



Incident Number: nAPP2335431615

Release Assessment and Closure

Mis Amigos Tank Battery

Unit O, Section 31, Township 23 South, Range 33 East

Facility: fAPP2203533509

County: Lea

Vertex File Number: 23E-05219

Prepared for:

XTO Energy, Inc.

Prepared by:

Vertex Resource Services Inc.

Date:

July 2024

XTO Energy, Inc.
Mis Amigos Tank Battery

Release Assessment and Closure
July 2024

Release Assessment and Closure
Mis Amigos Tank Battery
Unit O, Section 31, Township 23 South, Range 33 East
Facility: fAPP2203533509
County: Lea

Prepared for:
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Date

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1.0 Introduction

XTO Energy, Inc. (XTO) retained Vertex Resource Services Inc. (Vertex) to conduct a Release Assessment and Closure for a produced water release that occurred on December 18, 2023, at Mis Amigos Tank Battery (hereafter referred to as the "site"). XTO submitted an initial C-141 Release Notification (Appendix A) to New Mexico Oil Conservation Division (NMOCD) District 1 on December 20, 2023. Incident ID number nAPP2335431615 was assigned to this incident.

This report describes the release assessment and remediation activities associated with the site. The information presented demonstrates that closure criteria established in Table I of 19.15.29.12 of the New Mexico Administrative Code (NMAC; New Mexico Oil Conservation Division, 2018) related to NMOCD have been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NMOCD for closure of this release, with the understanding that restoration of the release site will be completed once oil and gas operational activities at the site have been terminated and the site reclamation occurs as per NMAC 19.15.29.13.

2.0 Incident Description

The release occurred on December 18, 2023, due to corrosion and breakdown of produced water equipment as stated in the release description in the C-141 report. The incident was reported on December 20, 2023, and involved the release of approximately 7.17 barrels (bbl) of produced water on the pad. Approximately 6.0 bbl of free fluid was removed during the initial clean-up. Additional details relevant to the release are presented in the C-141 Report.

3.0 Site Characteristics

The site is located approximately 26.2 miles east of Malaga, New Mexico (Google Inc., 2024). The legal location for the site is Unit O, Section 31, Township 23 South and Range 33 East in Lea County, New Mexico. The release area is located on New Mexico State property. An aerial photograph and site schematic are presented on Figure 1.

The location is typical of oil and gas exploration and production sites in the Permian Basin and is currently used for oil and gas production and storage. The following sections describe the release area of the site on or near the constructed pad (Figure 1).

The Geological Map of New Mexico (New Mexico Bureau of Geology and Mineral Resources, 2024) indicates the site's surface geology primarily comprises Qep - Eolian and piedmont deposits (New Mexico Bureau of Geology and Mineral Resources, 2024). The karst geology potential for the site is low (United States Department of the Interior, Bureau of Land Management, 2018). The surrounding landscape is associated with plains with elevations ranging between 3,000 and 3,900 feet. The climate is semiarid with average annual precipitation ranging between 10 and 12 inches. Predominant soil textures around the site are well-drained fine sands and fine sandy loams with negligible to very low runoff potential (United States Department of Agriculture, Natural Resources Conservation Service, 2024). Using information from the United States Department of Agriculture, the dominant vegetation was determined to be grasses interspersed with shrubs (United States Department of Agriculture, Natural Resources Conservation Service, 2024). Limited to no vegetation is allowed to grow on the compacted facility pad.

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4.0 Closure Criteria Determination

The nearest active well to the site is an exploration well 1.22 miles to the southeast. There is no surface water present at the site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is an intermittent stream located approximately 1.72 miles southeast of the site (United States Fish and Wildlife Service, 2024). At the site, there are no continuously flowing watercourses or significant watercourses, lakebeds, sinkholes, playa lakes or other critical water or community features as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC

The nearest depth to groundwater reference to the site is a monitoring well drilled 0.21 miles west on July 20, 2021. The borehole was terminated at 108 feet below ground surface (bgs) without encountering the water surface (New Mexico Office of the State Engineer, 2024). Information pertaining to the depth to ground water determination is included in Appendix B.

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Table 1. Closure Criteria Determination			
Site Name: Mis Amigos Tank Battery			
Spill Coordinates: 32.254544, -103.609145		X: 631015	Y: 3569499
Site Specific Conditions		Value	Unit
1	Depth to Groundwater (nearest reference)	108	feet
	Distance between release and nearest DTGW reference	1141	feet
		0.21	miles
	Date of nearest DTGW reference measurement	July 20, 2021	
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	9,093	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	12,919	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	19,376	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or		
	ii) Within 1000 feet of any fresh water well or spring	6,482	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	11,985	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
	Distance between release and nearest registered mine	91,872	feet
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
	Distance between release and nearest unstable area	58,080	feet
10	Within a 100-year Floodplain	Undetermined	year
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	66,957	feet
11	Soil Type	Fine sand, fine sandy loam	
12	Ecological Classification	Loamy sand	
13	Geology	Eolian and piedmont deposits	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	>100'	<50' 51-100' >100'

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

Table 2. Closure Criteria for Soils Impacted by a Release		
Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Limit
> 100 feet	Chloride	20,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg
	GRO+DRO	1,000 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

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

5.0 Remedial Actions Taken

Inspection and site characterization of the release around the infrastructure was completed by Vertex between February 7 and 29, 2024, including vertical and horizontal delineation. The impacted area was determined to be approximately 141 feet long and 140 feet wide; the total affected area was determined to be 5,719 square feet. The Daily Field Reports (DFRs) associated with the site visits are included in Appendix C. Characterization sample locations and approximate release areas are presented on Figure 1. Characterization field screening and laboratory results are summarized in Table 3.

Remediation efforts began on March 18, 2024, and were finalized on May 30, 2024. Vertex personnel supervised the excavation of impacted soils. Field screening was completed on a total of 48 samples and consisted of analysis using a Photo Ionization Detector (volatile hydrocarbons), Dextsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons), and Silver Nitrate Titration (chlorides). Field screening results were used to identify areas requiring further remediation. Soils were removed to depths of 0.5 to 3 feet bgs. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility. Daily Field Reports documenting various phases of the remediation are presented in Appendix C.

Notifications that confirmatory samples were being collected were provided to the NMOCD on March 14, 22 and 27, and May 22, 2024, and are included in Appendix D. Confirmatory composite samples were collected from the base and walls of the excavation in 200-square-foot increments. A total of 45 confirmation samples were collected for laboratory analysis following NMOCD soil sampling procedures. Samples were submitted to Hall Environmental Analysis, now Eurofins, Laboratory under chain-of-custody protocols and analyzed for BTEX (EPA Method 8021B), total petroleum hydrocarbons (GRO, DRO, MRO – EPA Method 8015D), and total chlorides (EPA Method 300.0). Laboratory results are presented in Table 4, and the laboratory data reports are included in Appendix E. All confirmatory samples collected and analyzed were below the closure criteria for the site.

XTO submitted the initial remediation work plan to the NMOCD on March 18, 2024. The Site Characterization and Remediation Plan was approved by NMOCD on April 16, 2024, with the following conditions:

“The Remediation Plan is Conditionally Approved. All 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 for site assessment/characterization/proven depth to water determination. 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. Confirmation samples should be collected every 200 ft2. All off pad areas must meet reclamation standards set forth in the OCD Spill Rule. The work will need to occur in 90 days after the work plan has been reviewed.”

The release area was determined to be confined to the pad. Accessible release areas were excavated to NMOCD strictest criteria for chloride and TPH. The facility is a high production facility and excavation immediately adjacent, or in close proximity, to equipment was halted to preserve the structural integrity of the ground beneath equipment. Confirmation sample laboratory results that exceeded strictest thresholds for chloride and/or TPH corresponded with base and wall samples collected from areas where further excavation is not possible without removal of equipment and infrastructure.

Excavation sidewall sample WES24-11 was a composite inside the excavation boundary on the south edge between treating equipment to the north and a pipeline to the south. A berm was present immediately south of, and running parallel to, the aforementioned pipeline as shown on page 4 of the April 4, 2024, DFR presented in Appendix C. Excavation sidewall samples WS24-01, WS24-02, WS24-06, and WS24-07 were collected immediately adjacent to treaters, separators, and associated equipment.

Laboratory results from boreholes BH24-01, BH24-13, BH24-14, and BH24-19 were below NMOCD strictest criteria for chloride and TPH. The areas remediated to strictest criteria west and north of the equipment and these points from the approved site characterization adequately define the undisturbed release area. The corresponding Deferral Area is shown on Figure 2. Deferral of remediation of the release area under the production equipment is requested until such time as all oil and gas activities are terminated and the site is reclaimed.

6.0 Closure Request

Vertex recommends no additional remediation action at this time to address the release at Mis Amigos Tank Battery until the equipment on-site is decommissioned and removed. Laboratory analyses of the final confirmatory samples collected outside the deferral area showed constituent of concern concentration levels below NMOCD closure criteria for areas where depth to groundwater is less than 50 feet bgs. Laboratory results for samples collected within the deferral area and adjacent to equipment met NMOCD closure criteria for depth to groundwater greater than 100 feet bgs as shown in Table 2. Accessible areas of release were remediated and backfilled with local soils by May 30, 2024.

On behalf of XTO, Vertex requests deferral of the portions of the release that are designated in proximity to dense equipment and is deemed unsafe for excavation of contaminated materials. The release has been fully delineated with

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the understanding that should the deferral request be accepted, restoration of this portion of the release will be deferred until such time as all oil and gas activities are terminated and the site is reclaimed following remediation activities as per NMAC 19.15.29.13. Those areas are identified on Figure 2. The release volume was 7.17 bbl and was localized to the pad in immediate proximity of production equipment and infrastructure. Facility deconstruction will be required to complete remediation of the release.

Vertex respectfully requests that deferral to be granted on the grounds that the contamination is fully delineated and does not cause an imminent risk to human health, the environment, or ground water. Final remediation and reclamation shall take place in accordance with 19.15.29.12 and 19.15.29.13 NMAC once the site is no longer being used for oil and gas operations.

Should you have any questions or concerns, please do not hesitate to contact Sally Carttar at 575.361.3561 or SCarttar@vertexresource.com.

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7.0 References

Google Inc. (2024). *Google Earth Pro (Version 7.3.3)* [Software]. Retrieved from <https://earth.google.com>

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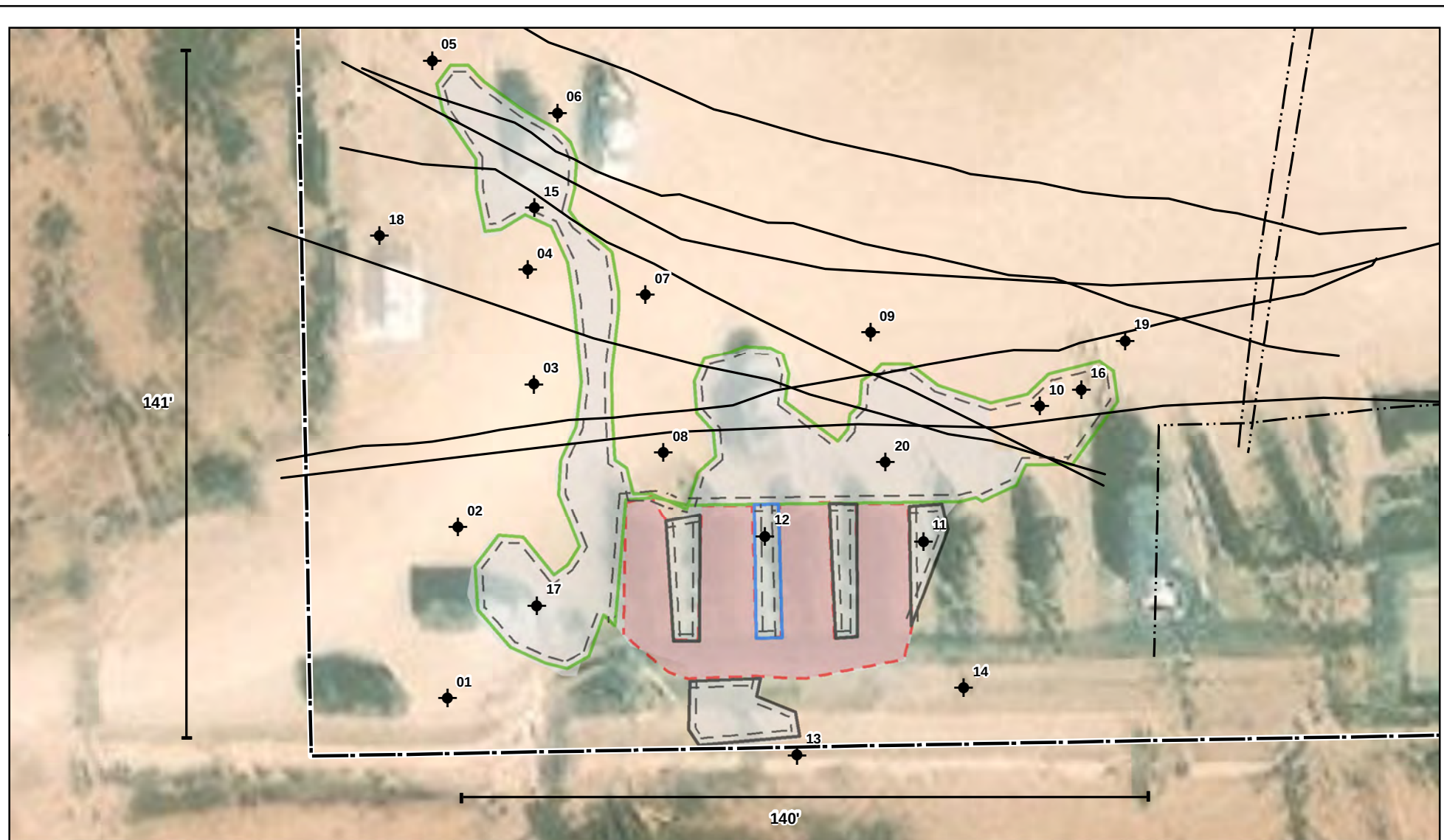
8.0 Limitations

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

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

FIGURES

Document Path: S:\04_Geomatics\1-Projects\US PROJECTS\XTO Energy\23E-05219\Figure 1 Characterization Sampling Site Schematic (23E-05219)ID17986.mxd



- | | | |
|----------------------------------|---|--|
| ◆ Borehole (Prefixed by "BH24-") | □ Approximate Lease Boundary | □ Proposed Excavation to 0.5 ft and 4 ft Deferral Area (~ 143 sq. ft.) |
| — Buried Electrical Line | □ Deferral Area (~ 1,540 sq. ft.) | □ Proposed Excavation to 1 ft bgs (~ 3,677 sq. ft.) |
| - - - Buried Pipeline | □ Proposed Excavation to 0.5 ft bgs (~ 650 sq. ft.) | □ Visible staining (~ 5,719 sq. ft.) |



0 15 30 ft
Map Center:
Lat/Long: 32.254573, -103.609582

NAD 1983 UTM Zone 13N
Date: Mar 18/24



Characterization Sampling Site Schematic Mis Amigos Tank Battery

FIGURE:

1

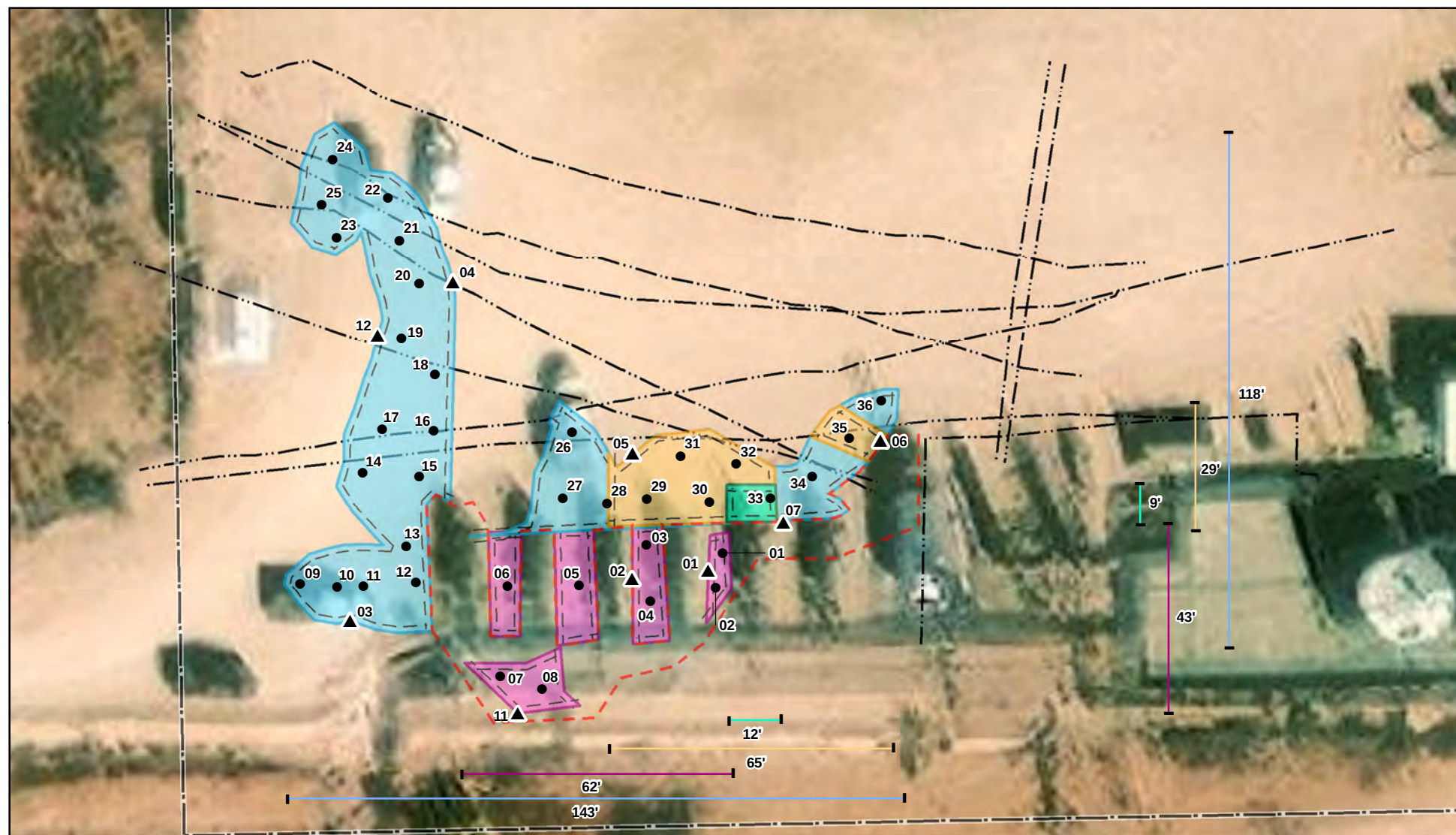


Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Georeferenced image from Esri, 2022. Approximate lease boundary from imagery by Vertex Professional Services Ltd. (Vertex), 2023. Site features from GPS by Vertex, 2024.

VERSATILITY. EXPERTISE.

Document Path: G:\Projects\US PROJECTS\XTO Energy\23E-05219\Figure 2 Confirmation Site Schematic (23E-05219)JD18801.mxd



● Base Sample (Prefixed by "BES24-")

▲ Wall Sample (Prefixed by "WES24-")

--- Pipeline (Underground)

--- Approximate Lease Boundary

--- Deferral Area (~2,600 sq. ft.)

--- Excavation to 0.5' bgs (~ 922 sq. ft.)

--- Excavation to 1.0' bgs (~ 4,212 sq. ft.)

--- Excavation to 2.0' bgs (~ 832 sq. ft.)

--- Excavation to 3.0' bgs (~ 100 sq. ft.)



0 15 30 ft
Map Center:
Lat/Long: 32.254587, -103.609433

NAD 1983 UTM Zone 13N
Date: Jul 08/24



Confirmation Sampling Site Schematic Mis Amigos Tank Battery

FIGURE:

2



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

Note: Georeferenced image from Esri, 2022. Approximate lease boundary from imagery by Vertex Professional Services Ltd. (Vertex), 2024. Site features from GPS by Vertex, 2024.

VERSATILITY. EXPERTISE.

TABLES

Client Name: XTO Energy, Inc.

Site Name: Mis Amigos Tank Battey

NMOCD Tracking #: nAPP2335431615

Project #: 23E-05219

Lab Reports: 890-6176-1, 890-6178-1, and 890-6296-1

Table 3. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater >100 feet bgs												
Sample Description			Field Screening		Petroleum Hydrocarbons							Inorganic Chloride Concentration
Sample ID	Depth (ft)	Sample Date	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Volatile		Extractable					
					Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
			(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
BH24-01	0	February 12, 2024	68	160	ND	ND	ND	ND	ND	ND	ND	100
	2	February 12, 2024	0	88	ND	ND	ND	ND	ND	ND	ND	61.2
	4	February 12, 2024	0	85	ND	ND	ND	ND	ND	ND	ND	ND
BH24-02	0	February 12, 2024	14	355	ND	ND	ND	ND	ND	ND	ND	157
	2	February 12, 2024	2	223	ND	ND	ND	ND	ND	ND	ND	76
	4	February 12, 2024	0	50	ND	ND	ND	ND	ND	ND	ND	235
BH24-03	0	February 12, 2024	22	525	ND	ND	ND	ND	ND	ND	ND	107
	2	February 12, 2024	17	204	ND	ND	ND	ND	ND	ND	ND	91
	4	February 12, 2024	2	75	ND	ND	ND	ND	ND	ND	ND	110
BH24-04	0	February 12, 2024	2	60	ND	ND	ND	ND	ND	ND	ND	71.2
	2	February 12, 2024	0	55	ND	ND	ND	ND	ND	ND	ND	80.7
	4	February 12, 2024	0	50	ND	ND	ND	ND	ND	ND	ND	114
BH24-05	0	February 13, 2024	72	165	ND	ND	ND	ND	ND	ND	ND	74.3
	2	February 13, 2024	2	75	ND	ND	ND	ND	ND	ND	ND	81.4
	4	February 13, 2024	0	90	ND	ND	ND	ND	ND	ND	ND	116
BH24-06	0	February 13, 2024	32	250	ND	ND	ND	ND	ND	ND	ND	122
	2	February 13, 2024	0	120	ND	ND	ND	ND	ND	ND	ND	98
	4	February 13, 2024	5	110	ND	ND	ND	ND	ND	ND	ND	99.7
BH24-07	0	February 13, 2024	14	275	ND	ND	ND	ND	ND	ND	ND	86
	2	February 13, 2024	0	155	ND	ND	ND	ND	ND	ND	ND	74
	4	February 13, 2024	0	135	ND	ND	ND	ND	ND	ND	ND	74
BH24-08	0	February 13, 2024	44	310	ND	ND	ND	ND	ND	ND	ND	81
	2	February 13, 2024	8	170	ND	ND	ND	ND	ND	ND	ND	66
	4	February 13, 2024	0	162	ND	ND	ND	ND	ND	ND	ND	71
BH24-09	0	February 27, 2024	42	246	ND	ND	ND	ND	ND	ND	ND	204
	2	February 27, 2024	39	0	ND	ND	ND	ND	ND	ND	ND	116
BH24-10	0	February 27, 2024	232	443	-	-	-	-	-	-	-	-
	2	February 27, 2024	47	225	-	-	-	-	-	-	-	-
BH24-11	0	February 27, 2024	431	1	ND	ND	ND	60.7	ND	60.7	60.7	202
	2	February 27, 2024	38	0	ND	ND	ND	ND	ND	ND	ND	77.0
BH24-12	0	February 27, 2024	-	4,529	ND	ND	ND	ND	ND	ND	ND	7,030
	2	February 28, 2024	-	2,235	-	-	-	-	-	-	-	-
	4	February 28, 2024	-	3,260	ND	ND	ND	ND	ND	ND	ND	2,650
	6	February 28, 2024	-	4,049	-	-	-	-	-	-	-	-
	8	February 28, 2024	-	2,462	ND	ND	ND	ND	ND	ND	ND	2,520

Client Name: XTO Energy, Inc.

Site Name: Mis Amigos Tank Battey

NMOCD Tracking #: nAPP2335431615

Project #: 23E-05219

Lab Reports: 890-6176-1, 890-6178-1, and 890-6296-1

Table 3. Initial Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater >100 feet bgs												
Sample Description			Field Screening		Petroleum Hydrocarbons							Inorganic Chloride Concentration
Sample ID	Depth (ft)	Sample Date	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Volatile		Extractable					
					Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
			(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
BH24-13	0	February 28, 2024	47	209	ND	ND	ND	ND	ND	ND	ND	79.5
	2	February 28, 2024	34	189	ND	ND	ND	ND	ND	ND	ND	90.9
BH24-14	0	February 28, 2024	49	228	ND	ND	ND	ND	ND	ND	ND	72.5
	2	February 28, 2024	27	241	ND	ND	ND	ND	ND	ND	ND	44.1
BH24-15	0	February 28, 2024	37	7,741	ND	ND	ND	ND	ND	ND	ND	8,820
	2	February 28, 2024	17	219	ND	ND	ND	ND	ND	ND	ND	81.2
BH24-16	0	February 28, 2024	-	2,791	-	-	-	-	-	-	-	-
	2	February 28, 2024	-	383	-	-	-	-	-	-	-	-
BH24-17	0	February 29, 2024	47	12,302	ND	ND	ND	ND	ND	ND	ND	12,000
	2	February 29, 2024	23	284	ND	ND	ND	ND	ND	ND	ND	371
BH24-18	0	February 29, 2024	130	287	ND	ND	ND	ND	ND	ND	ND	234
	2	February 29, 2024	35	279	ND	ND	ND	ND	ND	ND	ND	356
BH24-19	0	February 29, 2024	46	583	ND	ND	ND	ND	ND	ND	ND	360
	2	February 29, 2024	34	150	ND	ND	ND	ND	ND	ND	ND	140
BH24-20	0	February 29, 2024	208	15,244	ND	ND	ND	ND	ND	ND	ND	14,300
	2	February 29, 2024	22	334	ND	ND	ND	ND	ND	ND	ND	253

"ND" Not Detected at the Reporting Limit

"-" indicates not analyzed/assessed

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

Client Name: XTO Energy, Inc.

Site Name: Mis Amigos Tank Battery

NMOCD Tracking #: nAPP2335431615

Project #: 23E-05219

Lab Reports: 885-1548-1, 885-1619-1, 885-1923-1, 885-2148-1, 885-2487-1, 885-2619-1, and 885-5415-1

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

Table 4. Confirmatory Sample Field Screen and Laboratory Results - Depth to Groundwater >100 feet bgs													
Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Volatile		Extractable					
						Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
Base Samples													
BES24-01	0.5	March 19, 2024	-	69	260	ND	ND	ND	150	ND	150	150	120
BES24-02	0.5	March 19, 2024	-	72	410	ND	ND	ND	280	ND	280	280	1,100
BES24-03	0.5	March 20, 2024	-	96	5,500	ND	ND	ND	30	ND	30	30	6,200
BES24-04	0.5	March 20, 2024	-	70	6,100	ND	ND	ND	ND	ND	ND	ND	4,500
BES24-05	0.5	March 20, 2024	-	98	3,940	ND	ND	ND	ND	ND	ND	ND	3,200
BES24-06	0.5	March 22, 2024	0	87	6,570	ND	ND	ND	ND	ND	ND	ND	6,200
BES24-07	0.5	March 22, 2024	95	-	1,072	ND	ND	ND	ND	ND	ND	ND	910
BES24-08	0.5	March 22, 2024	0	52	3,967	ND	ND	ND	ND	ND	ND	ND	2,800
BES24-09	1	March 29, 2024	0	37	245	ND	ND	ND	ND	ND	ND	ND	70
BES24-10	1	March 29, 2024	0	-	562	ND	ND	ND	ND	ND	ND	ND	480
BES24-11	1	March 29, 2024	0	-	462	ND	ND	ND	ND	ND	ND	ND	250
BES24-12	1	March 29, 2024	0	75	263	ND	ND	ND	ND	ND	ND	ND	210
BES24-13	1	March 29, 2024	0	-	250	ND	ND	ND	ND	ND	ND	ND	83
BES24-14	1	March 29, 2024	0	35	280	ND	ND	ND	ND	ND	ND	ND	120
BES24-15	1	March 29, 2024	0	-	272	ND	ND	ND	ND	ND	ND	ND	200
BES24-16	1	March 29, 2024	0	42	295	ND	ND	ND	ND	ND	ND	ND	100
BES24-17	1	March 29, 2024	0	-	317	ND	ND	ND	ND	ND	ND	ND	250
BES24-18	1	March 29, 2024	0	59	350	ND	ND	ND	ND	ND	ND	ND	110
BES24-19	1	March 29, 2024	0	-	257	ND	ND	ND	ND	ND	ND	ND	120
BES24-20	1	March 29, 2024	0	15	262	ND	ND	ND	ND	ND	ND	ND	ND
BES24-21	1	March 29, 2024	0	15	77	ND	ND	ND	ND	ND	ND	ND	11
BES24-22	1	March 29, 2024	0	0	225	ND	ND	ND	ND	ND	ND	ND	ND
BES24-23	1	March 29, 2024	0	-	600	ND	ND	ND	ND	ND	ND	ND	260
BES24-24	1	March 29, 2024	0	-	260	ND	ND	ND	ND	ND	ND	ND	46
BES24-25	1	March 29, 2024	0	12	300	ND	ND	ND	ND	ND	ND	ND	ND
BES24-26	1	April 3, 2024	-	25	220	ND	ND	ND	ND	ND	ND	ND	92
BES24-27	1	May 30, 2024	-	28	220	ND	ND	ND	ND	ND	ND	ND	100
BES24-28	2	April 4, 2024	-	30	550	ND	ND	ND	ND	ND	ND	ND	430
BES24-29	2	April 4, 2024	-	30	368	ND	ND	ND	ND	ND	ND	ND	420
BES24-30	2.25	April 4, 2024	-	-	470	ND	ND	ND	ND	ND	ND	ND	250
BES24-31	2	April 4, 2024	-	-	345	ND	ND	ND	ND	ND	ND	ND	200
BES24-32	2	April 4, 2024	-	-	165	ND	ND	ND	ND	ND	ND	ND	320
BES24-33	3	May 30, 2024	-	41	240	ND	ND	ND	ND	ND	ND	ND	180
BES24-34	1	April 3, 2024	-	51	228	ND	ND	ND	ND	ND	ND	ND	320
BES24-35	2	April 4, 2024	-	-	470	ND	ND	ND	ND	ND	ND	ND	200
BES24-36	1	April 3, 2024	-	71	375	ND	ND	ND	ND	ND	ND	ND	290

Client Name: XTO Energy, Inc.

Site Name: Mis Amigos Tank Battery

NMOCD Tracking #: nAPP2335431615

Project #: 23E-05219

Lab Reports: 885-1548-1, 885-1619-1, 885-1923-1, 885-2148-1, 885-2487-1, 885-2619-1, and 885-5415-1

Table 4. Confirmatory Sample Field Screen and Laboratory Results - Depth to Groundwater >100 feet bgs													
Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Volatile		Extractable					
						Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Wall Samples													
WES24-01	0.5	March 19, 2024	0	52	589	ND	ND	ND	250	ND	250	250	220
WES24-02	0.5	March 20, 2024	0	87	4210	ND	ND	ND	ND	ND	ND	ND	4,800
WES24-03	0-1	March 29, 2024	0	67	275	ND	ND	ND	ND	ND	ND	ND	220
WES24-04	0-1	March 29, 2024	0	32	305	ND	ND	ND	ND	ND	ND	ND	14
WES24-05	0-1	May 30, 2024	-	91	315	ND	ND	ND	ND	ND	ND	ND	150
WES24-06	0-1	April 3, 2024	-	-	810	ND	ND	ND	ND	ND	ND	ND	2,100
WES24-07	0-1	April 3, 2024	-	-	1153	ND	ND	ND	ND	ND	ND	ND	880
WES24-11	0-1	April 3, 2024	-	-	1467	ND	ND	ND	ND	ND	ND	ND	2,400
WES24-12	0-1	May 30, 2024	-	63	154	ND	ND	ND	ND	ND	ND	ND	160

"ND" Not Detected at the Reporting Limit

"-." indicates not analyzed/assessed

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

APPENDIX A - NMOCD C-141 Report

Location:	Mis Amigos Tank Battery	
Spill Date:	12/18/2023	
Area 1		
Approximate Area =	5233.80	sq. ft.
Average Saturation (or depth) of spill =	0.50	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	7.17	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	7.17	bbls
TOTAL VOLUME RECOVERED		
Total Crude Oil =	0.00	bbls
Total Produced Water =	6.00	bbls

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District IV
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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

Action 296541

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 296541
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2335431615
Incident Name	NAPP2335431615 MIS AMIGOS TANK BATTERY @ 0
Incident Type	Produced Water Release
Incident Status	Initial C-141 Received

Location of Release Source

Please answer all the questions in this group.

Site Name	Mis Amigos Tank Battery
Date Release Discovered	12/18/2023
Surface Owner	State

Incident Details

Please answer all the questions in this group.

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

Nature and Volume of Release

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

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Corrosion Other (Specify) Produced Water Released: 7 BBL Recovered: 6 BBL Lost: 1 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 296541

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 296541
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

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	Not answered.
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Melanie Collins Title: Regulatory Analyst Email: Melanie.Collins@exxonmobil.com Date: 12/20/2023

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QUESTIONS, Page 3

Action 296541

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 296541
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

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)	Not answered.
What method was used to determine the depth to ground water	Not answered.
Did this release impact groundwater or surface water	Not answered.
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	Not answered.
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Not answered.
An occupied permanent residence, school, hospital, institution, or church	Not answered.
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Not answered.
Any other fresh water well or spring	Not answered.
Incorporated municipal boundaries or a defined municipal fresh water well field	Not answered.
A wetland	Not answered.
A subsurface mine	Not answered.
An (non-karst) unstable area	Not answered.
Categorize the risk of this well / site being in a karst geology	Not answered.
A 100-year floodplain	Not answered.
Did the release impact areas not on an exploration, development, production, or storage site	Not answered.

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	No
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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CONDITIONS

Action 296541

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 296541
	Action Type: [C-141] Initial C-141 (C-141-v-Initial)

CONDITIONS

Created By	Condition	Condition Date
scwells	None	12/20/2023

APPENDIX B – Closure Criteria Research Documentation

APPENDIX C – Daily Field Reports



Daily Site Visit Report

Client:	XTO Energy Inc. (US)	Inspection Date:	2/29/2024
Site Location Name:	Mis Amigos	Report Run Date:	2/29/2024 10:34 PM
Client Contact Name:	Garrett Green	API #:	
Client Contact Phone #:	575-200-0729		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	2/29/2024 10:25 AM
Departed Site	2/29/2024 3:15 PM

Field Notes

- 11:22** Arrived on site, examined site for hazards and completed safety assessment for job and documents and for XTO requirements. Communication with XTO Representative.
- 12:01** Performed line sweep prior to digging samples.
- 14:34** Collected samples BH24-17 through -20 at 0 and 2 feet.
Field screened samples for chlorides with EC meter and titration and TPH with Dexsil petroflag
- 14:54** Prepared samples for lab and preserved on ice. Cleaned up area.

Next Steps & Recommendations

- 1 Collect lab results
- 2 Compose remediation plan

Daily Site Visit Report



Site Photos

Viewing Direction: East



Site information placard

Viewing Direction: East



BH24-17 at 0 and 2 feet, 15 feet west of separators

Viewing Direction: Southwest



BH24-20 at 0 and 2 feet. 6 feet north of 4th separator from west.

Viewing Direction: Southwest



BH24-19 at 0 and 2 feet. 25 feet north of large metallic separator east of green horizontal separators.



Daily Site Visit Report

Viewing Direction: East



BH24-18 at 0 and 2 feet. 10 feet west of staining, at west berm and edge of pad.

