenes, Total	ND		0.094		mg/Kg		02/19/25 10:27	02/20/25 21:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*02/19/25 10:27*	*02/20/25 21:08*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		02/20/25 11:18	02/20/25 15:59	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		02/20/25 11:18	02/20/25 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*	*02/20/25 11:18*	*02/20/25 15:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**75**		60		mg/Kg		02/19/25 09:59	02/19/25 19:51	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH24-01 2'

Date Collected: 02/12/25 09:30
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-13

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.8		mg/Kg		02/19/25 10:27	02/20/25 21:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*35 - 166*	*02/19/25 10:27*	*02/20/25 21:32*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		02/19/25 10:27	02/20/25 21:32	1
Ethylbenzene	ND		0.048		mg/Kg		02/19/25 10:27	02/20/25 21:32	1
Toluene	ND		0.048		mg/Kg		02/19/25 10:27	02/20/25 21:32	1
Xylenes, Total	ND		0.095		mg/Kg		02/19/25 10:27	02/20/25 21:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*48 - 145*	*02/19/25 10:27*	*02/20/25 21:32*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		02/20/25 11:18	02/20/25 16:10	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		02/20/25 11:18	02/20/25 16:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*109*		*62 - 134*	*02/20/25 11:18*	*02/20/25 16:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2800**		150		mg/Kg		02/19/25 09:59	02/20/25 17:47	50

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH24-01 4'

Date Collected: 02/12/25 09:50
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-14

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		02/19/25 10:27	02/20/25 21:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*02/19/25 10:27*	*02/20/25 21:55*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		02/19/25 10:27	02/20/25 21:55	1
Ethylbenzene	ND		0.049		mg/Kg		02/19/25 10:27	02/20/25 21:55	1
Toluene	ND		0.049		mg/Kg		02/19/25 10:27	02/20/25 21:55	1
Xylenes, Total	ND		0.098		mg/Kg		02/19/25 10:27	02/20/25 21:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*02/19/25 10:27*	*02/20/25 21:55*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**84**		9.8		mg/Kg		02/20/25 11:18	02/20/25 16:21	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		02/20/25 11:18	02/20/25 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*97*		*62 - 134*	*02/20/25 11:18*	*02/20/25 16:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1600**		60		mg/Kg		02/19/25 09:59	02/19/25 20:11	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH24-01 6'

Date Collected: 02/12/25 10:10
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-15

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.8		mg/Kg		02/19/25 10:27	02/20/25 22:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*35 - 166*	*02/19/25 10:27*	*02/20/25 22:19*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		02/19/25 10:27	02/20/25 22:19	1
Ethylbenzene	ND		0.048		mg/Kg		02/19/25 10:27	02/20/25 22:19	1
Toluene	ND		0.048		mg/Kg		02/19/25 10:27	02/20/25 22:19	1
Xylenes, Total	ND		0.096		mg/Kg		02/19/25 10:27	02/20/25 22:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*48 - 145*	*02/19/25 10:27*	*02/20/25 22:19*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**53**		9.3		mg/Kg		02/20/25 11:18	02/20/25 16:32	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		02/20/25 11:18	02/20/25 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*98*		*62 - 134*	*02/20/25 11:18*	*02/20/25 16:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**470**		60		mg/Kg		02/19/25 09:59	02/19/25 20:21	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH24-07 2'

Date Collected: 02/12/25 10:30
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-16

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		02/19/25 10:27	02/20/25 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*35 - 166*	*02/19/25 10:27*	*02/20/25 22:42*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		02/19/25 10:27	02/20/25 22:42	1
Ethylbenzene	ND		0.050		mg/Kg		02/19/25 10:27	02/20/25 22:42	1
Toluene	ND		0.050		mg/Kg		02/19/25 10:27	02/20/25 22:42	1
Xylenes, Total	ND		0.10		mg/Kg		02/19/25 10:27	02/20/25 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*	*02/19/25 10:27*	*02/20/25 22:42*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		02/20/25 11:18	02/20/25 16:43	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		02/20/25 11:18	02/20/25 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*02/20/25 11:18*	*02/20/25 16:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**500**		60		mg/Kg		02/19/25 09:59	02/19/25 20:31	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH24-10 2'

Date Collected: 02/12/25 11:20
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-17

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		02/19/25 10:27	02/20/25 23:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*02/19/25 10:27*	*02/20/25 23:06*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		02/19/25 10:27	02/20/25 23:06	1
Ethylbenzene	ND		0.049		mg/Kg		02/19/25 10:27	02/20/25 23:06	1
Toluene	ND		0.049		mg/Kg		02/19/25 10:27	02/20/25 23:06	1
Xylenes, Total	ND		0.097		mg/Kg		02/19/25 10:27	02/20/25 23:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*02/19/25 10:27*	*02/20/25 23:06*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8		mg/Kg		02/20/25 11:18	02/20/25 16:54	1
Motor Oil Range Organics [C28-C40]	ND		49		mg/Kg		02/20/25 11:18	02/20/25 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*100*		*62 - 134*	*02/20/25 11:18*	*02/20/25 16:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1800**		60		mg/Kg		02/21/25 09:32	02/21/25 12:53	20

Client Sample Results

Client: Vertex
Job ID: 885-20056-1
Project/Site: Snapping 10 Federal 3H

Client Sample ID: BH24-10 4'
Lab Sample ID: 885-20056-18
Date Collected: 02/12/25 11:40
Matrix: Solid
Date Received: 02/18/25 07:30

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		02/19/25 10:27	02/20/25 23:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*02/19/25 10:27*	*02/20/25 23:29*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		02/19/25 10:27	02/20/25 23:29	1
Ethylbenzene	ND		0.050		mg/Kg		02/19/25 10:27	02/20/25 23:29	1
Toluene	ND		0.050		mg/Kg		02/19/25 10:27	02/20/25 23:29	1
Xylenes, Total	ND		0.10		mg/Kg		02/19/25 10:27	02/20/25 23:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*	*02/19/25 10:27*	*02/20/25 23:29*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		02/20/25 11:18	02/20/25 17:05	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		02/20/25 11:18	02/20/25 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*93*		*62 - 134*	*02/20/25 11:18*	*02/20/25 17:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**670**		60		mg/Kg		02/21/25 09:32	02/21/25 13:02	20

Client Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Client Sample ID: BH24-07 4'

Date Collected: 02/12/25 10:50
Date Received: 02/18/25 07:30

Lab Sample ID: 885-20056-19

Matrix: Solid

Method: SW846 8015M/D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		4.9		mg/Kg		02/19/25 10:27	02/20/25 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*35 - 166*	*02/19/25 10:27*	*02/20/25 23:53*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		02/19/25 10:27	02/20/25 23:53	1
Ethylbenzene	ND		0.049		mg/Kg		02/19/25 10:27	02/20/25 23:53	1
Toluene	ND		0.049		mg/Kg		02/19/25 10:27	02/20/25 23:53	1
Xylenes, Total	ND		0.098		mg/Kg		02/19/25 10:27	02/20/25 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*02/19/25 10:27*	*02/20/25 23:53*	*1*

Method: SW846 8015M/D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.6		mg/Kg		02/20/25 11:18	02/20/25 17:16	1
Motor Oil Range Organics [C28-C40]	ND		48		mg/Kg		02/20/25 11:18	02/20/25 17:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*96*		*62 - 134*	*02/20/25 11:18*	*02/20/25 17:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**620**		60		mg/Kg		02/21/25 09:32	02/21/25 13:22	20

QC Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Method: 8015M/D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-21083/1-A
Matrix: Solid
Analysis Batch: 21196

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21083

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		5.0		mg/Kg		02/19/25 10:27	02/20/25 14:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*35 - 166*	*02/19/25 10:27*	*02/20/25 14:23*	*1*

Lab Sample ID: LCS 885-21083/2-A
Matrix: Solid
Analysis Batch: 21196

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21083

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			25.0	28.2		mg/Kg		113	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*217*		*35 - 166*

Lab Sample ID: 885-20056-1 MS
Matrix: Solid
Analysis Batch: 21196

Client Sample ID: BH24-10 6'
Prep Type: Total/NA
Prep Batch: 21083

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	ND		25.0	28.1		mg/Kg		113	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*230*		*35 - 166*

Lab Sample ID: 885-20056-1 MSD
Matrix: Solid
Analysis Batch: 21196

Client Sample ID: BH24-10 6'
Prep Type: Total/NA
Prep Batch: 21083

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	ND		24.9	27.5		mg/Kg		111	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*226*		*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-21083/1-A
Matrix: Solid
Analysis Batch: 21197

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21083

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		02/19/25 10:27	02/20/25 14:23	1
Ethylbenzene	ND		0.050		mg/Kg		02/19/25 10:27	02/20/25 14:23	1
Toluene	ND		0.050		mg/Kg		02/19/25 10:27	02/20/25 14:23	1

QC Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 885-21083/1-A
Matrix: Solid
Analysis Batch: 21197

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21083

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10		mg/Kg		02/19/25 10:27	02/20/25 14:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*48 - 145*	*02/19/25 10:27*	*02/20/25 14:23*	*1*

Lab Sample ID: LCS 885-21083/3-A
Matrix: Solid
Analysis Batch: 21197

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21083

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	1.03		mg/Kg		103	70 - 130		
Ethylbenzene			1.00	1.06		mg/Kg		106	70 - 130		
m-Xylene & p-Xylene			2.00	2.17		mg/Kg		109	70 - 130		
o-Xylene			1.00	1.06		mg/Kg		106	70 - 130		
Toluene			1.00	1.05		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*48 - 145*

Lab Sample ID: 885-20056-2 MS
Matrix: Solid
Analysis Batch: 21197

Client Sample ID: BH24-02 4'
Prep Type: Total/NA
Prep Batch: 21083

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	ND		0.991	0.977		mg/Kg		99	70 - 130		
Ethylbenzene	ND		0.991	1.02		mg/Kg		103	70 - 130		
m-Xylene & p-Xylene	ND		1.98	2.06		mg/Kg		104	70 - 130		
o-Xylene	ND		0.991	0.997		mg/Kg		101	70 - 130		
Toluene	ND		0.991	0.978		mg/Kg		99	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*48 - 145*

Lab Sample ID: 885-20056-2 MSD
Matrix: Solid
Analysis Batch: 21197

Client Sample ID: BH24-02 4'
Prep Type: Total/NA
Prep Batch: 21083

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.995	0.953		mg/Kg		96	70 - 130	2	20
Ethylbenzene	ND		0.995	1.02		mg/Kg		102	70 - 130	0	20
m-Xylene & p-Xylene	ND		1.99	1.91		mg/Kg		96	70 - 130	7	20
o-Xylene	ND		0.995	1.01		mg/Kg		102	70 - 130	2	20
Toluene	ND		0.995	1.03		mg/Kg		104	70 - 130	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*48 - 145*

QC Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Method: 8015M/D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-21166/1-A
Matrix: Solid
Analysis Batch: 21141

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21166

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		02/20/25 11:18	02/20/25 13:08	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		02/20/25 11:18	02/20/25 13:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*95*		*62 - 134*	*02/20/25 11:18*	*02/20/25 13:08*	*1*

Lab Sample ID: LCS 885-21166/2-A
Matrix: Solid
Analysis Batch: 21141

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21166

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]			50.0	48.9		mg/Kg		98	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*75*		*62 - 134*

Lab Sample ID: 885-20056-5 MS
Matrix: Solid
Analysis Batch: 21141

Client Sample ID: BH25-24 0'
Prep Type: Total/NA
Prep Batch: 21166

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Diesel Range Organics [C10-C28]	ND		45.5	44.7		mg/Kg		98	44 - 136		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*86*		*62 - 134*

Lab Sample ID: 885-20056-5 MSD
Matrix: Solid
Analysis Batch: 21141

Client Sample ID: BH25-24 0'
Prep Type: Total/NA
Prep Batch: 21166

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	ND		46.2	45.4		mg/Kg		98	44 - 136	2	32

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*83*		*62 - 134*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MRL 885-21074/3
Matrix: Solid
Analysis Batch: 21074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			0.500	0.529		mg/L		106	50 - 150		

QC Sample Results

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 885-21079/1-A
Matrix: Solid
Analysis Batch: 21074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21079

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		02/19/25 09:59	02/19/25 11:59	1

Lab Sample ID: LCS 885-21079/2-A
Matrix: Solid
Analysis Batch: 21074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21079

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	29.3		mg/Kg		98	90 - 110		

Lab Sample ID: MRL 885-21147/3
Matrix: Solid
Analysis Batch: 21147

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			0.500	0.549		mg/L		110	50 - 150		

Lab Sample ID: MB 885-21228/1-A
Matrix: Solid
Analysis Batch: 21219

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21228

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/Kg		02/21/25 09:32	02/21/25 10:15	1

Lab Sample ID: LCS 885-21228/2-A
Matrix: Solid
Analysis Batch: 21219

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21228

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			30.0	28.9		mg/Kg		96	90 - 110		

QC Association Summary

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

GC VOA

Prep Batch: 21083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20056-1	BH24-10 6'	Total/NA	Solid	5030C	
885-20056-2	BH24-02 4'	Total/NA	Solid	5030C	
885-20056-3	BH25-23 0'	Total/NA	Solid	5030C	
885-20056-4	BH25-23 2'	Total/NA	Solid	5030C	
885-20056-5	BH25-24 0'	Total/NA	Solid	5030C	
885-20056-6	BH25-24 2'	Total/NA	Solid	5030C	
885-20056-7	BH25-25 0'	Total/NA	Solid	5030C	
885-20056-8	BH25-25 2'	Total/NA	Solid	5030C	
885-20056-9	BH25-26 0'	Total/NA	Solid	5030C	
885-20056-10	BH25-26 1'	Total/NA	Solid	5030C	
885-20056-11	BH25-27 0'	Total/NA	Solid	5030C	
885-20056-12	BH25-27 2'	Total/NA	Solid	5030C	
885-20056-13	BH24-01 2'	Total/NA	Solid	5030C	
885-20056-14	BH24-01 4'	Total/NA	Solid	5030C	
885-20056-15	BH24-01 6'	Total/NA	Solid	5030C	
885-20056-16	BH24-07 2'	Total/NA	Solid	5030C	
885-20056-17	BH24-10 2'	Total/NA	Solid	5030C	
885-20056-18	BH24-10 4'	Total/NA	Solid	5030C	
885-20056-19	BH24-07 4'	Total/NA	Solid	5030C	
MB 885-21083/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-21083/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-21083/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-20056-1 MS	BH24-10 6'	Total/NA	Solid	5030C	
885-20056-1 MSD	BH24-10 6'	Total/NA	Solid	5030C	
885-20056-2 MS	BH24-02 4'	Total/NA	Solid	5030C	
885-20056-2 MSD	BH24-02 4'	Total/NA	Solid	5030C	

Analysis Batch: 21196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20056-1	BH24-10 6'	Total/NA	Solid	8015M/D	21083
885-20056-2	BH24-02 4'	Total/NA	Solid	8015M/D	21083
885-20056-3	BH25-23 0'	Total/NA	Solid	8015M/D	21083
885-20056-4	BH25-23 2'	Total/NA	Solid	8015M/D	21083
885-20056-5	BH25-24 0'	Total/NA	Solid	8015M/D	21083
885-20056-6	BH25-24 2'	Total/NA	Solid	8015M/D	21083
885-20056-7	BH25-25 0'	Total/NA	Solid	8015M/D	21083
885-20056-8	BH25-25 2'	Total/NA	Solid	8015M/D	21083
885-20056-9	BH25-26 0'	Total/NA	Solid	8015M/D	21083
885-20056-10	BH25-26 1'	Total/NA	Solid	8015M/D	21083
885-20056-11	BH25-27 0'	Total/NA	Solid	8015M/D	21083
885-20056-12	BH25-27 2'	Total/NA	Solid	8015M/D	21083
885-20056-13	BH24-01 2'	Total/NA	Solid	8015M/D	21083
885-20056-14	BH24-01 4'	Total/NA	Solid	8015M/D	21083
885-20056-15	BH24-01 6'	Total/NA	Solid	8015M/D	21083
885-20056-16	BH24-07 2'	Total/NA	Solid	8015M/D	21083
885-20056-17	BH24-10 2'	Total/NA	Solid	8015M/D	21083
885-20056-18	BH24-10 4'	Total/NA	Solid	8015M/D	21083
885-20056-19	BH24-07 4'	Total/NA	Solid	8015M/D	21083
MB 885-21083/1-A	Method Blank	Total/NA	Solid	8015M/D	21083
LCS 885-21083/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	21083
885-20056-1 MS	BH24-10 6'	Total/NA	Solid	8015M/D	21083

QC Association Summary

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

GC VOA (Continued)

Analysis Batch: 21196 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20056-1 MSD	BH24-10 6'	Total/NA	Solid	8015M/D	21083

Analysis Batch: 21197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20056-1	BH24-10 6'	Total/NA	Solid	8021B	21083
885-20056-2	BH24-02 4'	Total/NA	Solid	8021B	21083
885-20056-3	BH25-23 0'	Total/NA	Solid	8021B	21083
885-20056-4	BH25-23 2'	Total/NA	Solid	8021B	21083
885-20056-5	BH25-24 0'	Total/NA	Solid	8021B	21083
885-20056-6	BH25-24 2'	Total/NA	Solid	8021B	21083
885-20056-7	BH25-25 0'	Total/NA	Solid	8021B	21083
885-20056-8	BH25-25 2'	Total/NA	Solid	8021B	21083
885-20056-9	BH25-26 0'	Total/NA	Solid	8021B	21083
885-20056-10	BH25-26 1'	Total/NA	Solid	8021B	21083
885-20056-11	BH25-27 0'	Total/NA	Solid	8021B	21083
885-20056-12	BH25-27 2'	Total/NA	Solid	8021B	21083
885-20056-13	BH24-01 2'	Total/NA	Solid	8021B	21083
885-20056-14	BH24-01 4'	Total/NA	Solid	8021B	21083
885-20056-15	BH24-01 6'	Total/NA	Solid	8021B	21083
885-20056-16	BH24-07 2'	Total/NA	Solid	8021B	21083
885-20056-17	BH24-10 2'	Total/NA	Solid	8021B	21083
885-20056-18	BH24-10 4'	Total/NA	Solid	8021B	21083
885-20056-19	BH24-07 4'	Total/NA	Solid	8021B	21083
MB 885-21083/1-A	Method Blank	Total/NA	Solid	8021B	21083
LCS 885-21083/3-A	Lab Control Sample	Total/NA	Solid	8021B	21083
885-20056-2 MS	BH24-02 4'	Total/NA	Solid	8021B	21083
885-20056-2 MSD	BH24-02 4'	Total/NA	Solid	8021B	21083

GC Semi VOA

Analysis Batch: 21141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20056-1	BH24-10 6'	Total/NA	Solid	8015M/D	21166
885-20056-2	BH24-02 4'	Total/NA	Solid	8015M/D	21166
885-20056-3	BH25-23 0'	Total/NA	Solid	8015M/D	21166
885-20056-4	BH25-23 2'	Total/NA	Solid	8015M/D	21166
885-20056-5	BH25-24 0'	Total/NA	Solid	8015M/D	21166
885-20056-6	BH25-24 2'	Total/NA	Solid	8015M/D	21166
885-20056-7	BH25-25 0'	Total/NA	Solid	8015M/D	21166
885-20056-8	BH25-25 2'	Total/NA	Solid	8015M/D	21166
885-20056-9	BH25-26 0'	Total/NA	Solid	8015M/D	21166
885-20056-10	BH25-26 1'	Total/NA	Solid	8015M/D	21166
885-20056-11	BH25-27 0'	Total/NA	Solid	8015M/D	21166
885-20056-12	BH25-27 2'	Total/NA	Solid	8015M/D	21166
885-20056-13	BH24-01 2'	Total/NA	Solid	8015M/D	21166
885-20056-14	BH24-01 4'	Total/NA	Solid	8015M/D	21166
885-20056-15	BH24-01 6'	Total/NA	Solid	8015M/D	21166
885-20056-16	BH24-07 2'	Total/NA	Solid	8015M/D	21166
885-20056-17	BH24-10 2'	Total/NA	Solid	8015M/D	21166
885-20056-18	BH24-10 4'	Total/NA	Solid	8015M/D	21166
885-20056-19	BH24-07 4'	Total/NA	Solid	8015M/D	21166

QC Association Summary

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

GC Semi VOA (Continued)

Analysis Batch: 21141 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-21166/1-A	Method Blank	Total/NA	Solid	8015M/D	21166
LCS 885-21166/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	21166
885-20056-5 MS	BH25-24 0'	Total/NA	Solid	8015M/D	21166
885-20056-5 MSD	BH25-24 0'	Total/NA	Solid	8015M/D	21166

Prep Batch: 21166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20056-1	BH24-10 6'	Total/NA	Solid	SHAKE	
885-20056-2	BH24-02 4'	Total/NA	Solid	SHAKE	
885-20056-3	BH25-23 0'	Total/NA	Solid	SHAKE	
885-20056-4	BH25-23 2'	Total/NA	Solid	SHAKE	
885-20056-5	BH25-24 0'	Total/NA	Solid	SHAKE	
885-20056-6	BH25-24 2'	Total/NA	Solid	SHAKE	
885-20056-7	BH25-25 0'	Total/NA	Solid	SHAKE	
885-20056-8	BH25-25 2'	Total/NA	Solid	SHAKE	
885-20056-9	BH25-26 0'	Total/NA	Solid	SHAKE	
885-20056-10	BH25-26 1'	Total/NA	Solid	SHAKE	
885-20056-11	BH25-27 0'	Total/NA	Solid	SHAKE	
885-20056-12	BH25-27 2'	Total/NA	Solid	SHAKE	
885-20056-13	BH24-01 2'	Total/NA	Solid	SHAKE	
885-20056-14	BH24-01 4'	Total/NA	Solid	SHAKE	
885-20056-15	BH24-01 6'	Total/NA	Solid	SHAKE	
885-20056-16	BH24-07 2'	Total/NA	Solid	SHAKE	
885-20056-17	BH24-10 2'	Total/NA	Solid	SHAKE	
885-20056-18	BH24-10 4'	Total/NA	Solid	SHAKE	
885-20056-19	BH24-07 4'	Total/NA	Solid	SHAKE	
MB 885-21166/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-21166/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-20056-5 MS	BH25-24 0'	Total/NA	Solid	SHAKE	
885-20056-5 MSD	BH25-24 0'	Total/NA	Solid	SHAKE	