Viewing Direction: East



Staining along pipe rack through separators from west most separator

Viewing Direction: Northwest



Staining along pipe rack through separators from west most separator

Viewing Direction: North



Staining from west most separator



Daily Site Visit Report

Viewing Direction: Southeast



Staining from west most separator

Viewing Direction: Southeast



Staining from west most separator

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature:

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



Daily Site Visit Report

Client:	<u>XTO Energy Inc. (US)</u>	Inspection Date:	<u>3/19/2024</u>
Site Location Name:	<u>Mis Amigos</u>	Report Run Date:	<u>3/20/2024 12:31 AM</u>
Client Contact Name:	<u>Garrett Green</u>	API #:	<u></u>
Client Contact Phone #:	<u>575-200-0729</u>		
Unique Project ID	<u></u>	Project Owner:	<u></u>
Project Reference #	<u></u>	Project Manager:	<u></u>

Summary of Times

Arrived at Site 3/19/2024 8:10 AM

Departed Site 3/19/2024 4:10 PM

Field Notes

15:46 - Completed safety paperwork and safety meeting upon arrival.

Called Amy Ruth for the work authorization.

-Two crews worked separately on spotting the electrical underground lines with the hydrovac truck while the others worked on the 0.5' bgs hand digging excavation between the separators on the south site.

15:48 Obtained BES24-01 and 02 as well as WES24-01 on the south site between the separators.

All samples were field-screened for Cl and TPH. Cl values are under 600 ppm and TPH 81 ppm.

All samples were jarred and sent to the lab.

Next Steps & Recommendations

1

Daily Site Visit Report



Site Photos

Viewing Direction: South



BES24-01 and WES24-01 collected at 0.5' bgs

Viewing Direction: South



BES24-02 collected at 0.5' bgs

Viewing Direction: South



Excavation central area between the separators hand dug today to 0.5' bgs.

Viewing Direction: West



Electric lines spotted with the hydrovac and fenced afterwards



Daily Site Visit Report

Viewing Direction: Northwest



Electric lines spotted with the hydrovac and fenced afterwards

Viewing Direction: West



Electric lines spotted with the hydrovac and fenced afterwards

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Deusavan Costa Filho

Signature:

Signature 



Daily Site Visit Report

Client:	XTO Energy Inc. (US)	Inspection Date:	3/22/2024
Site Location Name:	Mis Amigos	Report Run Date:	3/25/2024 11:23 AM
Client Contact Name:	Garrett Green	API #:	
Client Contact Phone #:	575-200-0729		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site 3/22/2024 8:01 AM

Departed Site 3/22/2024 3:52 PM

Field Notes

15:37 -Completed safety paperwork and safety meeting upon arrival.
-texted Amy Ruth for the work authorization.
-hand crew worked on areas around the machinery while the backhoe team worked on the NW corner of the proposed excavation site.

15:41 Obtained BES24-06 to 08 at 0.5' bgs between the separators (BES24-06) and behind (BES24-07 and 08)-west corner
-All samples were field-screened for CI and TPH. CI values are between 1072 and 6570 ppm and TPH under 98 ppm.
-All samples were jarred and sent to the lab

Next Steps & Recommendations

1

Daily Site Visit Report



Site Photos

Viewing Direction: East

Date & Time: Fri Mar 22 15:23:31 MDT 2024
Position: +032.25432° / -103.60959°
Altitude: 1093m
Datum: WGS-84
Azimuth/Bearing: 010° N10E: 0178mils (True)
Zoom: 1X



Descriptive Photo - 1
Viewing Direction: East
Sensor: BES24-06 collected at 0.5' A0
Created: 3/22/2024 3:41:45 PM
Lat: 32.254320, Long: -103.609595

NW corner at 1'.

Viewing Direction: West

Date & Time: Fri Mar 22 15:23:31 MDT 2024
Position: +032.25430° / -103.60965°
Altitude: 1094m
Datum: WGS-84
Azimuth/Bearing: 177° S00E: 314mils (True)
Zoom: 1X



Descriptive Photo - 2
Viewing Direction: West
Sensor: BES24-06 collected at 0.5' A0
Created: 3/22/2024 3:42:54 PM
Lat: 32.254320, Long: -103.609595

BES24-06 collected at 0.5".

Viewing Direction: East

Date & Time: Fri Mar 22 12:13:18 MDT 2024
Position: +032.25430° / -103.60965°
Altitude: 1093m
Datum: WGS-84
Azimuth/Bearing: 004° N04E: 0071mils (True)
Zoom: 1X



Descriptive Photo - 3
Viewing Direction: East
Sensor: BES24-07 collected at 0.5' A0
Created: 3/22/2024 3:44:06 PM
Lat: 32.254320, Long: -103.609595

BES24-07 collected at 0.5".

Viewing Direction: East

Date & Time: Fri Mar 22 12:13:18 MDT 2024
Position: +032.25430° / -103.60965°
Altitude: 1093m
Datum: WGS-84
Azimuth/Bearing: 004° N04E: 0071mils (True)
Zoom: 1X



Descriptive Photo - 4
Viewing Direction: East
Sensor: BES24-08 collected at 0.5' A0
Created: 3/22/2024 3:44:48 PM
Lat: 32.254320, Long: -103.609595

BES24-08 collected at 0.5".

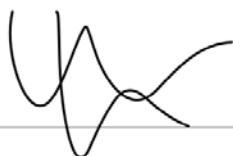
Daily Site Visit Report



Daily Site Visit Signature

Inspector: Deusavan Costa Filho

Signature:


Signature



Daily Site Visit Report

Client:	XTO Energy Inc. (US)	Inspection Date:	3/26/2024
Site Location Name:	Mis Amigos	Report Run Date:	4/1/2024 11:35 AM
Client Contact Name:	Garrett Green	API #:	
Client Contact Phone #:	575-200-0729		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site 3/26/2024 8:00 AM

Departed Site 3/26/2024 4:03 PM

Field Notes

15:57 -Completed safety paperwork and safety meeting upon arrival.

-texted Amy Ruth for the work authorization.

-early morning a XTO crew moved the green pipes from the excavation site for another corner of the pad.

-Crew worked the eastern side of the excavation at 1' bgs. They concluded the east side in front of the separators. The total area is about 2000 ft^2

Next Steps & Recommendations

1

Daily Site Visit Report



Site Photos

Viewing Direction: Northeast



east side in front of the separators at 1' bgs

Viewing Direction: South



east side in front of the separators

Viewing Direction: Southeast



east side in front of the separators at 1' bgs

Viewing Direction: Northwest



east side in front of the separators at 1' bgs



Daily Site Visit Report

Viewing Direction: East



east side in front of the separators at 1' bgs

Viewing Direction: Northeast



Green pipes moved away from the excavation site

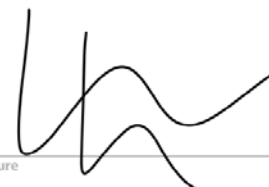
Daily Site Visit Report



Daily Site Visit Signature

Inspector: Deusavan Costa Filho

Signature:


Signature



Daily Site Visit Report

Client:	<u>XTO Energy Inc. (US)</u>	Inspection Date:	<u>3/27/2024</u>
Site Location Name:	<u>Mis Amigos</u>	Report Run Date:	<u>4/1/2024 11:20 AM</u>
Client Contact Name:	<u>Garrett Green</u>	API #:	<u></u>
Client Contact Phone #:	<u>575-200-0729</u>		
Unique Project ID	<u></u>	Project Owner:	<u></u>
Project Reference #	<u></u>	Project Manager:	<u></u>

Summary of Times

Arrived at Site	<u>3/27/2024 7:33 AM</u>
Departed Site	<u>3/27/2024 1:32 PM</u>

Field Notes

13:22 -Completed safety paperwork and safety meeting upon arrival.

-texted Amy Ruth for the work authorization.

-Crew worked on backfilling clean material in the hydrovac hoes outside of the release area. They also secured the excavation area fencing it with wires and an orange net. Finally, we started the NW excavation site, but we stopped at the limit of the proposed excavation area, which could block the main site entrance allowing free access to the site.

Next Steps & Recommendations

1

Daily Site Visit Report



Site Photos

Viewing Direction: East



Overview excavation site at 1' bgs

Viewing Direction: East



Overview excavation site at 1' bgs

Viewing Direction: Southwest



Overview NW excavation site at 1' bgs

Viewing Direction: West



Overview excavation site at 1' bgs. Gate



Daily Site Visit Report

Viewing Direction: Southwest



Overview excavation site at 1' bgs. SW part

Viewing Direction: Southwest



Overview excavation site at 1' bgs. NE part

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Deusavan Costa Filho

Signature:

Signature 



Daily Site Visit Report

Client:	XTO Energy Inc. (US)	Inspection Date:	3/29/2024
Site Location Name:	Mis Amigos	Report Run Date:	4/1/2024 11:21 AM
Client Contact Name:	Garrett Green	API #:	
Client Contact Phone #:	575-200-0729		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site 3/29/2024 8:00 AM

Departed Site 3/29/2024 4:24 PM

Field Notes

16:23 -Completed safety paperwork and safety meeting upon arrival.

-Called Amy Ruth for the work authorization.

-The crew dug the remaining excavation site to 1' bgs, connecting the NW to the SW corner. BES24-20 and 21 were collected and field-screened on the excavation site. Cl and TPH are under 270 ppm 15 ppm. The samples were jarred. To avoid blocking the site entrance the areas represented by BES24-20 and 21 were backfilled with clean material and fenced to avoid hazards

-BES24-09 to 25 collected at 1' bgs on the west side of the spill together with WES24-03 and 04 at 1' bgs. Field-screen results shows Cl under 600ppm and TPH under 75 ppm. All samples were jarred and sent to the lab.

-

Next Steps & Recommendations

1

Daily Site Visit Report



Site Photos

Viewing Direction: South



West site excavation at 1' bgs

Viewing Direction: East



SouthWest corner excavation at 1' bgs. BES24-09 to 12 collected at 1'.

Viewing Direction: North



NorthSouth excavation at 1' bgs. BES24-13 to 19 collected at 1'.

Viewing Direction: North



NorthSouth excavation at 1' bgs. BES24-20 to 21 collected at 1'.



Daily Site Visit Report

Viewing Direction: South



NorthSouth excavation at 1' bgs. BES24-20 to 21 collected at 1'.

Viewing Direction: South



NorthSouth excavation at 1' bgs. BES24-22 to 25 collected at 1'.

Viewing Direction: East



NorthSouth excavation at 1' bgs. BES24-20 to 21 collected at 1'. The areas represented by BES24-20 and 21 were backfilled with clean material and fenced to avoid hazards.

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Deusavan Costa Filho

Signature:

A handwritten signature in black ink, appearing to be 'Deusavan Costa Filho', written over a horizontal line.

Signature



Daily Site Visit Report

Client:	XTO Energy Inc. (US)	Inspection Date:	4/3/2024
Site Location Name:	Mis Amigos	Report Run Date:	4/4/2024 1:07 AM
Client Contact Name:	Garrett Green	API #:	
Client Contact Phone #:	575-200-0729		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site 4/3/2024 7:45 AM

Departed Site

Field Notes

- 8:13** Met with Vino and Larry from Standard waiting on trucks to arrive for safety meeting. Informed Amy that I'm on location and the plan for the day.
- 14:29** In the mean time I assed hazards and got familiar with the site. Northern side of the release is cleared for backfill according to data and collector.
- 8:33** Trucks have arrived held safety meeting
- 8:34** Began loading contaminated soil to disposal site.
- 8:36** Northern release area is clear to backfill it was previously excavated to 1ft bgs.
- 12:01** Confirmation sampled and field screened BES26-36 and WES24-05-07 and WES24-11. BES24-28-33 were above criteria. BES24-35 was above criteria. WES24-06,07,11 were above criteria. Unable to further WES24-06,07,11 due to structure faculties in the way. Excavating base samples that were above criteria by 1ft bgs.
- 12:53** I marked areas for further excavation as needed, while standard contied backfill areas that are complete
- 14:30** Northern portion of release area is complelty backfilled

Next Steps & Recommendations

- 1 Excavate the 2 areas that need to go down 1ft deeper and backfill area infornt of separators and in between them as well

Daily Site Visit Report



Daily Site Visit Report



Site Photos

Viewing Direction: Southeast



Northern release area before backfill was excavated to 1ft bgs.

Viewing Direction: Northeast



Northern release area facing NE

Viewing Direction: North



In front of the separators to the west of the separators facing N. Release area was excavated to 1ft bgs and is clear for backfill

Viewing Direction: Southwest



Infront of the separates and to the west release are was excavated to 1ft bgs and is clear to be backfilled



Daily Site Visit Report

Viewing Direction: Northwest



BES24-26-28 were sampled 1ft bgs. Located north of the 2nd and 4th transformers

Viewing Direction: West



WES24-11 sampled at 1ft bgs located being separators

Viewing Direction: Northwest



Samples BES24-26-33 and WES24-05 located north of the separators

Viewing Direction: Northwest



BES24-34-36 WES24-06&07 were all sampled 1ft bgs located north of the separators



Daily Site Visit Report

Viewing Direction: South



Area marked will be excavated to depth of 2ft

Viewing Direction: Southeast



Area will be further excavated to 2ft bgs

Viewing Direction: Southeast



WES24-06,07 walls can not be further excavated due to facility structures

Viewing Direction: Southwest



WES24-11 can not be further extended to pipeline structure



Daily Site Visit Report

Viewing Direction: North



Northern release area has been back filled

Viewing Direction: North



Release area west of equipment has been back filled

Viewing Direction: West



Excavation that has yet been filled and or excavated further facing exit of the pad

Viewing Direction: Southwest



Facing south west, western side of release in front of equipment has been back filled



Daily Site Visit Report

Viewing Direction: Northwest



Release area behind separators has been backfilled

Viewing Direction: South



Areas between and in front of separators have not been excavated and or backfilled

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Wyatt Wadleigh

Signature:



Daily Site Visit Report

Client:	XTO Energy Inc. (US)	Inspection Date:	4/4/2024
Site Location Name:	Mis Amigos	Report Run Date:	4/5/2024 12:07 AM
Client Contact Name:	Amy Ruth	API #:	
Client Contact Phone #:	432-661-0571		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site 4/4/2024 7:00 AM

Departed Site

Field Notes

- 7:36** Arrived on site held safety meeting after assessing for hazards. Informed Amy we are on location.
- 7:37** Due to underground line in the new excavation areas we are line locating using Randy who is on location with us from Standard.
- 7:47** Began excavating after lines were cleared and spotted we will hand dig areas around them.
- 8:12** Randy with Standard line located an underground line we do not know how deep it is. Will hand dig in the area of it
- 10:37** BES24-35 excavation area was samples at 2ft bgs and was below criteria via field screens
- 12:29** BES24-28-33 have been field screen. BES24-30&33 were slightly above criteria. All other samples are below and have been jarred on site.
- 13:59** Scrape of BES24-30 and BES24-33 excavation to 3ft bgs is complete
- 14:39** All samples BES24-26 through 36 have been sampled to depths that reach below criteria of contamination.
- 14:39** Began total backfill

Next Steps & Recommendations

1

Daily Site Visit Report



Site Photos

Viewing Direction: Northwest



Blue spotting is the underground line in presence to field note 4

Viewing Direction: Northwest



BES24-35 confirmation sample area has been excavated 2ft bgs



Daily Site Visit Report

Viewing Direction: Northeast



Contaminated soil resting on plastic liner

Viewing Direction: Southwest



White lined square in foreground is BES24-33 which will be excavated to 3ft bgs. BES24-30 is the white lined area in the background and will be scraped

Viewing Direction: Northwest



In foreground BES24-33 excavation to 3ft bgs to the west is BES24-30 scrape

Viewing Direction: Southwest



To the right is BES24-33 excavated to 3ft bgs to the right is BES24-30 which was scraped



Daily Site Visit Report

Viewing Direction: South



Excavation between 1st and 2nd separators
has been backfilled

Daily Site Visit Report



Daily Site Visit Signature

Inspector: Wyatt Wadleigh

Signature:

APPENDIX D – Notifications

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 323466

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 323466
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2335431615
Incident Name	NAPP2335431615 MIS AMIGOS TANK BATTERY @ 0
Incident Type	Produced Water Release
Incident Status	Initial C-141 Approved

Location of Release Source	
Site Name	Mis Amigos Tank Battery
Date Release Discovered	12/18/2023
Surface Owner	State

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	5,000
What is the estimated number of samples that will be gathered	25
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	03/19/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	scarttar@vertex.ca
Please provide any information necessary for navigation to sampling site	O-31-23S-33E 32.25464,-103.60959

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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

CONDITIONS

Action 323466

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 323466
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aromero	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	3/14/2024

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

QUESTIONS

Action 323470

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 323470
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2335431615
Incident Name	NAPP2335431615 MIS AMIGOS TANK BATTERY @ 0
Incident Type	Produced Water Release
Incident Status	Initial C-141 Approved

Location of Release Source	
Site Name	Mis Amigos Tank Battery
Date Release Discovered	12/18/2023
Surface Owner	State

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	5,000
What is the estimated number of samples that will be gathered	25
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	03/20/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	scarttar@vertex.ca
Please provide any information necessary for navigation to sampling site	O-31-23S-33E 32.25464,-103.60959

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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

CONDITIONS

Action 323470

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 323470
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aromero	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	3/14/2024

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

QUESTIONS

Action 323473

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 323473
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2335431615
Incident Name	NAPP2335431615 MIS AMIGOS TANK BATTERY @ 0
Incident Type	Produced Water Release
Incident Status	Initial C-141 Approved

Location of Release Source	
Site Name	Mis Amigos Tank Battery
Date Release Discovered	12/18/2023
Surface Owner	State

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	5,000
What is the estimated number of samples that will be gathered	25
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	03/21/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	scarttar@vertex.ca
Please provide any information necessary for navigation to sampling site	O-31-23S-33E 32.25464,-103.60959

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State of New Mexico
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Oil Conservation Division
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Santa Fe, NM 87505

CONDITIONS

Action 323473

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 323473
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aromero	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	3/14/2024

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

QUESTIONS

Action 323474

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 323474
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2335431615
Incident Name	NAPP2335431615 MIS AMIGOS TANK BATTERY @ 0
Incident Type	Produced Water Release
Incident Status	Initial C-141 Approved

Location of Release Source	
Site Name	Mis Amigos Tank Battery
Date Release Discovered	12/18/2023
Surface Owner	State

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	5,000
What is the estimated number of samples that will be gathered	25
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	03/22/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	scarttar@vertex.ca
Please provide any information necessary for navigation to sampling site	O-31-23S-33E 32.25464,-103.60959

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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

CONDITIONS

Action 323474

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 323474
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aromero	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	3/14/2024

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

QUESTIONS

Action 327182

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 327182
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2335431615
Incident Name	NAPP2335431615 MIS AMIGOS TANK BATTERY @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

Location of Release Source	
Site Name	Mis Amigos Tank Battery
Date Release Discovered	12/18/2023
Surface Owner	State

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	5,000
What is the estimated number of samples that will be gathered	25
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	03/29/2024
Time sampling will commence	09:00 AM
Please provide any information necessary for observers to contact samplers	SCarttar@vertex.ca
Please provide any information necessary for navigation to sampling site	O-31-23S-33E 32.25464,-103.60959

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State of New Mexico
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Oil Conservation Division
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Santa Fe, NM 87505

CONDITIONS

Action 327182

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 327182
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aromero	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	3/27/2024

District I

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

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811 S. First St., Artesia, NM 88210
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District III

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

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

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

QUESTIONS

Action 325802

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 325802
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2335431615
Incident Name	NAPP2335431615 MIS AMIGOS TANK BATTERY @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

Location of Release Source

Site Name	Mis Amigos Tank Battery
Date Release Discovered	12/18/2023
Surface Owner	State

Sampling Event General Information*Please answer all the questions in this group.*

What is the sampling surface area in square feet	5,000
What is the estimated number of samples that will be gathered	25
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	04/02/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	SCarttar@vertex.ca
Please provide any information necessary for navigation to sampling site	O-31-23S-33E 32.25464,-103.60959

District I
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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

CONDITIONS

Action 325802

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 325802
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aromero	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	3/22/2024

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Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 325804

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 325804
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2335431615
Incident Name	NAPP2335431615 MIS AMIGOS TANK BATTERY @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

Location of Release Source	
Site Name	Mis Amigos Tank Battery
Date Release Discovered	12/18/2023
Surface Owner	State

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	5,000
What is the estimated number of samples that will be gathered	25
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	04/03/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	SCarttar@vertex.ca
Please provide any information necessary for navigation to sampling site	O-31-23S-33E 32.25464,-103.60959

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 325804

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 325804
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aromero	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	3/22/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
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Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 325805

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 325805
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2335431615
Incident Name	NAPP2335431615 MIS AMIGOS TANK BATTERY @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received

Location of Release Source	
Site Name	Mis Amigos Tank Battery
Date Release Discovered	12/18/2023
Surface Owner	State

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	5,000
What is the estimated number of samples that will be gathered	25
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	04/04/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	SCarttar@vertex.ca
Please provide any information necessary for navigation to sampling site	O-31-23S-33E 32.25464,-103.60959

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 325805

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 325805
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aromero	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	3/22/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 346956

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 346956
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2335431615
Incident Name	NAPP2335431615 MIS AMIGOS TANK BATTERY @ 0
Incident Type	Produced Water Release
Incident Status	Remediation Plan Approved

Location of Release Source	
Site Name	MIS AMIGOS TANK BATTERY
Date Release Discovered	12/18/2023
Surface Owner	State

Sampling Event General Information	
Please answer all the questions in this group.	
What is the sampling surface area in square feet	1,200
What is the estimated number of samples that will be gathered	6
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	05/30/2024
Time sampling will commence	08:00 AM
Please provide any information necessary for observers to contact samplers	SCarttar@vertexresource.com
Please provide any information necessary for navigation to sampling site	O-31-23S-33E 32.25464,-103.60959

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
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1000 Rio Brazos Rd., Aztec, NM 87410
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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

CONDITIONS

Action 346956

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 346956
	Action Type: [NOTIFY] Notification Of Sampling (C-141N)

CONDITIONS

Created By	Condition	Condition Date
aromero	Failure to notify the OCD of sampling events including any changes in date/time per the requirements of 19.15.29.12.D.(1).(a) NMAC, may result in the remediation closure samples not being accepted.	5/22/2024

APPENDIX E – Laboratory Data Reports and Chain of Custody Forms



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Chance Dixon
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 2/22/2024 11:59:25 AM

JOB DESCRIPTION

Mis Amigos
23E-05219

JOB NUMBER

890-6176-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
2/22/2024 11:59:25 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Vertex
Project/Site: Mis Amigos

Laboratory Job ID: 890-6176-1
SDG: 23E-05219

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Definitions/Glossary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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
Project: Mis Amigos

Job ID: 890-6176-1

Job ID: 890-6176-1

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Job Narrative
890-6176-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt

The samples were received on 2/14/2024 8:28 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 0.2°C.

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BH24-01 0 (890-6176-1), BH24-01 2 (890-6176-2), BH24-01 4 (890-6176-3), BH24-02 0 (890-6176-4), BH24-02 2 (890-6176-5), BH24-02 4 (890-6176-6), BH24-03 0 (890-6176-7), BH24-03 2 (890-6176-8), BH24-03 4 (890-6176-9), BH24-04 0 (890-6176-10), BH24-04 2 (890-6176-11) and BH24-04 4 (890-6176-12).

GC VOA

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-73799 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-73799/2).

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73298 and analytical batch 880-73414 was outside the upper control limits.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-73298 and analytical batch 880-73414 was outside control limits. Sample non-homogeneity is suspected.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73300 and analytical batch 880-73423 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH24-01 4 (890-6176-3), BH24-03 0 (890-6176-7), BH24-03 2 (890-6176-8), (890-6178-A-1-G MS) and (890-6178-A-1-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-73300 and analytical batch 880-73423 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.

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-01 0

Lab Sample ID: 890-6176-1

Date Collected: 02/12/24 09:40

Matrix: Solid

Date Received: 02/14/24 08:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:33	02/21/24 19:05	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:33	02/21/24 19:05	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:33	02/21/24 19:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/15/24 15:33	02/21/24 19:05	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:33	02/21/24 19:05	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/15/24 15:33	02/21/24 19:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	02/15/24 15:33	02/21/24 19:05	1
1,4-Difluorobenzene (Surr)	107		70 - 130	02/15/24 15:33	02/21/24 19:05	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/21/24 19:05	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			02/20/24 02:38	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		02/15/24 17:26	02/20/24 02:38	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		02/15/24 17:26	02/20/24 02:38	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		02/15/24 17:26	02/20/24 02:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130	02/15/24 17:26	02/20/24 02:38	1
o-Terphenyl	85		70 - 130	02/15/24 17:26	02/20/24 02:38	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	100		5.02	mg/Kg			02/17/24 02:06	1

Client Sample ID: BH24-01 2

Lab Sample ID: 890-6176-2

Date Collected: 02/12/24 09:50

Matrix: Solid

Date Received: 02/14/24 08:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:33	02/21/24 19:26	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:33	02/21/24 19:26	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:33	02/21/24 19:26	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		02/15/24 15:33	02/21/24 19:26	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:33	02/21/24 19:26	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/15/24 15:33	02/21/24 19:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	02/15/24 15:33	02/21/24 19:26	1
1,4-Difluorobenzene (Surr)	107		70 - 130	02/15/24 15:33	02/21/24 19:26	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-01 2

Lab Sample ID: 890-6176-2

Date Collected: 02/12/24 09:50

Matrix: Solid

Date Received: 02/14/24 08:28

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/21/24 19:26	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			02/20/24 03:00	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		02/15/24 17:26	02/20/24 03:00	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		02/15/24 17:26	02/20/24 03:00	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		02/15/24 17:26	02/20/24 03:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	72		70 - 130			02/15/24 17:26	02/20/24 03:00	1
o-Terphenyl	71		70 - 130			02/15/24 17:26	02/20/24 03:00	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	61.2		4.99	mg/Kg			02/17/24 02:10	1

Client Sample ID: BH24-01 4

Lab Sample ID: 890-6176-3

Date Collected: 02/12/24 10:00

Matrix: Solid

Date Received: 02/14/24 08:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:33	02/21/24 19:47	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:33	02/21/24 19:47	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:33	02/21/24 19:47	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		02/15/24 15:33	02/21/24 19:47	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:33	02/21/24 19:47	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/15/24 15:33	02/21/24 19:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130			02/15/24 15:33	02/21/24 19:47	1
1,4-Difluorobenzene (Surr)	109		70 - 130			02/15/24 15:33	02/21/24 19:47	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/21/24 19:47	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			02/20/24 03:22	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		02/15/24 17:26	02/20/24 03:22	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		02/15/24 17:26	02/20/24 03:22	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-01 4

Lab Sample ID: 890-6176-3

Date Collected: 02/12/24 10:00

Matrix: Solid

Date Received: 02/14/24 08:28

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		02/15/24 17:26	02/20/24 03:22	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	65	S1-	70 - 130			02/15/24 17:26	02/20/24 03:22	1	
o-Terphenyl	60	S1-	70 - 130			02/15/24 17:26	02/20/24 03:22	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	90.4		5.00	mg/Kg			02/17/24 02:15	1	

Client Sample ID: BH24-02 0

Lab Sample ID: 890-6176-4

Date Collected: 02/12/24 10:10

Matrix: Solid

Date Received: 02/14/24 08:28

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:33	02/21/24 20:07	1	
Toluene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:33	02/21/24 20:07	1	
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:33	02/21/24 20:07	1	
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/15/24 15:33	02/21/24 20:07	1	
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:33	02/21/24 20:07	1	
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/15/24 15:33	02/21/24 20:07	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	90		70 - 130			02/15/24 15:33	02/21/24 20:07	1	
1,4-Difluorobenzene (Surr)	104		70 - 130			02/15/24 15:33	02/21/24 20:07	1	

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/21/24 20:07	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.4	U	50.4	mg/Kg			02/20/24 03:45	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		02/15/24 17:26	02/20/24 03:45	1	
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		02/15/24 17:26	02/20/24 03:45	1	
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		02/15/24 17:26	02/20/24 03:45	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	71		70 - 130			02/15/24 17:26	02/20/24 03:45	1	
o-Terphenyl	75		70 - 130			02/15/24 17:26	02/20/24 03:45	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	157		4.98	mg/Kg			02/17/24 02:29	1	

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-02 2

Lab Sample ID: 890-6176-5

Date Collected: 02/12/24 10:20

Matrix: Solid

Date Received: 02/14/24 08:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:33	02/21/24 20:28	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:33	02/21/24 20:28	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:33	02/21/24 20:28	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		02/15/24 15:33	02/21/24 20:28	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:33	02/21/24 20:28	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		02/15/24 15:33	02/21/24 20:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	02/15/24 15:33	02/21/24 20:28	1
1,4-Difluorobenzene (Surr)	106		70 - 130	02/15/24 15:33	02/21/24 20:28	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/21/24 20:28	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			02/20/24 04:07	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		02/15/24 17:26	02/20/24 04:07	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		02/15/24 17:26	02/20/24 04:07	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		02/15/24 17:26	02/20/24 04:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	74		70 - 130	02/15/24 17:26	02/20/24 04:07	1
o-Terphenyl	70		70 - 130	02/15/24 17:26	02/20/24 04:07	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	75.9		5.03	mg/Kg			02/17/24 02:33	1

Client Sample ID: BH24-02 4

Lab Sample ID: 890-6176-6

Date Collected: 02/12/24 10:30

Matrix: Solid

Date Received: 02/14/24 08:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:33	02/21/24 20:49	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:33	02/21/24 20:49	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:33	02/21/24 20:49	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		02/15/24 15:33	02/21/24 20:49	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:33	02/21/24 20:49	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		02/15/24 15:33	02/21/24 20:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	02/15/24 15:33	02/21/24 20:49	1
1,4-Difluorobenzene (Surr)	106		70 - 130	02/15/24 15:33	02/21/24 20:49	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-02 4

Lab Sample ID: 890-6176-6

Date Collected: 02/12/24 10:30

Matrix: Solid

Date Received: 02/14/24 08:28

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00397	U	0.00397	mg/Kg			02/21/24 20:49	1	
Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.7	U	49.7	mg/Kg			02/20/24 04:29	1	
Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		02/15/24 17:26	02/20/24 04:29	1	
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		02/15/24 17:26	02/20/24 04:29	1	
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		02/15/24 17:26	02/20/24 04:29	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	78		70 - 130			02/15/24 17:26	02/20/24 04:29	1	
o-Terphenyl	80		70 - 130			02/15/24 17:26	02/20/24 04:29	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	235		5.05	mg/Kg			02/17/24 02:38	1	

Client Sample ID: BH24-03 0

Lab Sample ID: 890-6176-7

Date Collected: 02/12/24 10:40

Matrix: Solid

Date Received: 02/14/24 08:28

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:33	02/21/24 21:10	1	
Toluene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:33	02/21/24 21:10	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:33	02/21/24 21:10	1	
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/15/24 15:33	02/21/24 21:10	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:33	02/21/24 21:10	1	
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/15/24 15:33	02/21/24 21:10	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	103		70 - 130			02/15/24 15:33	02/21/24 21:10	1	
1,4-Difluorobenzene (Surr)	106		70 - 130			02/15/24 15:33	02/21/24 21:10	1	
Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/21/24 21:10	1	
Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.9	U	49.9	mg/Kg			02/20/24 04:51	1	
Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/15/24 17:26	02/20/24 04:51	1	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/15/24 17:26	02/20/24 04:51	1	

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-03 0

Lab Sample ID: 890-6176-7

Date Collected: 02/12/24 10:40

Matrix: Solid

Date Received: 02/14/24 08:28

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/15/24 17:26	02/20/24 04:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 130			02/15/24 17:26	02/20/24 04:51	1
o-Terphenyl	67	S1-	70 - 130			02/15/24 17:26	02/20/24 04:51	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	107		5.02	mg/Kg			02/17/24 02:43	1

Client Sample ID: BH24-03 2

Lab Sample ID: 890-6176-8

Date Collected: 02/12/24 10:50

Matrix: Solid

Date Received: 02/14/24 08:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:33	02/21/24 21:31	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:33	02/21/24 21:31	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:33	02/21/24 21:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/15/24 15:33	02/21/24 21:31	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:33	02/21/24 21:31	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/15/24 15:33	02/21/24 21:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130			02/15/24 15:33	02/21/24 21:31	1
1,4-Difluorobenzene (Surr)	104		70 - 130			02/15/24 15:33	02/21/24 21:31	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/21/24 21:31	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/20/24 05:14	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/15/24 17:26	02/20/24 05:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/15/24 17:26	02/20/24 05:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/15/24 17:26	02/20/24 05:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 130			02/15/24 17:26	02/20/24 05:14	1
o-Terphenyl	67	S1-	70 - 130			02/15/24 17:26	02/20/24 05:14	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	90.8		4.97	mg/Kg			02/17/24 02:47	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-03 4

Lab Sample ID: 890-6176-9

Date Collected: 02/12/24 11:00

Matrix: Solid

Date Received: 02/14/24 08:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:33	02/21/24 21:52	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:33	02/21/24 21:52	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:33	02/21/24 21:52	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		02/15/24 15:33	02/21/24 21:52	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:33	02/21/24 21:52	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/15/24 15:33	02/21/24 21:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	02/15/24 15:33	02/21/24 21:52	1
1,4-Difluorobenzene (Surr)	104		70 - 130	02/15/24 15:33	02/21/24 21:52	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/21/24 21:52	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			02/18/24 17:20	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		02/15/24 17:22	02/18/24 17:20	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		02/15/24 17:22	02/18/24 17:20	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		02/15/24 17:22	02/18/24 17:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130	02/15/24 17:22	02/18/24 17:20	1
o-Terphenyl	94		70 - 130	02/15/24 17:22	02/18/24 17:20	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110		4.99	mg/Kg			02/17/24 02:52	1

Client Sample ID: BH24-04 0

Lab Sample ID: 890-6176-10

Date Collected: 02/12/24 11:10

Matrix: Solid

Date Received: 02/14/24 08:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:33	02/21/24 22:13	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:33	02/21/24 22:13	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:33	02/21/24 22:13	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		02/15/24 15:33	02/21/24 22:13	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:33	02/21/24 22:13	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		02/15/24 15:33	02/21/24 22:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	02/15/24 15:33	02/21/24 22:13	1
1,4-Difluorobenzene (Surr)	107		70 - 130	02/15/24 15:33	02/21/24 22:13	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-04 0

Lab Sample ID: 890-6176-10

Date Collected: 02/12/24 11:10

Matrix: Solid

Date Received: 02/14/24 08:28

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/21/24 22:13	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			02/18/24 17:43	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		02/15/24 17:23	02/18/24 17:43	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		02/15/24 17:23	02/18/24 17:43	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		02/15/24 17:23	02/18/24 17:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			02/15/24 17:23	02/18/24 17:43	1
o-Terphenyl	80		70 - 130			02/15/24 17:23	02/18/24 17:43	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	71.2		4.96	mg/Kg			02/17/24 03:06	1

Client Sample ID: BH24-04 2

Lab Sample ID: 890-6176-11

Date Collected: 02/12/24 11:20

Matrix: Solid

Date Received: 02/14/24 08:28

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:33	02/21/24 23:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:33	02/21/24 23:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:33	02/21/24 23:40	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/15/24 15:33	02/21/24 23:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:33	02/21/24 23:40	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/15/24 15:33	02/21/24 23:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130			02/15/24 15:33	02/21/24 23:40	1
1,4-Difluorobenzene (Surr)	101		70 - 130			02/15/24 15:33	02/21/24 23:40	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/21/24 23:40	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			02/18/24 18:06	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		02/15/24 17:23	02/18/24 18:06	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		02/15/24 17:23	02/18/24 18:06	1

Eurofins Carlsbad

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-04 2

Lab Sample ID: 890-6176-11

Date Collected: 02/12/24 11:20

Matrix: Solid

Date Received: 02/14/24 08:28

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg	-	02/15/24 17:23	02/18/24 18:06	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	106		70 - 130			02/15/24 17:23	02/18/24 18:06	1	
o-Terphenyl	87		70 - 130			02/15/24 17:23	02/18/24 18:06	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	80.7		4.95	mg/Kg	-		02/17/24 03:11	1	

Client Sample ID: BH24-04 4

Lab Sample ID: 890-6176-12

Date Collected: 02/12/24 11:30

Matrix: Solid

Date Received: 02/14/24 08:28

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00199	U	0.00199	mg/Kg	-	02/15/24 15:33	02/22/24 00:00	1	
Toluene	<0.00199	U	0.00199	mg/Kg	-	02/15/24 15:33	02/22/24 00:00	1	
Ethylbenzene	<0.00199	U	0.00199	mg/Kg	-	02/15/24 15:33	02/22/24 00:00	1	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg	-	02/15/24 15:33	02/22/24 00:00	1	
o-Xylene	<0.00199	U	0.00199	mg/Kg	-	02/15/24 15:33	02/22/24 00:00	1	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg	-	02/15/24 15:33	02/22/24 00:00	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	102		70 - 130			02/15/24 15:33	02/22/24 00:00	1	
1,4-Difluorobenzene (Surr)	110		70 - 130			02/15/24 15:33	02/22/24 00:00	1	

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00398	U	0.00398	mg/Kg	-		02/22/24 00:00	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.3	U	50.3	mg/Kg	-		02/18/24 18:29	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg	-	02/15/24 17:23	02/18/24 18:29	1	
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg	-	02/15/24 17:23	02/18/24 18:29	1	
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg	-	02/15/24 17:23	02/18/24 18:29	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	98		70 - 130			02/15/24 17:23	02/18/24 18:29	1	
o-Terphenyl	78		70 - 130			02/15/24 17:23	02/18/24 18:29	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	114		4.95	mg/Kg	-		02/17/24 03:24	1	

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Surrogate Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	BFB1	DFBZ1	
		(70-130)	(70-130)	
890-6176-1	BH24-01 0	91	107	
890-6176-1 MS	BH24-01 0	104	106	
890-6176-1 MSD	BH24-01 0	97	106	
890-6176-2	BH24-01 2	85	107	
890-6176-3	BH24-01 4	95	109	
890-6176-4	BH24-02 0	90	104	
890-6176-5	BH24-02 2	97	106	
890-6176-6	BH24-02 4	98	106	
890-6176-7	BH24-03 0	103	106	
890-6176-8	BH24-03 2	95	104	
890-6176-9	BH24-03 4	94	104	
890-6176-10	BH24-04 0	104	107	
890-6176-11	BH24-04 2	88	101	
890-6176-12	BH24-04 4	102	110	
LCS 880-73284/1-A	Lab Control Sample	96	108	
LCSD 880-73284/2-A	Lab Control Sample Dup	93	104	
MB 880-73284/5-A	Method Blank	74	101	
Surrogate Legend				
BFB = 4-Bromofluorobenzene (Surr)				
DFBZ = 1,4-Difluorobenzene (Surr)				

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1	OTPH1
		(70-130)	(70-130)
890-6117-A-1-I MS	Matrix Spike	100	73
890-6117-A-1-J MSD	Matrix Spike Duplicate	126	93
890-6176-1	BH24-01 0	81	85
890-6176-2	BH24-01 2	72	71
890-6176-3	BH24-01 4	65 S1-	60 S1-
890-6176-4	BH24-02 0	71	75
890-6176-5	BH24-02 2	74	70
890-6176-6	BH24-02 4	78	80
890-6176-7	BH24-03 0	70	67 S1-
890-6176-8	BH24-03 2	70	67 S1-
890-6176-9	BH24-03 4	115	94
890-6176-10	BH24-04 0	101	80
890-6176-11	BH24-04 2	106	87
890-6176-12	BH24-04 4	98	78
890-6178-A-1-G MS	Matrix Spike	73	68 S1-
890-6178-A-1-H MSD	Matrix Spike Duplicate	68 S1-	64 S1-
LCS 880-73298/2-A	Lab Control Sample	94	97
LCS 880-73300/2-A	Lab Control Sample	88	89
LCSD 880-73298/3-A	Lab Control Sample Dup	97	96
LCSD 880-73300/3-A	Lab Control Sample Dup	90	93
MB 880-73298/1-A	Method Blank	207 S1+	179 S1+
MB 880-73300/1-A	Method Blank	136 S1+	151 S1+

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Surrogate Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73284/5-A
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73284

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:33	02/21/24 18:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:33	02/21/24 18:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:33	02/21/24 18:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/15/24 15:33	02/21/24 18:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:33	02/21/24 18:43	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/15/24 15:33	02/21/24 18:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130	02/15/24 15:33	02/21/24 18:43	1
1,4-Difluorobenzene (Surr)	101		70 - 130	02/15/24 15:33	02/21/24 18:43	1

Lab Sample ID: LCS 880-73284/1-A
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73284

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1305		mg/Kg		130	70 - 130
Toluene	0.100	0.1001		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.09525		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.200	0.1853		mg/Kg		93	70 - 130
o-Xylene	0.100	0.09366		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-73284/2-A
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73284

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1169		mg/Kg		117	70 - 130	11	35
Toluene	0.100	0.09440		mg/Kg		94	70 - 130	6	35
Ethylbenzene	0.100	0.09104		mg/Kg		91	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1784		mg/Kg		89	70 - 130	4	35
o-Xylene	0.100	0.08973		mg/Kg		90	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 890-6176-1 MS
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: BH24-01 0
Prep Type: Total/NA
Prep Batch: 73284

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.100	0.1146		mg/Kg		114	70 - 130
Toluene	<0.00199	U	0.100	0.08578		mg/Kg		86	70 - 130

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

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

Lab Sample ID: 890-6176-1 MS
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: BH24-01 0
Prep Type: Total/NA
Prep Batch: 73284

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.100	0.08293		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1602		mg/Kg		80	70 - 130
o-Xylene	<0.00199	U	0.100	0.08577		mg/Kg		86	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	104		70 - 130						
1,4-Difluorobenzene (Surr)	106		70 - 130						

Lab Sample ID: 890-6176-1 MSD
Matrix: Solid
Analysis Batch: 73799

Client Sample ID: BH24-01 0
Prep Type: Total/NA
Prep Batch: 73284

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.1111		mg/Kg		110	70 - 130	3	35
Toluene	<0.00199	U	0.101	0.08237		mg/Kg		82	70 - 130	4	35
Ethylbenzene	<0.00199	U	0.101	0.07895		mg/Kg		78	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1528		mg/Kg		76	70 - 130	5	35
o-Xylene	<0.00199	U	0.101	0.08147		mg/Kg		81	70 - 130	5	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	97		70 - 130								
1,4-Difluorobenzene (Surr)	106		70 - 130								

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-73298/1-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73298

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/15/24 17:16	02/18/24 07:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/15/24 17:16	02/18/24 07:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/15/24 17:16	02/18/24 07:38	1
Surrogate	MB %Recovery	MB Qualifier	Limits					
1-Chlorooctane	207	S1+	70 - 130					
o-Terphenyl	179	S1+	70 - 130					

Lab Sample ID: LCS 880-73298/2-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73298

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	842.3		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)	1000	870.2		mg/Kg		87	70 - 130

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-73298/2-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73298

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: LCSD 880-73298/3-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73298

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	873.1		mg/Kg		87	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	828.5		mg/Kg		83	70 - 130	5	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: 890-6117-A-1-I MS
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 73298

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	994	1185		mg/Kg		116	70 - 130
Diesel Range Organics (Over C10-C28)	<49.8	U F2	994	895.0		mg/Kg		88	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	73		70 - 130

Lab Sample ID: 890-6117-A-1-J MSD
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 73298

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	<49.8	U	994	1136		mg/Kg		111	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.8	U F2	994	1160	F2	mg/Kg		114	70 - 130	26	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	126		70 - 130
o-Terphenyl	93		70 - 130

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-73300/1-A

Matrix: Solid

Analysis Batch: 73423

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 73300

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/15/24 17:26	02/19/24 19:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/15/24 17:26	02/19/24 19:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/15/24 17:26	02/19/24 19:53	1
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1-Chlorooctane	136	S1+	70 - 130			02/15/24 17:26	02/19/24 19:53	1
o-Terphenyl	151	S1+	70 - 130			02/15/24 17:26	02/19/24 19:53	1

Lab Sample ID: LCS 880-73300/2-A

Matrix: Solid

Analysis Batch: 73423

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 73300

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	955.9		mg/Kg		96	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	851.6		mg/Kg		85	70 - 130	
Surrogate	LCS	LCS	Limits					
	%Recovery	Qualifier						
1-Chlorooctane	88		70 - 130					
o-Terphenyl	89		70 - 130					

Lab Sample ID: LCSD 880-73300/3-A

Matrix: Solid

Analysis Batch: 73423

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 73300

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	926.7		mg/Kg		93	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	858.8		mg/Kg		86	70 - 130	1	20
Surrogate	LCSD	LCSD	Limits						
	%Recovery	Qualifier							
1-Chlorooctane	90		70 - 130						
o-Terphenyl	93		70 - 130						

Lab Sample ID: 890-6178-A-1-G MS

Matrix: Solid

Analysis Batch: 73423

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 73300

Analyte	Sample	Sample	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
	Result	Qualifier								
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	1000	1024		mg/Kg		98	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.6	U F1	1000	630.8	F1	mg/Kg		60	70 - 130	

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-6178-A-1-G MS

Matrix: Solid

Analysis Batch: 73423

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 73300

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	73		70 - 130
o-Terphenyl	68	S1-	70 - 130

Lab Sample ID: 890-6178-A-1-H MSD

Matrix: Solid

Analysis Batch: 73423

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 73300

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	<49.6	U	1000	1045		mg/Kg		100	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.6	U F1	1000	602.8	F1	mg/Kg		57	70 - 130	5	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	68	S1-	70 - 130								
o-Terphenyl	64	S1-	70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73212/1-A

Matrix: Solid

Analysis Batch: 73435

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/17/24 01:33	1

Lab Sample ID: LCS 880-73212/2-A

Matrix: Solid

Analysis Batch: 73435

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	240.8		mg/Kg		96	90 - 110

Lab Sample ID: LCSD 880-73212/3-A

Matrix: Solid

Analysis Batch: 73435

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	241.4		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-6176-9 MS

Matrix: Solid

Analysis Batch: 73435

Client Sample ID: BH24-03 4

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	110		250	342.1		mg/Kg		93	90 - 110

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-6176-9 MSD							Client Sample ID: BH24-03 4				
Matrix: Solid							Prep Type: Soluble				
Analysis Batch: 73435											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limits
Chloride	110		250	344.3		mg/Kg		94	90 - 110	1	20

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

GC VOA

Prep Batch: 73284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Total/NA	Solid	5035	
890-6176-2	BH24-01 2	Total/NA	Solid	5035	
890-6176-3	BH24-01 4	Total/NA	Solid	5035	
890-6176-4	BH24-02 0	Total/NA	Solid	5035	
890-6176-5	BH24-02 2	Total/NA	Solid	5035	
890-6176-6	BH24-02 4	Total/NA	Solid	5035	
890-6176-7	BH24-03 0	Total/NA	Solid	5035	
890-6176-8	BH24-03 2	Total/NA	Solid	5035	
890-6176-9	BH24-03 4	Total/NA	Solid	5035	
890-6176-10	BH24-04 0	Total/NA	Solid	5035	
890-6176-11	BH24-04 2	Total/NA	Solid	5035	
890-6176-12	BH24-04 4	Total/NA	Solid	5035	
MB 880-73284/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73284/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73284/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6176-1 MS	BH24-01 0	Total/NA	Solid	5035	
890-6176-1 MSD	BH24-01 0	Total/NA	Solid	5035	

Analysis Batch: 73799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Total/NA	Solid	8021B	73284
890-6176-2	BH24-01 2	Total/NA	Solid	8021B	73284
890-6176-3	BH24-01 4	Total/NA	Solid	8021B	73284
890-6176-4	BH24-02 0	Total/NA	Solid	8021B	73284
890-6176-5	BH24-02 2	Total/NA	Solid	8021B	73284
890-6176-6	BH24-02 4	Total/NA	Solid	8021B	73284
890-6176-7	BH24-03 0	Total/NA	Solid	8021B	73284
890-6176-8	BH24-03 2	Total/NA	Solid	8021B	73284
890-6176-9	BH24-03 4	Total/NA	Solid	8021B	73284
890-6176-10	BH24-04 0	Total/NA	Solid	8021B	73284
890-6176-11	BH24-04 2	Total/NA	Solid	8021B	73284
890-6176-12	BH24-04 4	Total/NA	Solid	8021B	73284
MB 880-73284/5-A	Method Blank	Total/NA	Solid	8021B	73284
LCS 880-73284/1-A	Lab Control Sample	Total/NA	Solid	8021B	73284
LCSD 880-73284/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73284
890-6176-1 MS	BH24-01 0	Total/NA	Solid	8021B	73284
890-6176-1 MSD	BH24-01 0	Total/NA	Solid	8021B	73284

Analysis Batch: 73844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Total/NA	Solid	Total BTEX	
890-6176-2	BH24-01 2	Total/NA	Solid	Total BTEX	
890-6176-3	BH24-01 4	Total/NA	Solid	Total BTEX	
890-6176-4	BH24-02 0	Total/NA	Solid	Total BTEX	
890-6176-5	BH24-02 2	Total/NA	Solid	Total BTEX	
890-6176-6	BH24-02 4	Total/NA	Solid	Total BTEX	
890-6176-7	BH24-03 0	Total/NA	Solid	Total BTEX	
890-6176-8	BH24-03 2	Total/NA	Solid	Total BTEX	
890-6176-9	BH24-03 4	Total/NA	Solid	Total BTEX	
890-6176-10	BH24-04 0	Total/NA	Solid	Total BTEX	
890-6176-11	BH24-04 2	Total/NA	Solid	Total BTEX	

Eurofins Carlsbad

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

GC VOA (Continued)

Analysis Batch: 73844 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-12	BH24-04 4	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-9	BH24-03 4	Total/NA	Solid	8015NM Prep	
890-6176-10	BH24-04 0	Total/NA	Solid	8015NM Prep	
890-6176-11	BH24-04 2	Total/NA	Solid	8015NM Prep	
890-6176-12	BH24-04 4	Total/NA	Solid	8015NM Prep	
MB 880-73298/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73298/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73298/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6117-A-1-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-6117-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 73300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Total/NA	Solid	8015NM Prep	
890-6176-2	BH24-01 2	Total/NA	Solid	8015NM Prep	
890-6176-3	BH24-01 4	Total/NA	Solid	8015NM Prep	
890-6176-4	BH24-02 0	Total/NA	Solid	8015NM Prep	
890-6176-5	BH24-02 2	Total/NA	Solid	8015NM Prep	
890-6176-6	BH24-02 4	Total/NA	Solid	8015NM Prep	
890-6176-7	BH24-03 0	Total/NA	Solid	8015NM Prep	
890-6176-8	BH24-03 2	Total/NA	Solid	8015NM Prep	
MB 880-73300/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73300/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73300/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6178-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-6178-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-9	BH24-03 4	Total/NA	Solid	8015B NM	73298
890-6176-10	BH24-04 0	Total/NA	Solid	8015B NM	73298
890-6176-11	BH24-04 2	Total/NA	Solid	8015B NM	73298
890-6176-12	BH24-04 4	Total/NA	Solid	8015B NM	73298
MB 880-73298/1-A	Method Blank	Total/NA	Solid	8015B NM	73298
LCS 880-73298/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73298
LCSD 880-73298/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73298
890-6117-A-1-I MS	Matrix Spike	Total/NA	Solid	8015B NM	73298
890-6117-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73298

Analysis Batch: 73423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Total/NA	Solid	8015B NM	73300
890-6176-2	BH24-01 2	Total/NA	Solid	8015B NM	73300
890-6176-3	BH24-01 4	Total/NA	Solid	8015B NM	73300
890-6176-4	BH24-02 0	Total/NA	Solid	8015B NM	73300
890-6176-5	BH24-02 2	Total/NA	Solid	8015B NM	73300

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QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

GC Semi VOA (Continued)

Analysis Batch: 73423 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-6	BH24-02 4	Total/NA	Solid	8015B NM	73300
890-6176-7	BH24-03 0	Total/NA	Solid	8015B NM	73300
890-6176-8	BH24-03 2	Total/NA	Solid	8015B NM	73300
MB 880-73300/1-A	Method Blank	Total/NA	Solid	8015B NM	73300
LCS 880-73300/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73300
LCSD 880-73300/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73300
890-6178-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	73300
890-6178-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	73300

Analysis Batch: 73540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Total/NA	Solid	8015 NM	
890-6176-2	BH24-01 2	Total/NA	Solid	8015 NM	
890-6176-3	BH24-01 4	Total/NA	Solid	8015 NM	
890-6176-4	BH24-02 0	Total/NA	Solid	8015 NM	
890-6176-5	BH24-02 2	Total/NA	Solid	8015 NM	
890-6176-6	BH24-02 4	Total/NA	Solid	8015 NM	
890-6176-7	BH24-03 0	Total/NA	Solid	8015 NM	
890-6176-8	BH24-03 2	Total/NA	Solid	8015 NM	
890-6176-9	BH24-03 4	Total/NA	Solid	8015 NM	
890-6176-10	BH24-04 0	Total/NA	Solid	8015 NM	
890-6176-11	BH24-04 2	Total/NA	Solid	8015 NM	
890-6176-12	BH24-04 4	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Soluble	Solid	DI Leach	
890-6176-2	BH24-01 2	Soluble	Solid	DI Leach	
890-6176-3	BH24-01 4	Soluble	Solid	DI Leach	
890-6176-4	BH24-02 0	Soluble	Solid	DI Leach	
890-6176-5	BH24-02 2	Soluble	Solid	DI Leach	
890-6176-6	BH24-02 4	Soluble	Solid	DI Leach	
890-6176-7	BH24-03 0	Soluble	Solid	DI Leach	
890-6176-8	BH24-03 2	Soluble	Solid	DI Leach	
890-6176-9	BH24-03 4	Soluble	Solid	DI Leach	
890-6176-10	BH24-04 0	Soluble	Solid	DI Leach	
890-6176-11	BH24-04 2	Soluble	Solid	DI Leach	
890-6176-12	BH24-04 4	Soluble	Solid	DI Leach	
MB 880-73212/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73212/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73212/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6176-9 MS	BH24-03 4	Soluble	Solid	DI Leach	
890-6176-9 MSD	BH24-03 4	Soluble	Solid	DI Leach	

Analysis Batch: 73435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-1	BH24-01 0	Soluble	Solid	300.0	73212
890-6176-2	BH24-01 2	Soluble	Solid	300.0	73212
890-6176-3	BH24-01 4	Soluble	Solid	300.0	73212

Eurofins Carlsbad

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

HPLC/IC (Continued)

Analysis Batch: 73435 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6176-4	BH24-02 0	Soluble	Solid	300.0	73212
890-6176-5	BH24-02 2	Soluble	Solid	300.0	73212
890-6176-6	BH24-02 4	Soluble	Solid	300.0	73212
890-6176-7	BH24-03 0	Soluble	Solid	300.0	73212
890-6176-8	BH24-03 2	Soluble	Solid	300.0	73212
890-6176-9	BH24-03 4	Soluble	Solid	300.0	73212
890-6176-10	BH24-04 0	Soluble	Solid	300.0	73212
890-6176-11	BH24-04 2	Soluble	Solid	300.0	73212
890-6176-12	BH24-04 4	Soluble	Solid	300.0	73212
MB 880-73212/1-A	Method Blank	Soluble	Solid	300.0	73212
LCS 880-73212/2-A	Lab Control Sample	Soluble	Solid	300.0	73212
LCSD 880-73212/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73212
890-6176-9 MS	BH24-03 4	Soluble	Solid	300.0	73212
890-6176-9 MSD	BH24-03 4	Soluble	Solid	300.0	73212

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-01 0
Date Collected: 02/12/24 09:40
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 19:05	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 19:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/20/24 02:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 02:38	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:06	CH	EET MID

Client Sample ID: BH24-01 2
Date Collected: 02/12/24 09:50
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 19:26	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 19:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/20/24 03:00	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 03:00	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:10	CH	EET MID

Client Sample ID: BH24-01 4
Date Collected: 02/12/24 10:00
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 19:47	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 19:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/20/24 03:22	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 03:22	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:15	CH	EET MID

Client Sample ID: BH24-02 0
Date Collected: 02/12/24 10:10
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 20:07	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 20:07	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-02 0
Date Collected: 02/12/24 10:10
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			73540	02/20/24 03:45	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 03:45	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:29	CH	EET MID

Client Sample ID: BH24-02 2
Date Collected: 02/12/24 10:20
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 20:28	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 20:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/20/24 04:07	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 04:07	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:33	CH	EET MID

Client Sample ID: BH24-02 4
Date Collected: 02/12/24 10:30
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 20:49	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 20:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/20/24 04:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 04:29	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:38	CH	EET MID

Client Sample ID: BH24-03 0
Date Collected: 02/12/24 10:40
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 21:10	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 21:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/20/24 04:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 04:51	SM	EET MID

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Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-03 0
Date Collected: 02/12/24 10:40
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:43	CH	EET MID

Client Sample ID: BH24-03 2
Date Collected: 02/12/24 10:50
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 21:31	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 21:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/20/24 05:14	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 05:14	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:47	CH	EET MID

Client Sample ID: BH24-03 4
Date Collected: 02/12/24 11:00
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 21:52	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 21:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/18/24 17:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	73298	02/15/24 17:22	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 17:20	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 02:52	CH	EET MID

Client Sample ID: BH24-04 0
Date Collected: 02/12/24 11:10
Date Received: 02/14/24 08:28

Lab Sample ID: 890-6176-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 22:13	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 22:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/18/24 17:43	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	73298	02/15/24 17:23	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 17:43	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:06	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Client Sample ID: BH24-04 2

Lab Sample ID: 890-6176-11

Date Collected: 02/12/24 11:20

Matrix: Solid

Date Received: 02/14/24 08:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/21/24 23:40	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/21/24 23:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/18/24 18:06	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73298	02/15/24 17:23	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 18:06	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:11	CH	EET MID

Client Sample ID: BH24-04 4

Lab Sample ID: 890-6176-12

Date Collected: 02/12/24 11:30

Matrix: Solid

Date Received: 02/14/24 08:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	73284	02/15/24 15:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73799	02/22/24 00:00	SM	EET MID
Total/NA	Analysis	Total BTEX		1			73844	02/22/24 00:00	SM	EET MID
Total/NA	Analysis	8015 NM		1			73540	02/18/24 18:29	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	73298	02/15/24 17:23	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/18/24 18:29	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:24	CH	EET MID

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24
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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6176-1
SDG: 23E-05219

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-6176-1	BH24-01 0	Solid	02/12/24 09:40	02/14/24 08:28
890-6176-2	BH24-01 2	Solid	02/12/24 09:50	02/14/24 08:28
890-6176-3	BH24-01 4	Solid	02/12/24 10:00	02/14/24 08:28
890-6176-4	BH24-02 0	Solid	02/12/24 10:10	02/14/24 08:28
890-6176-5	BH24-02 2	Solid	02/12/24 10:20	02/14/24 08:28
890-6176-6	BH24-02 4	Solid	02/12/24 10:30	02/14/24 08:28
890-6176-7	BH24-03 0	Solid	02/12/24 10:40	02/14/24 08:28
890-6176-8	BH24-03 2	Solid	02/12/24 10:50	02/14/24 08:28
890-6176-9	BH24-03 4	Solid	02/12/24 11:00	02/14/24 08:28
890-6176-10	BH24-04 0	Solid	02/12/24 11:10	02/14/24 08:28
890-6176-11	BH24-04 2	Solid	02/12/24 11:20	02/14/24 08:28
890-6176-12	BH24-04 4	Solid	02/12/24 11:30	02/14/24 08:28

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02.12.24

APP - 23298501

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Environment Testing

Xenco



eurofins

Work Order No:

1055621001

www.xenco.com

Page

1 of 2

Project Manager: Sally Corton
Company Name: Vertex / XCO
Address: on file
City, State ZIP: on file
Phone: on file

Bill to: (if different)
Company Name: on file
Address: on file
City, State ZIP: on file
Email: on file

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project: ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Reporting: ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: ☐ EDD ☐ ADAPT ☐ Other:

Project Name: Mr's Amigos
Project Number: 23E 05249
Project Location: Mrs Amigos
Sampler's Name: Houston Corton
PO #: 051081

Turn Around: ☒ Routine ☐ Rush
Due Date: TAT starts the day received by the lab, if received by 4:30pm
Wet Ice: ☒ No ☐ Yes
Thermometer ID: TW0001
Correction Factor: -0.2
Temperature Reading: 0.4
Corrected Temperature: 0.2

ANALYSIS REQUEST

890-6176 Chain of Custody

Preservative Codes

None: NO
Cool: Cool
HCL: HC
H₂SO₄: H₂
H₃PO₄: HP
NaHSO₄: NABIS
Na₂S₂O₃: NaSO₃
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SACP

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Pres. Code
BH24-01	Soil	2-12-23	9:40	0	C			
BH24-01	Soil	2-12-23	9:50	2	C			
BH24-01	Soil	2-12-23	10:00	4	C			
BH24-02	Soil	2-12-23	10:10	0	C			
BH24-02	Soil	2-12-23	10:20	2	C			
BH24-02	Soil	2-12-23	10:30	4	C			
BH24-03	Soil	2-12-23	10:40	0	C			
BH24-03	Soil	2-12-23	10:50	2	C			
BH24-03	Soil	2-12-23	11:00	4	C			

Total 2007/6010 200.8/6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP/SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631/245.1/7470/7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Sally Corton	adrian	2/17			2/17

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Vertex

Job Number: 890-6176-1

SDG Number: 23E-05219

Login Number: 6176

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

Question	Answer	Comment
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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Vertex

Job Number: 890-6176-1

SDG Number: 23E-05219

Login Number: 6176

List Number: 2

Creator: Wheeler, Jazmine

List Source: Eurofins Midland

List Creation: 02/15/24 11:38 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Chance Dixon
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 2/22/2024 11:59:25 AM

JOB DESCRIPTION

Mis Amigos

JOB NUMBER

890-6178-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
2/22/2024 11:59:25 AM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Vertex
Project/Site: Mis Amigos

Laboratory Job ID: 890-6178-1

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Definitions/Glossary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

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
Project: Mis Amigos

Job ID: 890-6178-1

Job ID: 890-6178-1

Eurofins Carlsbad

**Job Narrative
890-6178-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt

The samples were received on 2/14/2024 8:13 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 0.2°C.

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BH24-05 0 (890-6178-1), BH24-05 2 (890-6178-2), BH24-05 4 (890-6178-3), BH24-06 0 (890-6178-4), BH24-06 2 (890-6178-5), BH24-06 4 (890-6178-6), BH24-07 0 (890-6178-7), BH24-07 2 (890-6178-8), BH24-07 4 (890-6178-9), BH24-08 0 (890-6178-10), BH24-08 2 (890-6178-11) and BH24-08 4 (890-6178-12).

GC VOA

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-73285 and analytical batch 880-73718 was outside the upper control limits.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73300 and analytical batch 880-73423 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH24-06 2 (890-6178-5), BH24-08 0 (890-6178-10), (890-6178-A-1-G MS) and (890-6178-A-1-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-73300 and analytical batch 880-73423 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.

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-05 0

Lab Sample ID: 890-6178-1

Date Collected: 02/13/24 10:00

Matrix: Solid

Date Received: 02/14/24 08:13

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:38	02/22/24 00:23	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:38	02/22/24 00:23	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:38	02/22/24 00:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/15/24 15:38	02/22/24 00:23	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:38	02/22/24 00:23	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/15/24 15:38	02/22/24 00:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	02/15/24 15:38	02/22/24 00:23	1
1,4-Difluorobenzene (Surr)	103		70 - 130	02/15/24 15:38	02/22/24 00:23	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/22/24 00:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			02/19/24 21:01	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		02/15/24 17:26	02/19/24 21:01	1
Diesel Range Organics (Over C10-C28)	<49.6	U F1	49.6	mg/Kg		02/15/24 17:26	02/19/24 21:01	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		02/15/24 17:26	02/19/24 21:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 130	02/15/24 17:26	02/19/24 21:01	1
o-Terphenyl	76		70 - 130	02/15/24 17:26	02/19/24 21:01	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	74.3		4.98	mg/Kg			02/17/24 03:29	1

Client Sample ID: BH24-05 2

Lab Sample ID: 890-6178-2

Date Collected: 02/13/24 10:10

Matrix: Solid

Date Received: 02/14/24 08:13

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:38	02/22/24 00:43	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:38	02/22/24 00:43	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:38	02/22/24 00:43	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		02/15/24 15:38	02/22/24 00:43	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:38	02/22/24 00:43	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/15/24 15:38	02/22/24 00:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	02/15/24 15:38	02/22/24 00:43	1
1,4-Difluorobenzene (Surr)	108		70 - 130	02/15/24 15:38	02/22/24 00:43	1

Eurofins Carlsbad

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-05 2

Lab Sample ID: 890-6178-2

Date Collected: 02/13/24 10:10

Matrix: Solid

Date Received: 02/14/24 08:13

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/22/24 00:43	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			02/19/24 22:09	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		02/15/24 17:26	02/19/24 22:09	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		02/15/24 17:26	02/19/24 22:09	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		02/15/24 17:26	02/19/24 22:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			02/15/24 17:26	02/19/24 22:09	1
o-Terphenyl	108		70 - 130			02/15/24 17:26	02/19/24 22:09	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81.4		5.01	mg/Kg			02/17/24 03:34	1

Client Sample ID: BH24-05 4

Lab Sample ID: 890-6178-3

Date Collected: 02/13/24 10:20

Matrix: Solid

Date Received: 02/14/24 08:13

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:38	02/22/24 01:04	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:38	02/22/24 01:04	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:38	02/22/24 01:04	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		02/15/24 15:38	02/22/24 01:04	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:38	02/22/24 01:04	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/15/24 15:38	02/22/24 01:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130			02/15/24 15:38	02/22/24 01:04	1
1,4-Difluorobenzene (Surr)	106		70 - 130			02/15/24 15:38	02/22/24 01:04	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/22/24 01:04	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/19/24 22:31	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/15/24 17:26	02/19/24 22:31	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/15/24 17:26	02/19/24 22:31	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-05 4

Lab Sample ID: 890-6178-3

Date Collected: 02/13/24 10:20

Matrix: Solid

Date Received: 02/14/24 08:13

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/15/24 17:26	02/19/24 22:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			02/15/24 17:26	02/19/24 22:31	1
o-Terphenyl	114		70 - 130			02/15/24 17:26	02/19/24 22:31	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	116		5.02	mg/Kg			02/17/24 03:39	1

Client Sample ID: BH24-06 0

Lab Sample ID: 890-6178-4

Date Collected: 02/13/24 10:30

Matrix: Solid

Date Received: 02/14/24 08:13

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:38	02/22/24 01:25	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:38	02/22/24 01:25	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:38	02/22/24 01:25	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/15/24 15:38	02/22/24 01:25	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/15/24 15:38	02/22/24 01:25	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/15/24 15:38	02/22/24 01:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130			02/15/24 15:38	02/22/24 01:25	1
1,4-Difluorobenzene (Surr)	105		70 - 130			02/15/24 15:38	02/22/24 01:25	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			02/22/24 01:25	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			02/19/24 22:54	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		02/15/24 17:26	02/19/24 22:54	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		02/15/24 17:26	02/19/24 22:54	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		02/15/24 17:26	02/19/24 22:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130			02/15/24 17:26	02/19/24 22:54	1
o-Terphenyl	86		70 - 130			02/15/24 17:26	02/19/24 22:54	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	122		4.99	mg/Kg			02/17/24 03:43	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-06 2

Lab Sample ID: 890-6178-5

Date Collected: 02/13/24 10:40

Matrix: Solid

Date Received: 02/14/24 08:13

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:38	02/22/24 01:45	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:38	02/22/24 01:45	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:38	02/22/24 01:45	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		02/15/24 15:38	02/22/24 01:45	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:38	02/22/24 01:45	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		02/15/24 15:38	02/22/24 01:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130			02/15/24 15:38	02/22/24 01:45	1
1,4-Difluorobenzene (Surr)	105		70 - 130			02/15/24 15:38	02/22/24 01:45	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/22/24 01:45	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/19/24 23:16	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/15/24 17:26	02/19/24 23:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/15/24 17:26	02/19/24 23:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/15/24 17:26	02/19/24 23:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	69	S1-	70 - 130			02/15/24 17:26	02/19/24 23:16	1
o-Terphenyl	69	S1-	70 - 130			02/15/24 17:26	02/19/24 23:16	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	97.8		4.98	mg/Kg			02/17/24 03:48	1

Client Sample ID: BH24-06 4

Lab Sample ID: 890-6178-6

Date Collected: 02/13/24 10:50

Matrix: Solid

Date Received: 02/14/24 08:13

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:38	02/22/24 02:06	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:38	02/22/24 02:06	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:38	02/22/24 02:06	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		02/15/24 15:38	02/22/24 02:06	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:38	02/22/24 02:06	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		02/15/24 15:38	02/22/24 02:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130			02/15/24 15:38	02/22/24 02:06	1
1,4-Difluorobenzene (Surr)	108		70 - 130			02/15/24 15:38	02/22/24 02:06	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-06 4

Lab Sample ID: 890-6178-6

Date Collected: 02/13/24 10:50

Matrix: Solid

Date Received: 02/14/24 08:13

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			02/22/24 02:06	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			02/19/24 23:39	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3	mg/Kg		02/15/24 17:26	02/19/24 23:39	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		02/15/24 17:26	02/19/24 23:39	1
Oil Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		02/15/24 17:26	02/19/24 23:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			02/15/24 17:26	02/19/24 23:39	1
o-Terphenyl	114		70 - 130			02/15/24 17:26	02/19/24 23:39	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	99.7		5.04	mg/Kg			02/17/24 03:52	1

Client Sample ID: BH24-07 0

Lab Sample ID: 890-6178-7

Date Collected: 02/13/24 11:00

Matrix: Solid

Date Received: 02/14/24 08:13

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:38	02/22/24 02:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:38	02/22/24 02:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:38	02/22/24 02:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/15/24 15:38	02/22/24 02:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:38	02/22/24 02:26	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/15/24 15:38	02/22/24 02:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130			02/15/24 15:38	02/22/24 02:26	1
1,4-Difluorobenzene (Surr)	105		70 - 130			02/15/24 15:38	02/22/24 02:26	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/22/24 02:26	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			02/20/24 00:01	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		02/15/24 17:26	02/20/24 00:01	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		02/15/24 17:26	02/20/24 00:01	1

Eurofins Carlsbad

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-07 0

Lab Sample ID: 890-6178-7

Date Collected: 02/13/24 11:00

Matrix: Solid

Date Received: 02/14/24 08:13

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		02/15/24 17:26	02/20/24 00:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130			02/15/24 17:26	02/20/24 00:01	1
o-Terphenyl	82		70 - 130			02/15/24 17:26	02/20/24 00:01	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	85.7		5.05	mg/Kg			02/19/24 15:54	1

Client Sample ID: BH24-07 2

Lab Sample ID: 890-6178-8

Date Collected: 02/13/24 11:10

Matrix: Solid

Date Received: 02/14/24 08:13

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:38	02/22/24 02:47	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:38	02/22/24 02:47	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:38	02/22/24 02:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/15/24 15:38	02/22/24 02:47	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:38	02/22/24 02:47	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/15/24 15:38	02/22/24 02:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130			02/15/24 15:38	02/22/24 02:47	1
1,4-Difluorobenzene (Surr)	108		70 - 130			02/15/24 15:38	02/22/24 02:47	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/22/24 02:47	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			02/20/24 00:23	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		02/15/24 17:26	02/20/24 00:23	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		02/15/24 17:26	02/20/24 00:23	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		02/15/24 17:26	02/20/24 00:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130			02/15/24 17:26	02/20/24 00:23	1
o-Terphenyl	79		70 - 130			02/15/24 17:26	02/20/24 00:23	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	73.9		5.05	mg/Kg			02/19/24 16:14	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-07 4

Lab Sample ID: 890-6178-9

Date Collected: 02/13/24 11:20

Matrix: Solid

Date Received: 02/14/24 08:13

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:38	02/22/24 03:07	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:38	02/22/24 03:07	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:38	02/22/24 03:07	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		02/15/24 15:38	02/22/24 03:07	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/15/24 15:38	02/22/24 03:07	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/15/24 15:38	02/22/24 03:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	02/15/24 15:38	02/22/24 03:07	1
1,4-Difluorobenzene (Surr)	107		70 - 130	02/15/24 15:38	02/22/24 03:07	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/22/24 03:07	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			02/20/24 00:46	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		02/15/24 17:26	02/20/24 00:46	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		02/15/24 17:26	02/20/24 00:46	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		02/15/24 17:26	02/20/24 00:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	02/15/24 17:26	02/20/24 00:46	1
o-Terphenyl	104		70 - 130	02/15/24 17:26	02/20/24 00:46	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	74.0		4.97	mg/Kg			02/19/24 16:21	1