HPLC/IC

Analysis Batch: 21074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20056-1	BH24-10 6'	Total/NA	Solid	300.0	21079
885-20056-2	BH24-02 4'	Total/NA	Solid	300.0	21079
885-20056-3	BH25-23 0'	Total/NA	Solid	300.0	21079
885-20056-4	BH25-23 2'	Total/NA	Solid	300.0	21079
885-20056-5	BH25-24 0'	Total/NA	Solid	300.0	21079
885-20056-6	BH25-24 2'	Total/NA	Solid	300.0	21079
885-20056-7	BH25-25 0'	Total/NA	Solid	300.0	21079
885-20056-8	BH25-25 2'	Total/NA	Solid	300.0	21079
885-20056-9	BH25-26 0'	Total/NA	Solid	300.0	21079
885-20056-10	BH25-26 1'	Total/NA	Solid	300.0	21079
885-20056-11	BH25-27 0'	Total/NA	Solid	300.0	21079
885-20056-12	BH25-27 2'	Total/NA	Solid	300.0	21079
885-20056-14	BH24-01 4'	Total/NA	Solid	300.0	21079
885-20056-15	BH24-01 6'	Total/NA	Solid	300.0	21079
885-20056-16	BH24-07 2'	Total/NA	Solid	300.0	21079
MB 885-21079/1-A	Method Blank	Total/NA	Solid	300.0	21079

QC Association Summary

Client: Vertex
Project/Site: Snapping 10 Federal 3H

Job ID: 885-20056-1

HPLC/IC (Continued)

Analysis Batch: 21074 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 885-21079/2-A	Lab Control Sample	Total/NA	Solid	300.0	21079
MRL 885-21074/3	Lab Control Sample	Total/NA	Solid	300.0	

Prep Batch: 21079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20056-1	BH24-10 6'	Total/NA	Solid	300_Prep	
885-20056-2	BH24-02 4'	Total/NA	Solid	300_Prep	
885-20056-3	BH25-23 0'	Total/NA	Solid	300_Prep	
885-20056-4	BH25-23 2'	Total/NA	Solid	300_Prep	
885-20056-5	BH25-24 0'	Total/NA	Solid	300_Prep	
885-20056-6	BH25-24 2'	Total/NA	Solid	300_Prep	
885-20056-7	BH25-25 0'	Total/NA	Solid	300_Prep	
885-20056-8	BH25-25 2'	Total/NA	Solid	300_Prep	
885-20056-9	BH25-26 0'	Total/NA	Solid	300_Prep	
885-20056-10	BH25-26 1'	Total/NA	Solid	300_Prep	
885-20056-11	BH25-27 0'	Total/NA	Solid	300_Prep	
885-20056-12	BH25-27 2'	Total/NA	Solid	300_Prep	
885-20056-13	BH24-01 2'	Total/NA	Solid	300_Prep	
885-20056-14	BH24-01 4'	Total/NA	Solid	300_Prep	
885-20056-15	BH24-01 6'	Total/NA	Solid	300_Prep	
885-20056-16	BH24-07 2'	Total/NA	Solid	300_Prep	
MB 885-21079/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-21079/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 21147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20056-13	BH24-01 2'	Total/NA	Solid	300.0	21079
MRL 885-21147/3	Lab Control Sample	Total/NA	Solid	300.0	

Analysis Batch: 21219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20056-17	BH24-10 2'	Total/NA	Solid	300.0	21228
885-20056-18	BH24-10 4'	Total/NA	Solid	300.0	21228
885-20056-19	BH24-07 4'	Total/NA	Solid	300.0	21228
MB 885-21228/1-A	Method Blank	Total/NA	Solid	300.0	21228
LCS 885-21228/2-A	Lab Control Sample	Total/NA	Solid	300.0	21228

Prep Batch: 21228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-20056-17	BH24-10 2'	Total/NA	Solid	300_Prep	
885-20056-18	BH24-10 4'	Total/NA	Solid	300_Prep	
885-20056-19	BH24-07 4'	Total/NA	Solid	300_Prep	
MB 885-21228/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-21228/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Lab Chronicle

Client: Vertex
Job ID: 885-20056-1
Project/Site: Snapping 10 Federal 3H

Client Sample ID: BH24-10 6'
Lab Sample ID: 885-20056-1
Date Collected: 02/14/25 09:20
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 14:48
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 14:48
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 13:29
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		20	21074	ES	EET ALB	02/19/25 17:23

Client Sample ID: BH24-02 4'
Lab Sample ID: 885-20056-2
Date Collected: 02/14/25 09:40
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 16:00
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 16:00
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 13:39
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		20	21074	ES	EET ALB	02/19/25 17:53

Client Sample ID: BH25-23 0'
Lab Sample ID: 885-20056-3
Date Collected: 02/14/25 10:00
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 17:10
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 17:10
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 13:50
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		20	21074	ES	EET ALB	02/19/25 18:03

Client Sample ID: BH25-23 2'
Lab Sample ID: 885-20056-4
Date Collected: 02/14/25 10:20
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 17:34

Lab Chronicle

Client: Vertex
Job ID: 885-20056-1
Project/Site: Snapping 10 Federal 3H

Client Sample ID: BH25-23 2'
Lab Sample ID: 885-20056-4
Date Collected: 02/14/25 10:20
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 17:34
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 14:01
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		20	21074	ES	EET ALB	02/19/25 18:13

Client Sample ID: BH25-24 0'
Lab Sample ID: 885-20056-5
Date Collected: 02/14/25 10:40
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 17:58
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 17:58
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 14:11
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		20	21074	ES	EET ALB	02/19/25 18:23

Client Sample ID: BH25-24 2'
Lab Sample ID: 885-20056-6
Date Collected: 02/14/25 11:00
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 18:22
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 18:22
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 14:44
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		20	21074	ES	EET ALB	02/19/25 18:32

Client Sample ID: BH25-25 0'
Lab Sample ID: 885-20056-7
Date Collected: 02/14/25 11:20
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 18:46
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 18:46

Lab Chronicle

Client: Vertex
Job ID: 885-20056-1
Project/Site: Snapping 10 Federal 3H

Client Sample ID: BH25-25 0'
Lab Sample ID: 885-20056-7
Date Collected: 02/14/25 11:20
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 19:15
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		20	21074	ES	EET ALB	02/19/25 18:42

Client Sample ID: BH25-25 2'
Lab Sample ID: 885-20056-8
Date Collected: 02/14/25 11:40
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 19:09
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 19:09
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 15:16
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		20	21074	ES	EET ALB	02/19/25 18:52

Client Sample ID: BH25-26 0'
Lab Sample ID: 885-20056-9
Date Collected: 02/14/25 12:00
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 19:33
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 19:33
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 15:27
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		20	21074	ES	EET ALB	02/19/25 19:22

Client Sample ID: BH25-26 1'
Lab Sample ID: 885-20056-10
Date Collected: 02/14/25 12:20
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 19:57
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 19:57
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 15:38

Lab Chronicle

Client: Vertex
Job ID: 885-20056-1
Project/Site: Snapping 10 Federal 3H

Client Sample ID: BH25-26 1'
Lab Sample ID: 885-20056-10
Date Collected: 02/14/25 12:20
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		20	21074	ES	EET ALB	02/19/25 19:31

Client Sample ID: BH25-27 0'
Lab Sample ID: 885-20056-11
Date Collected: 02/14/25 12:40
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 20:44
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 20:44
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 15:48
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		20	21074	ES	EET ALB	02/19/25 19:41

Client Sample ID: BH25-27 2'
Lab Sample ID: 885-20056-12
Date Collected: 02/14/25 13:00
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 21:08
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 21:08
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 15:59
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		20	21074	ES	EET ALB	02/19/25 19:51

Client Sample ID: BH24-01 2'
Lab Sample ID: 885-20056-13
Date Collected: 02/12/25 09:30
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 21:32
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 21:32
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 16:10
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		50	21147	ES	EET ALB	02/20/25 17:47

Lab Chronicle

Client: Vertex
Job ID: 885-20056-1
Project/Site: Snapping 10 Federal 3H

Client Sample ID: BH24-01 4'
Lab Sample ID: 885-20056-14
Date Collected: 02/12/25 09:50
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 21:55
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 21:55
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 16:21
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		20	21074	ES	EET ALB	02/19/25 20:11

Client Sample ID: BH24-01 6'
Lab Sample ID: 885-20056-15
Date Collected: 02/12/25 10:10
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 22:19
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 22:19
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 16:32
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		20	21074	ES	EET ALB	02/19/25 20:21

Client Sample ID: BH24-07 2'
Lab Sample ID: 885-20056-16
Date Collected: 02/12/25 10:30
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 22:42
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 22:42
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 16:43
Total/NA	Prep	300_Prep			21079	DL	EET ALB	02/19/25 09:59
Total/NA	Analysis	300.0		20	21074	ES	EET ALB	02/19/25 20:31

Client Sample ID: BH24-10 2'
Lab Sample ID: 885-20056-17
Date Collected: 02/12/25 11:20
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 23:06

Lab Chronicle

Client: Vertex
Job ID: 885-20056-1
Project/Site: Snapping 10 Federal 3H

Client Sample ID: BH24-10 2'
Lab Sample ID: 885-20056-17
Date Collected: 02/12/25 11:20
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 23:06
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 16:54
Total/NA	Prep	300_Prep			21228	DL	EET ALB	02/21/25 09:32
Total/NA	Analysis	300.0		20	21219	DL	EET ALB	02/21/25 12:53

Client Sample ID: BH24-10 4'
Lab Sample ID: 885-20056-18
Date Collected: 02/12/25 11:40
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 23:29
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 23:29
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 17:05
Total/NA	Prep	300_Prep			21228	DL	EET ALB	02/21/25 09:32
Total/NA	Analysis	300.0		20	21219	DL	EET ALB	02/21/25 13:02

Client Sample ID: BH24-07 4'
Lab Sample ID: 885-20056-19
Date Collected: 02/12/25 10:50
Matrix: Solid
Date Received: 02/18/25 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8015M/D		1	21196	JP	EET ALB	02/20/25 23:53
Total/NA	Prep	5030C			21083	AT	EET ALB	02/19/25 10:27
Total/NA	Analysis	8021B		1	21197	JP	EET ALB	02/20/25 23:53
Total/NA	Prep	SHAKE			21166	MI	EET ALB	02/20/25 11:18
Total/NA	Analysis	8015M/D		1	21141	MI	EET ALB	02/20/25 17:16
Total/NA	Prep	300_Prep			21228	DL	EET ALB	02/21/25 09:32
Total/NA	Analysis	300.0		20	21219	DL	EET ALB	02/21/25 13:22

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-20056-1
Project/Site: Snapping 10 Federal 3H

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015M/D	5030C	Solid	Gasoline Range Organics (GRO)-C6-C10
8015M/D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015M/D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-25-25

Chain-of-Custody Record

Client: **Vertex (bill to Devon)**

Mailing Address 3101 Boyd Dr
Carlsbad, NM 88220

Phone : 575-725-5001

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:
☑ Standard ☑ Rush 5 Day

Project Name:
Snapping 10 Federal 3H

Project #:
24E-04518

Project Manager:
Sally Carttar

scarttar@vertexresource.com

Sampler: J. Rewis

On Ice: ☑ Yes ☐ No

# of Coolers: 1 Yogi

Cooler Temp(including CF): 2.7+0.2 = 2.9

HALL ENVIRONMENTAL ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 871
Tel. 505-345-3975 Fax 505-345-4107