Client Sample ID: BH24-08 0

Lab Sample ID: 890-6178-10

Date Collected: 02/13/24 11:30

Matrix: Solid

Date Received: 02/14/24 08:13

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:38	02/22/24 03:28	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:38	02/22/24 03:28	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:38	02/22/24 03:28	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		02/15/24 15:38	02/22/24 03:28	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/15/24 15:38	02/22/24 03:28	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		02/15/24 15:38	02/22/24 03:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130	02/15/24 15:38	02/22/24 03:28	1
1,4-Difluorobenzene (Surr)	112		70 - 130	02/15/24 15:38	02/22/24 03:28	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-08 0

Lab Sample ID: 890-6178-10

Date Collected: 02/13/24 11:30

Matrix: Solid

Date Received: 02/14/24 08:13

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			02/22/24 03:28	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			02/20/24 01:09	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		02/15/24 17:26	02/20/24 01:09	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		02/15/24 17:26	02/20/24 01:09	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		02/15/24 17:26	02/20/24 01:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	64	S1-	70 - 130			02/15/24 17:26	02/20/24 01:09	1
o-Terphenyl	68	S1-	70 - 130			02/15/24 17:26	02/20/24 01:09	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81.2		4.96	mg/Kg			02/19/24 16:28	1

Client Sample ID: BH24-08 2

Lab Sample ID: 890-6178-11

Date Collected: 02/13/24 11:40

Matrix: Solid

Date Received: 02/14/24 08:13

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:38	02/22/24 05:19	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:38	02/22/24 05:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:38	02/22/24 05:19	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/15/24 15:38	02/22/24 05:19	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:38	02/22/24 05:19	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/15/24 15:38	02/22/24 05:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			02/15/24 15:38	02/22/24 05:19	1
1,4-Difluorobenzene (Surr)	108		70 - 130			02/15/24 15:38	02/22/24 05:19	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/22/24 05:19	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/20/24 01:53	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/15/24 17:26	02/20/24 01:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/15/24 17:26	02/20/24 01:53	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-08 2

Lab Sample ID: 890-6178-11

Date Collected: 02/13/24 11:40

Matrix: Solid

Date Received: 02/14/24 08:13

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/15/24 17:26	02/20/24 01:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			02/15/24 17:26	02/20/24 01:53	1
o-Terphenyl	106		70 - 130			02/15/24 17:26	02/20/24 01:53	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	65.9		4.99	mg/Kg			02/19/24 16:35	1

Client Sample ID: BH24-08 4

Lab Sample ID: 890-6178-12

Date Collected: 02/13/24 11:50

Matrix: Solid

Date Received: 02/14/24 08:13

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:38	02/22/24 05:39	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:38	02/22/24 05:39	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:38	02/22/24 05:39	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/15/24 15:38	02/22/24 05:39	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/15/24 15:38	02/22/24 05:39	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/15/24 15:38	02/22/24 05:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130			02/15/24 15:38	02/22/24 05:39	1
1,4-Difluorobenzene (Surr)	111		70 - 130			02/15/24 15:38	02/22/24 05:39	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/22/24 05:39	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/20/24 02:16	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/15/24 17:26	02/20/24 02:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/15/24 17:26	02/20/24 02:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/15/24 17:26	02/20/24 02:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130			02/15/24 17:26	02/20/24 02:16	1
o-Terphenyl	82		70 - 130			02/15/24 17:26	02/20/24 02:16	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	71.2		5.04	mg/Kg			02/19/24 16:55	1

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Surrogate Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Method: 8021B - Volatile Organic Compounds (GC)
Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	BFB1	DFBZ1		
		(70-130)	(70-130)		
890-6178-1	BH24-05 0	104	103		
890-6178-1 MS	BH24-05 0	109	103		
890-6178-1 MSD	BH24-05 0	120	97		
890-6178-2	BH24-05 2	114	108		
890-6178-3	BH24-05 4	123	106		
890-6178-4	BH24-06 0	122	105		
890-6178-5	BH24-06 2	111	105		
890-6178-6	BH24-06 4	126	108		
890-6178-7	BH24-07 0	120	105		
890-6178-8	BH24-07 2	113	108		
890-6178-9	BH24-07 4	119	107		
890-6178-10	BH24-08 0	130	112		
890-6178-11	BH24-08 2	93	108		
890-6178-12	BH24-08 4	113	111		
LCS 880-73285/1-A	Lab Control Sample	118	107		
LCSD 880-73285/2-A	Lab Control Sample Dup	110	97		
MB 880-73275/5-A	Method Blank	127	109		
MB 880-73285/5-A	Method Blank	135 S1+	113		
Surrogate Legend					
BFB = 4-Bromofluorobenzene (Surr)					
DFBZ = 1,4-Difluorobenzene (Surr)					

Method: 8015B NM - Diesel Range Organics (DRO) (GC)
Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	1CO1	OTPH1		
		(70-130)	(70-130)		
890-6178-1	BH24-05 0	77	76		
890-6178-1 MS	BH24-05 0	73	68 S1-		
890-6178-1 MSD	BH24-05 0	68 S1-	64 S1-		
890-6178-2	BH24-05 2	100	108		
890-6178-3	BH24-05 4	104	114		
890-6178-4	BH24-06 0	82	86		
890-6178-5	BH24-06 2	69 S1-	69 S1-		
890-6178-6	BH24-06 4	107	114		
890-6178-7	BH24-07 0	78	82		
890-6178-8	BH24-07 2	80	79		
890-6178-9	BH24-07 4	97	104		
890-6178-10	BH24-08 0	64 S1-	68 S1-		
890-6178-11	BH24-08 2	101	106		
890-6178-12	BH24-08 4	80	82		
LCS 880-73300/2-A	Lab Control Sample	88	89		
LCSD 880-73300/3-A	Lab Control Sample Dup	90	93		
MB 880-73300/1-A	Method Blank	136 S1+	151 S1+		
Surrogate Legend					
1CO = 1-Chlorooctane					
OTPH = o-Terphenyl					

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73275/5-A						Client Sample ID: Method Blank		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 73718						Prep Batch: 73275		
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:00	02/21/24 12:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:00	02/21/24 12:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:00	02/21/24 12:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/15/24 15:00	02/21/24 12:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:00	02/21/24 12:09	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/15/24 15:00	02/21/24 12:09	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130			02/15/24 15:00	02/21/24 12:09	1
1,4-Difluorobenzene (Surr)	109		70 - 130			02/15/24 15:00	02/21/24 12:09	1

Lab Sample ID: MB 880-73285/5-A						Client Sample ID: Method Blank		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 73718						Prep Batch: 73285		
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:38	02/21/24 23:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:38	02/21/24 23:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:38	02/21/24 23:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/15/24 15:38	02/21/24 23:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/15/24 15:38	02/21/24 23:54	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/15/24 15:38	02/21/24 23:54	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130			02/15/24 15:38	02/21/24 23:54	1
1,4-Difluorobenzene (Surr)	113		70 - 130			02/15/24 15:38	02/21/24 23:54	1

Lab Sample ID: LCS 880-73285/1-A						Client Sample ID: Lab Control Sample		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 73718						Prep Batch: 73285		
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene	0.100	0.1296		mg/Kg		130	70 - 130	
Toluene	0.100	0.1038		mg/Kg		104	70 - 130	
Ethylbenzene	0.100	0.1218		mg/Kg		122	70 - 130	
m-Xylene & p-Xylene	0.200	0.2270		mg/Kg		114	70 - 130	
o-Xylene	0.100	0.1203		mg/Kg		120	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	118		70 - 130					
1,4-Difluorobenzene (Surr)	107		70 - 130					

Lab Sample ID: LCSD 880-73285/2-A						Client Sample ID: Lab Control Sample Dup		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 73718						Prep Batch: 73285		
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD Limit
Benzene	0.100	0.1238		mg/Kg		124	70 - 130	5 35

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

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

Lab Sample ID: LCSD 880-73285/2-A

Matrix: Solid

Analysis Batch: 73718

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 73285

Analyte	Spike		LCSD		Unit	D	%Rec	%Rec		RPD	Limit
	Added		Result	Qualifier				Limits	RPD		
Toluene	0.100		0.1055		mg/Kg		105	70 - 130	2		35
Ethylbenzene	0.100		0.1179		mg/Kg		118	70 - 130	3		35
m-Xylene & p-Xylene	0.200		0.2076		mg/Kg		104	70 - 130	9		35
o-Xylene	0.100		0.1093		mg/Kg		109	70 - 130	10		35
LCSD		LCSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	110		70 - 130								
1,4-Difluorobenzene (Surr)	97		70 - 130								

Lab Sample ID: 890-6178-1 MS

Matrix: Solid

Analysis Batch: 73718

Client Sample ID: BH24-05 0

Prep Type: Total/NA

Prep Batch: 73285

Analyte	Sample		Spike	MS		Unit	D	%Rec	%Rec		RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits	RPD		
Benzene	<0.00199	U	0.100	0.1184		mg/Kg		118	70 - 130			
Toluene	<0.00199	U	0.100	0.09893		mg/Kg		99	70 - 130			
Ethylbenzene	<0.00199	U	0.100	0.1018		mg/Kg		102	70 - 130			
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1850		mg/Kg		92	70 - 130			
o-Xylene	<0.00199	U	0.100	0.09963		mg/Kg		99	70 - 130			
MS		MS										
Surrogate	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene (Surr)	109		70 - 130									
1,4-Difluorobenzene (Surr)	103		70 - 130									

Lab Sample ID: 890-6178-1 MSD

Matrix: Solid

Analysis Batch: 73718

Client Sample ID: BH24-05 0

Prep Type: Total/NA

Prep Batch: 73285

Analyte	Sample		Spike	MSD		Unit	D	%Rec	%Rec		RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits	RPD		
Benzene	<0.00199	U	0.101	0.1153		mg/Kg		115	70 - 130	3		35
Toluene	<0.00199	U	0.101	0.09478		mg/Kg		94	70 - 130	4		35
Ethylbenzene	<0.00199	U	0.101	0.1075		mg/Kg		107	70 - 130	5		35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1990		mg/Kg		99	70 - 130	7		35
o-Xylene	<0.00199	U	0.101	0.1099		mg/Kg		109	70 - 130	10		35
MSD		MSD										
Surrogate	%Recovery	Qualifier	Limits									
4-Bromofluorobenzene (Surr)	120		70 - 130									
1,4-Difluorobenzene (Surr)	97		70 - 130									

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-73300/1-A

Matrix: Solid

Analysis Batch: 73423

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 73300

Analyte	MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/15/24 17:26	02/19/24 19:53	1

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-73300/1-A

Matrix: Solid

Analysis Batch: 73423

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 73300

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/15/24 17:26	02/19/24 19:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/15/24 17:26	02/19/24 19:53	1
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1-Chlorooctane	136	S1+	70 - 130			02/15/24 17:26	02/19/24 19:53	1
o-Terphenyl	151	S1+	70 - 130			02/15/24 17:26	02/19/24 19:53	1

Lab Sample ID: LCS 880-73300/2-A

Matrix: Solid

Analysis Batch: 73423

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 73300

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	955.9		mg/Kg		96	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	851.6		mg/Kg		85	70 - 130	
Surrogate	LCS	LCS	Limits					
1-Chlorooctane		88	70 - 130					
o-Terphenyl		89	70 - 130					

Lab Sample ID: LCSD 880-73300/3-A

Matrix: Solid

Analysis Batch: 73423

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 73300

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	926.7		mg/Kg		93	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	858.8		mg/Kg		86	70 - 130	1	20
Surrogate	LCSD	LCSD	Limits						
1-Chlorooctane		90	70 - 130						
o-Terphenyl		93	70 - 130						

Lab Sample ID: 890-6178-1 MS

Matrix: Solid

Analysis Batch: 73423

Client Sample ID: BH24-05 0

Prep Type: Total/NA

Prep Batch: 73300

Analyte	Sample	Sample	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
	Result	Qualifier								
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	1000	1024		mg/Kg		98	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.6	U F1	1000	630.8	F1	mg/Kg		60	70 - 130	
Surrogate	MS	MS	Limits							
	%Recovery	Qualifier								
1-Chlorooctane	73		70 - 130							
o-Terphenyl	68	S1-	70 - 130							

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-6178-1 MSD

Client Sample ID: BH24-05 0

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 73423

Prep Batch: 73300

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	1000	1045		mg/Kg		100	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.6	U F1	1000	602.8	F1	mg/Kg		57	70 - 130	5	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	68	S1-	70 - 130								
o-Terphenyl	64	S1-	70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73212/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 73435

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	<5.00	U	5.00	mg/Kg			02/17/24 01:33	1

Lab Sample ID: LCS 880-73212/2-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 73435

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
							Limits
Chloride	250	240.8		mg/Ka		96	90 - 110

Lab Sample ID: LCSD 880-73212/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 73435

			Spike	LCS	LCS				%Rec	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride			250	241.4		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-6176-A-9-B MS

Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 73435

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec		
	Result	Qualifier	Added	Result	Qualifier			Limits			
Chloride	110		250	342.1		mg/Ka		93	90 - 110		

Lab Sample ID: 890-6176-A-9-C MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 73435

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	110		250	344.3		mg/Kg		94	90 - 110	1	20

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-73213/1-A										Client Sample ID: Method Blank	
Matrix: Solid										Prep Type: Soluble	
Analysis Batch: 73448											
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac			
Chloride	<5.00	U	5.00	mg/Kg			02/19/24 15:33	1			
Lab Sample ID: LCS 880-73213/2-A										Client Sample ID: Lab Control Sample	
Matrix: Solid										Prep Type: Soluble	
Analysis Batch: 73448											
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	259.6		mg/Kg		104	90 - 110		
Lab Sample ID: LCSD 880-73213/3-A										Client Sample ID: Lab Control Sample Dup	
Matrix: Solid										Prep Type: Soluble	
Analysis Batch: 73448											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	260.1		mg/Kg		104	90 - 110	0	20
Lab Sample ID: 890-6178-7 MS										Client Sample ID: BH24-07 0	
Matrix: Solid										Prep Type: Soluble	
Analysis Batch: 73448											
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	85.7		253	332.9		mg/Kg		98	90 - 110		
Lab Sample ID: 890-6178-7 MSD										Client Sample ID: BH24-07 0	
Matrix: Solid										Prep Type: Soluble	
Analysis Batch: 73448											
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	85.7		253	335.8		mg/Kg		99	90 - 110	1	20

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

GC VOA

Prep Batch: 73275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73275/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 73285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Total/NA	Solid	5035	
890-6178-2	BH24-05 2	Total/NA	Solid	5035	
890-6178-3	BH24-05 4	Total/NA	Solid	5035	
890-6178-4	BH24-06 0	Total/NA	Solid	5035	
890-6178-5	BH24-06 2	Total/NA	Solid	5035	
890-6178-6	BH24-06 4	Total/NA	Solid	5035	
890-6178-7	BH24-07 0	Total/NA	Solid	5035	
890-6178-8	BH24-07 2	Total/NA	Solid	5035	
890-6178-9	BH24-07 4	Total/NA	Solid	5035	
890-6178-10	BH24-08 0	Total/NA	Solid	5035	
890-6178-11	BH24-08 2	Total/NA	Solid	5035	
890-6178-12	BH24-08 4	Total/NA	Solid	5035	
MB 880-73285/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-73285/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-73285/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6178-1 MS	BH24-05 0	Total/NA	Solid	5035	
890-6178-1 MSD	BH24-05 0	Total/NA	Solid	5035	

Analysis Batch: 73718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Total/NA	Solid	8021B	73285
890-6178-2	BH24-05 2	Total/NA	Solid	8021B	73285
890-6178-3	BH24-05 4	Total/NA	Solid	8021B	73285
890-6178-4	BH24-06 0	Total/NA	Solid	8021B	73285
890-6178-5	BH24-06 2	Total/NA	Solid	8021B	73285
890-6178-6	BH24-06 4	Total/NA	Solid	8021B	73285
890-6178-7	BH24-07 0	Total/NA	Solid	8021B	73285
890-6178-8	BH24-07 2	Total/NA	Solid	8021B	73285
890-6178-9	BH24-07 4	Total/NA	Solid	8021B	73285
890-6178-10	BH24-08 0	Total/NA	Solid	8021B	73285
890-6178-11	BH24-08 2	Total/NA	Solid	8021B	73285
890-6178-12	BH24-08 4	Total/NA	Solid	8021B	73285
MB 880-73275/5-A	Method Blank	Total/NA	Solid	8021B	73275
MB 880-73285/5-A	Method Blank	Total/NA	Solid	8021B	73285
LCS 880-73285/1-A	Lab Control Sample	Total/NA	Solid	8021B	73285
LCSD 880-73285/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73285
890-6178-1 MS	BH24-05 0	Total/NA	Solid	8021B	73285
890-6178-1 MSD	BH24-05 0	Total/NA	Solid	8021B	73285

Analysis Batch: 73850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Total/NA	Solid	Total BTEX	
890-6178-2	BH24-05 2	Total/NA	Solid	Total BTEX	
890-6178-3	BH24-05 4	Total/NA	Solid	Total BTEX	
890-6178-4	BH24-06 0	Total/NA	Solid	Total BTEX	
890-6178-5	BH24-06 2	Total/NA	Solid	Total BTEX	
890-6178-6	BH24-06 4	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

GC VOA (Continued)

Analysis Batch: 73850 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-7	BH24-07 0	Total/NA	Solid	Total BTEX	
890-6178-8	BH24-07 2	Total/NA	Solid	Total BTEX	
890-6178-9	BH24-07 4	Total/NA	Solid	Total BTEX	
890-6178-10	BH24-08 0	Total/NA	Solid	Total BTEX	
890-6178-11	BH24-08 2	Total/NA	Solid	Total BTEX	
890-6178-12	BH24-08 4	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Total/NA	Solid	8015NM Prep	
890-6178-2	BH24-05 2	Total/NA	Solid	8015NM Prep	
890-6178-3	BH24-05 4	Total/NA	Solid	8015NM Prep	
890-6178-4	BH24-06 0	Total/NA	Solid	8015NM Prep	
890-6178-5	BH24-06 2	Total/NA	Solid	8015NM Prep	
890-6178-6	BH24-06 4	Total/NA	Solid	8015NM Prep	
890-6178-7	BH24-07 0	Total/NA	Solid	8015NM Prep	
890-6178-8	BH24-07 2	Total/NA	Solid	8015NM Prep	
890-6178-9	BH24-07 4	Total/NA	Solid	8015NM Prep	
890-6178-10	BH24-08 0	Total/NA	Solid	8015NM Prep	
890-6178-11	BH24-08 2	Total/NA	Solid	8015NM Prep	
890-6178-12	BH24-08 4	Total/NA	Solid	8015NM Prep	
MB 880-73300/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73300/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73300/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6178-1 MS	BH24-05 0	Total/NA	Solid	8015NM Prep	
890-6178-1 MSD	BH24-05 0	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Total/NA	Solid	8015B NM	73300
890-6178-2	BH24-05 2	Total/NA	Solid	8015B NM	73300
890-6178-3	BH24-05 4	Total/NA	Solid	8015B NM	73300
890-6178-4	BH24-06 0	Total/NA	Solid	8015B NM	73300
890-6178-5	BH24-06 2	Total/NA	Solid	8015B NM	73300
890-6178-6	BH24-06 4	Total/NA	Solid	8015B NM	73300
890-6178-7	BH24-07 0	Total/NA	Solid	8015B NM	73300
890-6178-8	BH24-07 2	Total/NA	Solid	8015B NM	73300
890-6178-9	BH24-07 4	Total/NA	Solid	8015B NM	73300
890-6178-10	BH24-08 0	Total/NA	Solid	8015B NM	73300
890-6178-11	BH24-08 2	Total/NA	Solid	8015B NM	73300
890-6178-12	BH24-08 4	Total/NA	Solid	8015B NM	73300
MB 880-73300/1-A	Method Blank	Total/NA	Solid	8015B NM	73300
LCS 880-73300/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73300
LCSD 880-73300/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73300
890-6178-1 MS	BH24-05 0	Total/NA	Solid	8015B NM	73300
890-6178-1 MSD	BH24-05 0	Total/NA	Solid	8015B NM	73300

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QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

GC Semi VOA

Analysis Batch: 73645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Total/NA	Solid	8015 NM	
890-6178-2	BH24-05 2	Total/NA	Solid	8015 NM	
890-6178-3	BH24-05 4	Total/NA	Solid	8015 NM	
890-6178-4	BH24-06 0	Total/NA	Solid	8015 NM	
890-6178-5	BH24-06 2	Total/NA	Solid	8015 NM	
890-6178-6	BH24-06 4	Total/NA	Solid	8015 NM	
890-6178-7	BH24-07 0	Total/NA	Solid	8015 NM	
890-6178-8	BH24-07 2	Total/NA	Solid	8015 NM	
890-6178-9	BH24-07 4	Total/NA	Solid	8015 NM	
890-6178-10	BH24-08 0	Total/NA	Solid	8015 NM	
890-6178-11	BH24-08 2	Total/NA	Solid	8015 NM	
890-6178-12	BH24-08 4	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Soluble	Solid	DI Leach	
890-6178-2	BH24-05 2	Soluble	Solid	DI Leach	
890-6178-3	BH24-05 4	Soluble	Solid	DI Leach	
890-6178-4	BH24-06 0	Soluble	Solid	DI Leach	
890-6178-5	BH24-06 2	Soluble	Solid	DI Leach	
890-6178-6	BH24-06 4	Soluble	Solid	DI Leach	
MB 880-73212/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73212/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73212/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6176-A-9-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-6176-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 73213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-7	BH24-07 0	Soluble	Solid	DI Leach	
890-6178-8	BH24-07 2	Soluble	Solid	DI Leach	
890-6178-9	BH24-07 4	Soluble	Solid	DI Leach	
890-6178-10	BH24-08 0	Soluble	Solid	DI Leach	
890-6178-11	BH24-08 2	Soluble	Solid	DI Leach	
890-6178-12	BH24-08 4	Soluble	Solid	DI Leach	
MB 880-73213/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73213/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73213/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6178-7 MS	BH24-07 0	Soluble	Solid	DI Leach	
890-6178-7 MSD	BH24-07 0	Soluble	Solid	DI Leach	

Analysis Batch: 73435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-1	BH24-05 0	Soluble	Solid	300.0	73212
890-6178-2	BH24-05 2	Soluble	Solid	300.0	73212
890-6178-3	BH24-05 4	Soluble	Solid	300.0	73212
890-6178-4	BH24-06 0	Soluble	Solid	300.0	73212
890-6178-5	BH24-06 2	Soluble	Solid	300.0	73212
890-6178-6	BH24-06 4	Soluble	Solid	300.0	73212

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QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

HPLC/IC (Continued)

Analysis Batch: 73435 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73212/1-A	Method Blank	Soluble	Solid	300.0	73212
LCS 880-73212/2-A	Lab Control Sample	Soluble	Solid	300.0	73212
LCSD 880-73212/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73212
890-6176-A-9-B MS	Matrix Spike	Soluble	Solid	300.0	73212
890-6176-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	73212

Analysis Batch: 73448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6178-7	BH24-07 0	Soluble	Solid	300.0	73213
890-6178-8	BH24-07 2	Soluble	Solid	300.0	73213
890-6178-9	BH24-07 4	Soluble	Solid	300.0	73213
890-6178-10	BH24-08 0	Soluble	Solid	300.0	73213
890-6178-11	BH24-08 2	Soluble	Solid	300.0	73213
890-6178-12	BH24-08 4	Soluble	Solid	300.0	73213
MB 880-73213/1-A	Method Blank	Soluble	Solid	300.0	73213
LCS 880-73213/2-A	Lab Control Sample	Soluble	Solid	300.0	73213
LCSD 880-73213/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73213
890-6178-7 MS	BH24-07 0	Soluble	Solid	300.0	73213
890-6178-7 MSD	BH24-07 0	Soluble	Solid	300.0	73213

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-05 0
Date Collected: 02/13/24 10:00
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 00:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 00:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/19/24 21:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 21:01	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:29	CH	EET MID

Client Sample ID: BH24-05 2
Date Collected: 02/13/24 10:10
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 00:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 00:43	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/19/24 22:09	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 22:09	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:34	CH	EET MID

Client Sample ID: BH24-05 4
Date Collected: 02/13/24 10:20
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 01:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 01:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/19/24 22:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 22:31	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:39	CH	EET MID

Client Sample ID: BH24-06 0
Date Collected: 02/13/24 10:30
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 01:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 01:25	SM	EET MID

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Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-06 0
Date Collected: 02/13/24 10:30
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			73645	02/19/24 22:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 22:54	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:43	CH	EET MID

Client Sample ID: BH24-06 2
Date Collected: 02/13/24 10:40
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 01:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 01:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/19/24 23:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 23:16	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:48	CH	EET MID

Client Sample ID: BH24-06 4
Date Collected: 02/13/24 10:50
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 02:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 02:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/19/24 23:39	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/19/24 23:39	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	73212	02/15/24 08:44	SA	EET MID
Soluble	Analysis	300.0		1			73435	02/17/24 03:52	CH	EET MID

Client Sample ID: BH24-07 0
Date Collected: 02/13/24 11:00
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 02:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 02:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/20/24 00:01	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 00:01	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-07 0
Date Collected: 02/13/24 11:00
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	73213	02/15/24 08:46	SA	EET MID
Soluble	Analysis	300.0		1			73448	02/19/24 15:54	CH	EET MID

Client Sample ID: BH24-07 2
Date Collected: 02/13/24 11:10
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 02:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 02:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/20/24 00:23	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 00:23	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	73213	02/15/24 08:46	SA	EET MID
Soluble	Analysis	300.0		1			73448	02/19/24 16:14	CH	EET MID

Client Sample ID: BH24-07 4
Date Collected: 02/13/24 11:20
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 03:07	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 03:07	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/20/24 00:46	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 00:46	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73213	02/15/24 08:46	SA	EET MID
Soluble	Analysis	300.0		1			73448	02/19/24 16:21	CH	EET MID

Client Sample ID: BH24-08 0
Date Collected: 02/13/24 11:30
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 03:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 03:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/20/24 01:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 01:09	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73213	02/15/24 08:46	SA	EET MID
Soluble	Analysis	300.0		1			73448	02/19/24 16:28	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Client Sample ID: BH24-08 2
Date Collected: 02/13/24 11:40
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 05:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 05:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/20/24 01:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 01:53	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73213	02/15/24 08:46	SA	EET MID
Soluble	Analysis	300.0		1			73448	02/19/24 16:35	CH	EET MID

Client Sample ID: BH24-08 4
Date Collected: 02/13/24 11:50
Date Received: 02/14/24 08:13

Lab Sample ID: 890-6178-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	73285	02/15/24 15:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73718	02/22/24 05:39	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			73850	02/22/24 05:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			73645	02/20/24 02:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	73300	02/15/24 17:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73423	02/20/24 02:16	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	73213	02/15/24 08:46	SA	EET MID
Soluble	Analysis	300.0		1			73448	02/19/24 16:55	CH	EET MID

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24
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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 890-6178-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-6178-1	BH24-05 0	Solid	02/13/24 10:00	02/14/24 08:13
890-6178-2	BH24-05 2	Solid	02/13/24 10:10	02/14/24 08:13
890-6178-3	BH24-05 4	Solid	02/13/24 10:20	02/14/24 08:13
890-6178-4	BH24-06 0	Solid	02/13/24 10:30	02/14/24 08:13
890-6178-5	BH24-06 2	Solid	02/13/24 10:40	02/14/24 08:13
890-6178-6	BH24-06 4	Solid	02/13/24 10:50	02/14/24 08:13
890-6178-7	BH24-07 0	Solid	02/13/24 11:00	02/14/24 08:13
890-6178-8	BH24-07 2	Solid	02/13/24 11:10	02/14/24 08:13
890-6178-9	BH24-07 4	Solid	02/13/24 11:20	02/14/24 08:13
890-6178-10	BH24-08 0	Solid	02/13/24 11:30	02/14/24 08:13
890-6178-11	BH24-08 2	Solid	02/13/24 11:40	02/14/24 08:13
890-6178-12	BH24-08 4	Solid	02/13/24 11:50	02/14/24 08:13



02.13.24



Chain of Custody

Environment Testing
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: 1055621001

Project Manager: Sally Cotton
Company Name: Vutek / XCO.
Address:
City, State ZIP:
Phone:
Bill to: (if different)
Company Name:
Address:
City, State ZIP:
Email:
Turn Around:
Due Date:
TAT starts the day received by the lab, if received by 4:30pm

Work Order Comments
Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADAPT ☐ Other:
Page 1 of 2

Project Name: M15 Amigos
Project Number: 23E 05 2109
Project Location: M15 Amigos
Sampler's Name:
P.O. #:
Temp Blank: ☒ Yes ☐ No
Thermometer ID:
Cooler Custody Seals: Yes ☒ No ☐ Yes ☐ No ☐ N/A
Sample Custody Seals: Yes ☒ No ☐ Yes ☐ No ☐ N/A
Total Containers:
SAMPLE RECEIPT
Samples Received Intact: ☒ Yes ☐ No
Cooler Custody Seals: Yes ☒ No ☐ Yes ☐ No ☐ N/A
Sample Custody Seals: Yes ☒ No ☐ Yes ☐ No ☐ N/A
Total Containers:
Turn Around:
Due Date:
TAT starts the day received by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comb	# of Cont	Parameters	Pres. Code	ANALYSIS REQUEST	Preservative Codes	Sample Comments
BH24-05 0'	Soil	02/13/24	10:00	0	Grab	1	OTEX (0021)			None: NO	
BH24-05 2'			10:10	2						Cool: Cool	
BH24-05 4'			10:20	4						HCL: HC	
BH24-06 0'			10:30	0						H ₂ SO ₄ : H ₂	
BH24-06 4'			10:40	2						H ₃ PO ₄ : HP	
BH24-06 4'			10:50	4						NaHSO ₄ : NABIS	
BH24-07 0'			11:00	0						Na ₂ S ₂ O ₃ : NaSO ₃	
BH24-07 2'			11:10	2						Zn Acetate+NaOH: Zn	
BH24-07 4'			11:20	4						NaOH+Ascorbic Acid: SACP	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Sally Cotton	adon	9:13 9/14			
3					
5					

Revised Date 08/25/2020 Rev. 2020.2

02.13.24



Environment Testing
Xenco

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

NAO-232985-1014
Work Order No: 1055621001

www.xenco.com Page 2 of 2

Project Manager:	Sally Carter	Bill to: (if different)	gertt green
Company Name:	Vortex HCO	Company Name:	xco
Address:		Address:	on file
City, State ZIP:		City, State ZIP:	
Phone:		Email:	

Project Name:	Nit Amigos	Turn Around	Routine ☒ Rush ☐	Pres. Code	
Project Number:	2305219	Due Date:			
Project Location:	Nit Amigos	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Husman Carter				
P.O. #:					

SAMPLE RECEIPT		Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:			
Cooler Custody Seals:	Yes No	Correction Factor:			
Sample Custody Seals:	Yes No	Temperature Reading:			
Total Containers:		Corrected Temperature:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	ANALYSIS REQUEST	Preservative Codes
08-08	0	08/02/23	11:30	0	1	10			None: NO DI Water: H ₂ O Cool: Cool MeOH: Me HCL: HC HNO ₃ : HN H ₂ SO ₄ : H ₂ NaOH: Na
08-08	2	08/02/23	11:40	2	6	11			H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SACP
08-08	H	08/02/23	11:50	4	12	12			

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010 : 8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Sally Carter	alshun	8.13 2/14			

Revised Date: 08/25/2020 Rev: 2020.2

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Login Sample Receipt Checklist

Client: Vertex

Job Number: 890-6178-1

SDG Number:

Login Number: 6178

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

Question	Answer	Comment
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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Vertex

Job Number: 890-6178-1

SDG Number:

Login Number: 6178

List Number: 2

Creator: Wheeler, Jazmine

List Source: Eurofins Midland

List Creation: 02/15/24 11:41 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Chance Dixon
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 3/8/2024 12:59:43 PM

JOB DESCRIPTION

Mis Amigos tank battery
23E-05219

JOB NUMBER

890-6296-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



Generated
3/8/2024 12:59:43 PM

Authorized for release by
Jessica Kramer, Project Manager
Jessica.Kramer@et.eurofinsus.com
(432)704-5440

Client: Vertex
Project/Site: Mis Amigos tank battery

Laboratory Job ID: 890-6296-1
SDG: 23E-05219

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Definitions/Glossary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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
Project: Mis Amigos tank battery

Job ID: 890-6296-1

Job ID: 890-6296-1

Eurofins Carlsbad

Job Narrative
890-6296-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt

The samples were received on 3/1/2024 9:16 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 0.2°C.

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BH24-09 0 (890-6296-1), BH24-09 2 (890-6296-2), BH24-11 0 (890-6296-3), BH24-11 2 (890-6296-4), BH24-12 0 (890-6296-5), BH24-12 4 (890-6296-6), BH24-12 8 (890-6296-7), BH24-13 0 (890-6296-8), BH24-13 2 (890-6296-9), BH24-14 0 (890-6296-10), BH24-14 2 (890-6296-11), BH24-15 0 (890-6296-12), BH24-15 2 (890-6296-13), BH24-17 0 (890-6296-14), BH24-17 2 (890-6296-15), BH24-18 0 (890-6296-16), BH24-18 2 (890-6296-17), BH24-19 0 (890-6296-18), BH24-19 2 (890-6296-19), BH24-20 0 (890-6296-20) and BH24-20 2 (890-6296-21).

GC VOA

Method 8021B: <The continuing calibration verification (CCV) associated with batch 880-74575 recovered under the lower control limit for Toluene, Ethylbenzene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were ran within 12 hours of passing CCV; therefore, the data have been reported.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-74750 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 880-74750/2), (CCV 880-74750/20) and (CCV 880-74750/64).

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-74689 and analytical batch 880-74750 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.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-74676 and analytical batch 880-74575 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.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-74750 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 880-74750/33) and (CCV 880-74750/51).

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-74822 and analytical batch 880-74778 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH24-11 2 (890-6296-4), BH24-12 0 (890-6296-5), BH24-12 8 (890-6296-7), BH24-13 0 (890-6296-8) and (890-6289-A-1-C). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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Case Narrative

Client: Vertex
Project: Mis Amigos tank battery

Job ID: 890-6296-1

Job ID: 890-6296-1 (Continued)

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Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-74822/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-74838 and analytical batch 880-74861 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: BH24-14 0 (890-6296-10). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-74834 and analytical batch 880-74863 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH24-14 2 (890-6296-11), BH24-15 0 (890-6296-12), BH24-15 2 (890-6296-13), BH24-17 0 (890-6296-14), BH24-17 2 (890-6296-15), BH24-18 0 (890-6296-16), BH24-18 2 (890-6296-17), BH24-19 0 (890-6296-18), BH24-20 0 (890-6296-20), (890-6296-A-11-D MS) and (890-6296-A-11-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-74627 and analytical batch 880-74903 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-09 0

Lab Sample ID: 890-6296-1

Date Collected: 02/27/24 11:40

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F1 *1	0.00199	mg/Kg		03/04/24 14:32	03/05/24 12:33	1
Toluene	<0.00199	U F1 *1	0.00199	mg/Kg		03/04/24 14:32	03/05/24 12:33	1
Ethylbenzene	<0.00199	U F1	0.00199	mg/Kg		03/04/24 14:32	03/05/24 12:33	1
m-Xylene & p-Xylene	<0.00398	U F1	0.00398	mg/Kg		03/04/24 14:32	03/05/24 12:33	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/04/24 14:32	03/05/24 12:33	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/04/24 14:32	03/05/24 12:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130	03/04/24 14:32	03/05/24 12:33	1
1,4-Difluorobenzene (Surr)	103		70 - 130	03/04/24 14:32	03/05/24 12:33	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			03/05/24 12:33	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			03/06/24 03:47	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		03/05/24 14:08	03/06/24 03:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/05/24 14:08	03/06/24 03:47	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/05/24 14:08	03/06/24 03:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130	03/05/24 14:08	03/06/24 03:47	1
o-Terphenyl	129		70 - 130	03/05/24 14:08	03/06/24 03:47	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	204		5.04	mg/Kg			03/07/24 23:04	1

Client Sample ID: BH24-09 2

Lab Sample ID: 890-6296-2

Date Collected: 02/27/24 12:00

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *1	0.00202	mg/Kg		03/04/24 14:32	03/05/24 12:54	1
Toluene	<0.00202	U *1	0.00202	mg/Kg		03/04/24 14:32	03/05/24 12:54	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/04/24 14:32	03/05/24 12:54	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		03/04/24 14:32	03/05/24 12:54	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/04/24 14:32	03/05/24 12:54	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		03/04/24 14:32	03/05/24 12:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	03/04/24 14:32	03/05/24 12:54	1
1,4-Difluorobenzene (Surr)	110		70 - 130	03/04/24 14:32	03/05/24 12:54	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-09 2

Lab Sample ID: 890-6296-2

Date Collected: 02/27/24 12:00

Matrix: Solid

Date Received: 03/01/24 09:16

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			03/05/24 12:54	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			03/06/24 04:08	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		03/05/24 14:08	03/06/24 04:08	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		03/05/24 14:08	03/06/24 04:08	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		03/05/24 14:08	03/06/24 04:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			03/05/24 14:08	03/06/24 04:08	1
o-Terphenyl	113		70 - 130			03/05/24 14:08	03/06/24 04:08	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	116		5.05	mg/Kg			03/07/24 23:11	1

Client Sample ID: BH24-11 0

Lab Sample ID: 890-6296-3

Date Collected: 02/28/24 13:00

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *1	0.00201	mg/Kg		03/04/24 14:32	03/05/24 13:14	1
Toluene	<0.00201	U *1	0.00201	mg/Kg		03/04/24 14:32	03/05/24 13:14	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/04/24 14:32	03/05/24 13:14	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/04/24 14:32	03/05/24 13:14	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/04/24 14:32	03/05/24 13:14	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/04/24 14:32	03/05/24 13:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			03/04/24 14:32	03/05/24 13:14	1
1,4-Difluorobenzene (Surr)	107		70 - 130			03/04/24 14:32	03/05/24 13:14	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			03/05/24 13:14	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	50.7		49.9	mg/Kg			03/06/24 04:31	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		03/05/24 14:08	03/06/24 04:31	1
Diesel Range Organics (Over C10-C28)	50.7		49.9	mg/Kg		03/05/24 14:08	03/06/24 04:31	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-11 0

Lab Sample ID: 890-6296-3

Date Collected: 02/28/24 13:00

Matrix: Solid

Date Received: 03/01/24 09:16

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/05/24 14:08	03/06/24 04:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			03/05/24 14:08	03/06/24 04:31	1
o-Terphenyl	119		70 - 130			03/05/24 14:08	03/06/24 04:31	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	202		5.01	mg/Kg			03/07/24 23:18	1

Client Sample ID: BH24-11 2

Lab Sample ID: 890-6296-4

Date Collected: 02/28/24 13:10

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200	mg/Kg		03/04/24 14:32	03/05/24 13:34	1
Toluene	<0.00200	U *1	0.00200	mg/Kg		03/04/24 14:32	03/05/24 13:34	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 13:34	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/04/24 14:32	03/05/24 13:34	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 13:34	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/04/24 14:32	03/05/24 13:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			03/04/24 14:32	03/05/24 13:34	1
1,4-Difluorobenzene (Surr)	114		70 - 130			03/04/24 14:32	03/05/24 13:34	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			03/05/24 13:34	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/06/24 04:54	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/06/24 04:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/06/24 04:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/06/24 04:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130			03/05/24 14:08	03/06/24 04:54	1
o-Terphenyl	139	S1+	70 - 130			03/05/24 14:08	03/06/24 04:54	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	77.5		4.98	mg/Kg			03/07/24 23:25	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-12 0

Lab Sample ID: 890-6296-5

Date Collected: 02/27/24 13:30

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200	mg/Kg		03/04/24 14:32	03/05/24 13:55	1
Toluene	<0.00200	U *1	0.00200	mg/Kg		03/04/24 14:32	03/05/24 13:55	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 13:55	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/04/24 14:32	03/05/24 13:55	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 13:55	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/04/24 14:32	03/05/24 13:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	03/04/24 14:32	03/05/24 13:55	1
1,4-Difluorobenzene (Surr)	103		70 - 130	03/04/24 14:32	03/05/24 13:55	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			03/05/24 13:55	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1	mg/Kg			03/06/24 05:15	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1	mg/Kg		03/05/24 14:08	03/06/24 05:15	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1	mg/Kg		03/05/24 14:08	03/06/24 05:15	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1	mg/Kg		03/05/24 14:08	03/06/24 05:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	134	S1+	70 - 130	03/05/24 14:08	03/06/24 05:15	1
o-Terphenyl	145	S1+	70 - 130	03/05/24 14:08	03/06/24 05:15	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7030	F1	49.6	mg/Kg			03/07/24 23:32	10

Client Sample ID: BH24-12 4

Lab Sample ID: 890-6296-6

Date Collected: 02/28/24 13:30

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *1	0.00198	mg/Kg		03/04/24 14:32	03/05/24 14:15	1
Toluene	<0.00198	U *1	0.00198	mg/Kg		03/04/24 14:32	03/05/24 14:15	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:32	03/05/24 14:15	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		03/04/24 14:32	03/05/24 14:15	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:32	03/05/24 14:15	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		03/04/24 14:32	03/05/24 14:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	03/04/24 14:32	03/05/24 14:15	1
1,4-Difluorobenzene (Surr)	109		70 - 130	03/04/24 14:32	03/05/24 14:15	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-12 4

Lab Sample ID: 890-6296-6

Date Collected: 02/28/24 13:30

Matrix: Solid

Date Received: 03/01/24 09:16

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			03/05/24 14:15	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			03/06/24 05:36	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		03/05/24 14:08	03/06/24 05:36	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		03/05/24 14:08	03/06/24 05:36	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		03/05/24 14:08	03/06/24 05:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130			03/05/24 14:08	03/06/24 05:36	1
o-Terphenyl	122		70 - 130			03/05/24 14:08	03/06/24 05:36	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2650		25.2	mg/Kg			03/07/24 23:54	5

Client Sample ID: BH24-12 8

Lab Sample ID: 890-6296-7

Date Collected: 02/28/24 15:20

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200	mg/Kg		03/04/24 14:32	03/05/24 14:36	1
Toluene	<0.00200	U *1	0.00200	mg/Kg		03/04/24 14:32	03/05/24 14:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 14:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/04/24 14:32	03/05/24 14:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 14:36	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/04/24 14:32	03/05/24 14:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130			03/04/24 14:32	03/05/24 14:36	1
1,4-Difluorobenzene (Surr)	105		70 - 130			03/04/24 14:32	03/05/24 14:36	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			03/05/24 14:36	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			03/06/24 05:57	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		03/05/24 14:08	03/06/24 05:57	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		03/05/24 14:08	03/06/24 05:57	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-12 8

Lab Sample ID: 890-6296-7

Date Collected: 02/28/24 15:20

Matrix: Solid

Date Received: 03/01/24 09:16

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
OII Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		03/05/24 14:08	03/06/24 05:57	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	124		70 - 130			03/05/24 14:08	03/06/24 05:57	1	
o-Terphenyl	134	S1+	70 - 130			03/05/24 14:08	03/06/24 05:57	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	2520		25.3	mg/Kg			03/08/24 00:01	5	

Client Sample ID: BH24-13 0

Lab Sample ID: 890-6296-8

Date Collected: 02/28/24 09:45

Matrix: Solid

Date Received: 03/01/24 09:16

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00199	U *1	0.00199	mg/Kg		03/04/24 14:32	03/05/24 14:56	1	
Toluene	<0.00199	U *1	0.00199	mg/Kg		03/04/24 14:32	03/05/24 14:56	1	
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/04/24 14:32	03/05/24 14:56	1	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/04/24 14:32	03/05/24 14:56	1	
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/04/24 14:32	03/05/24 14:56	1	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/04/24 14:32	03/05/24 14:56	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	112		70 - 130			03/04/24 14:32	03/05/24 14:56	1	
1,4-Difluorobenzene (Surr)	113		70 - 130			03/04/24 14:32	03/05/24 14:56	1	

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00398	U	0.00398	mg/Kg			03/05/24 14:56	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.0	U	50.0	mg/Kg			03/06/24 06:18	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/06/24 06:18	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/06/24 06:18	1	
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/06/24 06:18	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	151	S1+	70 - 130			03/05/24 14:08	03/06/24 06:18	1	
o-Terphenyl	165	S1+	70 - 130			03/05/24 14:08	03/06/24 06:18	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	79.5		5.01	mg/Kg			03/08/24 00:22	1	

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-13 2

Lab Sample ID: 890-6296-9

Date Collected: 02/28/24 09:55

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *1	0.00198	mg/Kg		03/04/24 14:32	03/05/24 15:17	1
Toluene	<0.00198	U *1	0.00198	mg/Kg		03/04/24 14:32	03/05/24 15:17	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:32	03/05/24 15:17	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		03/04/24 14:32	03/05/24 15:17	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:32	03/05/24 15:17	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		03/04/24 14:32	03/05/24 15:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	03/04/24 14:32	03/05/24 15:17	1
1,4-Difluorobenzene (Surr)	108		70 - 130	03/04/24 14:32	03/05/24 15:17	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			03/05/24 15:17	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			03/06/24 10:45	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		03/05/24 17:05	03/06/24 10:45	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		03/05/24 17:05	03/06/24 10:45	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		03/05/24 17:05	03/06/24 10:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130	03/05/24 17:05	03/06/24 10:45	1
o-Terphenyl	109		70 - 130	03/05/24 17:05	03/06/24 10:45	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	90.9		5.01	mg/Kg			03/08/24 00:30	1

Client Sample ID: BH24-14 0

Lab Sample ID: 890-6296-10

Date Collected: 02/28/24 10:00

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *1	0.00202	mg/Kg		03/04/24 14:32	03/05/24 15:37	1
Toluene	<0.00202	U *1	0.00202	mg/Kg		03/04/24 14:32	03/05/24 15:37	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/04/24 14:32	03/05/24 15:37	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		03/04/24 14:32	03/05/24 15:37	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/04/24 14:32	03/05/24 15:37	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		03/04/24 14:32	03/05/24 15:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	03/04/24 14:32	03/05/24 15:37	1
1,4-Difluorobenzene (Surr)	109		70 - 130	03/04/24 14:32	03/05/24 15:37	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-14 0

Lab Sample ID: 890-6296-10

Date Collected: 02/28/24 10:00

Matrix: Solid

Date Received: 03/01/24 09:16

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			03/05/24 15:37	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			03/06/24 11:51	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		03/05/24 17:05	03/06/24 11:51	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		03/05/24 17:05	03/06/24 11:51	1
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		03/05/24 17:05	03/06/24 11:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	58	S1-	70 - 130			03/05/24 17:05	03/06/24 11:51	1
o-Terphenyl	51	S1-	70 - 130			03/05/24 17:05	03/06/24 11:51	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	72.5		5.00	mg/Kg			03/08/24 00:37	1

Client Sample ID: BH24-14 2

Lab Sample ID: 890-6296-11

Date Collected: 02/28/24 10:05

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *1	0.00201	mg/Kg		03/04/24 14:32	03/05/24 17:28	1
Toluene	<0.00201	U *1	0.00201	mg/Kg		03/04/24 14:32	03/05/24 17:28	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/04/24 14:32	03/05/24 17:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/04/24 14:32	03/05/24 17:28	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/04/24 14:32	03/05/24 17:28	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/04/24 14:32	03/05/24 17:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130			03/04/24 14:32	03/05/24 17:28	1
1,4-Difluorobenzene (Surr)	105		70 - 130			03/04/24 14:32	03/05/24 17:28	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			03/05/24 17:28	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7	mg/Kg			03/06/24 10:45	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		03/05/24 16:53	03/06/24 10:45	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		03/05/24 16:53	03/06/24 10:45	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-14 2
Date Collected: 02/28/24 10:05
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-11
Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		03/05/24 16:53	03/06/24 10:45	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	149	S1+	70 - 130			03/05/24 16:53	03/06/24 10:45	1	
o-Terphenyl	169	S1+	70 - 130			03/05/24 16:53	03/06/24 10:45	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	44.1		4.99	mg/Kg			03/08/24 00:44	1	

Client Sample ID: BH24-15 0
Date Collected: 02/28/24 10:30
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-12
Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00200	U *1	0.00200	mg/Kg		03/04/24 14:32	03/05/24 17:48	1	
Toluene	<0.00200	U *1	0.00200	mg/Kg		03/04/24 14:32	03/05/24 17:48	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 17:48	1	
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/04/24 14:32	03/05/24 17:48	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 17:48	1	
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/04/24 14:32	03/05/24 17:48	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	110		70 - 130			03/04/24 14:32	03/05/24 17:48	1	
1,4-Difluorobenzene (Surr)	115		70 - 130			03/04/24 14:32	03/05/24 17:48	1	

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00401	U	0.00401	mg/Kg			03/05/24 17:48	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<50.5	U	50.5	mg/Kg			03/06/24 11:51	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		03/05/24 16:53	03/06/24 11:51	1	
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		03/05/24 16:53	03/06/24 11:51	1	
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		03/05/24 16:53	03/06/24 11:51	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	123		70 - 130			03/05/24 16:53	03/06/24 11:51	1	
o-Terphenyl	139	S1+	70 - 130			03/05/24 16:53	03/06/24 11:51	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	8820		50.4	mg/Kg			03/08/24 00:51	10	

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-15 2

Lab Sample ID: 890-6296-13

Date Collected: 02/28/24 10:40

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200	mg/Kg		03/04/24 14:32	03/05/24 18:09	1
Toluene	<0.00200	U *1	0.00200	mg/Kg		03/04/24 14:32	03/05/24 18:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 18:09	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		03/04/24 14:32	03/05/24 18:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 18:09	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		03/04/24 14:32	03/05/24 18:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	03/04/24 14:32	03/05/24 18:09	1
1,4-Difluorobenzene (Surr)	113		70 - 130	03/04/24 14:32	03/05/24 18:09	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			03/05/24 18:09	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/06/24 12:13	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/05/24 16:53	03/06/24 12:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/05/24 16:53	03/06/24 12:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/05/24 16:53	03/06/24 12:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130	03/05/24 16:53	03/06/24 12:13	1
o-Terphenyl	153	S1+	70 - 130	03/05/24 16:53	03/06/24 12:13	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81.2		5.02	mg/Kg			03/08/24 00:58	1

Client Sample ID: BH24-17 0

Lab Sample ID: 890-6296-14

Date Collected: 02/28/24 10:55

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *1	0.00198	mg/Kg		03/04/24 14:32	03/05/24 18:30	1
Toluene	<0.00198	U *1	0.00198	mg/Kg		03/04/24 14:32	03/05/24 18:30	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:32	03/05/24 18:30	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		03/04/24 14:32	03/05/24 18:30	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:32	03/05/24 18:30	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		03/04/24 14:32	03/05/24 18:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	03/04/24 14:32	03/05/24 18:30	1
1,4-Difluorobenzene (Surr)	110		70 - 130	03/04/24 14:32	03/05/24 18:30	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-17 0

Lab Sample ID: 890-6296-14

Date Collected: 02/28/24 10:55

Matrix: Solid

Date Received: 03/01/24 09:16

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			03/05/24 18:30	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			03/06/24 12:34	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		03/05/24 16:53	03/06/24 12:34	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		03/05/24 16:53	03/06/24 12:34	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		03/05/24 16:53	03/06/24 12:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130			03/05/24 16:53	03/06/24 12:34	1
o-Terphenyl	143	S1+	70 - 130			03/05/24 16:53	03/06/24 12:34	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12000		99.6	mg/Kg			03/08/24 01:05	20

Client Sample ID: BH24-17 2

Lab Sample ID: 890-6296-15

Date Collected: 02/28/24 11:00

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200	mg/Kg		03/04/24 14:32	03/05/24 18:50	1
Toluene	<0.00200	U *1	0.00200	mg/Kg		03/04/24 14:32	03/05/24 18:50	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 18:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/04/24 14:32	03/05/24 18:50	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 18:50	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/04/24 14:32	03/05/24 18:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130			03/04/24 14:32	03/05/24 18:50	1
1,4-Difluorobenzene (Surr)	110		70 - 130			03/04/24 14:32	03/05/24 18:50	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			03/05/24 18:50	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			03/06/24 12:56	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		03/05/24 16:53	03/06/24 12:56	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		03/05/24 16:53	03/06/24 12:56	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-17 2

Lab Sample ID: 890-6296-15

Date Collected: 02/28/24 11:00

Matrix: Solid

Date Received: 03/01/24 09:16

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		03/05/24 16:53	03/06/24 12:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130			03/05/24 16:53	03/06/24 12:56	1
o-Terphenyl	131	S1+	70 - 130			03/05/24 16:53	03/06/24 12:56	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	371		25.1	mg/Kg			03/08/24 02:02	5

Client Sample ID: BH24-18 0

Lab Sample ID: 890-6296-16

Date Collected: 02/28/24 11:30

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *1	0.00198	mg/Kg		03/04/24 14:32	03/05/24 19:11	1
Toluene	<0.00198	U *1	0.00198	mg/Kg		03/04/24 14:32	03/05/24 19:11	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:32	03/05/24 19:11	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		03/04/24 14:32	03/05/24 19:11	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		03/04/24 14:32	03/05/24 19:11	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		03/04/24 14:32	03/05/24 19:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			03/04/24 14:32	03/05/24 19:11	1
1,4-Difluorobenzene (Surr)	113		70 - 130			03/04/24 14:32	03/05/24 19:11	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			03/05/24 19:11	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6	mg/Kg			03/06/24 13:17	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6	mg/Kg		03/05/24 16:53	03/06/24 13:17	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		03/05/24 16:53	03/06/24 13:17	1
Oil Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		03/05/24 16:53	03/06/24 13:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130			03/05/24 16:53	03/06/24 13:17	1
o-Terphenyl	134	S1+	70 - 130			03/05/24 16:53	03/06/24 13:17	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	234		25.1	mg/Kg			03/08/24 02:24	5

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-18 2

Lab Sample ID: 890-6296-17

Date Collected: 02/28/24 11:45

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *1	0.00202	mg/Kg		03/04/24 14:32	03/05/24 19:31	1
Toluene	<0.00202	U *1	0.00202	mg/Kg		03/04/24 14:32	03/05/24 19:31	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/04/24 14:32	03/05/24 19:31	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		03/04/24 14:32	03/05/24 19:31	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/04/24 14:32	03/05/24 19:31	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		03/04/24 14:32	03/05/24 19:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	03/04/24 14:32	03/05/24 19:31	1
1,4-Difluorobenzene (Surr)	113		70 - 130	03/04/24 14:32	03/05/24 19:31	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			03/05/24 19:31	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2	mg/Kg			03/06/24 13:39	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2	mg/Kg		03/05/24 16:53	03/06/24 13:39	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2	mg/Kg		03/05/24 16:53	03/06/24 13:39	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2	mg/Kg		03/05/24 16:53	03/06/24 13:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	152	S1+	70 - 130	03/05/24 16:53	03/06/24 13:39	1
o-Terphenyl	169	S1+	70 - 130	03/05/24 16:53	03/06/24 13:39	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	356		25.3	mg/Kg			03/08/24 02:31	5

Client Sample ID: BH24-19 0

Lab Sample ID: 890-6296-18

Date Collected: 02/28/24 12:00

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *1	0.00201	mg/Kg		03/04/24 14:32	03/05/24 19:52	1
Toluene	<0.00201	U *1	0.00201	mg/Kg		03/04/24 14:32	03/05/24 19:52	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/04/24 14:32	03/05/24 19:52	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/04/24 14:32	03/05/24 19:52	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/04/24 14:32	03/05/24 19:52	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/04/24 14:32	03/05/24 19:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	03/04/24 14:32	03/05/24 19:52	1
1,4-Difluorobenzene (Surr)	102		70 - 130	03/04/24 14:32	03/05/24 19:52	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-19 0

Lab Sample ID: 890-6296-18

Date Collected: 02/28/24 12:00

Matrix: Solid

Date Received: 03/01/24 09:16

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			03/05/24 19:52	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			03/06/24 14:00	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4	mg/Kg		03/05/24 16:53	03/06/24 14:00	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4	mg/Kg		03/05/24 16:53	03/06/24 14:00	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4	mg/Kg		03/05/24 16:53	03/06/24 14:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	132	S1+	70 - 130			03/05/24 16:53	03/06/24 14:00	1
o-Terphenyl	141	S1+	70 - 130			03/05/24 16:53	03/06/24 14:00	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	360		5.04	mg/Kg			03/08/24 02:38	1

Client Sample ID: BH24-19 2

Lab Sample ID: 890-6296-19

Date Collected: 02/29/24 12:15

Matrix: Solid

Date Received: 03/01/24 09:16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200	mg/Kg		03/04/24 14:32	03/05/24 20:12	1
Toluene	<0.00200	U *1	0.00200	mg/Kg		03/04/24 14:32	03/05/24 20:12	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 20:12	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/04/24 14:32	03/05/24 20:12	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 20:12	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/04/24 14:32	03/05/24 20:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			03/04/24 14:32	03/05/24 20:12	1
1,4-Difluorobenzene (Surr)	104		70 - 130			03/04/24 14:32	03/05/24 20:12	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			03/05/24 20:12	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5	mg/Kg			03/06/24 14:22	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5	mg/Kg		03/05/24 16:53	03/06/24 14:22	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5	mg/Kg		03/05/24 16:53	03/06/24 14:22	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-19 2

Lab Sample ID: 890-6296-19

Date Collected: 02/29/24 12:15

Matrix: Solid

Date Received: 03/01/24 09:16

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Oil Range Organics (Over C28-C36)	<50.5	U	50.5	mg/Kg		03/05/24 16:53	03/06/24 14:22	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	109		70 - 130			03/05/24 16:53	03/06/24 14:22	1	
o-Terphenyl	116		70 - 130			03/05/24 16:53	03/06/24 14:22	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	140		4.99	mg/Kg			03/08/24 02:45	1	

Client Sample ID: BH24-20 0

Lab Sample ID: 890-6296-20

Date Collected: 02/29/24 12:20

Matrix: Solid

Date Received: 03/01/24 09:16

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00199	U *1	0.00199	mg/Kg		03/04/24 14:32	03/05/24 20:33	1	
Toluene	<0.00199	U *1	0.00199	mg/Kg		03/04/24 14:32	03/05/24 20:33	1	
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/04/24 14:32	03/05/24 20:33	1	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/04/24 14:32	03/05/24 20:33	1	
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/04/24 14:32	03/05/24 20:33	1	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/04/24 14:32	03/05/24 20:33	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	109		70 - 130			03/04/24 14:32	03/05/24 20:33	1	
1,4-Difluorobenzene (Surr)	107		70 - 130			03/04/24 14:32	03/05/24 20:33	1	

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00398	U	0.00398	mg/Kg			03/05/24 20:33	1	

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.9	U	49.9	mg/Kg			03/06/24 14:44	1	

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		03/05/24 16:53	03/06/24 14:44	1	
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/05/24 16:53	03/06/24 14:44	1	
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/05/24 16:53	03/06/24 14:44	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	147	S1+	70 - 130			03/05/24 16:53	03/06/24 14:44	1	
o-Terphenyl	158	S1+	70 - 130			03/05/24 16:53	03/06/24 14:44	1	

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	14300		248	mg/Kg			03/08/24 03:07	50	

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-20 2 Lab Sample ID: 890-6296-21
Date Collected: 02/29/24 12:30 Matrix: Solid
Date Received: 03/01/24 09:16

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00200	U **	0.00200	mg/Kg		03/05/24 13:30	03/06/24 03:34	1	
Toluene	<0.00200	U	0.00200	mg/Kg		03/05/24 13:30	03/06/24 03:34	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/05/24 13:30	03/06/24 03:34	1	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/05/24 13:30	03/06/24 03:34	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/05/24 13:30	03/06/24 03:34	1	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/05/24 13:30	03/06/24 03:34	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	102		70 - 130			03/05/24 13:30	03/06/24 03:34	1	
1,4-Difluorobenzene (Surr)	109		70 - 130			03/05/24 13:30	03/06/24 03:34	1	
Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total BTEX	<0.00400	U	0.00400	mg/Kg			03/06/24 03:34	1	
Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.7	U	49.7	mg/Kg			03/06/24 15:27	1	
Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		03/05/24 16:53	03/06/24 15:27	1	
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		03/05/24 16:53	03/06/24 15:27	1	
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		03/05/24 16:53	03/06/24 15:27	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	119		70 - 130			03/05/24 16:53	03/06/24 15:27	1	
o-Terphenyl	128		70 - 130			03/05/24 16:53	03/06/24 15:27	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	253		4.98	mg/Kg			03/08/24 03:14	1	

Surrogate Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1	DFBZ1
		(70-130)	(70-130)
880-40191-A-1-C MS	Matrix Spike	94	100
880-40191-A-1-D MSD	Matrix Spike Duplicate	101	101
890-6296-1	BH24-09 0	85	103
890-6296-1 MS	BH24-09 0	97	113
890-6296-1 MSD	BH24-09 0	107	101
890-6296-2	BH24-09 2	103	110
890-6296-3	BH24-11 0	105	107
890-6296-4	BH24-11 2	108	114
890-6296-5	BH24-12 0	107	103
890-6296-6	BH24-12 4	106	109
890-6296-7	BH24-12 8	111	105
890-6296-8	BH24-13 0	112	113
890-6296-9	BH24-13 2	107	108
890-6296-10	BH24-14 0	111	109
890-6296-11	BH24-14 2	84	105
890-6296-12	BH24-15 0	110	115
890-6296-13	BH24-15 2	108	113
890-6296-14	BH24-17 0	105	110
890-6296-15	BH24-17 2	111	110
890-6296-16	BH24-18 0	106	113
890-6296-17	BH24-18 2	104	113
890-6296-18	BH24-19 0	120	102
890-6296-19	BH24-19 2	116	104
890-6296-20	BH24-20 0	109	107
890-6296-21	BH24-20 2	102	109
LCS 880-74676/1-A	Lab Control Sample	80	108
LCS 880-74689/1-A	Lab Control Sample	94	104
LCSD 880-74676/2-A	Lab Control Sample Dup	103	105
LCSD 880-74689/2-A	Lab Control Sample Dup	105	99
MB 880-74652/5-A	Method Blank	77	98
MB 880-74676/5-A	Method Blank	129	123
MB 880-74689/5-A	Method Blank	78	98
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1	OTPH1
		(70-130)	(70-130)
890-6289-A-1-D MS	Matrix Spike	126	128
890-6289-A-1-E MSD	Matrix Spike Duplicate	118	120
890-6296-1	BH24-09 0	121	129
890-6296-2	BH24-09 2	107	113
890-6296-3	BH24-11 0	115	119
890-6296-4	BH24-11 2	129	139 S1+
890-6296-5	BH24-12 0	134 S1+	145 S1+

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Surrogate Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)**Matrix: Solid****Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-6296-6	BH24-12 4	113	122
890-6296-7	BH24-12 8	124	134 S1+
890-6296-8	BH24-13 0	151 S1+	165 S1+
890-6296-9	BH24-13 2	122	109
890-6296-9 MS	BH24-13 2	117	98
890-6296-9 MSD	BH24-13 2	116	99
890-6296-10	BH24-14 0	58 S1-	51 S1-
890-6296-11	BH24-14 2	149 S1+	169 S1+
890-6296-11 MS	BH24-14 2	129	135 S1+
890-6296-11 MSD	BH24-14 2	128	132 S1+
890-6296-12	BH24-15 0	123	139 S1+
890-6296-13	BH24-15 2	136 S1+	153 S1+
890-6296-14	BH24-17 0	127	143 S1+
890-6296-15	BH24-17 2	117	131 S1+
890-6296-16	BH24-18 0	122	134 S1+
890-6296-17	BH24-18 2	152 S1+	169 S1+
890-6296-18	BH24-19 0	132 S1+	141 S1+
890-6296-19	BH24-19 2	109	116
890-6296-20	BH24-20 0	147 S1+	158 S1+
890-6296-21	BH24-20 2	119	128
LCS 880-74822/2-A	Lab Control Sample	102	133 S1+
LCS 880-74834/2-A	Lab Control Sample	97	102
LCS 880-74838/2-A	Lab Control Sample	108	117
LCSD 880-74822/3-A	Lab Control Sample Dup	95	118
LCSD 880-74834/3-A	Lab Control Sample Dup	90	95
LCSD 880-74838/3-A	Lab Control Sample Dup	103	102
MB 880-74822/1-A	Method Blank	132 S1+	146 S1+
MB 880-74834/1-A	Method Blank	121	139 S1+
MB 880-74838/1-A	Method Blank	38 S1-	29 S1-

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-74652/5-A						Client Sample ID: Method Blank		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 74750						Prep Batch: 74652		
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/04/24 13:22	03/05/24 11:33	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/24 13:22	03/05/24 11:33	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 13:22	03/05/24 11:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/04/24 13:22	03/05/24 11:33	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/24 13:22	03/05/24 11:33	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/04/24 13:22	03/05/24 11:33	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		70 - 130			03/04/24 13:22	03/05/24 11:33	1
1,4-Difluorobenzene (Surr)	98		70 - 130			03/04/24 13:22	03/05/24 11:33	1

Lab Sample ID: MB 880-74676/5-A						Client Sample ID: Method Blank		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 74575						Prep Batch: 74676		
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 12:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 12:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 12:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/04/24 14:32	03/05/24 12:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/24 14:32	03/05/24 12:04	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/04/24 14:32	03/05/24 12:04	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130			03/04/24 14:32	03/05/24 12:04	1
1,4-Difluorobenzene (Surr)	123		70 - 130			03/04/24 14:32	03/05/24 12:04	1

Lab Sample ID: LCS 880-74676/1-A						Client Sample ID: Lab Control Sample		
Matrix: Solid						Prep Type: Total/NA		
Analysis Batch: 74575						Prep Batch: 74676		
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Benzene	0.100	0.1072		mg/Kg		107	70 - 130	
Toluene	0.100	0.09951		mg/Kg		100	70 - 130	
Ethylbenzene	0.100	0.08508		mg/Kg		85	70 - 130	
m-Xylene & p-Xylene	0.200	0.1669		mg/Kg		83	70 - 130	
o-Xylene	0.100	0.08374		mg/Kg		84	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	80		70 - 130					
1,4-Difluorobenzene (Surr)	108		70 - 130					

Lab Sample ID: LCSD 880-74676/2-A							Client Sample ID: Lab Control Sample Dup				
Matrix: Solid							Prep Type: Total/NA				
Analysis Batch: 74575							Prep Batch: 74676				
				Spike	LCSD	LCSD			%Rec		RPD
Analyte				Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD
Benzene				0.100	0.1187		mg/Kg		119	70 - 130	10
											35

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

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

Lab Sample ID: LCSD 880-74676/2-A

Matrix: Solid

Analysis Batch: 74575

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 74676

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Toluene	0.100	0.1005		mg/Kg		101	70 - 130	1		35
Ethylbenzene	0.100	0.1114		mg/Kg		111	70 - 130	27		35
m-Xylene & p-Xylene	0.200	0.2049		mg/Kg		102	70 - 130	20		35
o-Xylene	0.100	0.1108		mg/Kg		111	70 - 130	28		35

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-6296-1 MS

Matrix: Solid

Analysis Batch: 74575

Client Sample ID: BH24-09 0

Prep Type: Total/NA

Prep Batch: 74676

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec	
									Limits	RPD
Benzene	<0.00199	U F1 *1	0.101	0.1341	F1	mg/Kg		133	70 - 130	
Toluene	<0.00199	U F1 *1	0.101	0.1316	F1	mg/Kg		131	70 - 130	
Ethylbenzene	<0.00199	U F1	0.101	0.1331	F1	mg/Kg		132	70 - 130	
m-Xylene & p-Xylene	<0.00398	U F1	0.202	0.2848	F1	mg/Kg		141	70 - 130	
o-Xylene	<0.00199	U	0.101	0.09703		mg/Kg		96	70 - 130	

Surrogate	MS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Lab Sample ID: 890-6296-1 MSD

Matrix: Solid

Analysis Batch: 74575

Client Sample ID: BH24-09 0

Prep Type: Total/NA

Prep Batch: 74676

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
									Limits	RPD		
Benzene	<0.00199	U F1 *1	0.100	0.1215		mg/Kg		121	70 - 130	10		35
Toluene	<0.00199	U F1 *1	0.100	0.1059		mg/Kg		105	70 - 130	22		35
Ethylbenzene	<0.00199	U F1	0.100	0.1171		mg/Kg		117	70 - 130	13		35
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.2416		mg/Kg		120	70 - 130	16		35
o-Xylene	<0.00199	U	0.100	0.1151		mg/Kg		115	70 - 130	17		35

Surrogate	MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: MB 880-74689/5-A

Matrix: Solid

Analysis Batch: 74750

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 74689

Analyte	MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		03/04/24 15:22	03/05/24 22:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/04/24 15:22	03/05/24 22:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/04/24 15:22	03/05/24 22:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/04/24 15:22	03/05/24 22:18	1

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

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

Lab Sample ID: MB 880-74689/5-A
Matrix: Solid
Analysis Batch: 74750

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 74689

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/04/24 15:22	03/05/24 22:18	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/04/24 15:22	03/05/24 22:18	1
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
4-Bromofluorobenzene (Surr)	78		70 - 130			03/04/24 15:22	03/05/24 22:18	1
1,4-Difluorobenzene (Surr)	98		70 - 130			03/04/24 15:22	03/05/24 22:18	1

Lab Sample ID: LCS 880-74689/1-A
Matrix: Solid
Analysis Batch: 74750

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 74689

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1404	*+	mg/Kg		140	70 - 130
Toluene	0.100	0.1078		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1083		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	0.200	0.2137		mg/Kg		107	70 - 130
o-Xylene	0.100	0.1036		mg/Kg		104	70 - 130
Surrogate	LCS	LCS	Limits			%Recovery	Qualifier
	%Recovery	Qualifier					
4-Bromofluorobenzene (Surr)	94		70 - 130				
1,4-Difluorobenzene (Surr)	104		70 - 130				

Lab Sample ID: LCSD 880-74689/2-A
Matrix: Solid
Analysis Batch: 74750

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 74689

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1235		mg/Kg		123	70 - 130	13	35
Toluene	0.100	0.1105		mg/Kg		111	70 - 130	2	35
Ethylbenzene	0.100	0.1170		mg/Kg		117	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.2376		mg/Kg		119	70 - 130	11	35
o-Xylene	0.100	0.1159		mg/Kg		116	70 - 130	11	35
Surrogate	LCSD	LCSD	Limits			%Recovery	Qualifier		
	%Recovery	Qualifier							
4-Bromofluorobenzene (Surr)	105		70 - 130						
1,4-Difluorobenzene (Surr)	99		70 - 130						

Lab Sample ID: 880-40191-A-1-C MS
Matrix: Solid
Analysis Batch: 74750

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 74689

Analyte	Sample	Sample	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
	Result	Qualifier							
Benzene	<0.00199	U *+	0.101	0.07447		mg/Kg		74	70 - 130
Toluene	<0.00199	U F1	0.101	0.05837	F1	mg/Kg		58	70 - 130
Ethylbenzene	<0.00199	U F1	0.101	0.06249	F1	mg/Kg		62	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.202	0.1174	F1	mg/Kg		58	70 - 130
o-Xylene	<0.00199	U F1	0.101	0.06176	F1	mg/Kg		61	70 - 130

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

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

Lab Sample ID: 880-40191-A-1-C MS
Matrix: Solid
Analysis Batch: 74750

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 74689

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 880-40191-A-1-D MSD
Matrix: Solid
Analysis Batch: 74750

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 74689

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U *	0.100	0.08270		mg/Kg		83	70 - 130	10	35
Toluene	<0.00199	U F1	0.100	0.06391	F1	mg/Kg		64	70 - 130	9	35
Ethylbenzene	<0.00199	U F1	0.100	0.06490	F1	mg/Kg		65	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1212	F1	mg/Kg		61	70 - 130	3	35
o-Xylene	<0.00199	U F1	0.100	0.06397	F1	mg/Kg		64	70 - 130	4	35
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	101		70 - 130								
1,4-Difluorobenzene (Surr)	101		70 - 130								

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-74822/1-A
Matrix: Solid
Analysis Batch: 74778

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 74822

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/05/24 21:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/05/24 21:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/05/24 14:08	03/05/24 21:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	132	S1+	70 - 130			03/05/24 14:08	03/05/24 21:07	1
o-Terphenyl	146	S1+	70 - 130			03/05/24 14:08	03/05/24 21:07	1