885-20056 COC

1/2

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)						
2.14.25	9:20	Soil	BH24-10 6'	4oz jar	ICE	1	x	x					x									
2.14.25	9:40	Soil	BH24-02 4'	4oz jar	ICE	2	x	x					x									
2.14.25	10:00	Soil	BH25-23 0'	4oz jar	ICE	3	x	x					x									
2.14.25	10:20	Soil	BH25-23 2'	4oz jar	ICE	4	x	x					x									
2.14.25	10:40	Soil	BH25-24 0'	4oz jar	ICE	5	x	x					x									
2.14.25	11:00	Soil	BH25-24 2'	4oz jar	ICE	6	x	x					x									
2.14.25	11:20	Soil	BH25-25 0'	4oz jar	ICE	7	x	x					x									
2.14.25	11:40	Soil	BH25-25 2'	4oz jar	ICE	8	x	x					x									
2.14.25	12:00	Soil	BH25-26 0'	4oz jar	ICE	9	x	x					x									
2.14.25	12:20	Soil	BH25-26 1'	4oz jar	ICE	10	x	x					x									
2.14.25	12:40	Soil	BH25-27 0'	4oz jar	ICE	11	x	x					x									
2.14.25	13:00	Soil	BH25-27 2'	4oz jar	ICE	12	x	x					x									

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
2.17.25	1015				2/17/25	1015
2/17/25	1910			courier	2/18/25	7:30

Remarks: ATTN: Jim Raley
Direct Bill to Devon Enevry Production Company
Work Order# 21421108
CC.Scarttar@vertexresource.com for Final Report.
Jrewis@vertex resource.com

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

Chain-of-Custody Record

Client: **Vertex (bill to Devon)**

Mailing Address 3101 Boyd Dr
Carlsbad, NM 88220

Phone : 575-725-5001

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☑ Rush 5Day

Project Name:
Snapping 10 Federal 3H

Project #:
24E-04518

Project Manager:
Sally Carttar

scarttar@vertexresource.com

Sampler: J. Rewis

On Ice: ☑ Yes ☐ No

# of Coolers: 1 Yoai

Cooler Temp(including CF): 2.7+0.2=2.9

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

885-20056 COC

2/2

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
2.12.25	9:30	Soil	BH24-01 2'	4oz jar	ICE	13	x	x					x			
2.12.25	9:50	Soil	BH24-01 4'	4oz jar	ICE	14	x	x					x			
2.12.25	10:10	Soil	BH24-01 6'	4oz jar	ICE	15	x	x					x			
2.12.25	10:30	Soil	BH24-07 2'	4oz jar	ICE	16	x	x					x			
2.12.25	11:20	Soil	BH24-10 2'	4oz jar	ICE	17	x	x					x			
2.12.25	11:40	Soil	BH24-10 4'	4oz jar	ICE	18	x	x					x			
2-12-25	1050	S	BH24-07 4'	4oz JAR	ICE	19	X	X					X			
			PER CLIENT	SCM 2/18/25												

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
2.17.25	1015				2/17/25	1015
2/17/25	1910			courier	2/18/25	730

Remarks: ATTN: Jim Raley
Direct Bill to Devon Enevry Production Company
Work Order# 21421108
CC.Scarttar@vertexresource.com for Final Report.
Jrewis@vertex resource.com

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

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-20056-1

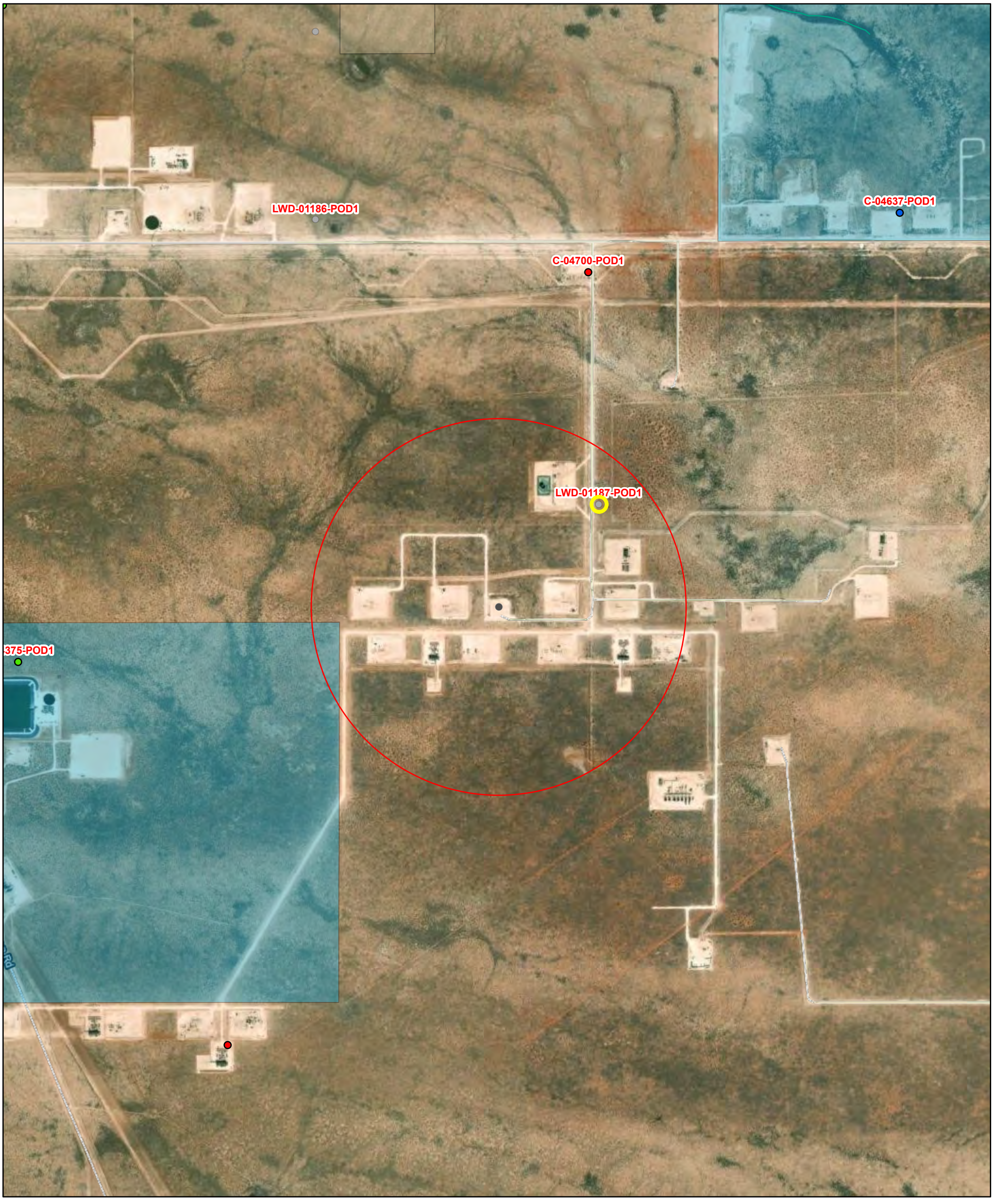
Login Number: 20056 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: McQuiston, Steven

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ATTACHMENT 5

Closure Criteria Determination				
Site Name: Snapping 10 Fed 3H				
Spill Coordinates: 32.050705,-103.767395		X: 616366	Y: 3546720	
Site Specific Conditions		**Value**	**Unit**	**Reference**
1	Depth to Groundwater (nearest reference)	>55	feet	1
	Distance between release and nearest DTGW reference	4,858	feet	
		0.92	miles	
	Date of nearest DTGW reference measurement	April 17, 2024		
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	9,100	feet	2
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	37,200	feet	3
4	Within 300 feet from an occupied residence, school, hospital, institution or church	32,214	feet	4
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**	2,016	feet	5
	ii) Within 1000 feet of any fresh water well or spring	2,016	feet	5
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)	6
7	Within 300 feet of a wetland	5,379	feet	7
8	Within the area overlying a subsurface mine	No	(Y/N)	8
	Distance between release and nearest registered mine	116,370	feet	
9	Within an unstable area (Karst Map)	Medium	Critical High Medium Low	9
	Distance between release and nearest unstable area	0	feet	
10	Within a 100-year Floodplain	>500	year	10
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	3,235	feet	
11	Soil Type	gravelly fine sandy loam		11
12	Ecological Classification	Shallow Sandy		12
13	Geology	Eolian and piedmont deposits		13
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	<50'	<50' 51-100' >100'	

OSE POD 0.5 miles



1/11/2025, 5:11:59 PM

GIS WATERS PODs
- Active
- Pending
- Plugged

OSE District Boundary

Water Right Regulations
- Artesian Planning Area
- New Mexico State Trust Lands
- Subsurface Estate

Both Estates

NHD Flowlines
- Stream River

1:18,056

0 0.17 0.35 0.7 mi

0 0.28 0.55 1.1 km

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

Online web user

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

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	(R=POD has been replaced, O=orphaned, C=the file is closed)			(quarters are smallest to largest)						(NAD83 UTM in meters)				(In feet)	(In feet)	(In fe
POD Number	**Code**	**Sub basin**	**County**	**Q64**	**Q16**	**Q4**	**Sec**	**Tws**	**Range**	**X**	**Y**	**Map**	**Distance**	**Well Depth**	**Depth Water**	**Water Colum**
C 04700 POD1		CUB	ED	NE	NW	NE	10	26S	31E	616735.9	3548154.5		1481			
C 04769 POD1		CUB	ED	NE	NW	NE	21	26S	31E	615225.4	3544832.5		2205	101		
C 04637 POD1		CUB	ED	SE	SE	SW	02	26S	31E	618067.5	3548423.6		2407	51		
C 01777		C	ED				08	26S	31E	613245.0	3547409.0 *		3196	325	300	25
C 02248		CUB	ED	NW	NE	SW	08	26S	31E	612942.0	3547316.0 *		3475	300	292	8
C 02249		CUB	ED	NW	NE	SW	08	26S	31E	612942.0	3547316.0 *		3475	300	292	8
C 04801 POD1		C	ED	NW	NE	SE	13	26S	31E	620283.6	3545858.5		4011	280	225	55
C 02090		C	ED		SE	SE	01	26S	31E	620329.0	3548533.0 *		4358	350	335	15
C 03639 POD1		CUB	ED	SW	SE	NE	01	26S	31E	620168.2	3549279.7		4583	700	365	335
C 04256 POD1		C	ED	SE	SE	NE	01	26S	31E	620383.8	3549257.3		4751	666	340	326
C 03554 POD2		CUB	ED	NE	NE	SE	01	26S	31E	620527.2	3549105.0		4796	650	355	295
C 03554 POD1		CUB	ED	NE	NW	SE	01	26S	31E	620547.4	3549148.7		4835	630	300	330
C 04209 POD2		C	LE	NE	SW	SW	06	26S	32E	620817.8	3548657.3		4855	340	155	185
C 04209 POD1		CUB	LE	NE	SW	SW	06	26S	32E	620902.7	3548619.8		4918	360	155	205
C 03829 POD1		CUB	LE	SW	SW	NW	06	26S	32E	620628.5	3549186.3		4924	646	350	296

Average Depth to Water: **288**

Minimum Depth: **155 feet**

Maximum Depth: **365 feet**

Record Count: 15

UTM Filters (in meters):
Easting: 616366
Northing: 3546720
Radius: 005000

*** UTM location was derived from PLSS - see Help**

Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE
quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
NA	C 04700 POD1	NE	NW	NE	10	26S	31E	616735.9	3548154.5	