Lab Sample ID: LCS 880-74822/2-A
Matrix: Solid
Analysis Batch: 74778

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 74822

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	1143		mg/Kg		114	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	855.1		mg/Kg		86	70 - 130	
Surrogate	%Recovery	Qualifier	Limits					
1-Chlorooctane	102		70 - 130					
o-Terphenyl	133	S1+	70 - 130					

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-74822/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 74778				Prep Batch: 74822							
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1055		mg/Kg		106	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	797.0		mg/Kg		80	70 - 130	7	20
Surrogate											
		LCSD %Recovery	LCSD Qualifier	Limits							
1-Chlorooctane		95		70 - 130							
o-Terphenyl		118		70 - 130							

Lab Sample ID: 890-6289-A-1-D MS				Client Sample ID: Matrix Spike							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 74778				Prep Batch: 74822							
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	1010	1012		mg/Kg		96	70 - 130		
Diesel Range Organics (Over C10-C28)	57.4		1010	994.0		mg/Kg		93	70 - 130		
Surrogate											
		MS %Recovery	MS Qualifier	Limits							
1-Chlorooctane		126		70 - 130							
o-Terphenyl		128		70 - 130							

Lab Sample ID: 890-6289-A-1-E MSD				Client Sample ID: Matrix Spike Duplicate							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 74778				Prep Batch: 74822							
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	<50.1	U	1010	958.7		mg/Kg		90	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	57.4		1010	932.9		mg/Kg		87	70 - 130	6	20
Surrogate											
		MSD %Recovery	MSD Qualifier	Limits							
1-Chlorooctane		118		70 - 130							
o-Terphenyl		120		70 - 130							

Lab Sample ID: MB 880-74834/1-A				Client Sample ID: Method Blank							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 74863				Prep Batch: 74834							
Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/05/24 16:53	03/06/24 08:13	1		
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/05/24 16:53	03/06/24 08:13	1		
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/05/24 16:53	03/06/24 08:13	1		

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-74834/1-A

Matrix: Solid

Analysis Batch: 74863

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 74834

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130	03/05/24 16:53	03/06/24 08:13	1
o-Terphenyl	139	S1+	70 - 130	03/05/24 16:53	03/06/24 08:13	1

Lab Sample ID: LCS 880-74834/2-A

Matrix: Solid

Analysis Batch: 74863

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 74834

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1066		mg/Kg		107	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1137		mg/Kg		114	70 - 130		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
1-Chlorooctane	97		70 - 130								
o-Terphenyl	102		70 - 130								

Lab Sample ID: LCSD 880-74834/3-A

Matrix: Solid

Analysis Batch: 74863

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 74834

			Spike	LCSD	LCSD				%Rec			RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10			1000	1123		mg/Kg		112	70 - 130	5	20	
Diesel Range Organics (Over C10-C28)			1000	1061		mg/Kg		106	70 - 130	7	20	
Surrogate	LCSD	LCSD										
	%Recovery	Qualifier	Limits									
1-Chlorooctane	90		70 - 130									
o-Terphenyl	95		70 - 130									

Lab Sample ID: 890-6296-11 MS

Matrix: Solid

Analysis Batch: 74863

Client Sample ID: BH24-14 2

Prep Type: Total/NA

Prep Batch: 74834

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	1010	1103		mg/Kg		105	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.7	U	1010	1036		mg/Kg		100	70 - 130		
Surrogate	MS	MS									
	%Recovery	Qualifier	Limits								
1-Chlorooctane	129		70 - 130								
o-Terphenyl	135	S1+	70 - 130								

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-6296-11 MSD
Matrix: Solid
Analysis Batch: 74863

Client Sample ID: BH24-14 2
Prep Type: Total/NA
Prep Batch: 74834

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	<49.7	U	1010	1170		mg/Kg		112	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.7	U	1010	1032		mg/Kg		99	70 - 130	0	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	128		70 - 130								
o-Terphenyl	132	S1+	70 - 130								

Lab Sample ID: MB 880-74838/1-A
Matrix: Solid
Analysis Batch: 74861

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 74838

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/05/24 17:05	03/06/24 08:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/05/24 17:05	03/06/24 08:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/05/24 17:05	03/06/24 08:13	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	38	S1-	70 - 130			03/05/24 17:05	03/06/24 08:13	1
o-Terphenyl	29	S1-	70 - 130			03/05/24 17:05	03/06/24 08:13	1

Lab Sample ID: LCS 880-74838/2-A
Matrix: Solid
Analysis Batch: 74861

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 74838

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1117		mg/Kg		112	70 - 130
Diesel Range Organics (Over C10-C28)	1000	960.8		mg/Kg		96	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	108		70 - 130				
o-Terphenyl	117		70 - 130				

Lab Sample ID: LCSD 880-74838/3-A
Matrix: Solid
Analysis Batch: 74861

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 74838

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1053		mg/Kg		105	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	890.5		mg/Kg		89	70 - 130	8	20

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-74838/3-A

Matrix: Solid

Analysis Batch: 74861

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 74838

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: 890-6296-9 MS

Matrix: Solid

Analysis Batch: 74861

Client Sample ID: BH24-13 2

Prep Type: Total/NA

Prep Batch: 74838

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	1010	867.6		mg/Kg		82	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.7	U	1010	929.0		mg/Kg		89	70 - 130	
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	117		70 - 130							
o-Terphenyl	98		70 - 130							

Lab Sample ID: 890-6296-9 MSD

Matrix: Solid

Analysis Batch: 74861

Client Sample ID: BH24-13 2

Prep Type: Total/NA

Prep Batch: 74838

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	1010	849.2		mg/Kg		80	70 - 130	2	20	
Diesel Range Organics (Over C10-C28)	<49.7	U	1010	945.7		mg/Kg		91	70 - 130	2	20	
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	116		70 - 130									
o-Terphenyl	99		70 - 130									

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-74627/1-A

Matrix: Solid

Analysis Batch: 74903

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac	
Chloride	<5.00	U	5.00	mg/Kg			03/07/24 21:31		1	

Lab Sample ID: LCS 880-74627/2-A

Matrix: Solid

Analysis Batch: 74903

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS					%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	250	256.9		mg/Kg		103	90 - 110		

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-74627/3-A

Matrix: Solid

Analysis Batch: 74903

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	254.9		mg/Kg		102	90 - 110	1	20

Lab Sample ID: 890-6296-5 MS

Matrix: Solid

Analysis Batch: 74903

Client Sample ID: BH24-12 0

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	7030	F1	2480	9130	F1	mg/Kg		85	90 - 110		

Lab Sample ID: 890-6296-5 MSD

Matrix: Solid

Analysis Batch: 74903

Client Sample ID: BH24-12 0

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	7030	F1	2480	9208	F1	mg/Kg		88	90 - 110	1	20

Lab Sample ID: MB 880-74628/1-A

Matrix: Solid

Analysis Batch: 74929

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			03/08/24 01:41	1

Lab Sample ID: LCS 880-74628/2-A

Matrix: Solid

Analysis Batch: 74929

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	263.3		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-74628/3-A

Matrix: Solid

Analysis Batch: 74929

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	263.0		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 890-6296-15 MS

Matrix: Solid

Analysis Batch: 74929

Client Sample ID: BH24-17 2

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	371		1260	1532		mg/Kg		93	90 - 110		

Lab Sample ID: 890-6296-15 MSD

Matrix: Solid

Analysis Batch: 74929

Client Sample ID: BH24-17 2

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	371		1260	1544		mg/Kg		94	90 - 110	1	20

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QC Association Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

GC VOA

Analysis Batch: 74575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Total/NA	Solid	8021B	74676
890-6296-2	BH24-09 2	Total/NA	Solid	8021B	74676
890-6296-3	BH24-11 0	Total/NA	Solid	8021B	74676
890-6296-4	BH24-11 2	Total/NA	Solid	8021B	74676
890-6296-5	BH24-12 0	Total/NA	Solid	8021B	74676
890-6296-6	BH24-12 4	Total/NA	Solid	8021B	74676
890-6296-7	BH24-12 8	Total/NA	Solid	8021B	74676
890-6296-8	BH24-13 0	Total/NA	Solid	8021B	74676
890-6296-9	BH24-13 2	Total/NA	Solid	8021B	74676
890-6296-10	BH24-14 0	Total/NA	Solid	8021B	74676
890-6296-11	BH24-14 2	Total/NA	Solid	8021B	74676
890-6296-12	BH24-15 0	Total/NA	Solid	8021B	74676
890-6296-13	BH24-15 2	Total/NA	Solid	8021B	74676
890-6296-14	BH24-17 0	Total/NA	Solid	8021B	74676
890-6296-15	BH24-17 2	Total/NA	Solid	8021B	74676
890-6296-16	BH24-18 0	Total/NA	Solid	8021B	74676
890-6296-17	BH24-18 2	Total/NA	Solid	8021B	74676
890-6296-18	BH24-19 0	Total/NA	Solid	8021B	74676
890-6296-19	BH24-19 2	Total/NA	Solid	8021B	74676
890-6296-20	BH24-20 0	Total/NA	Solid	8021B	74676
MB 880-74676/5-A	Method Blank	Total/NA	Solid	8021B	74676
LCS 880-74676/1-A	Lab Control Sample	Total/NA	Solid	8021B	74676
LCSD 880-74676/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	74676
890-6296-1 MS	BH24-09 0	Total/NA	Solid	8021B	74676
890-6296-1 MSD	BH24-09 0	Total/NA	Solid	8021B	74676

Prep Batch: 74652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-74652/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 74676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Total/NA	Solid	5035	
890-6296-2	BH24-09 2	Total/NA	Solid	5035	
890-6296-3	BH24-11 0	Total/NA	Solid	5035	
890-6296-4	BH24-11 2	Total/NA	Solid	5035	
890-6296-5	BH24-12 0	Total/NA	Solid	5035	
890-6296-6	BH24-12 4	Total/NA	Solid	5035	
890-6296-7	BH24-12 8	Total/NA	Solid	5035	
890-6296-8	BH24-13 0	Total/NA	Solid	5035	
890-6296-9	BH24-13 2	Total/NA	Solid	5035	
890-6296-10	BH24-14 0	Total/NA	Solid	5035	
890-6296-11	BH24-14 2	Total/NA	Solid	5035	
890-6296-12	BH24-15 0	Total/NA	Solid	5035	
890-6296-13	BH24-15 2	Total/NA	Solid	5035	
890-6296-14	BH24-17 0	Total/NA	Solid	5035	
890-6296-15	BH24-17 2	Total/NA	Solid	5035	
890-6296-16	BH24-18 0	Total/NA	Solid	5035	
890-6296-17	BH24-18 2	Total/NA	Solid	5035	
890-6296-18	BH24-19 0	Total/NA	Solid	5035	
890-6296-19	BH24-19 2	Total/NA	Solid	5035	

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QC Association Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

GC VOA (Continued)

Prep Batch: 74676 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-20	BH24-20 0	Total/NA	Solid	5035	
MB 880-74676/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-74676/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-74676/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6296-1 MS	BH24-09 0	Total/NA	Solid	5035	
890-6296-1 MSD	BH24-09 0	Total/NA	Solid	5035	

Prep Batch: 74689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-21	BH24-20 2	Total/NA	Solid	5035	
MB 880-74689/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-74689/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-74689/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-40191-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-40191-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 74750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-21	BH24-20 2	Total/NA	Solid	8021B	74689
MB 880-74652/5-A	Method Blank	Total/NA	Solid	8021B	74652
MB 880-74689/5-A	Method Blank	Total/NA	Solid	8021B	74689
LCS 880-74689/1-A	Lab Control Sample	Total/NA	Solid	8021B	74689
LCSD 880-74689/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	74689
880-40191-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	74689
880-40191-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	74689

Analysis Batch: 74919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Total/NA	Solid	Total BTEX	
890-6296-2	BH24-09 2	Total/NA	Solid	Total BTEX	
890-6296-3	BH24-11 0	Total/NA	Solid	Total BTEX	
890-6296-4	BH24-11 2	Total/NA	Solid	Total BTEX	
890-6296-5	BH24-12 0	Total/NA	Solid	Total BTEX	
890-6296-6	BH24-12 4	Total/NA	Solid	Total BTEX	
890-6296-7	BH24-12 8	Total/NA	Solid	Total BTEX	
890-6296-8	BH24-13 0	Total/NA	Solid	Total BTEX	
890-6296-9	BH24-13 2	Total/NA	Solid	Total BTEX	
890-6296-10	BH24-14 0	Total/NA	Solid	Total BTEX	
890-6296-11	BH24-14 2	Total/NA	Solid	Total BTEX	
890-6296-12	BH24-15 0	Total/NA	Solid	Total BTEX	
890-6296-13	BH24-15 2	Total/NA	Solid	Total BTEX	
890-6296-14	BH24-17 0	Total/NA	Solid	Total BTEX	
890-6296-15	BH24-17 2	Total/NA	Solid	Total BTEX	
890-6296-16	BH24-18 0	Total/NA	Solid	Total BTEX	
890-6296-17	BH24-18 2	Total/NA	Solid	Total BTEX	
890-6296-18	BH24-19 0	Total/NA	Solid	Total BTEX	
890-6296-19	BH24-19 2	Total/NA	Solid	Total BTEX	
890-6296-20	BH24-20 0	Total/NA	Solid	Total BTEX	
890-6296-21	BH24-20 2	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

GC Semi VOA

Analysis Batch: 74778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Total/NA	Solid	8015B NM	74822
890-6296-2	BH24-09 2	Total/NA	Solid	8015B NM	74822
890-6296-3	BH24-11 0	Total/NA	Solid	8015B NM	74822
890-6296-4	BH24-11 2	Total/NA	Solid	8015B NM	74822
890-6296-5	BH24-12 0	Total/NA	Solid	8015B NM	74822
890-6296-6	BH24-12 4	Total/NA	Solid	8015B NM	74822
890-6296-7	BH24-12 8	Total/NA	Solid	8015B NM	74822
890-6296-8	BH24-13 0	Total/NA	Solid	8015B NM	74822
MB 880-74822/1-A	Method Blank	Total/NA	Solid	8015B NM	74822
LCS 880-74822/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	74822
LCSD 880-74822/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	74822
890-6289-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	74822
890-6289-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	74822

Prep Batch: 74822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Total/NA	Solid	8015NM Prep	
890-6296-2	BH24-09 2	Total/NA	Solid	8015NM Prep	
890-6296-3	BH24-11 0	Total/NA	Solid	8015NM Prep	
890-6296-4	BH24-11 2	Total/NA	Solid	8015NM Prep	
890-6296-5	BH24-12 0	Total/NA	Solid	8015NM Prep	
890-6296-6	BH24-12 4	Total/NA	Solid	8015NM Prep	
890-6296-7	BH24-12 8	Total/NA	Solid	8015NM Prep	
890-6296-8	BH24-13 0	Total/NA	Solid	8015NM Prep	
MB 880-74822/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-74822/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-74822/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6289-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-6289-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 74834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-11	BH24-14 2	Total/NA	Solid	8015NM Prep	
890-6296-12	BH24-15 0	Total/NA	Solid	8015NM Prep	
890-6296-13	BH24-15 2	Total/NA	Solid	8015NM Prep	
890-6296-14	BH24-17 0	Total/NA	Solid	8015NM Prep	
890-6296-15	BH24-17 2	Total/NA	Solid	8015NM Prep	
890-6296-16	BH24-18 0	Total/NA	Solid	8015NM Prep	
890-6296-17	BH24-18 2	Total/NA	Solid	8015NM Prep	
890-6296-18	BH24-19 0	Total/NA	Solid	8015NM Prep	
890-6296-19	BH24-19 2	Total/NA	Solid	8015NM Prep	
890-6296-20	BH24-20 0	Total/NA	Solid	8015NM Prep	
890-6296-21	BH24-20 2	Total/NA	Solid	8015NM Prep	
MB 880-74834/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-74834/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-74834/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6296-11 MS	BH24-14 2	Total/NA	Solid	8015NM Prep	
890-6296-11 MSD	BH24-14 2	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

GC Semi VOA

Prep Batch: 74838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-9	BH24-13 2	Total/NA	Solid	8015NM Prep	
890-6296-10	BH24-14 0	Total/NA	Solid	8015NM Prep	
MB 880-74838/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-74838/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-74838/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-6296-9 MS	BH24-13 2	Total/NA	Solid	8015NM Prep	
890-6296-9 MSD	BH24-13 2	Total/NA	Solid	8015NM Prep	

Analysis Batch: 74861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-9	BH24-13 2	Total/NA	Solid	8015B NM	74838
890-6296-10	BH24-14 0	Total/NA	Solid	8015B NM	74838
MB 880-74838/1-A	Method Blank	Total/NA	Solid	8015B NM	74838
LCS 880-74838/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	74838
LCSD 880-74838/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	74838
890-6296-9 MS	BH24-13 2	Total/NA	Solid	8015B NM	74838
890-6296-9 MSD	BH24-13 2	Total/NA	Solid	8015B NM	74838

Analysis Batch: 74863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-11	BH24-14 2	Total/NA	Solid	8015B NM	74834
890-6296-12	BH24-15 0	Total/NA	Solid	8015B NM	74834
890-6296-13	BH24-15 2	Total/NA	Solid	8015B NM	74834
890-6296-14	BH24-17 0	Total/NA	Solid	8015B NM	74834
890-6296-15	BH24-17 2	Total/NA	Solid	8015B NM	74834
890-6296-16	BH24-18 0	Total/NA	Solid	8015B NM	74834
890-6296-17	BH24-18 2	Total/NA	Solid	8015B NM	74834
890-6296-18	BH24-19 0	Total/NA	Solid	8015B NM	74834
890-6296-19	BH24-19 2	Total/NA	Solid	8015B NM	74834
890-6296-20	BH24-20 0	Total/NA	Solid	8015B NM	74834
890-6296-21	BH24-20 2	Total/NA	Solid	8015B NM	74834
MB 880-74834/1-A	Method Blank	Total/NA	Solid	8015B NM	74834
LCS 880-74834/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	74834
LCSD 880-74834/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	74834
890-6296-11 MS	BH24-14 2	Total/NA	Solid	8015B NM	74834
890-6296-11 MSD	BH24-14 2	Total/NA	Solid	8015B NM	74834

Analysis Batch: 74892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Total/NA	Solid	8015 NM	
890-6296-2	BH24-09 2	Total/NA	Solid	8015 NM	
890-6296-3	BH24-11 0	Total/NA	Solid	8015 NM	
890-6296-4	BH24-11 2	Total/NA	Solid	8015 NM	
890-6296-5	BH24-12 0	Total/NA	Solid	8015 NM	
890-6296-6	BH24-12 4	Total/NA	Solid	8015 NM	
890-6296-7	BH24-12 8	Total/NA	Solid	8015 NM	
890-6296-8	BH24-13 0	Total/NA	Solid	8015 NM	
890-6296-9	BH24-13 2	Total/NA	Solid	8015 NM	
890-6296-10	BH24-14 0	Total/NA	Solid	8015 NM	
890-6296-11	BH24-14 2	Total/NA	Solid	8015 NM	
890-6296-12	BH24-15 0	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

GC Semi VOA (Continued)

Analysis Batch: 74892 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-13	BH24-15 2	Total/NA	Solid	8015 NM	
890-6296-14	BH24-17 0	Total/NA	Solid	8015 NM	
890-6296-15	BH24-17 2	Total/NA	Solid	8015 NM	
890-6296-16	BH24-18 0	Total/NA	Solid	8015 NM	
890-6296-17	BH24-18 2	Total/NA	Solid	8015 NM	
890-6296-18	BH24-19 0	Total/NA	Solid	8015 NM	
890-6296-19	BH24-19 2	Total/NA	Solid	8015 NM	
890-6296-20	BH24-20 0	Total/NA	Solid	8015 NM	
890-6296-21	BH24-20 2	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 74627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Soluble	Solid	DI Leach	
890-6296-2	BH24-09 2	Soluble	Solid	DI Leach	
890-6296-3	BH24-11 0	Soluble	Solid	DI Leach	
890-6296-4	BH24-11 2	Soluble	Solid	DI Leach	
890-6296-5	BH24-12 0	Soluble	Solid	DI Leach	
890-6296-6	BH24-12 4	Soluble	Solid	DI Leach	
890-6296-7	BH24-12 8	Soluble	Solid	DI Leach	
890-6296-8	BH24-13 0	Soluble	Solid	DI Leach	
890-6296-9	BH24-13 2	Soluble	Solid	DI Leach	
890-6296-10	BH24-14 0	Soluble	Solid	DI Leach	
890-6296-11	BH24-14 2	Soluble	Solid	DI Leach	
890-6296-12	BH24-15 0	Soluble	Solid	DI Leach	
890-6296-13	BH24-15 2	Soluble	Solid	DI Leach	
890-6296-14	BH24-17 0	Soluble	Solid	DI Leach	
MB 880-74627/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-74627/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-74627/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6296-5 MS	BH24-12 0	Soluble	Solid	DI Leach	
890-6296-5 MSD	BH24-12 0	Soluble	Solid	DI Leach	

Leach Batch: 74628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-15	BH24-17 2	Soluble	Solid	DI Leach	
890-6296-16	BH24-18 0	Soluble	Solid	DI Leach	
890-6296-17	BH24-18 2	Soluble	Solid	DI Leach	
890-6296-18	BH24-19 0	Soluble	Solid	DI Leach	
890-6296-19	BH24-19 2	Soluble	Solid	DI Leach	
890-6296-20	BH24-20 0	Soluble	Solid	DI Leach	
890-6296-21	BH24-20 2	Soluble	Solid	DI Leach	
MB 880-74628/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-74628/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-74628/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6296-15 MS	BH24-17 2	Soluble	Solid	DI Leach	
890-6296-15 MSD	BH24-17 2	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

HPLC/IC

Analysis Batch: 74903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-1	BH24-09 0	Soluble	Solid	300.0	74627
890-6296-2	BH24-09 2	Soluble	Solid	300.0	74627
890-6296-3	BH24-11 0	Soluble	Solid	300.0	74627
890-6296-4	BH24-11 2	Soluble	Solid	300.0	74627
890-6296-5	BH24-12 0	Soluble	Solid	300.0	74627
890-6296-6	BH24-12 4	Soluble	Solid	300.0	74627
890-6296-7	BH24-12 8	Soluble	Solid	300.0	74627
890-6296-8	BH24-13 0	Soluble	Solid	300.0	74627
890-6296-9	BH24-13 2	Soluble	Solid	300.0	74627
890-6296-10	BH24-14 0	Soluble	Solid	300.0	74627
890-6296-11	BH24-14 2	Soluble	Solid	300.0	74627
890-6296-12	BH24-15 0	Soluble	Solid	300.0	74627
890-6296-13	BH24-15 2	Soluble	Solid	300.0	74627
890-6296-14	BH24-17 0	Soluble	Solid	300.0	74627
MB 880-74627/1-A	Method Blank	Soluble	Solid	300.0	74627
LCS 880-74627/2-A	Lab Control Sample	Soluble	Solid	300.0	74627
LCSD 880-74627/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	74627
890-6296-5 MS	BH24-12 0	Soluble	Solid	300.0	74627
890-6296-5 MSD	BH24-12 0	Soluble	Solid	300.0	74627

Analysis Batch: 74929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6296-15	BH24-17 2	Soluble	Solid	300.0	74628
890-6296-16	BH24-18 0	Soluble	Solid	300.0	74628
890-6296-17	BH24-18 2	Soluble	Solid	300.0	74628
890-6296-18	BH24-19 0	Soluble	Solid	300.0	74628
890-6296-19	BH24-19 2	Soluble	Solid	300.0	74628
890-6296-20	BH24-20 0	Soluble	Solid	300.0	74628
890-6296-21	BH24-20 2	Soluble	Solid	300.0	74628
MB 880-74628/1-A	Method Blank	Soluble	Solid	300.0	74628
LCS 880-74628/2-A	Lab Control Sample	Soluble	Solid	300.0	74628
LCSD 880-74628/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	74628
890-6296-15 MS	BH24-17 2	Soluble	Solid	300.0	74628
890-6296-15 MSD	BH24-17 2	Soluble	Solid	300.0	74628

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-09 0

Lab Sample ID: 890-6296-1

Date Collected: 02/27/24 11:40

Matrix: Solid

Date Received: 03/01/24 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 12:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 12:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 03:47	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 03:47	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/07/24 23:04	CH	EET MID

Client Sample ID: BH24-09 2

Lab Sample ID: 890-6296-2

Date Collected: 02/27/24 12:00

Matrix: Solid

Date Received: 03/01/24 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 12:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 12:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 04:08	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 04:08	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/07/24 23:11	CH	EET MID

Client Sample ID: BH24-11 0

Lab Sample ID: 890-6296-3

Date Collected: 02/28/24 13:00

Matrix: Solid

Date Received: 03/01/24 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 13:14	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 13:14	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 04:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 04:31	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/07/24 23:18	CH	EET MID

Client Sample ID: BH24-11 2

Lab Sample ID: 890-6296-4

Date Collected: 02/28/24 13:10

Matrix: Solid

Date Received: 03/01/24 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 13:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 13:34	SM	EET MID

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Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-11 2
Date Collected: 02/28/24 13:10
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			74892	03/06/24 04:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 04:54	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/07/24 23:25	CH	EET MID

Client Sample ID: BH24-12 0
Date Collected: 02/27/24 13:30
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 13:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 13:55	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 05:15	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 05:15	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		10			74903	03/07/24 23:32	CH	EET MID

Client Sample ID: BH24-12 4
Date Collected: 02/28/24 13:30
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 14:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 14:15	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 05:36	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 05:36	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		5			74903	03/07/24 23:54	CH	EET MID

Client Sample ID: BH24-12 8
Date Collected: 02/28/24 15:20
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 14:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 14:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 05:57	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 05:57	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-12 8
Date Collected: 02/28/24 15:20
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		5			74903	03/08/24 00:01	CH	EET MID

Client Sample ID: BH24-13 0
Date Collected: 02/28/24 09:45
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 14:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 14:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 06:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	74822	03/05/24 14:08	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74778	03/06/24 06:18	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/08/24 00:22	CH	EET MID

Client Sample ID: BH24-13 2
Date Collected: 02/28/24 09:55
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 15:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 15:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	74838	03/05/24 17:05	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74861	03/06/24 10:45	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/08/24 00:30	CH	EET MID

Client Sample ID: BH24-14 0
Date Collected: 02/28/24 10:00
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 15:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 15:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 11:51	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	74838	03/05/24 17:05	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74861	03/06/24 11:51	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/08/24 00:37	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-14 2
Date Collected: 02/28/24 10:05
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 17:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 17:28	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 10:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 10:45	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/08/24 00:44	CH	EET MID

Client Sample ID: BH24-15 0
Date Collected: 02/28/24 10:30
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 17:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 17:48	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 11:51	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 11:51	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		10			74903	03/08/24 00:51	CH	EET MID

Client Sample ID: BH24-15 2
Date Collected: 02/28/24 10:40
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 18:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 18:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 12:13	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 12:13	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		1			74903	03/08/24 00:58	CH	EET MID

Client Sample ID: BH24-17 0
Date Collected: 02/28/24 10:55
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 18:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 18:30	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-17 0
Date Collected: 02/28/24 10:55
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			74892	03/06/24 12:34	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 12:34	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	74627	03/04/24 12:06	SMC	EET MID
Soluble	Analysis	300.0		20			74903	03/08/24 01:05	CH	EET MID

Client Sample ID: BH24-17 2
Date Collected: 02/28/24 11:00
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 18:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 18:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 12:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 12:56	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	74628	03/04/24 12:11	SMC	EET MID
Soluble	Analysis	300.0		5			74929	03/08/24 02:02	CH	EET MID

Client Sample ID: BH24-18 0
Date Collected: 02/28/24 11:30
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 19:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 19:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 13:17	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 13:17	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	74628	03/04/24 12:11	SMC	EET MID
Soluble	Analysis	300.0		5			74929	03/08/24 02:24	CH	EET MID

Client Sample ID: BH24-18 2
Date Collected: 02/28/24 11:45
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 19:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 19:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 13:39	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 13:39	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-18 2
Date Collected: 02/28/24 11:45
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	74628	03/04/24 12:11	SMC	EET MID
Soluble	Analysis	300.0		5			74929	03/08/24 02:31	CH	EET MID

Client Sample ID: BH24-19 0
Date Collected: 02/28/24 12:00
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-18
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 19:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 19:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 14:00	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 14:00	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	74628	03/04/24 12:11	SMC	EET MID
Soluble	Analysis	300.0		1			74929	03/08/24 02:38	CH	EET MID

Client Sample ID: BH24-19 2
Date Collected: 02/29/24 12:15
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 20:12	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 20:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 14:22	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 14:22	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	74628	03/04/24 12:11	SMC	EET MID
Soluble	Analysis	300.0		1			74929	03/08/24 02:45	CH	EET MID

Client Sample ID: BH24-20 0
Date Collected: 02/29/24 12:20
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-20
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	74676	03/04/24 14:32	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74575	03/05/24 20:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/05/24 20:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 14:44	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 14:44	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	74628	03/04/24 12:11	SMC	EET MID
Soluble	Analysis	300.0		50			74929	03/08/24 03:07	CH	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Client Sample ID: BH24-20 2
Date Collected: 02/29/24 12:30
Date Received: 03/01/24 09:16

Lab Sample ID: 890-6296-21
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	74689	03/05/24 13:30	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74750	03/06/24 03:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74919	03/06/24 03:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			74892	03/06/24 15:27	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	74834	03/05/24 16:53	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74863	03/06/24 15:27	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	74628	03/04/24 12:11	SMC	EET MID
Soluble	Analysis	300.0		1			74929	03/08/24 03:14	CH	EET MID

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24
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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
- TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Vertex
Project/Site: Mis Amigos tank battery

Job ID: 890-6296-1
SDG: 23E-05219

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-6296-1	BH24-09 0	Solid	02/27/24 11:40	03/01/24 09:16
890-6296-2	BH24-09 2	Solid	02/27/24 12:00	03/01/24 09:16
890-6296-3	BH24-11 0	Solid	02/28/24 13:00	03/01/24 09:16
890-6296-4	BH24-11 2	Solid	02/28/24 13:10	03/01/24 09:16
890-6296-5	BH24-12 0	Solid	02/27/24 13:30	03/01/24 09:16
890-6296-6	BH24-12 4	Solid	02/28/24 13:30	03/01/24 09:16
890-6296-7	BH24-12 8	Solid	02/28/24 15:20	03/01/24 09:16
890-6296-8	BH24-13 0	Solid	02/28/24 09:45	03/01/24 09:16
890-6296-9	BH24-13 2	Solid	02/28/24 09:55	03/01/24 09:16
890-6296-10	BH24-14 0	Solid	02/28/24 10:00	03/01/24 09:16
890-6296-11	BH24-14 2	Solid	02/28/24 10:05	03/01/24 09:16
890-6296-12	BH24-15 0	Solid	02/28/24 10:30	03/01/24 09:16
890-6296-13	BH24-15 2	Solid	02/28/24 10:40	03/01/24 09:16
890-6296-14	BH24-17 0	Solid	02/28/24 10:55	03/01/24 09:16
890-6296-15	BH24-17 2	Solid	02/28/24 11:00	03/01/24 09:16
890-6296-16	BH24-18 0	Solid	02/28/24 11:30	03/01/24 09:16
890-6296-17	BH24-18 2	Solid	02/28/24 11:45	03/01/24 09:16
890-6296-18	BH24-19 0	Solid	02/28/24 12:00	03/01/24 09:16
890-6296-19	BH24-19 2	Solid	02/29/24 12:15	03/01/24 09:16
890-6296-20	BH24-20 0	Solid	02/29/24 12:20	03/01/24 09:16
890-6296-21	BH24-20 2	Solid	02/29/24 12:30	03/01/24 09:16



Environment Testing

CC: Scattia@vertex.ca for Final Report

Chain of Custody

Houston, TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
El Paso TX (915) 585-3443 Lubbock TX (806) 794-1296
Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3195

Work Order No: Cost Center #: 1055621001
Incident #: NAPP2335431615

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Project Manager		Sally Cartier (SCatter @ vertex.ca)		Bill to (if different)		XTO Energy, Inc.		WORK ORDER COMMENTS	
Company Name		Vertex Resource Services		Company Name		XTO Energy, Inc.		Program: UST/PST ☐ RRP ☐ Bymfields ☐ RR ☐ Superfund ☐	
Address		3101 Boyd Drive		Address		3104 E. Greene St		State of Project: ☐ Level III ☐ Level IV ☐	
City/State/Zip		Carlsbad NM, 88220		City/State/Zip		Carlsbad NM, 88220		Reporting Level II ☐ Deliverables EDO ☐ ☐ ADAPT ☐ Other ☐	
Phone		575 725 5001		Email		CC - Scatter @ vertex.ca and permian @ vertex.ca for Final Report		ANALYSIS REQUEST	
Project Name		Mis Amigos Tank Battery		Turn Around				Preservative Codes	
Project Number		23E-05219		Routine		Rush		None NO	
Project Location				Due Date				DI Water, H ₂ O	
Sampler's Name		SM		TAT starts the day received by the lab, if received by 4:30pm				Cooler Cool	
PO #				Well Ice		Yes No		MeOH Me	
SAMPLE RECEIPT		Temp Blank		Yes No				HCL HCl	
Samples Received Intact		Yes No		Thermometer ID		TNM007		H ₂ SO ₄ H ₂	
Cooler Custody Seals		Yes No		Correction Factor		-0.2		H ₂ O ₂ H ₂ O	
Sample Custody Seals		Yes No		Temperature Reading		0.4		NaOH Na	
Total Containers		Yes No		Corrected Temperature		0.2		H ₂ SO ₄ Na BIS	
Sample Identification		Matrix		Date Sampled		Time Sampled		Na ₂ SO ₄ Na BIS	
BH24-09 0'		Soil		02.27.24		11:40		Zn Acetate+NaOH Zn	
BH24-09 2'		Soil		02.27.24		12:00		NaOH+Ascorbic Acid SAPO	
BH24-11 0'		Soil		02.28.24		13:00		Sample Comments	
BH24-11 2'		Soil		02.28.24		13:10			
BH24-12 0'		Soil		02.27.24		13:30			
BH24-12 4'		Soil		02.28.24		13:30			
BH24-12 8'		Soil		02.28.24		15:20			
BH24-13 0'		Soil		02.28.24		9:45			
BH24-13 2'		Soil		02.28.24		9:55			
BH24-14 0'		Soil		02.28.24		10:00			
Total 200.7 / 6010		200.8 / 6020:		8RCRA 13PPM Texas 11		Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag Sn U V Zn		Hg 1631 / 245 1 / 7470 / 7471	
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010		8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U					
Relinquished by (Signature)		Received by (Signature)		Date/Time		Relinquished by (Signature)		Received by (Signature)	
Date/Time		Date/Time		Date/Time		Date/Time		Date/Time	



Environment Testing
Xenco

Chain of Custody

CC: Scattar@vertex.ca for Final Report

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
El Paso TX (915) 585-3443 Lubbock TX (806) 794-1296
Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199

Work Order No: Cost Center #: 1055621001,
Incident #: NAPP2335431615

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Project Manager		Sally Cartier (SCartier@vertex.ca)		Bill to (if different)		XTO Energy, Inc.	
Company Name		Vertex Resource Services		Company Name		XTO Energy, Inc.	
Address		3101 Boyd Drive		Address		3104 E. Greene St	
City State ZIP		Carlsbad NM, 88220		City State ZIP		Carlsbad NM, 88220	
Phone		575 725 5001		Email		CC.Scattar@vertex.ca and permian@vertex.ca for Final Report	
Project Name		Mis Amigos Tank Battery		Turn Around		ANALYSIS REQUEST	
Project Number		23E-05219		Routine		Rush	
Project Location				Due Date			
Sample's Name		SM		TAT starts the day received by the lab if received by 4:30pm			
PO #				Yes No		Yes No	
SAMPLE RECEIPT		Temp Blank		Thermometer ID		TUNCOO	
Samples Received intact		Yes No		Correction Factor		-0.2	
Cooler Custody Seals		Yes No		Temperature Reading		0.4	
Sample Custody Seals		Yes No		Corrected Temperature		0.2	
Total Containers				Parameters			
Sample Identification		Matrix		Date Sampled Time		Depth (ft)	
BH24-14 2'		Soil		02.28.24		10:05	
BH24-15 0'		Soil		02.28.24		10:30	
BH24-15 2'		Soil		02.28.24		10:40	
BH24-17 0'		Soil		02.29.24		10:55	
BH24-17 2'		Soil		02.29.24		11:00	
BH24-18 0'		Soil		02.29.24		11:30	
BH24-18 2'		Soil		02.29.24		11:45	
BH24-19 0'		Soil		02.29.24		12:00	
BH24-19 2'		Soil		02.29.24		12:15	
BH24-20 0'		Soil		02.29.24		12:20	
Total 200.7 6010		200.8 / 6020:		8RCRA 13PPM Texas 11		Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn	
Circle Method(s) and Metal(s) to be analyzed		TC:LP / SLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		Hg 1631 / 245 1 / 7470 / 7471			
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$95.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.		Relinquished by: (Signature)		Received by: (Signature)		Date/Time	
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Relinquished by: (Signature)		Received by: (Signature)		Date/Time		Relinquished by: (Signature)	
Relinquished by: (Signature)		Received by: (Signature)		Date/Time		Relinquished by: (Signature)	



Environment Testing
Xenco

CC: Scartar@vertex.ca for Final Report

Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
El Paso TX (915) 585-3443 Lubbock TX (806) 794-1296
Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3195

Work Order No: Cost Center #: 1055621001
Incident #: NAPP2335431615

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Page

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Login Sample Receipt Checklist

Client: Vertex

Job Number: 890-6296-1

SDG Number: 23E-05219

Login Number: 6296

List Number: 1

Creator: Lopez, Abraham

List Source: Eurofins Carlsbad

Question	Answer	Comment
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.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Vertex

Job Number: 890-6296-1
SDG Number: 23E-05219

Login Number: 6296
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 03/04/24 12:22 PM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

Mis Amigos Ctb

JOB NUMBER

885-1548-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

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

Client: Vertex
Project/Site: Mis Amigos Ctb

Laboratory Job ID: 885-1548-1

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Definitions/Glossary

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1548-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

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

Case Narrative

Client: Vertex
Project: Mis Amigos Ctb

Job ID: 885-1548-1

Job ID: 885-1548-1

Eurofins Albuquerque

Job Narrative 885-1548-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt

The samples were received on 3/21/2024 8:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C.

GC VOA

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-76343 and analytical batch 880-76402 was outside the control limits.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-76284 and analytical batch 880-76378 was outside the upper control 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.

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1548-1

Client Sample ID: WES24-01 0-0.5'

Lab Sample ID: 885-1548-1

Date Collected: 03/19/24 11:00

Matrix: Solid

Date Received: 03/21/24 08:50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0020	mg/Kg		03/22/24 14:53	03/24/24 23:22	1
Toluene	ND		0.0020	mg/Kg		03/22/24 14:53	03/24/24 23:22	1
Ethylbenzene	ND		0.0020	mg/Kg		03/22/24 14:53	03/24/24 23:22	1
m-Xylene & p-Xylene	ND		0.0040	mg/Kg		03/22/24 14:53	03/24/24 23:22	1
o-Xylene	ND		0.0020	mg/Kg		03/22/24 14:53	03/24/24 23:22	1
Xylenes, Total	ND		0.0040	mg/Kg		03/22/24 14:53	03/24/24 23:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130	03/22/24 14:53	03/24/24 23:22	1
1,4-Difluorobenzene (Surr)	96		70 - 130	03/22/24 14:53	03/24/24 23:22	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		50	mg/Kg		03/22/24 10:57	03/24/24 03:45	1
Diesel Range Organics (Over C10-C28)	250		50	mg/Kg		03/22/24 10:57	03/24/24 03:45	1
Oil Range Organics (Over C28-C36)	ND		50	mg/Kg		03/22/24 10:57	03/24/24 03:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	03/22/24 10:57	03/24/24 03:45	1
o-Terphenyl	90		70 - 130	03/22/24 10:57	03/24/24 03:45	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	220		5.0	mg/Kg			03/22/24 23:03	1

Client Sample ID: BES24-01 0.5'

Lab Sample ID: 885-1548-2

Date Collected: 03/19/24 11:05

Matrix: Solid

Date Received: 03/21/24 08:50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0020	mg/Kg		03/22/24 14:53	03/24/24 23:43	1
Toluene	ND		0.0020	mg/Kg		03/22/24 14:53	03/24/24 23:43	1
Ethylbenzene	ND		0.0020	mg/Kg		03/22/24 14:53	03/24/24 23:43	1
m-Xylene & p-Xylene	ND		0.0040	mg/Kg		03/22/24 14:53	03/24/24 23:43	1
o-Xylene	ND		0.0020	mg/Kg		03/22/24 14:53	03/24/24 23:43	1
Xylenes, Total	ND		0.0040	mg/Kg		03/22/24 14:53	03/24/24 23:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		70 - 130	03/22/24 14:53	03/24/24 23:43	1
1,4-Difluorobenzene (Surr)	94		70 - 130	03/22/24 14:53	03/24/24 23:43	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		50	mg/Kg		03/22/24 10:57	03/24/24 04:06	1
Diesel Range Organics (Over C10-C28)	150		50	mg/Kg		03/22/24 10:57	03/24/24 04:06	1
Oil Range Organics (Over C28-C36)	ND		50	mg/Kg		03/22/24 10:57	03/24/24 04:06	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1548-1

Client Sample ID: BES24-01 0.5'

Lab Sample ID: 885-1548-2

Date Collected: 03/19/24 11:05

Matrix: Solid

Date Received: 03/21/24 08:50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130	03/22/24 10:57	03/24/24 04:06	1
o-Terphenyl	97		70 - 130	03/22/24 10:57	03/24/24 04:06	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	120		5.0	mg/Kg			03/22/24 23:08	1

Client Sample ID: BES2402 0.5'

Lab Sample ID: 885-1548-3

Date Collected: 03/19/24 11:10

Matrix: Solid

Date Received: 03/21/24 08:50

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0020	mg/Kg		03/22/24 14:53	03/25/24 00:03	1
Toluene	ND		0.0020	mg/Kg		03/22/24 14:53	03/25/24 00:03	1
Ethylbenzene	ND		0.0020	mg/Kg		03/22/24 14:53	03/25/24 00:03	1
m-Xylene & p-Xylene	ND		0.0040	mg/Kg		03/22/24 14:53	03/25/24 00:03	1
o-Xylene	ND		0.0020	mg/Kg		03/22/24 14:53	03/25/24 00:03	1
Xylenes, Total	ND		0.0040	mg/Kg		03/22/24 14:53	03/25/24 00:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	03/22/24 14:53	03/25/24 00:03	1
1,4-Difluorobenzene (Surr)	82		70 - 130	03/22/24 14:53	03/25/24 00:03	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		50	mg/Kg		03/22/24 10:57	03/24/24 04:27	1
Diesel Range Organics (Over C10-C28)	280		50	mg/Kg		03/22/24 10:57	03/24/24 04:27	1
Oil Range Organics (Over C28-C36)	ND		50	mg/Kg		03/22/24 10:57	03/24/24 04:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	03/22/24 10:57	03/24/24 04:27	1
o-Terphenyl	86		70 - 130	03/22/24 10:57	03/24/24 04:27	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1100		25	mg/Kg			03/23/24 01:33	5

Eurofins Albuquerque

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1548-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-76343/5-A
Matrix: Solid
Analysis Batch: 76402

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 76343

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0020	mg/Kg		03/22/24 14:53	03/24/24 16:09	1
Toluene	ND		0.0020	mg/Kg		03/22/24 14:53	03/24/24 16:09	1
Ethylbenzene	ND		0.0020	mg/Kg		03/22/24 14:53	03/24/24 16:09	1
m-Xylene & p-Xylene	ND		0.0040	mg/Kg		03/22/24 14:53	03/24/24 16:09	1
o-Xylene	ND		0.0020	mg/Kg		03/22/24 14:53	03/24/24 16:09	1
Xylenes, Total	ND		0.0040	mg/Kg		03/22/24 14:53	03/24/24 16:09	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	69	S1-	70 - 130			03/22/24 14:53	03/24/24 16:09	1
1,4-Difluorobenzene (Surr)	103		70 - 130			03/22/24 14:53	03/24/24 16:09	1

Lab Sample ID: LCS 880-76343/1-A
Matrix: Solid
Analysis Batch: 76402

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 76343

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.0863		mg/Kg		86	70 - 130
Toluene	0.100	0.0861		mg/Kg		86	70 - 130
Ethylbenzene	0.100	0.0891		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	0.200	0.174		mg/Kg		87	70 - 130
o-Xylene	0.100	0.0887		mg/Kg		89	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	101		70 - 130				
1,4-Difluorobenzene (Surr)	123		70 - 130				

Lab Sample ID: LCSD 880-76343/2-A
Matrix: Solid
Analysis Batch: 76402

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 76343

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.0871		mg/Kg		87	70 - 130	1	35
Toluene	0.100	0.0930		mg/Kg		93	70 - 130	8	35
Ethylbenzene	0.100	0.0995		mg/Kg		100	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.201		mg/Kg		101	70 - 130	14	35
o-Xylene	0.100	0.0993		mg/Kg		99	70 - 130	11	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	103		70 - 130						
1,4-Difluorobenzene (Surr)	108		70 - 130						

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1548-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-76284/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 76378						Prep Batch: 76284			
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	ND		50	mg/Kg		03/22/24 10:57	03/23/24 19:37	1	
Diesel Range Organics (Over C10-C28)	ND		50	mg/Kg		03/22/24 10:57	03/23/24 19:37	1	
Oil Range Organics (Over C28-C36)	ND		50	mg/Kg		03/22/24 10:57	03/23/24 19:37	1	
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	152	S1+	70 - 130			03/22/24 10:57	03/23/24 19:37	1	
o-Terphenyl	142	S1+	70 - 130			03/22/24 10:57	03/23/24 19:37	1	

Lab Sample ID: LCS 880-76284/2-A						Client Sample ID: Lab Control Sample			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 76378						Prep Batch: 76284			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	1060		mg/Kg		106	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	937		mg/Kg		94	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
1-Chlorooctane	116		70 - 130						
o-Terphenyl	118		70 - 130						

Lab Sample ID: LCSD 880-76284/3-A						Client Sample ID: Lab Control Sample Dup			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 76378						Prep Batch: 76284			
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1090		mg/Kg		109	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	992		mg/Kg		99	70 - 130	6	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	87		70 - 130						
o-Terphenyl	89		70 - 130						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-76321/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Soluble			
Analysis Batch: 76356									
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		5.0	mg/Kg			03/22/24 20:43	1	

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1548-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-76321/2-A
Matrix: Solid
Analysis Batch: 76356

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	235		mg/Kg		94	90 - 110

Lab Sample ID: LCSD 880-76321/3-A
Matrix: Solid
Analysis Batch: 76356

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	236		mg/Kg		94	90 - 110	0	20

Lab Sample ID: MB 880-76345/1-A
Matrix: Solid
Analysis Batch: 76359

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		5.0	mg/Kg			03/22/24 23:32	1

Lab Sample ID: LCS 880-76345/2-A
Matrix: Solid
Analysis Batch: 76359

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	235		mg/Kg		94	90 - 110

Lab Sample ID: LCSD 880-76345/3-A
Matrix: Solid
Analysis Batch: 76359

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	235		mg/Kg		94	90 - 110	0	20

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1548-1

GC VOA

Prep Batch: 76343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1548-1	WES24-01 0-0.5'	Total/NA	Solid	5035	
885-1548-2	BES24-01 0.5'	Total/NA	Solid	5035	
885-1548-3	BES2402 0.5'	Total/NA	Solid	5035	
MB 880-76343/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-76343/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-76343/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 76402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1548-1	WES24-01 0-0.5'	Total/NA	Solid	8021B	76343
885-1548-2	BES24-01 0.5'	Total/NA	Solid	8021B	76343
885-1548-3	BES2402 0.5'	Total/NA	Solid	8021B	76343
MB 880-76343/5-A	Method Blank	Total/NA	Solid	8021B	76343
LCS 880-76343/1-A	Lab Control Sample	Total/NA	Solid	8021B	76343
LCSD 880-76343/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	76343

GC Semi VOA

Prep Batch: 76284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1548-1	WES24-01 0-0.5'	Total/NA	Solid	8015NM Prep	
885-1548-2	BES24-01 0.5'	Total/NA	Solid	8015NM Prep	
885-1548-3	BES2402 0.5'	Total/NA	Solid	8015NM Prep	
MB 880-76284/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-76284/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-76284/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 76378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1548-1	WES24-01 0-0.5'	Total/NA	Solid	8015B NM	76284
885-1548-2	BES24-01 0.5'	Total/NA	Solid	8015B NM	76284
885-1548-3	BES2402 0.5'	Total/NA	Solid	8015B NM	76284
MB 880-76284/1-A	Method Blank	Total/NA	Solid	8015B NM	76284
LCS 880-76284/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	76284
LCSD 880-76284/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	76284

HPLC/IC

Leach Batch: 76321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1548-1	WES24-01 0-0.5'	Soluble	Solid	DI Leach	
885-1548-2	BES24-01 0.5'	Soluble	Solid	DI Leach	
MB 880-76321/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-76321/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-76321/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 76345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1548-3	BES2402 0.5'	Soluble	Solid	DI Leach	
MB 880-76345/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-76345/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-76345/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1548-1

HPLC/IC

Analysis Batch: 76356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1548-1	WES24-01 0-0.5'	Soluble	Solid	300.0	76321
885-1548-2	BES24-01 0.5'	Soluble	Solid	300.0	76321
MB 880-76321/1-A	Method Blank	Soluble	Solid	300.0	76321
LCS 880-76321/2-A	Lab Control Sample	Soluble	Solid	300.0	76321
LCSD 880-76321/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	76321

Analysis Batch: 76359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1548-3	BES2402 0.5'	Soluble	Solid	300.0	76345
MB 880-76345/1-A	Method Blank	Soluble	Solid	300.0	76345
LCS 880-76345/2-A	Lab Control Sample	Soluble	Solid	300.0	76345
LCSD 880-76345/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	76345

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1548-1

Client Sample ID: WES24-01 0-0.5'
Date Collected: 03/19/24 11:00
Date Received: 03/21/24 08:50

Lab Sample ID: 885-1548-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			76343	MNR	EET MID	03/22/24 14:53
Total/NA	Analysis	8021B		1	76402	MNR	EET MID	03/24/24 23:22
Total/NA	Prep	8015NM Prep			76284	EL	EET MID	03/22/24 10:57
Total/NA	Analysis	8015B NM		1	76378	SM	EET MID	03/24/24 03:45
Soluble	Leach	DI Leach			76321	SMC	EET MID	03/22/24 13:07
Soluble	Analysis	300.0		1	76356	SMC	EET MID	03/22/24 23:03

Client Sample ID: BES24-01 0.5'
Date Collected: 03/19/24 11:05
Date Received: 03/21/24 08:50

Lab Sample ID: 885-1548-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			76343	MNR	EET MID	03/22/24 14:53
Total/NA	Analysis	8021B		1	76402	MNR	EET MID	03/24/24 23:43
Total/NA	Prep	8015NM Prep			76284	EL	EET MID	03/22/24 10:57
Total/NA	Analysis	8015B NM		1	76378	SM	EET MID	03/24/24 04:06
Soluble	Leach	DI Leach			76321	SMC	EET MID	03/22/24 13:07
Soluble	Analysis	300.0		1	76356	SMC	EET MID	03/22/24 23:08

Client Sample ID: BES2402 0.5'
Date Collected: 03/19/24 11:10
Date Received: 03/21/24 08:50

Lab Sample ID: 885-1548-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			76343	MNR	EET MID	03/22/24 14:53
Total/NA	Analysis	8021B		1	76402	MNR	EET MID	03/25/24 00:03
Total/NA	Prep	8015NM Prep			76284	EL	EET MID	03/22/24 10:57
Total/NA	Analysis	8015B NM		1	76378	SM	EET MID	03/24/24 04:27
Soluble	Leach	DI Leach			76345	SA	EET MID	03/22/24 15:14
Soluble	Analysis	300.0		5	76359	SMC	EET MID	03/23/24 01:33

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1548-1

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

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Method Summary

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1548-1

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

- ASTM = ASTM International
- EPA = US Environmental Protection Agency
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

- EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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Chain of Custody Record



eurofins

Environment Testing

4901 Hawkins NE
Albuquerque NM 87109
Phone 505-345-3975 Fax. 505-345-4107

[illegible]

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-1548-1

Login Number: 1548
List Number: 1
Creator: Lowman, Nick

List Source: Eurofins Albuquerque

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

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-1548-1

Login Number: 1548

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 03/22/24 10:45 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

Mis Amigos Ctb

JOB NUMBER

885-1619-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.
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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



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

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Client: Vertex
Project/Site: Mis Amigos Ctb

Laboratory Job ID: 885-1619-1

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Definitions/Glossary

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1619-1

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
Project: Mis Amigos Ctb

Job ID: 885-1619-1

Job ID: 885-1619-1

Eurofins Albuquerque

Job Narrative
885-1619-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt

The samples were received on 3/22/2024 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 0.7°C.

Gasoline Range Organics

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

GC VOA

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

Diesel Range Organics

Method 8015D_DRO: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 885-2293 and analytical batch 885-2336 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8015D_DRO: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 885-2293 and analytical batch 885-2336 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. Sample was re-extracted to confirm reproducibility of results; reporting re-extraction with higher results per analyst discretion. No MS/MSD reported for this batch due to invalidated results.

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.

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1619-1

Client Sample ID: WES24-02 0-0.5'

Lab Sample ID: 885-1619-1

Date Collected: 03/20/24 10:00

Matrix: Solid

Date Received: 03/22/24 07:30

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		03/25/24 16:19	03/26/24 11:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		15 - 244			03/25/24 16:19	03/26/24 11:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		03/25/24 16:19	03/26/24 11:07	1
Ethylbenzene	ND		0.050	mg/Kg		03/25/24 16:19	03/26/24 11:07	1
Toluene	ND		0.050	mg/Kg		03/25/24 16:19	03/26/24 11:07	1
Xylenes, Total	ND		0.099	mg/Kg		03/25/24 16:19	03/26/24 11:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		39 - 146			03/25/24 16:19	03/26/24 11:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	17		9.8	mg/Kg		03/26/24 09:32	03/26/24 11:47	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		03/26/24 09:32	03/26/24 11:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	103		62 - 134			03/26/24 09:32	03/26/24 11:47	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4800		300	mg/Kg		03/26/24 10:34	04/01/24 12:00	100

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1619-1

Client Sample ID: BES24-03 0.5'

Lab Sample ID: 885-1619-2

Date Collected: 03/20/24 10:05

Matrix: Solid

Date Received: 03/22/24 07:30

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		03/25/24 16:19	03/26/24 11:31		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	106		15 - 244			03/25/24 16:19	03/26/24 11:31		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		03/25/24 16:19	03/26/24 11:31		1
Ethylbenzene	ND		0.048	mg/Kg		03/25/24 16:19	03/26/24 11:31		1
Toluene	ND		0.048	mg/Kg		03/25/24 16:19	03/26/24 11:31		1
Xylenes, Total	ND		0.096	mg/Kg		03/25/24 16:19	03/26/24 11:31		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	92		39 - 146			03/25/24 16:19	03/26/24 11:31		1
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	30		9.4	mg/Kg		03/26/24 09:32	03/26/24 11:59		1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		03/26/24 09:32	03/26/24 11:59		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	102		62 - 134			03/26/24 09:32	03/26/24 11:59		1
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	6200		300	mg/Kg		03/26/24 10:34	04/01/24 12:15		100

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1619-1

Client Sample ID: BES24-04 0.5'
Date Collected: 03/20/24 10:10
Date Received: 03/22/24 07:30

Lab Sample ID: 885-1619-3
Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		03/25/24 16:19	03/26/24 11:54	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	105		15 - 244			03/25/24 16:19	03/26/24 11:54	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		03/25/24 16:19	03/26/24 11:54	1	
Ethylbenzene	ND		0.048	mg/Kg		03/25/24 16:19	03/26/24 11:54	1	
Toluene	ND		0.048	mg/Kg		03/25/24 16:19	03/26/24 11:54	1	
Xylenes, Total	ND		0.097	mg/Kg		03/25/24 16:19	03/26/24 11:54	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	94		39 - 146			03/25/24 16:19	03/26/24 11:54	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.2	mg/Kg		03/26/24 09:32	03/26/24 12:11	1	
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		03/26/24 09:32	03/26/24 12:11	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	106		62 - 134			03/26/24 09:32	03/26/24 12:11	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	4500		300	mg/Kg		03/26/24 10:34	04/01/24 12:31	100	

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1619-1

Client Sample ID: BES24-05 0.5'

Lab Sample ID: 885-1619-4

Date Collected: 03/20/24 10:15

Matrix: Solid

Date Received: 03/22/24 07:30

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		03/25/24 16:19	03/26/24 12:18	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	106		15 - 244			03/25/24 16:19	03/26/24 12:18	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.023	mg/Kg		03/25/24 16:19	03/26/24 12:18	1	
Ethylbenzene	ND		0.047	mg/Kg		03/25/24 16:19	03/26/24 12:18	1	
Toluene	ND		0.047	mg/Kg		03/25/24 16:19	03/26/24 12:18	1	
Xylenes, Total	ND		0.093	mg/Kg		03/25/24 16:19	03/26/24 12:18	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	94		39 - 146			03/25/24 16:19	03/26/24 12:18	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		03/26/24 09:32	03/26/24 12:23	1	
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		03/26/24 09:32	03/26/24 12:23	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	104		62 - 134			03/26/24 09:32	03/26/24 12:23	1	
Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	3200		150	mg/Kg		03/26/24 10:34	04/01/24 12:46	50	

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1619-1

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

Lab Sample ID: MB 885-2272/1-A

Matrix: Solid

Analysis Batch: 2370

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2272

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		03/25/24 16:19	03/26/24 10:44	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		15 - 244			03/25/24 16:19	03/26/24 10:44	1

Lab Sample ID: LCS 885-2272/2-A

Matrix: Solid

Analysis Batch: 2370

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2272

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	27.1		mg/Kg		108	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	209		15 - 244				

Lab Sample ID: 885-1619-1 MS

Matrix: Solid

Analysis Batch: 2370

Client Sample ID: WES24-02 0-0.5'

Prep Type: Total/NA

Prep Batch: 2272

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	ND		24.7	29.4		mg/Kg		119	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	225		15 - 244						

Lab Sample ID: 885-1619-1 MSD

Matrix: Solid

Analysis Batch: 2370

Client Sample ID: WES24-02 0-0.5'

Prep Type: Total/NA

Prep Batch: 2272

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.6	27.4		mg/Kg		111	70 - 130	7	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	218		15 - 244								

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-2272/1-A

Matrix: Solid

Analysis Batch: 2371

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2272

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		03/25/24 16:19	03/26/24 10:44	1
Ethylbenzene	ND		0.050	mg/Kg		03/25/24 16:19	03/26/24 10:44	1
Toluene	ND		0.050	mg/Kg		03/25/24 16:19	03/26/24 10:44	1

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1619-1

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

Lab Sample ID: MB 885-2272/1-A

Matrix: Solid

Analysis Batch: 2371

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2272

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10	mg/Kg		03/25/24 16:19	03/26/24 10:44	1
Surrogate	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		39 - 146			03/25/24 16:19	03/26/24 10:44	1

Lab Sample ID: LCS 885-2272/3-A

Matrix: Solid

Analysis Batch: 2371

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2272

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.922		mg/Kg		92	70 - 130
Ethylbenzene	1.00	0.943		mg/Kg		94	70 - 130
m,p-Xylene	2.00	1.92		mg/Kg		96	70 - 130
o-Xylene	1.00	0.934		mg/Kg		93	70 - 130
Toluene	1.00	0.932		mg/Kg		93	70 - 130
Xylenes, Total	3.00	2.86		mg/Kg		95	70 - 130
Surrogate	%Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	94		39 - 146				

Lab Sample ID: 885-1619-2 MS

Matrix: Solid

Analysis Batch: 2371

Client Sample ID: BES24-03 0.5'

Prep Type: Total/NA

Prep Batch: 2272

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		0.962	0.931		mg/Kg		97	70 - 130
Ethylbenzene	ND		0.962	0.963		mg/Kg		100	70 - 130
m,p-Xylene	ND		1.92	1.95		mg/Kg		102	70 - 130
o-Xylene	ND		0.962	0.950		mg/Kg		99	70 - 130
Toluene	ND		0.962	0.951		mg/Kg		99	70 - 130
Xylenes, Total	ND		2.88	2.90		mg/Kg		101	70 - 130
Surrogate	%Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	92		39 - 146						

Lab Sample ID: 885-1619-2 MSD

Matrix: Solid

Analysis Batch: 2371

Client Sample ID: BES24-03 0.5'

Prep Type: Total/NA

Prep Batch: 2272

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	ND		0.959	0.899		mg/Kg		94	70 - 130	3	20
Ethylbenzene	ND		0.959	0.920		mg/Kg		96	70 - 130	5	20
m,p-Xylene	ND		1.92	1.84		mg/Kg		96	70 - 130	6	20
o-Xylene	ND		0.959	0.907		mg/Kg		95	70 - 130	5	20
Toluene	ND		0.959	0.907		mg/Kg		95	70 - 130	5	20
Xylenes, Total	ND		2.88	2.75		mg/Kg		96	70 - 130	6	20

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1619-1

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

Lab Sample ID: 885-1619-2 MSD
Matrix: Solid
Analysis Batch: 2371

Client Sample ID: BES24-03 0.5'
Prep Type: Total/NA
Prep Batch: 2272

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		39 - 146

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

Lab Sample ID: MB 885-2293/1-A
Matrix: Solid
Analysis Batch: 2336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2293

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		03/26/24 09:32	03/26/24 11:22	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		03/26/24 09:32	03/26/24 11:22	1

	MB	MB						
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
Di-n-octyl phthalate (Surr)	104		62 - 134	03/26/24 09:32	03/26/24 11:22	1		

Lab Sample ID: LCS 885-2293/2-A
Matrix: Solid
Analysis Batch: 2336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2293

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	46.2		mg/Kg		92	60 - 135

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Di-n-octyl phthalate (Surr)	103		62 - 134

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1619-1

GC VOA

Prep Batch: 2272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1619-1	WES24-02 0-0.5'	Total/NA	Solid	5030C	
885-1619-2	BES24-03 0.5'	Total/NA	Solid	5030C	
885-1619-3	BES24-04 0.5'	Total/NA	Solid	5030C	
885-1619-4	BES24-05 0.5'	Total/NA	Solid	5030C	
MB 885-2272/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-2272/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-2272/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-1619-1 MS	WES24-02 0-0.5'	Total/NA	Solid	5030C	
885-1619-1 MSD	WES24-02 0-0.5'	Total/NA	Solid	5030C	
885-1619-2 MS	BES24-03 0.5'	Total/NA	Solid	5030C	
885-1619-2 MSD	BES24-03 0.5'	Total/NA	Solid	5030C	

Analysis Batch: 2370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1619-1	WES24-02 0-0.5'	Total/NA	Solid	8015D	2272
885-1619-2	BES24-03 0.5'	Total/NA	Solid	8015D	2272
885-1619-3	BES24-04 0.5'	Total/NA	Solid	8015D	2272
885-1619-4	BES24-05 0.5'	Total/NA	Solid	8015D	2272
MB 885-2272/1-A	Method Blank	Total/NA	Solid	8015D	2272
LCS 885-2272/2-A	Lab Control Sample	Total/NA	Solid	8015D	2272
885-1619-1 MS	WES24-02 0-0.5'	Total/NA	Solid	8015D	2272
885-1619-1 MSD	WES24-02 0-0.5'	Total/NA	Solid	8015D	2272

Analysis Batch: 2371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1619-1	WES24-02 0-0.5'	Total/NA	Solid	8021B	2272
885-1619-2	BES24-03 0.5'	Total/NA	Solid	8021B	2272
885-1619-3	BES24-04 0.5'	Total/NA	Solid	8021B	2272
885-1619-4	BES24-05 0.5'	Total/NA	Solid	8021B	2272
MB 885-2272/1-A	Method Blank	Total/NA	Solid	8021B	2272
LCS 885-2272/3-A	Lab Control Sample	Total/NA	Solid	8021B	2272
885-1619-2 MS	BES24-03 0.5'	Total/NA	Solid	8021B	2272
885-1619-2 MSD	BES24-03 0.5'	Total/NA	Solid	8021B	2272

GC Semi VOA

Prep Batch: 2293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1619-1	WES24-02 0-0.5'	Total/NA	Solid	SHAKE	
885-1619-2	BES24-03 0.5'	Total/NA	Solid	SHAKE	
885-1619-3	BES24-04 0.5'	Total/NA	Solid	SHAKE	
885-1619-4	BES24-05 0.5'	Total/NA	Solid	SHAKE	
MB 885-2293/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-2293/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 2336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1619-1	WES24-02 0-0.5'	Total/NA	Solid	8015D	2293
885-1619-2	BES24-03 0.5'	Total/NA	Solid	8015D	2293
885-1619-3	BES24-04 0.5'	Total/NA	Solid	8015D	2293
885-1619-4	BES24-05 0.5'	Total/NA	Solid	8015D	2293

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QC Association Summary

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1619-1

GC Semi VOA (Continued)

Analysis Batch: 2336 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-2293/1-A	Method Blank	Total/NA	Solid	8015D	2293
LCS 885-2293/2-A	Lab Control Sample	Total/NA	Solid	8015D	2293

HPLC/IC

Prep Batch: 2297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1619-1	WES24-02 0-0.5'	Total/NA	Solid	300_Prep	
885-1619-2	BES24-03 0.5'	Total/NA	Solid	300_Prep	
885-1619-3	BES24-04 0.5'	Total/NA	Solid	300_Prep	
885-1619-4	BES24-05 0.5'	Total/NA	Solid	300_Prep	

Analysis Batch: 2588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1619-1	WES24-02 0-0.5'	Total/NA	Solid	300.0	2297
885-1619-2	BES24-03 0.5'	Total/NA	Solid	300.0	2297
885-1619-3	BES24-04 0.5'	Total/NA	Solid	300.0	2297
885-1619-4	BES24-05 0.5'	Total/NA	Solid	300.0	2297

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1619-1

Client Sample ID: WES24-02 0-0.5'

Lab Sample ID: 885-1619-1

Date Collected: 03/20/24 10:00

Matrix: Solid

Date Received: 03/22/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2272	JP	EET ALB	03/25/24 16:19
Total/NA	Analysis	8015D		1	2370	JP	EET ALB	03/26/24 11:07
Total/NA	Prep	5030C			2272	JP	EET ALB	03/25/24 16:19
Total/NA	Analysis	8021B		1	2371	JP	EET ALB	03/26/24 11:07
Total/NA	Prep	SHAKE			2293	JU	EET ALB	03/26/24 09:32
Total/NA	Analysis	8015D		1	2336	JU	EET ALB	03/26/24 11:47
Total/NA	Prep	300_Prep			2297	RC	EET ALB	03/26/24 10:34
Total/NA	Analysis	300.0		100	2588	RC	EET ALB	04/01/24 12:00

Client Sample ID: BES24-03 0.5'

Lab Sample ID: 885-1619-2

Date Collected: 03/20/24 10:05

Matrix: Solid

Date Received: 03/22/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2272	JP	EET ALB	03/25/24 16:19
Total/NA	Analysis	8015D		1	2370	JP	EET ALB	03/26/24 11:31
Total/NA	Prep	5030C			2272	JP	EET ALB	03/25/24 16:19
Total/NA	Analysis	8021B		1	2371	JP	EET ALB	03/26/24 11:31
Total/NA	Prep	SHAKE			2293	JU	EET ALB	03/26/24 09:32
Total/NA	Analysis	8015D		1	2336	JU	EET ALB	03/26/24 11:59
Total/NA	Prep	300_Prep			2297	RC	EET ALB	03/26/24 10:34
Total/NA	Analysis	300.0		100	2588	RC	EET ALB	04/01/24 12:15

Client Sample ID: BES24-04 0.5'

Lab Sample ID: 885-1619-3

Date Collected: 03/20/24 10:10

Matrix: Solid

Date Received: 03/22/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2272	JP	EET ALB	03/25/24 16:19
Total/NA	Analysis	8015D		1	2370	JP	EET ALB	03/26/24 11:54
Total/NA	Prep	5030C			2272	JP	EET ALB	03/25/24 16:19
Total/NA	Analysis	8021B		1	2371	JP	EET ALB	03/26/24 11:54
Total/NA	Prep	SHAKE			2293	JU	EET ALB	03/26/24 09:32
Total/NA	Analysis	8015D		1	2336	JU	EET ALB	03/26/24 12:11
Total/NA	Prep	300_Prep			2297	RC	EET ALB	03/26/24 10:34
Total/NA	Analysis	300.0		100	2588	RC	EET ALB	04/01/24 12:31

Client Sample ID: BES24-05 0.5'

Lab Sample ID: 885-1619-4

Date Collected: 03/20/24 10:15

Matrix: Solid

Date Received: 03/22/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2272	JP	EET ALB	03/25/24 16:19
Total/NA	Analysis	8015D		1	2370	JP	EET ALB	03/26/24 12:18

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-1619-1

Client Sample ID: BES24-05 0.5'

Lab Sample ID: 885-1619-4

Date Collected: 03/20/24 10:15

Matrix: Solid

Date Received: 03/22/24 07:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2272	JP	EET ALB	03/25/24 16:19
Total/NA	Analysis	8021B		1	2371	JP	EET ALB	03/26/24 12:18
Total/NA	Prep	SHAKE			2293	JU	EET ALB	03/26/24 09:32
Total/NA	Analysis	8015D		1	2336	JU	EET ALB	03/26/24 12:23
Total/NA	Prep	300_Prep			2297	RC	EET ALB	03/26/24 10:34
Total/NA	Analysis	300.0		50	2588	RC	EET ALB	04/01/24 12:46

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

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Accreditation/Certification Summary

Client: Vertex
Project/Site: Mis Amigos Ctb

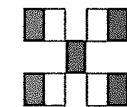
Job ID: 885-1619-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total
Oregon	NELAP	NM100001	02-26-25

Chain-of-Custody Record		Turn-Around Time	
Client XTO Energy, Inc / <i>Vertex</i>		☒ Standard ☒ Rush <i>5 Day</i>	
Mailing Address 3104 E Greene St		Project Name Mis Amigos Ctb	
Phone # 575 725 5001		Project # 23E05219	
email or Fax#		nAPP2335431615; Cost Center: 1055621001	
QA/QC Package		Project Manager	
☒ Standard ☐ Level 4 (Full Validation)		Sally Cattar	
Accreditation ☐ Az Compliance ☐ NELAC ☐ Other _____		Sampler Deusavan Costa	
☐ EDD (Type) _____		On Ice: ☒ Yes ☐ No <i>log</i>	
		# of Coolers: <i>1</i>	



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109
885-1619 COC

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



Analysis Request

[illegible]

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

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Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-1619-1

Login Number: 1619

List Number: 1

Creator: Proctor, Nancy

List Source: Eurofins Albuquerque

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sally Carttar
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220
Generated 7/3/2024 1:41:57 PM Revision 2

JOB DESCRIPTION

Mis Amigos CTB

JOB NUMBER

885-1923-1



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



Authorized for release by
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(505)345-3975

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Revision 2

Client: Vertex
Project/Site: Mis Amigos CTB

Laboratory Job ID: 885-1923-1

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Definitions/Glossary

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 885-1923-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

HPLC/IC

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

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
Project: Mis Amigos CTB

Job ID: 885-1923-1

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Job Narrative 885-1923-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Revision

The report being provided is a revision of the original report sent on 4/3/2024. The report (revision 1) is being revised due to: The project name had the word Amigos spelled incorrectly. The name was updated..

Receipt

The samples were received on 3/28/2024 8:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.7°C.

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-76919 and analytical batch 880-76887 was outside the upper control limits.

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

HPLC/IC

Method 300_ORGFM_28D - Soluble: The Chloride matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-77127 and analytical batch 880-77142 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.