*** UTM location was derived from PLSS - see Help**

Driller License:	1249	**Driller Company:**	ATKINS ENGINEERING ASSOC. INC.		
Driller Name:	ATKINS, JACKIE D.UELENER				
Drill Start Date:	2023-04-17	**Drill Finish Date:**	2023-04-17	**Plug Date:**	2023-04-25
Log File Date:	2023-04-27	**PCW Rcv Date:**		**Source:**	
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:		**Depth Well:**		**Depth Water:**	

Water Right Summary

get image list

WR File Number:	C 04700	**Subbasin:**	CUB	**Cross Reference:**
Primary Purpose:	EXP EXPLORATION			
Primary Status:	PMT Permit			
Total Acres:		**Subfile:**		**Header:**
Total Diversion:	0.000	**Cause/Case:**		
Owner:	DEVON ENERGY	**Owner Class:**	User	
Contact:	DALE WOODALL			

Documents on File

(acre-feet per annum)

Transaction Images	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/To	Acres	Diversion	Consumptive
get images	741095	EXPL	2023-01-25	PMT	LOG	C 04700 POD1	T	0.000	0.000	

Current Points of Diversion

POD Number	Well Tag	Source	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map	Other Location Desc
C 04700 POD1	NA		NE	NW	NE	10	26S	31E	616735.9	3548154.5		TW-1

*** UTM location was derived from PLSS - see Help**

1/11/25 4:57 PM MST **Water Rights Summary**

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD 1 (TW-1)	N/A	C-04700

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Devon Energy	575-748-1838

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
6488 7 Rivers Hwy	Artesia	NM	88210

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	3	48.97	N
	LONGITUDE	103	45	47.89	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

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

NE NW NE Sec.10 T26S R31E NMPM

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
4/17/23	4/17/23	Temporary Well Material	±55	N/A

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DATE STATIC MEASURED: 4/25/23

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

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

CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☐

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	55	±6.25	Soil Boring	--	--	--	--

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
			N/A		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO. C-4700	POD NO. 1	TRN NO. 741095	
LOCATION 26S.31E.10 212		WELL TAG ID NO. NA	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	4	4	Sand, medium-fine grained, poorly, graded, unconsolidated, brown	Y ✓ N	
4	30	36	Caliche, with silt semi-consolidated, white/tan	Y ✓ N	
30	55	25	Sand, fine- grained, poorly, graded, unconsolidated, tan	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

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

MISCELLANEOUS INFORMATION: Temporary well material removed and soil boring backfilled using drill cuttings from total depth to ten feet below ground surface(bgs), then hydrated bentonite chips ten feet bgs to surface.
36
Snapping 10 Federal 1H

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

Shane Eldridge, Cameron Pruitt

6. SIGNATURE

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

Jack Atkins — Jackie D. Atkins — 4/26/23

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 01/28/2022)

FILE NO. C-4700	POD NO. 1	TRN NO. 741095	
LOCATION 26S. 31E. 10 212		WELL TAG ID NO. NA	PAGE 2 OF 2

U.S. Fish and Wildlife Service
National Wetlands Inventory

Pond 37,200 feet

January 12, 2025

Wetlands

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

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

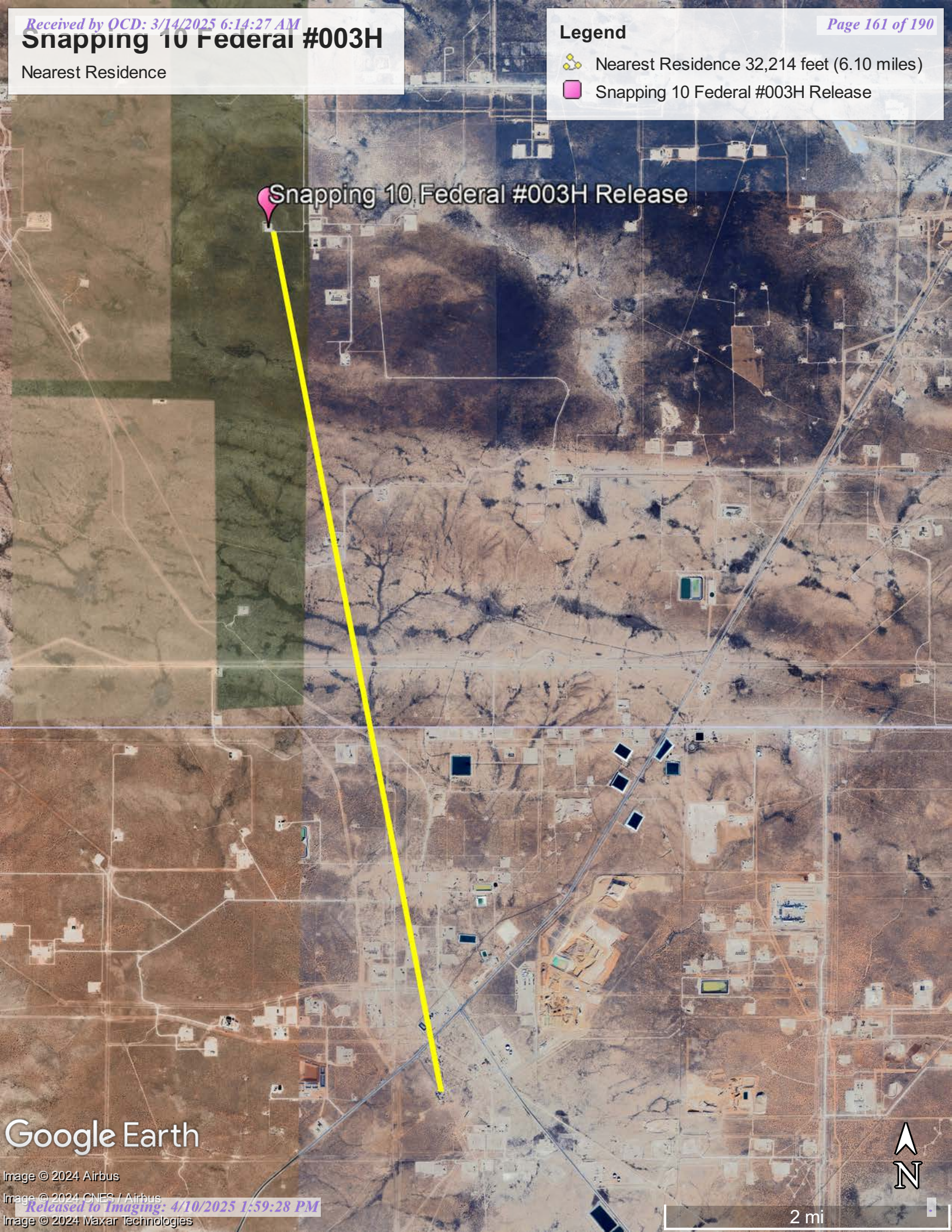
National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Snapping 10 Federal #003H

Nearest Residence

Legend

- Nearest Residence 32,214 feet (6.10 miles)
- Snapping 10 Federal #003H Release



Active & Inactive Points of Diversion

(with Ownership Information)

		(acre ft per annum)				(R=POD has been replaced and no longer serves this file, C=the file is closed)				(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)			(meters)
WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q64	q16	q4	Sec	Tws	Range	X	Y	Map	Distance
LWD 01187	CUB	PLS	7.800	BUCK & LARUE JACKSON TRUST	ED	LWD 01187 POD1					SE	NW	SE	10	26S	31E	616792.0	3547163.0 *		614.6
C 04700	CUB	EXP	0.000	DEVON ENERGY	ED	C 04700 POD1	NA				NE	NW	NE	10	26S	31E	616735.9	3548154.5		1,481.4
LWD 01186	CUB	PLS	14.000	BUCK & LARUE JACKSON TRUST	ED	LWD 01186 POD1					SE	SE	SE	04	26S	31E	615561.0	3548365.0 *		1,831.4
C 04375	CUB	GEO	0.000	EOG RESOURCES INC	ED	C 04375 POD1	NA				NE	NW	NW	16	26S	31E	614304.2	3546461.4		2,078.0
C 04769	CUB	MON	0.000	MATADOR PRODUCTION COMPANY	ED	C 04769 POD1	NA				NE	NW	NE	21	26S	31E	615225.4	3544832.5		2,205.4
C 04637	CUB	EXP	0.000	DEVON ENERGY	ED	C 04637 POD1	NA				SE	SE	SW	02	26S	31E	618067.5	3548423.6		2,407.8
LWD 01206	CUB	PLS	18.200	BUCK & LARUE JACKSON TRUST	ED	LWD 01206 POD1					SE	SE	NE	04	26S	31E	615553.0	3549169.0 *		2,580.4
LWD 01183	CUB	PLS	17.800	BUCK & LARUE JACKSON TRUST	ED	LWD 01183 POD1					NW	NE	SE	21	26S	31E	615414.0	3544099.0 *		2,788.5
C 04644	CUB	EXP	0.000	PLAINS PIPELINE, LP	ED	C 04644 POD1	NA				SW	NW	NW	12	26S	31E	619115.3	3547940.9		3,008.2
C 01777	C	DOL	3.000	BUCK JACKSON	ED	C 01777				Shallow				08	26S	31E	613245.0	3547409.0 *		3,196.1
C 03623	C	STK	0.000	WORTH ROSS	ED	C 03623 POD1					SW	SW	NW	04	26S	31E	614210.6	3549265.0		3,335.1
LWD 01208	CUB	PLS	20.900	BUCK & LARUE JACKSON TRUST	ED	LWD 01208 POD1					NW	NW	NE	27	26S	31E	616643.0	3543302.0 *		3,429.2
C 02248	CUB	STK	3.000	BUCK JACKSON TRUST	ED	C 02248					NW	NE	SW	08	26S	31E	612942.0	3547316.0 *		3,475.5
C 02249	CUB	STK	3.000	BUCK JACKSON TRUST	ED	C 02249					NW	NE	SW	08	26S	31E	612942.0	3547316.0 *		3,475.5
C 04801	C	STK	3.000	CERBERUS LAND & CATTLE COMPANY	ED	C 04801 POD1	214CC			Shallow	NW	NE	SE	13	26S	31E	620283.6	3545858.5		4,011.2
C 02090	C	DOM	3.000	JESSE T BAKER	ED	C 02090						SE	SE	01	26S	31E	620329.0	3548533.0 *		4,358.0
LWD 01205	CUB	PLS	52.200	BUCK & LARUE JACKSON TRUST	ED	LWD 01205 POD1					NW	NW	SW	33	25S	31E	614125.0	3550577.0 *		4,460.8
LWD 01184	CUB	PLS	24.000	BUCK & LARUE JACKSON TRUST	ED	LWD 01184 POD1					SE	SW	NW	28	26S	31E	614414.0	3542667.0 *		4,498.6
C 03639	CUB	EXP	0.000	JESSE T BAKER RANCH	ED	C 03639 POD1				Shallow	SW	SE	NE	01	26S	31E	620168.2	3549279.7		4,583.5
C 03681	C	PRO	0.000	DEVON ENERGY	ED	C 03639 POD1				Shallow	SW	SE	NE	01	26S	31E	620168.2	3549279.7		4,583.5
C 03682	C	PRO	0.000	DEVON ENERGY	ED	C 03639 POD1				Shallow	SW	SE	NE	01	26S	31E	620168.2	3549279.7		4,583.5
C 03684	C	PRO	0.000	DEVON ENERGY	ED	C 03639 POD1				Shallow	SW	SE	NE	01	26S	31E	620168.2	3549279.7		4,583.5
C 04256	CUB	EXP	0.000	BAKER RANCH	ED	C 04256 POD3	NA				SW	SE	NE	01	26S	31E	620279.0	3549157.8		4,610.3
					ED	C 04256 POD1	NA			Artesian	SE	SE	NE	01	26S	31E	620383.8	3549257.3		4,751.9
C 04275	C	STK	3.000	BAKER RANCH	ED	C 04256 POD1	NA			Artesian	SE	SE	NE	01	26S	31E	620383.8	3549257.3		4,751.9
C 04256	CUB	EXP	0.000	BAKER RANCH	ED	C 04256 POD2	NA				SE	SE	NE	01	26S	31E	620459.4	3549160.0		4,765.5
C 03554	CUB	EXP	0.000	BAKER RANCH	ED	C 03554 POD2	NA			Artesian	NE	NE	SE	01	26S	31E	620527.2	3549105.0		4,796.2
					ED	C 03554 POD1				Shallow	NE	NW	SE	01	26S	31E	620547.4	3549148.7		4,835.6
C 03588	C	PRO	0.000	DEVON ENERGY CO	ED	C 03554 POD1				Shallow	NE	NW	SE	01	26S	31E	620547.4	3549148.7		4,835.6
C 03589	C	PRO	0.000	DEVON ENERGY CO	ED	C 03554 POD1				Shallow	NE	NW	SE	01	26S	31E	620547.4	3549148.7		4,835.6
C 03590	C	PRO	0.000	DEVON ENERGY CO	ED	C 03554 POD1				Shallow	NE	NW	SE	01	26S	31E	620547.4	3549148.7		4,835.6
C 04209	CUB	DOM	0.000	BAKER RANCH	LE	C 04209 POD2	NA			Shallow	NE	SW	SW	06	26S	32E	620817.8	3548657.3		4,855.1
C 04258	C	STK	3.000	BAKER RANCH	LE	C 04209 POD2	NA			Shallow	NE	SW	SW	06	26S	32E	620817.8	3548657.3		4,855.1

		(acre ft per annum)				(R=POD has been replaced and no longer serves this file, C=the file is closed)				(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)			(meters)
WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q64	q16	q4	Sec	Tws	Range	X	Y	Map	Distance
LWD 01189	CUB	PLS	2.540	BUCK & LARUE JACKSON TRUST	ED	LWD 01189 POD1					NE	NE	SE	26	26S	31E	618883.0	3542517.0 *		4,899.0
C 04209	CUB	DOM	0.000	BAKER RANCH	LE	C 04209 POD1	NA			Shallow	NE	SW	SW	06	26S	32E	620902.7	3548619.8		4,918.4
C 04259	C	STK	3.000	BAKER RANCH	LE	C 04209 POD1	NA			Shallow	NE	SW	SW	06	26S	32E	620902.7	3548619.8		4,918.4
C 04662	C	DOM	1.000	BAKER RANCH	LE	C 04209 POD1	NA			Shallow	NE	SW	SW	06	26S	32E	620902.7	3548619.8		4,918.4
C 03829	CUB	EXP	0.000	GREGORY ROCKHOUSE RANCH INC	LE	C 03829 POD1				Shallow	SW	SW	NW	06	26S	32E	620628.5	3549186.3		4,924.6

Record Count: 38

Filters Applied:

UTM Filters (in meters):
Easting: 616366
Northing: 3546720
Radius: 005000

Sorted By: Distance

*** UTM location was derived from PLSS - see Help**

Water Right Summary

get image list

WR File Number:	LWD 01187	**Subbasin:**	CUB	**Cross Reference:**	LWD-C-6
Primary Purpose:	PLS NON 72-12-1 LIVESTOCK WATERING				
Primary Status:	DCL Declaration				
Total Acres:	2.000	**Subfile:**		**Header:**	
Total Diversion:	7.800	**Cause/Case:**			
Owner:	BUCK & LARUE JACKSON TRUST	**Owner Class:**	Owner		

Documents on File

(acre-feet per annum)

Transaction Images	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/To	Acres	Diversion	Consumptive
get images	631011	DCL	1992-03-16	DCL	PRC	LWD-C-6	T	2.000	7.800	

Current Points of Diversion

POD Number	Well Tag	Source	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map	Other Location Desc
LWD 01187 POD1			SE	NW	SE	10	26S	31E	616792.0	3547163.0 *		

*** UTM location was derived from PLSS - see Help**

Priority Summary

Priority	Status	Acres	Diversion	POD Number	Source
1906-12-31	DCL	2.000	7.800	LWD 01187 POD1	

Place of Use

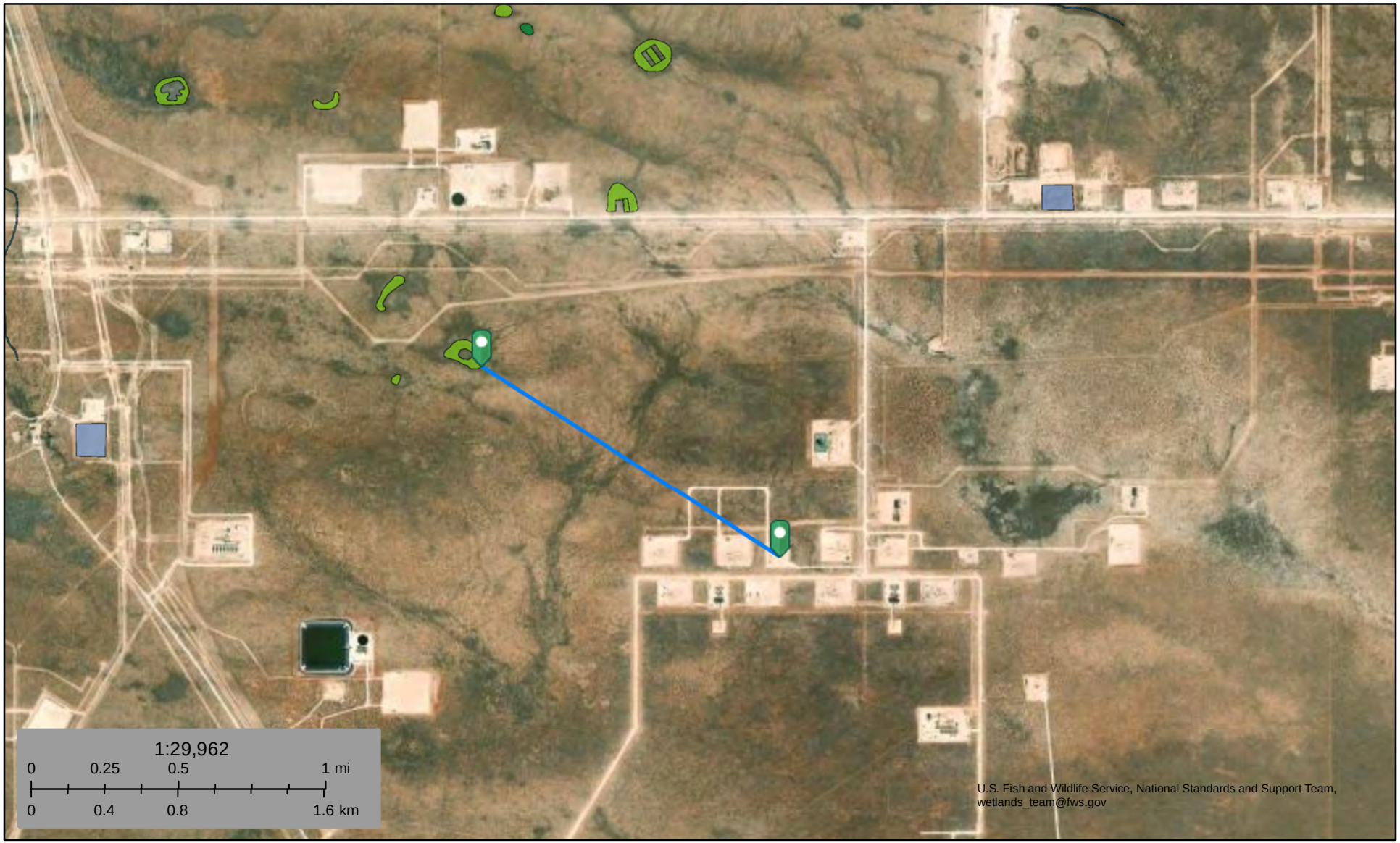
Q256	Q64	Q16	Q4	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
	SE	NW	SE	10	26S	31E	2.000	7.800		PLS	1906-12-31	DCL	

Source

Acres	Diversion	CU	Use	Priority	Source	Description
2.000	7.800		PLS	1906-12-31	SW	

U.S. Fish and Wildlife Service
National Wetlands Inventory

Snapping Wetland 5,379 ft



October 13, 2024

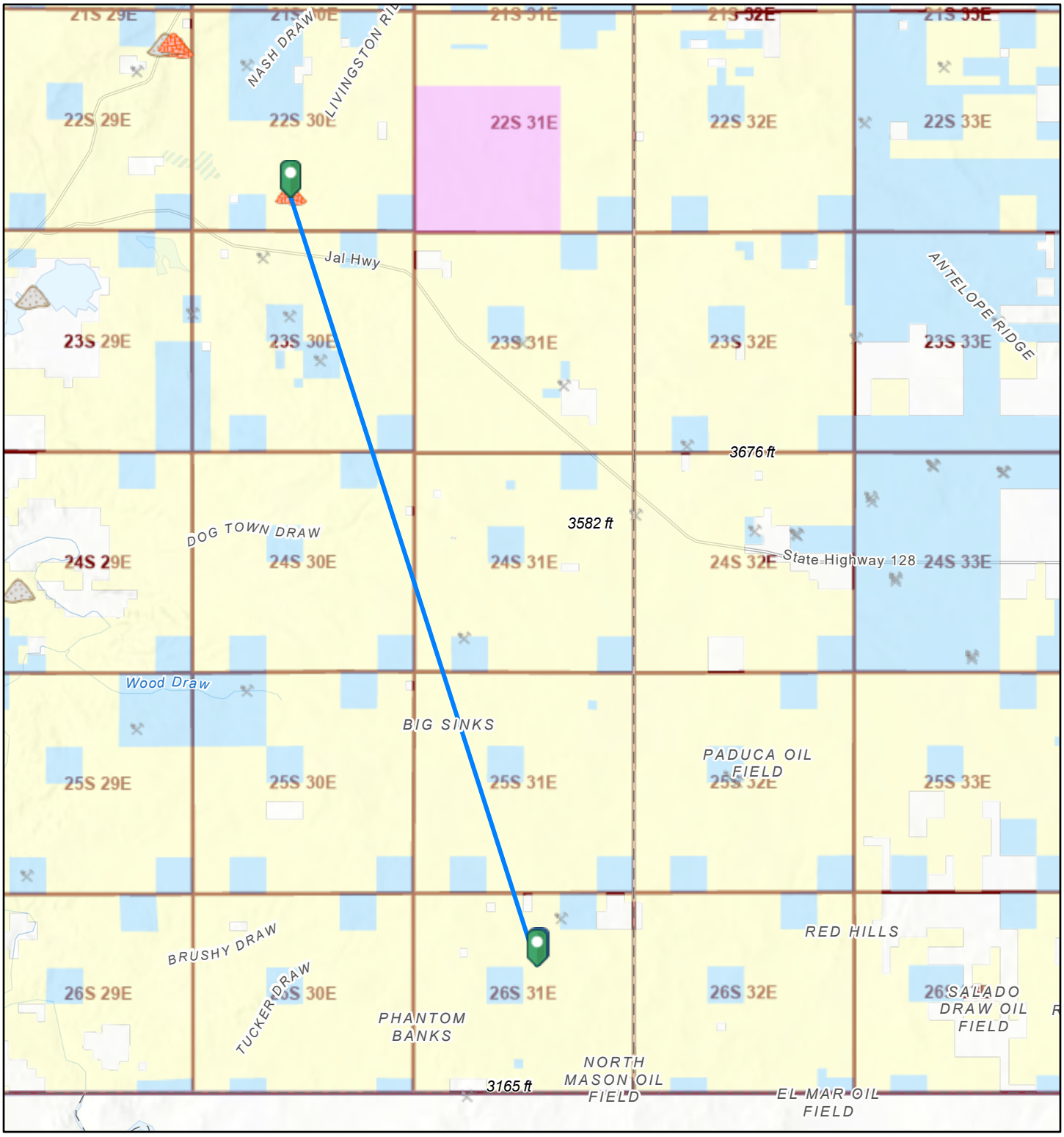
Wetlands

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

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

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

Active Mines in New Mexico



10/13/2024, 2:46:45 PM

1:288,895

0 2 4 8 mi

0 3.25 6.5 13 km

Registered Mines

- Aggregate, Stone etc.
- Aggregate, Stone etc.
- Aggregate, Stone etc.
- Potash
- Salt

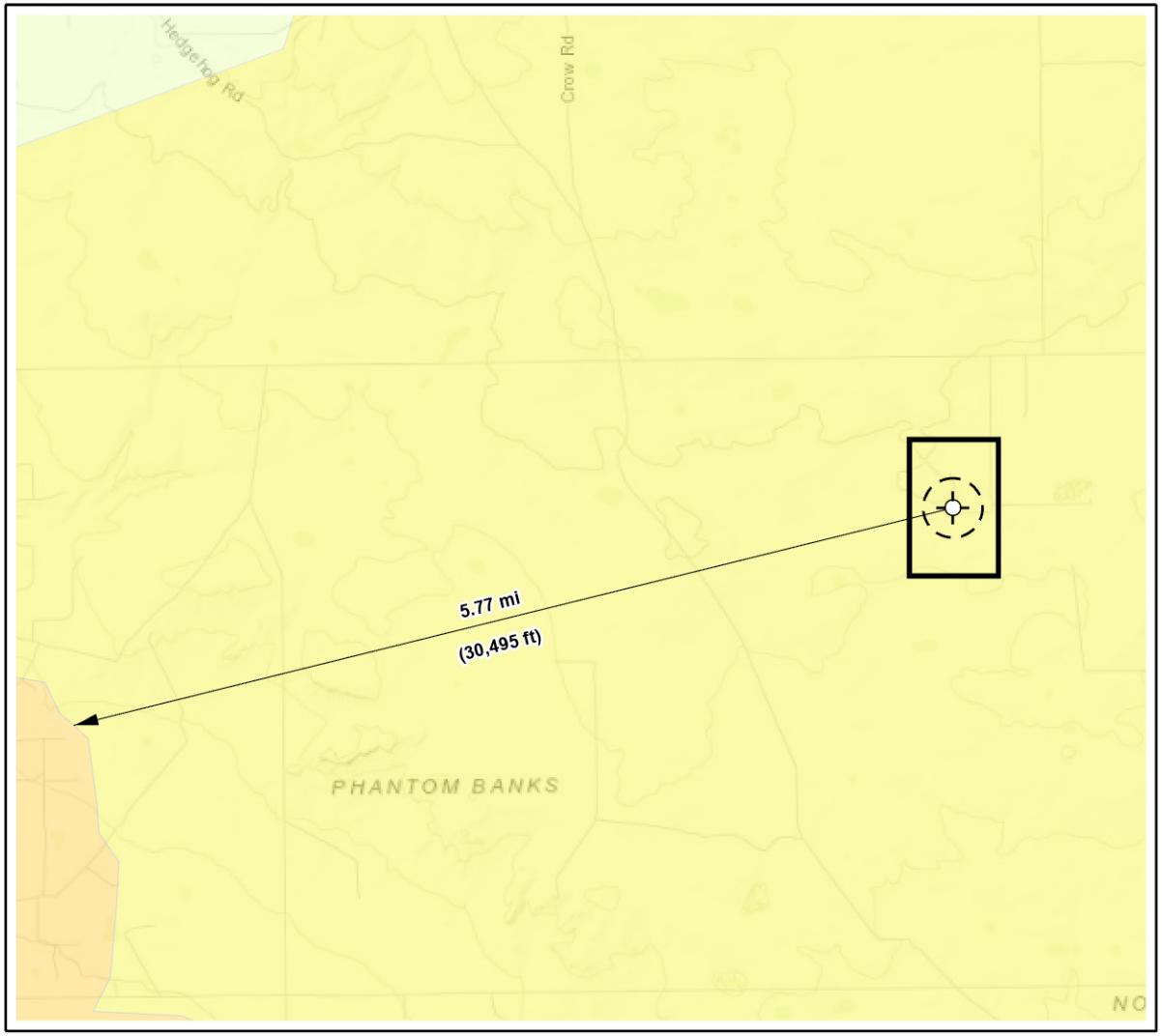
Land Ownership

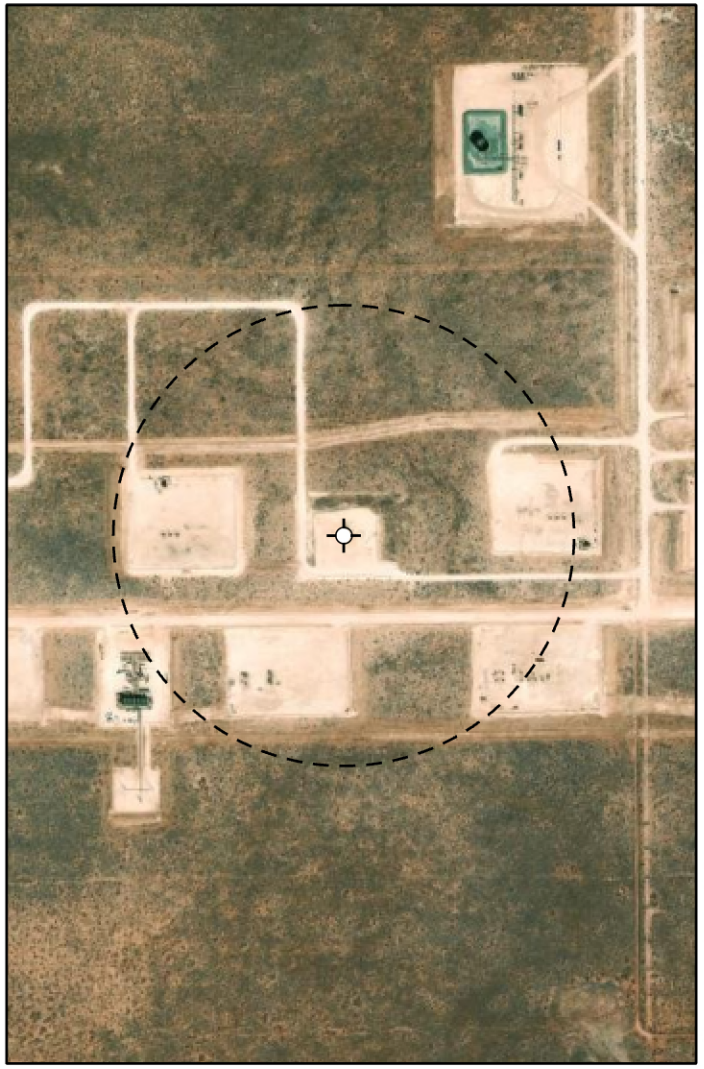
- BLM
- DOE
- P
- S
- PLSS Townships

Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA, USFWS, U.S. BLM, Esri, NASA, NGA, USGS, BLM

EMNRD MMD GIS Coordinator

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





Karst Potential

- Critical
- High
- Medium
- Low

Site Location

Site Buffer (~ 1,000 ft)

Overview Map

0 0.25 0.5 1 mi

Detail Map

0 150 300 600 ft

VERTEX

Map Center:
Lat/Long
32.050728°,-103.767288°

NAD 1983 UTM Zone 13N
Date: Oct 17/24

N

Karst Potential Map
Snapping 10 Fed 3H

Figure:
X

devon

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

Note: Inset Map, Esri 2023; Overview Map: Esri World Topographic. Karst potential data sources from Roswell Field Office, Bureau of Land Management, 2020 or United States Department of the Interior, Bureau of Land Management, (2018). Karst Potential.

VERSATILITY. EXPERTISE.

Document Path: C:\Projects\USA\24E-04518 - Devon-Snapping 10 Fed 3H\Project\24E-04518.aprx

National Flood Hazard Layer FIRMette

FEMA

103°46'21"W 32°3'18"N

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

1:6,000

103°45'44"W 32°2'47"N

Basemap Imagery Source: USGS National Map 2023

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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

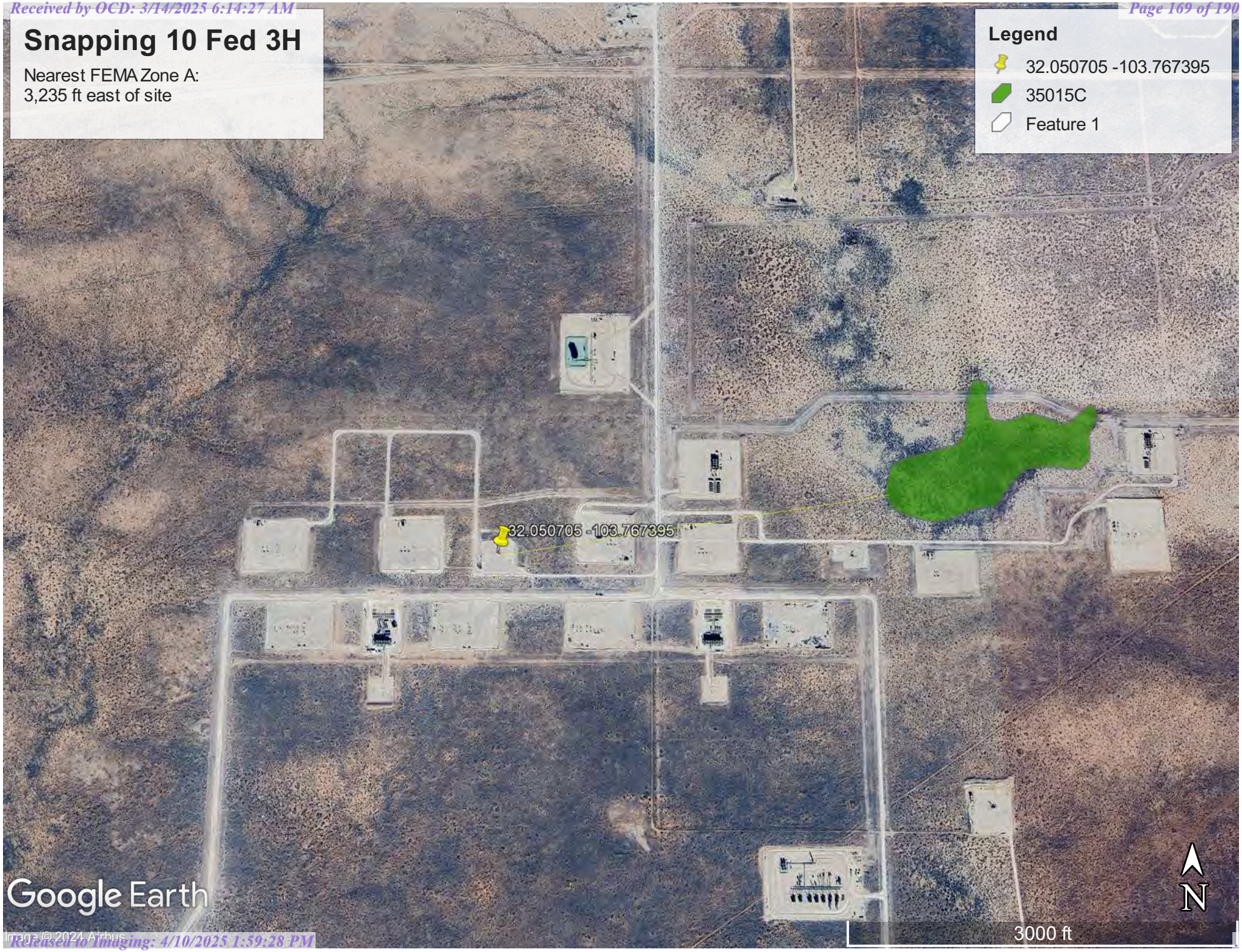
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/13/2024 at 4:20 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

Snapping 10 Fed 3H

Nearest FEMA Zone A:
3,235 ft east of site



United States Department of Agriculture

NRCS

Natural Resources Conservation Service

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

Custom Soil Resource Report for Eddy Area, New Mexico

October 13, 2024

Custom Soil Resource Report
Soil Map

Map Scale: 1:978 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 10 20 40 60

Feet: 0 45 90 180 270

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

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

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

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

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
SM	Simona-Bippus complex, 0 to 5 percent slopes	3.8	100.0%
Totals for Area of Interest		**3.8**	**100.0%**

Map Unit Descriptions

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

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

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

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

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

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

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

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

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

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

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

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

Eddy Area, New Mexico

SM—Simona-Bippus complex, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1w5x
Elevation: 1,800 to 5,000 feet
Mean annual precipitation: 8 to 24 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 180 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Simona and similar soils: 55 percent
Bippus and similar soils: 30 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Simona

Setting

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

Typical profile

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

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 7 to 20 inches to petrocalcic
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 2.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: R070BD002NM - Shallow Sandy
Hydric soil rating: No

Description of Bippus

Setting

Landform: Flood plains, alluvial fans
Landform position (three-dimensional): Talf, rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile

H1 - 0 to 37 inches: silty clay loam
H2 - 37 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Moderate (about 8.7 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Ecological site: R070BC017NM - Bottomland
Hydric soil rating: No

Minor Components

Simona

Percent of map unit: 8 percent
Ecological site: R070BD002NM - Shallow Sandy
Hydric soil rating: No

Bippus

Percent of map unit: 7 percent
Ecological site: R070BC017NM - Bottomland
Hydric soil rating: No

USDA Natural Resources Conservation Service

Ecological site R070BD002NM
Shallow Sandy

Accessed: 10/13/2024

General information

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

Figure 1. Mapped extent

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

Associated sites

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

Similar sites

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

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

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

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

Table 2. Representative physiographic features

Landforms	(1) Plain (2) Fan piedmont (3) Alluvial fan
Elevation	2,842–4,500 ft
Slope	1–9%
Aspect	Aspect is not a significant factor

Climatic features

The average annual precipitation ranges from 8 to 13 inches. Variations of 5 inches, more or less, are common.

Over 80 percent of the precipitation falls from April through October. Most of the summer precipitation comes in the form of high intensity – short duration thunderstorms.
Temperatures are characterized by distinct seasonal changes and large annual and diurnal temperature changes. The average annual temperature is 61 degrees with extremes of 25 degrees below zero in the winter to 112 degrees in the summer.
The average frost-free season is from 207 to 220 days. The last killing frost is in late March or early April, and the first killing frost is in late October or early November.
Temperature and rainfall both favor warm season perennial plant growth. In years of abundant spring moisture, annual forbs and cool season grasses can make up an important component of the site. The vegetation of this site can take advantage of the moisture and the time it falls. Because of the soil profile, little moisture can be stored in the soil for any length of time. Moisture is readily available to the plants from the time it falls. Strong winds from the southwest blow from January through June which rapidly dries out the soil profile during a critical period for plant growth.

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

Table 3. Representative climatic features

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

Influencing water features

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

Soil features

Soils are very shallow to shallow, less than 20 inches in depth. Surface and subsurface textures are gravelly loamy sand, gravelly fine sandy loam or fine sandy loam.

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

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

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

Characteristic soils are:
Simona
Jerag

Table 4. Representative soil features

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

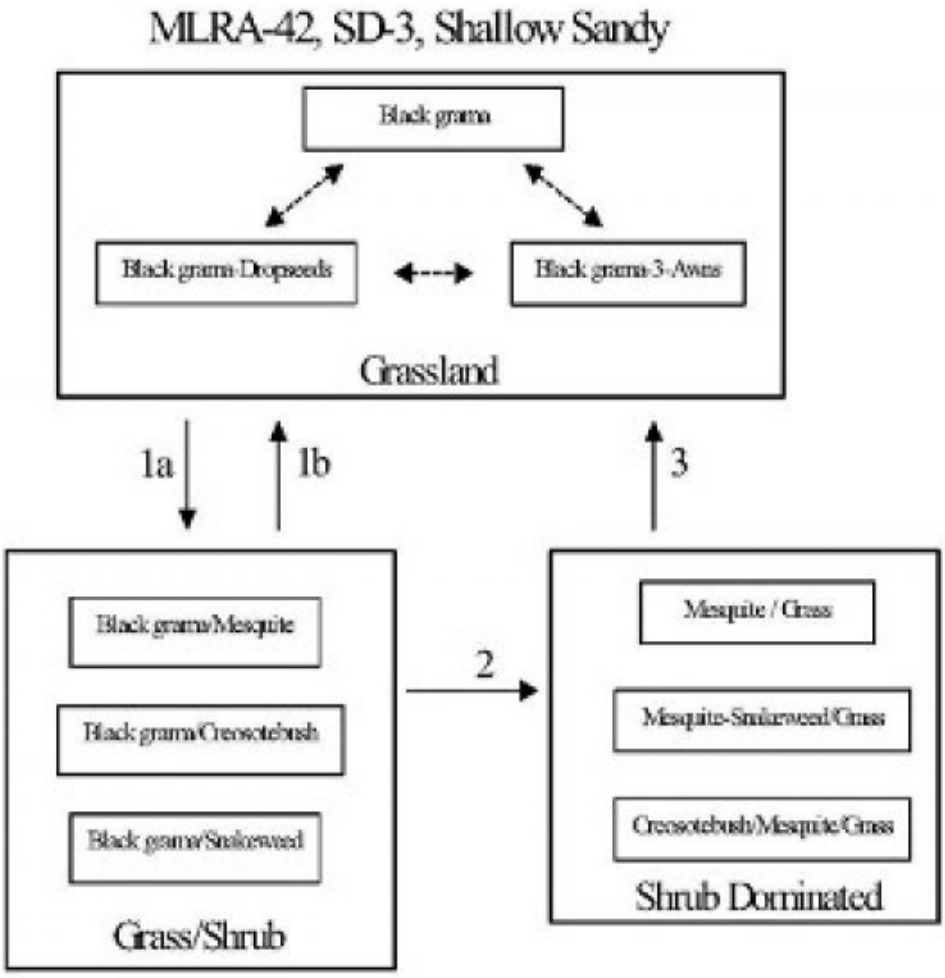
Soil depth	7–24 in
Surface fragment cover <=3"	5–25%
Surface fragment cover >3"	0%
Available water capacity (0-40in)	1–2 in
Calcium carbonate equivalent (0-40in)	5–15%
Electrical conductivity (0-40in)	0–4 mmhos/cm
Sodium adsorption ratio (0-40in)	0
Soil reaction (1:1 water) (0-40in)	7.4–8
Subsurface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

Ecological dynamics

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

State and transition model

Plant Communities and Transitional Pathways (diagram)



1a. Seed dispersal, drought, overgrazing, fire suppression.
1b. Prescribed fire, brush control, prescribed grazing.

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

3. Brush control, range seeding, prescribed grazing.

State 1
Historic Climax Plant Community

Community 1.1
Historic Climax Plant Community

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

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

Table 5. Annual production by plant type

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

Table 6. Ground cover

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

Figure 5. Plant community growth curve (percent production by month). NM2802, R042XC002NM-Shallow Sandy-HCPC. SD-3 Shallow Sandy - Warm season plant community.

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

State 2
Grass/Shrub

Community 2.1
Grass/Shrub

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

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

State 3
Shrub Dominated

Community 3.1
Shrub Dominated

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

Additional community tables

Table 7. Community 1.1 plant community composition

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

ArcGIS Web Map

10/13/2024, 2:12:19 PM

1:144,448

0 1 2 4 mi

0 1.5 3 6 km

Lithologic Units

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

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

ArcGIS Web AppBuilder

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

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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

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 442335
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2427862444**
Incident Name	**NAPP2427862444 SNAPPING 10 FEDERAL #003H @ 30-015-39866**
Incident Type	**Oil Release**
Incident Status	**Remediation Plan Received**
Incident Well	**[30-015-39866] SNAPPING 10 FEDERAL #003H**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	SNAPPING 10 FEDERAL #003H
Date Release Discovered	10/04/2024
Surface Owner	Federal

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Equipment Failure | Well | Crude Oil | Released: 20 BBL | Recovered: 10 BBL | Lost: 10 BBL.
Produced Water Released (bbls) Details	*Not answered.*
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	stuffing box failed due to well kick. 20 bbls oil estimated released onto pad. 10 BBLS recovered.

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QUESTIONS (continued)

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QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	10 bbls recovered
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dvn.com Date: 03/14/2025

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QUESTIONS (continued)

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	Action Number: 442335
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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 26 and 50 (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 ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between ½ and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	4960
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	5380
GRO+DRO (EPA SW-846 Method 8015M)	1820
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	03/31/2025
On what date will (or did) the final sampling or liner inspection occur	05/01/2025
On what date will (or was) the remediation complete(d)	06/01/2025
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	16506
What is the estimated volume (in cubic yards) that will be remediated	1300
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dvn.com Date: 03/14/2025
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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

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

QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 442335
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

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

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QUESTIONS (continued)

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	6137
	Action Number: 442335
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	*{Unavailable.}*

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 442335
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards from Table 1 of the OCD Spill Rule for site assessment/characterization/depth to water determination. Confirmation samples should be collected every 200 ft2. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. Please make sure that the edge of the release extent is accurately defined, especially around equipment. The work will need to occur in 90 days after the Remediation Plan has been approved.	4/10/2025