WES24-02 0-0.5' (885-1923-1)

Method 300_ORGFM_28D - Soluble: The Chloride matrix spike (MS) recoveries for preparation batch 880-77127 and analytical batch 880-77142 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

BES24-03 0.5' (885-1923-2), BES24-04 0.5' (885-1923-3) and (885-1923-A-2-E MS)

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

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 885-1923-1

Client Sample ID: BES24-06 0.5'

Lab Sample ID: 885-1923-1

Date Collected: 03/22/24 10:00

Matrix: Solid

Date Received: 03/28/24 08:40

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.0020	mg/Kg		03/29/24 12:05	03/29/24 19:07	1	
Toluene	ND		0.0020	mg/Kg		03/29/24 12:05	03/29/24 19:07	1	
Ethylbenzene	ND		0.0020	mg/Kg		03/29/24 12:05	03/29/24 19:07	1	
Xylenes, Total	ND		0.0040	mg/Kg		03/29/24 12:05	03/29/24 19:07	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	79		70 - 130			03/29/24 12:05	03/29/24 19:07	1	
1,4-Difluorobenzene (Surr)	92		70 - 130			03/29/24 12:05	03/29/24 19:07	1	
Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	ND		50	mg/Kg		03/29/24 12:09	03/29/24 15:57	1	
Diesel Range Organics (Over C10-C28)	ND		50	mg/Kg		03/29/24 12:09	03/29/24 15:57	1	
Oil Range Organics (Over C28-C36)	ND		50	mg/Kg		03/29/24 12:09	03/29/24 15:57	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	98		70 - 130			03/29/24 12:09	03/29/24 15:57	1	
o-Terphenyl	84		70 - 130			03/29/24 12:09	03/29/24 15:57	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	6200		51	mg/Kg			04/02/24 19:45	10	

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 885-1923-1

Client Sample ID: BES24-07 0.5'

Lab Sample ID: 885-1923-2

Date Collected: 03/22/24 10:10

Matrix: Solid

Date Received: 03/28/24 08:40

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.0020	mg/Kg		03/29/24 12:05	03/29/24 19:27	1	
Toluene	ND		0.0020	mg/Kg		03/29/24 12:05	03/29/24 19:27	1	
Ethylbenzene	ND		0.0020	mg/Kg		03/29/24 12:05	03/29/24 19:27	1	
Xylenes, Total	ND		0.0040	mg/Kg		03/29/24 12:05	03/29/24 19:27	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	79		70 - 130			03/29/24 12:05	03/29/24 19:27	1	
1,4-Difluorobenzene (Surr)	95		70 - 130			03/29/24 12:05	03/29/24 19:27	1	
Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	ND		50	mg/Kg		03/29/24 12:09	03/29/24 16:19	1	
Diesel Range Organics (Over C10-C28)	ND		50	mg/Kg		03/29/24 12:09	03/29/24 16:19	1	
Oil Range Organics (Over C28-C36)	ND		50	mg/Kg		03/29/24 12:09	03/29/24 16:19	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	101		70 - 130			03/29/24 12:09	03/29/24 16:19	1	
o-Terphenyl	87		70 - 130			03/29/24 12:09	03/29/24 16:19	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	910	F1	5.0	mg/Kg			04/02/24 19:51	1	

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 885-1923-1

Client Sample ID: BES24-08 0.5'

Lab Sample ID: 885-1923-3

Date Collected: 03/22/24 10:20

Matrix: Solid

Date Received: 03/28/24 08:40

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.0020	mg/Kg		03/29/24 12:05	03/29/24 19:48	1	
Toluene	ND		0.0020	mg/Kg		03/29/24 12:05	03/29/24 19:48	1	
Ethylbenzene	ND		0.0020	mg/Kg		03/29/24 12:05	03/29/24 19:48	1	
Xylenes, Total	ND		0.0040	mg/Kg		03/29/24 12:05	03/29/24 19:48	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	80		70 - 130			03/29/24 12:05	03/29/24 19:48	1	
1,4-Difluorobenzene (Surr)	94		70 - 130			03/29/24 12:05	03/29/24 19:48	1	
Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	ND		50	mg/Kg		03/29/24 12:09	03/29/24 17:02	1	
Diesel Range Organics (Over C10-C28)	ND		50	mg/Kg		03/29/24 12:09	03/29/24 17:02	1	
Oil Range Organics (Over C28-C36)	ND		50	mg/Kg		03/29/24 12:09	03/29/24 17:02	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	106		70 - 130			03/29/24 12:09	03/29/24 17:02	1	
o-Terphenyl	90		70 - 130			03/29/24 12:09	03/29/24 17:02	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	2800		25	mg/Kg			04/02/24 20:10	5	

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 885-1923-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-76918/5-A

Matrix: Solid

Analysis Batch: 76894

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 76918

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0020	mg/Kg		03/29/24 12:05	03/29/24 12:54	1
Toluene	ND		0.0020	mg/Kg		03/29/24 12:05	03/29/24 12:54	1
Ethylbenzene	ND		0.0020	mg/Kg		03/29/24 12:05	03/29/24 12:54	1
Xylenes, Total	ND		0.0040	mg/Kg		03/29/24 12:05	03/29/24 12:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		70 - 130	03/29/24 12:05	03/29/24 12:54	1
1,4-Difluorobenzene (Surr)	100		70 - 130	03/29/24 12:05	03/29/24 12:54	1

Lab Sample ID: LCS 880-76918/1-A

Matrix: Solid

Analysis Batch: 76894

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 76918

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.112		mg/Kg		112	70 - 130
Toluene	0.100	0.109		mg/Kg		109	70 - 130
Ethylbenzene	0.100	0.104		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	0.200	0.201		mg/Kg		101	70 - 130
o-Xylene	0.100	0.0989		mg/Kg		99	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	86		70 - 130
1,4-Difluorobenzene (Surr)	120		70 - 130

Lab Sample ID: LCSD 880-76918/2-A

Matrix: Solid

Analysis Batch: 76894

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 76918

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.105		mg/Kg		105	70 - 130	6	35
Toluene	0.100	0.100		mg/Kg		100	70 - 130	9	35
Ethylbenzene	0.100	0.0941		mg/Kg		94	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.188		mg/Kg		94	70 - 130	7	35
o-Xylene	0.100	0.0916		mg/Kg		92	70 - 130	8	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		70 - 130
1,4-Difluorobenzene (Surr)	120		70 - 130

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-76919/1-A

Matrix: Solid

Analysis Batch: 76887

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 76919

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	ND		50	mg/Kg		03/29/24 09:00	03/29/24 09:33	1

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 885-1923-1

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-76919/1-A

Matrix: Solid

Analysis Batch: 76887

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 76919

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	ND		50	mg/Kg		03/29/24 09:00	03/29/24 09:33	1
Oil Range Organics (Over C28-C36)	ND		50	mg/Kg		03/29/24 09:00	03/29/24 09:33	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	182	S1+	70 - 130			03/29/24 09:00	03/29/24 09:33	1
o-Terphenyl	168	S1+	70 - 130			03/29/24 09:00	03/29/24 09:33	1

Lab Sample ID: LCS 880-76919/2-A

Matrix: Solid

Analysis Batch: 76887

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 76919

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	912		mg/Kg		91	70 - 130
Diesel Range Organics (Over C10-C28)	1000	915		mg/Kg		91	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	105		70 - 130				
o-Terphenyl	105		70 - 130				

Lab Sample ID: LCSD 880-76919/3-A

Matrix: Solid

Analysis Batch: 76887

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 76919

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	959		mg/Kg		96	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	923		mg/Kg		92	70 - 130	1	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	104		70 - 130						
o-Terphenyl	105		70 - 130						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-77127/1-A

Matrix: Solid

Analysis Batch: 77142

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		5.0	mg/Kg			04/02/24 18:05	1

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 885-1923-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-77127/2-A

Matrix: Solid

Analysis Batch: 77142

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	251		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-77127/3-A

Matrix: Solid

Analysis Batch: 77142

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	251		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 885-1923-2 MS

Matrix: Solid

Analysis Batch: 77142

Client Sample ID: BES24-07 0.5'

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	910	F1	252	1130	F1	mg/Kg		86	90 - 110		

Lab Sample ID: 885-1923-2 MSD

Matrix: Solid

Analysis Batch: 77142

Client Sample ID: BES24-07 0.5'

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	910	F1	252	1140		mg/Kg		91	90 - 110	1	20

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 885-1923-1

GC VOA

Analysis Batch: 76894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1923-1	BES24-06 0.5'	Total/NA	Solid	8021B	76918
885-1923-2	BES24-07 0.5'	Total/NA	Solid	8021B	76918
885-1923-3	BES24-08 0.5'	Total/NA	Solid	8021B	76918
MB 880-76918/5-A	Method Blank	Total/NA	Solid	8021B	76918
LCS 880-76918/1-A	Lab Control Sample	Total/NA	Solid	8021B	76918
LCSD 880-76918/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	76918

Prep Batch: 76918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1923-1	BES24-06 0.5'	Total/NA	Solid	5035	
885-1923-2	BES24-07 0.5'	Total/NA	Solid	5035	
885-1923-3	BES24-08 0.5'	Total/NA	Solid	5035	
MB 880-76918/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-76918/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-76918/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 76887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1923-1	BES24-06 0.5'	Total/NA	Solid	8015B NM	76919
885-1923-2	BES24-07 0.5'	Total/NA	Solid	8015B NM	76919
885-1923-3	BES24-08 0.5'	Total/NA	Solid	8015B NM	76919
MB 880-76919/1-A	Method Blank	Total/NA	Solid	8015B NM	76919
LCS 880-76919/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	76919
LCSD 880-76919/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	76919

Prep Batch: 76919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1923-1	BES24-06 0.5'	Total/NA	Solid	8015NM Prep	
885-1923-2	BES24-07 0.5'	Total/NA	Solid	8015NM Prep	
885-1923-3	BES24-08 0.5'	Total/NA	Solid	8015NM Prep	
MB 880-76919/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-76919/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-76919/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 77127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1923-1	BES24-06 0.5'	Soluble	Solid	DI Leach	
885-1923-2	BES24-07 0.5'	Soluble	Solid	DI Leach	
885-1923-3	BES24-08 0.5'	Soluble	Solid	DI Leach	
MB 880-77127/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-77127/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-77127/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
885-1923-2 MS	BES24-07 0.5'	Soluble	Solid	DI Leach	
885-1923-2 MSD	BES24-07 0.5'	Soluble	Solid	DI Leach	

Analysis Batch: 77142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1923-1	BES24-06 0.5'	Soluble	Solid	300.0	77127

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QC Association Summary

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 885-1923-1

HPLC/IC (Continued)

Analysis Batch: 77142 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-1923-2	BES24-07 0.5'	Soluble	Solid	300.0	77127
885-1923-3	BES24-08 0.5'	Soluble	Solid	300.0	77127
MB 880-77127/1-A	Method Blank	Soluble	Solid	300.0	77127
LCS 880-77127/2-A	Lab Control Sample	Soluble	Solid	300.0	77127
LCSD 880-77127/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	77127
885-1923-2 MS	BES24-07 0.5'	Soluble	Solid	300.0	77127
885-1923-2 MSD	BES24-07 0.5'	Soluble	Solid	300.0	77127

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 885-1923-1

Client Sample ID: BES24-06 0.5'
Date Collected: 03/22/24 10:00
Date Received: 03/28/24 08:40

Lab Sample ID: 885-1923-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			76918	EL	EET MID	03/29/24 12:05
Total/NA	Analysis	8021B		1	76894	MNR	EET MID	03/29/24 19:07
Total/NA	Prep	8015NM Prep			76919	EL	EET MID	03/29/24 12:09
Total/NA	Analysis	8015B NM		1	76887	SM	EET MID	03/29/24 15:57
Soluble	Leach	DI Leach			77127	SA	EET MID	04/02/24 13:45
Soluble	Analysis	300.0		10	77142	SMC	EET MID	04/02/24 19:45

Client Sample ID: BES24-07 0.5'
Date Collected: 03/22/24 10:10
Date Received: 03/28/24 08:40

Lab Sample ID: 885-1923-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			76918	EL	EET MID	03/29/24 12:05
Total/NA	Analysis	8021B		1	76894	MNR	EET MID	03/29/24 19:27
Total/NA	Prep	8015NM Prep			76919	EL	EET MID	03/29/24 12:09
Total/NA	Analysis	8015B NM		1	76887	SM	EET MID	03/29/24 16:19
Soluble	Leach	DI Leach			77127	SA	EET MID	04/02/24 13:45
Soluble	Analysis	300.0		1	77142	SMC	EET MID	04/02/24 19:51

Client Sample ID: BES24-08 0.5'
Date Collected: 03/22/24 10:20
Date Received: 03/28/24 08:40

Lab Sample ID: 885-1923-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			76918	EL	EET MID	03/29/24 12:05
Total/NA	Analysis	8021B		1	76894	MNR	EET MID	03/29/24 19:48
Total/NA	Prep	8015NM Prep			76919	EL	EET MID	03/29/24 12:09
Total/NA	Analysis	8015B NM		1	76887	SM	EET MID	03/29/24 17:02
Soluble	Leach	DI Leach			77127	SA	EET MID	04/02/24 13:45
Soluble	Analysis	300.0		5	77142	SMC	EET MID	04/02/24 20:10

Laboratory References:
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 885-1923-1

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400	06-30-24

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
8015B NM	8015NM Prep	Solid	Diesel Range Organics (Over C10-C28)
8015B NM	8015NM Prep	Solid	Gasoline Range Organics (GRO)-C6-C10
8015B NM	8015NM Prep	Solid	Oil Range Organics (Over C28-C36)

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- 6
- 7
- 8
- 9
- 10
- 11

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-1923-1

Login Number: 1923

List Number: 1

Creator: Lowman, Nick

List Source: Eurofins Albuquerque

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

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-1923-1

Login Number: 1923
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 03/29/24 10:53 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 4/10/2024 5:05:49 PM

JOB DESCRIPTION

Mis Amigos Ctb

JOB NUMBER

885-2148-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

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

Client: Vertex
Project/Site: Mis Amigos Ctb

Laboratory Job ID: 885-2148-1



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Definitions/Glossary

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

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
Project: Mis Amigos Ctb

Job ID: 885-2148-1

Job ID: 885-2148-1

Eurofins Albuquerque

Job Narrative 885-2148-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt

The samples were received on 4/2/2024 7:45 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 -0.5°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 885-2812 recovered above the upper control limit for Di-n-octyl phthalate (Surr). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have 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.

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-09 1'
Date Collected: 03/29/24 09:30
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2148-1
Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/03/24 15:34	04/05/24 10:50		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	102		15 - 244			04/03/24 15:34	04/05/24 10:50		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		04/03/24 15:34	04/05/24 10:50		1
Ethylbenzene	ND		0.048	mg/Kg		04/03/24 15:34	04/05/24 10:50		1
Toluene	ND		0.048	mg/Kg		04/03/24 15:34	04/05/24 10:50		1
Xylenes, Total	ND		0.097	mg/Kg		04/03/24 15:34	04/05/24 10:50		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	87		39 - 146			04/03/24 15:34	04/05/24 10:50		1
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		8.7	mg/Kg		04/04/24 09:57	04/04/24 18:15		1
Motor Oil Range Organics [C28-C40]	ND		43	mg/Kg		04/04/24 09:57	04/04/24 18:15		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	104		62 - 134			04/04/24 09:57	04/04/24 18:15		1
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	70		5.0	mg/Kg			04/05/24 20:04		1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-10 1'

Lab Sample ID: 885-2148-2

Date Collected: 03/29/24 09:35

Matrix: Solid

Date Received: 04/02/24 07:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/03/24 15:34	04/05/24 11:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		15 - 244			04/03/24 15:34	04/05/24 11:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/03/24 15:34	04/05/24 11:13	1
Ethylbenzene	ND		0.049	mg/Kg		04/03/24 15:34	04/05/24 11:13	1
Toluene	ND		0.049	mg/Kg		04/03/24 15:34	04/05/24 11:13	1
Xylenes, Total	ND		0.097	mg/Kg		04/03/24 15:34	04/05/24 11:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		39 - 146			04/03/24 15:34	04/05/24 11:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		04/04/24 09:57	04/04/24 18:27	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/04/24 09:57	04/04/24 18:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	104		62 - 134			04/04/24 09:57	04/04/24 18:27	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	480		5.0	mg/Kg			04/05/24 20:09	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-11 1'

Lab Sample ID: 885-2148-3

Date Collected: 03/29/24 09:40

Matrix: Solid

Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/03/24 15:34	04/05/24 11:37		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	106		15 - 244			04/03/24 15:34	04/05/24 11:37		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.023	mg/Kg		04/03/24 15:34	04/05/24 11:37		1
Ethylbenzene	ND		0.047	mg/Kg		04/03/24 15:34	04/05/24 11:37		1
Toluene	ND		0.047	mg/Kg		04/03/24 15:34	04/05/24 11:37		1
Xylenes, Total	ND		0.093	mg/Kg		04/03/24 15:34	04/05/24 11:37		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	89		39 - 146			04/03/24 15:34	04/05/24 11:37		1
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.2	mg/Kg		04/04/24 09:57	04/04/24 18:40		1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/04/24 09:57	04/04/24 18:40		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	103		62 - 134			04/04/24 09:57	04/04/24 18:40		1
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	250		5.0	mg/Kg			04/05/24 20:13		1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-12 1'

Lab Sample ID: 885-2148-4

Date Collected: 03/29/24 09:45

Matrix: Solid

Date Received: 04/02/24 07:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/03/24 15:34	04/05/24 12:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		15 - 244			04/03/24 15:34	04/05/24 12:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/03/24 15:34	04/05/24 12:00	1
Ethylbenzene	ND		0.047	mg/Kg		04/03/24 15:34	04/05/24 12:00	1
Toluene	ND		0.047	mg/Kg		04/03/24 15:34	04/05/24 12:00	1
Xylenes, Total	ND		0.094	mg/Kg		04/03/24 15:34	04/05/24 12:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		39 - 146			04/03/24 15:34	04/05/24 12:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.5	mg/Kg		04/04/24 09:57	04/04/24 18:52	1
Motor Oil Range Organics [C28-C40]	ND		43	mg/Kg		04/04/24 09:57	04/04/24 18:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	106		62 - 134			04/04/24 09:57	04/04/24 18:52	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	210		5.0	mg/Kg			04/05/24 20:18	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-13 1'

Lab Sample ID: 885-2148-5

Date Collected: 03/29/24 09:50

Matrix: Solid

Date Received: 04/02/24 07:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/03/24 15:34	04/05/24 12:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		15 - 244			04/03/24 15:34	04/05/24 12:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/03/24 15:34	04/05/24 12:24	1
Ethylbenzene	ND		0.050	mg/Kg		04/03/24 15:34	04/05/24 12:24	1
Toluene	ND		0.050	mg/Kg		04/03/24 15:34	04/05/24 12:24	1
Xylenes, Total	ND		0.099	mg/Kg		04/03/24 15:34	04/05/24 12:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		39 - 146			04/03/24 15:34	04/05/24 12:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0	mg/Kg		04/04/24 09:57	04/04/24 19:05	1
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		04/04/24 09:57	04/04/24 19:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	105		62 - 134			04/04/24 09:57	04/04/24 19:05	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	83		5.0	mg/Kg			04/06/24 11:40	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-14 1'

Lab Sample ID: 885-2148-6

Date Collected: 03/29/24 09:55

Matrix: Solid

Date Received: 04/02/24 07:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/03/24 15:34	04/05/24 12:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		15 - 244			04/03/24 15:34	04/05/24 12:48	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/03/24 15:34	04/05/24 12:48	1
Ethylbenzene	ND		0.049	mg/Kg		04/03/24 15:34	04/05/24 12:48	1
Toluene	ND		0.049	mg/Kg		04/03/24 15:34	04/05/24 12:48	1
Xylenes, Total	ND		0.098	mg/Kg		04/03/24 15:34	04/05/24 12:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		39 - 146			04/03/24 15:34	04/05/24 12:48	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4	mg/Kg		04/04/24 09:57	04/04/24 19:17	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/04/24 09:57	04/04/24 19:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	104		62 - 134			04/04/24 09:57	04/04/24 19:17	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	120		5.0	mg/Kg			04/06/24 11:46	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-15 1'

Lab Sample ID: 885-2148-7

Date Collected: 03/29/24 10:00

Matrix: Solid

Date Received: 04/02/24 07:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		04/03/24 15:34	04/05/24 13:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		15 - 244			04/03/24 15:34	04/05/24 13:11	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/03/24 15:34	04/05/24 13:11	1
Ethylbenzene	ND		0.046	mg/Kg		04/03/24 15:34	04/05/24 13:11	1
Toluene	ND		0.046	mg/Kg		04/03/24 15:34	04/05/24 13:11	1
Xylenes, Total	ND		0.092	mg/Kg		04/03/24 15:34	04/05/24 13:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		39 - 146			04/03/24 15:34	04/05/24 13:11	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0	mg/Kg		04/04/24 09:57	04/04/24 19:30	1
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		04/04/24 09:57	04/04/24 19:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	106		62 - 134			04/04/24 09:57	04/04/24 19:30	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	200		5.0	mg/Kg			04/06/24 11:53	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-16 1'

Lab Sample ID: 885-2148-8

Date Collected: 03/29/24 10:05

Matrix: Solid

Date Received: 04/02/24 07:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/03/24 15:34	04/05/24 13:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		15 - 244	04/03/24 15:34	04/05/24 13:35	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/03/24 15:34	04/05/24 13:35	1
Ethylbenzene	ND		0.047	mg/Kg		04/03/24 15:34	04/05/24 13:35	1
Toluene	ND		0.047	mg/Kg		04/03/24 15:34	04/05/24 13:35	1
Xylenes, Total	ND		0.095	mg/Kg		04/03/24 15:34	04/05/24 13:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		39 - 146	04/03/24 15:34	04/05/24 13:35	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0	mg/Kg		04/04/24 09:57	04/04/24 19:43	1
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		04/04/24 09:57	04/04/24 19:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	99		62 - 134	04/04/24 09:57	04/04/24 19:43	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	100		5.0	mg/Kg			04/06/24 12:00	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-17 1'

Lab Sample ID: 885-2148-9

Date Collected: 03/29/24 10:10

Matrix: Solid

Date Received: 04/02/24 07:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		04/03/24 15:34	04/05/24 13:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		15 - 244			04/03/24 15:34	04/05/24 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/03/24 15:34	04/05/24 13:58	1
Ethylbenzene	ND		0.046	mg/Kg		04/03/24 15:34	04/05/24 13:58	1
Toluene	ND		0.046	mg/Kg		04/03/24 15:34	04/05/24 13:58	1
Xylenes, Total	ND		0.092	mg/Kg		04/03/24 15:34	04/05/24 13:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		39 - 146			04/03/24 15:34	04/05/24 13:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/04/24 09:57	04/04/24 19:55	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/04/24 09:57	04/04/24 19:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	98		62 - 134			04/04/24 09:57	04/04/24 19:55	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	250		5.0	mg/Kg			04/06/24 12:07	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-18 1'

Lab Sample ID: 885-2148-10

Date Collected: 03/29/24 10:15

Matrix: Solid

Date Received: 04/02/24 07:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		04/03/24 15:34	04/05/24 14:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		15 - 244			04/03/24 15:34	04/05/24 14:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/03/24 15:34	04/05/24 14:22	1
Ethylbenzene	ND		0.046	mg/Kg		04/03/24 15:34	04/05/24 14:22	1
Toluene	ND		0.046	mg/Kg		04/03/24 15:34	04/05/24 14:22	1
Xylenes, Total	ND		0.093	mg/Kg		04/03/24 15:34	04/05/24 14:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		39 - 146			04/03/24 15:34	04/05/24 14:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.5	mg/Kg		04/04/24 09:57	04/04/24 20:08	1
Motor Oil Range Organics [C28-C40]	ND		43	mg/Kg		04/04/24 09:57	04/04/24 20:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	97		62 - 134			04/04/24 09:57	04/04/24 20:08	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110		5.0	mg/Kg			04/06/24 12:14	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-19 1'

Lab Sample ID: 885-2148-11

Date Collected: 03/29/24 10:20

Matrix: Solid

Date Received: 04/02/24 07:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/03/24 15:34	04/05/24 15:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		15 - 244			04/03/24 15:34	04/05/24 15:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/03/24 15:34	04/05/24 15:09	1
Ethylbenzene	ND		0.049	mg/Kg		04/03/24 15:34	04/05/24 15:09	1
Toluene	ND		0.049	mg/Kg		04/03/24 15:34	04/05/24 15:09	1
Xylenes, Total	ND		0.098	mg/Kg		04/03/24 15:34	04/05/24 15:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		39 - 146			04/03/24 15:34	04/05/24 15:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4	mg/Kg		04/04/24 09:57	04/04/24 20:20	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/04/24 09:57	04/04/24 20:20	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	100		62 - 134			04/04/24 09:57	04/04/24 20:20	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	120		5.0	mg/Kg			04/06/24 12:34	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-20 1'

Lab Sample ID: 885-2148-12

Date Collected: 03/29/24 10:30

Matrix: Solid

Date Received: 04/02/24 07:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/03/24 15:34	04/05/24 15:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		15 - 244			04/03/24 15:34	04/05/24 15:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/03/24 15:34	04/05/24 15:32	1
Ethylbenzene	ND		0.047	mg/Kg		04/03/24 15:34	04/05/24 15:32	1
Toluene	ND		0.047	mg/Kg		04/03/24 15:34	04/05/24 15:32	1
Xylenes, Total	ND		0.094	mg/Kg		04/03/24 15:34	04/05/24 15:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		39 - 146			04/03/24 15:34	04/05/24 15:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1	mg/Kg		04/04/24 09:57	04/04/24 20:33	1
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		04/04/24 09:57	04/04/24 20:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	103		62 - 134			04/04/24 09:57	04/04/24 20:33	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		5.0	mg/Kg			04/06/24 12:41	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-21 1'

Lab Sample ID: 885-2148-13

Date Collected: 03/29/24 10:35

Matrix: Solid

Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/03/24 15:34	04/05/24 15:56	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	98		15 - 244			04/03/24 15:34	04/05/24 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		04/03/24 15:34	04/05/24 15:56	1	
Ethylbenzene	ND		0.047	mg/Kg		04/03/24 15:34	04/05/24 15:56	1	
Toluene	ND		0.047	mg/Kg		04/03/24 15:34	04/05/24 15:56	1	
Xylenes, Total	ND		0.094	mg/Kg		04/03/24 15:34	04/05/24 15:56	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	82		39 - 146			04/03/24 15:34	04/05/24 15:56	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.1	mg/Kg		04/04/24 09:57	04/04/24 20:45	1	
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/04/24 09:57	04/04/24 20:45	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	100		62 - 134			04/04/24 09:57	04/04/24 20:45	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	11		5.1	mg/Kg			04/06/24 13:02	1	

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-22 1'
Date Collected: 03/29/24 10:40
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2148-14
Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/03/24 15:34	04/05/24 16:19		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	103		15 - 244			04/03/24 15:34	04/05/24 16:19		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		04/03/24 15:34	04/05/24 16:19		1
Ethylbenzene	ND		0.048	mg/Kg		04/03/24 15:34	04/05/24 16:19		1
Toluene	ND		0.048	mg/Kg		04/03/24 15:34	04/05/24 16:19		1
Xylenes, Total	ND		0.096	mg/Kg		04/03/24 15:34	04/05/24 16:19		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	87		39 - 146			04/03/24 15:34	04/05/24 16:19		1
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.0	mg/Kg		04/04/24 09:57	04/04/24 20:58		1
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		04/04/24 09:57	04/04/24 20:58		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	103		62 - 134			04/04/24 09:57	04/04/24 20:58		1
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		5.0	mg/Kg			04/06/24 13:08		1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-23 1'

Lab Sample ID: 885-2148-15

Date Collected: 03/29/24 10:45

Matrix: Solid

Date Received: 04/02/24 07:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/03/24 15:34	04/05/24 16:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		15 - 244			04/03/24 15:34	04/05/24 16:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/03/24 15:34	04/05/24 16:43	1
Ethylbenzene	ND		0.047	mg/Kg		04/03/24 15:34	04/05/24 16:43	1
Toluene	ND		0.047	mg/Kg		04/03/24 15:34	04/05/24 16:43	1
Xylenes, Total	ND		0.094	mg/Kg		04/03/24 15:34	04/05/24 16:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		39 - 146			04/03/24 15:34	04/05/24 16:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.8	mg/Kg		04/04/24 09:57	04/04/24 21:11	1
Motor Oil Range Organics [C28-C40]	ND		49	mg/Kg		04/04/24 09:57	04/04/24 21:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	99		62 - 134			04/04/24 09:57	04/04/24 21:11	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	260		5.0	mg/Kg			04/06/24 13:15	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-24 1'
Date Collected: 03/29/24 10:50
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2148-16
Matrix: Solid

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/03/24 15:34	04/05/24 17:06		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	102		15 - 244			04/03/24 15:34	04/05/24 17:06		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		04/03/24 15:34	04/05/24 17:06		1
Ethylbenzene	ND		0.049	mg/Kg		04/03/24 15:34	04/05/24 17:06		1
Toluene	ND		0.049	mg/Kg		04/03/24 15:34	04/05/24 17:06		1
Xylenes, Total	ND		0.098	mg/Kg		04/03/24 15:34	04/05/24 17:06		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	86		39 - 146			04/03/24 15:34	04/05/24 17:06		1
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		8.6	mg/Kg		04/04/24 09:57	04/04/24 21:23		1
Motor Oil Range Organics [C28-C40]	ND		43	mg/Kg		04/04/24 09:57	04/04/24 21:23		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	102		62 - 134			04/04/24 09:57	04/04/24 21:23		1
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	46		5.0	mg/Kg			04/06/24 13:22		1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-25 1'

Lab Sample ID: 885-2148-17

Date Collected: 03/29/24 10:55

Matrix: Solid

Date Received: 04/02/24 07:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/03/24 15:34	04/05/24 17:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		15 - 244			04/03/24 15:34	04/05/24 17:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/03/24 15:34	04/05/24 17:30	1
Ethylbenzene	ND		0.048	mg/Kg		04/03/24 15:34	04/05/24 17:30	1
Toluene	ND		0.048	mg/Kg		04/03/24 15:34	04/05/24 17:30	1
Xylenes, Total	ND		0.096	mg/Kg		04/03/24 15:34	04/05/24 17:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		39 - 146			04/03/24 15:34	04/05/24 17:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.5	mg/Kg		04/04/24 09:57	04/04/24 21:36	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/04/24 09:57	04/04/24 21:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	101		62 - 134			04/04/24 09:57	04/04/24 21:36	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		5.0	mg/Kg			04/06/24 13:29	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: WES24-03 0-1.0'

Lab Sample ID: 885-2148-18

Date Collected: 03/29/24 11:00

Matrix: Solid

Date Received: 04/02/24 07:45

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/03/24 15:34	04/05/24 17:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		15 - 244			04/03/24 15:34	04/05/24 17:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/03/24 15:34	04/05/24 17:53	1
Ethylbenzene	ND		0.048	mg/Kg		04/03/24 15:34	04/05/24 17:53	1
Toluene	ND		0.048	mg/Kg		04/03/24 15:34	04/05/24 17:53	1
Xylenes, Total	ND		0.096	mg/Kg		04/03/24 15:34	04/05/24 17:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		39 - 146			04/03/24 15:34	04/05/24 17:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0	mg/Kg		04/04/24 09:57	04/04/24 21:48	1
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		04/04/24 09:57	04/04/24 21:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	102		62 - 134			04/04/24 09:57	04/04/24 21:48	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	220		5.0	mg/Kg			04/06/24 13:36	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: WES24-04 0-1.0'

Lab Sample ID: 885-2148-19

Date Collected: 03/29/24 11:05

Matrix: Solid

Date Received: 04/02/24 07:45

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		04/03/24 15:34	04/05/24 18:17		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	100		15 - 244			04/03/24 15:34	04/05/24 18:17		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.023	mg/Kg		04/03/24 15:34	04/05/24 18:17		1
Ethylbenzene	ND		0.046	mg/Kg		04/03/24 15:34	04/05/24 18:17		1
Toluene	ND		0.046	mg/Kg		04/03/24 15:34	04/05/24 18:17		1
Xylenes, Total	ND		0.093	mg/Kg		04/03/24 15:34	04/05/24 18:17		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	84		39 - 146			04/03/24 15:34	04/05/24 18:17		1
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.2	mg/Kg		04/04/24 09:57	04/04/24 22:01		1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/04/24 09:57	04/04/24 22:01		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	102		62 - 134			04/04/24 09:57	04/04/24 22:01		1
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	14		5.0	mg/Kg			04/06/24 13:43		1

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

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

Lab Sample ID: MB 885-2742/1-A
Matrix: Solid
Analysis Batch: 2904

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2742

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/03/24 15:34	04/05/24 10:26	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		15 - 244			04/03/24 15:34	04/05/24 10:26	1

Lab Sample ID: LCS 885-2742/2-A
Matrix: Solid
Analysis Batch: 2904

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2742

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	27.4		mg/Kg		110	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	215		15 - 244				

Lab Sample ID: 885-2148-1 MS
Matrix: Solid
Analysis Batch: 2904

Client Sample ID: BES24-09 1'
Prep Type: Total/NA
Prep Batch: 2742

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	ND		24.2	25.4		mg/Kg		105	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	222		15 - 244						

Lab Sample ID: 885-2148-1 MSD
Matrix: Solid
Analysis Batch: 2904

Client Sample ID: BES24-09 1'
Prep Type: Total/NA
Prep Batch: 2742

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.2	26.3		mg/Kg		108	70 - 130	3	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	220		15 - 244								

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-2742/1-A
Matrix: Solid
Analysis Batch: 2905

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2742

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/03/24 15:34	04/05/24 10:26	1
Ethylbenzene	ND		0.050	mg/Kg		04/03/24 15:34	04/05/24 10:26	1
Toluene	ND		0.050	mg/Kg		04/03/24 15:34	04/05/24 10:26	1

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

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

Lab Sample ID: MB 885-2742/1-A

Matrix: Solid

Analysis Batch: 2905

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2742

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10	mg/Kg		04/03/24 15:34	04/05/24 10:26	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		39 - 146			04/03/24 15:34	04/05/24 10:26	1

Lab Sample ID: LCS 885-2742/3-A

Matrix: Solid

Analysis Batch: 2905

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2742

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.865		mg/Kg		87	70 - 130
Ethylbenzene	1.00	0.880		mg/Kg		88	70 - 130
m,p-Xylene	2.00	1.80		mg/Kg		90	70 - 130
o-Xylene	1.00	0.876		mg/Kg		88	70 - 130
Toluene	1.00	0.877		mg/Kg		88	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	92		39 - 146				

Lab Sample ID: 885-2148-2 MS

Matrix: Solid

Analysis Batch: 2905

Client Sample ID: BES24-10 1'

Prep Type: Total/NA

Prep Batch: 2742

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		0.963	0.792		mg/Kg		82	70 - 130
Ethylbenzene	ND		0.963	0.829		mg/Kg		86	70 - 130
m,p-Xylene	ND		1.93	1.69		mg/Kg		87	70 - 130
o-Xylene	ND		0.963	0.826		mg/Kg		86	70 - 130
Toluene	ND		0.963	0.819		mg/Kg		85	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	90		39 - 146						

Lab Sample ID: 885-2148-2 MSD

Matrix: Solid

Analysis Batch: 2905

Client Sample ID: BES24-10 1'

Prep Type: Total/NA

Prep Batch: 2742

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	ND		0.962	0.754		mg/Kg		78	70 - 130	5	20
Ethylbenzene	ND		0.962	0.789		mg/Kg		82	70 - 130	5	20
m,p-Xylene	ND		1.92	1.60		mg/Kg		83	70 - 130	5	20
o-Xylene	ND		0.962	0.784		mg/Kg		81	70 - 130	5	20
Toluene	ND		0.962	0.770		mg/Kg		80	70 - 130	6	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	88		39 - 146								

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

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

Lab Sample ID: MB 885-2764/1-A

Matrix: Solid

Analysis Batch: 2812

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2764

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		04/04/24 09:57	04/04/24 17:51	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/04/24 09:57	04/04/24 17:51	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	103		62 - 134			04/04/24 09:57	04/04/24 17:51	1

Lab Sample ID: LCS 885-2764/2-A

Matrix: Solid

Analysis Batch: 2812

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2764

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	45.1		mg/Kg		90	60 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Di-n-octyl phthalate (Surr)	97		62 - 134				

Lab Sample ID: 885-2148-19 MS

Matrix: Solid

Analysis Batch: 2812

Client Sample ID: WES24-04 0-1.0'

Prep Type: Total/NA

Prep Batch: 2764

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	ND		47.0	40.1		mg/Kg		85	44 - 136
Surrogate	MS %Recovery	MS Qualifier	Limits						
Di-n-octyl phthalate (Surr)	96		62 - 134						

Lab Sample ID: 885-2148-19 MSD

Matrix: Solid

Analysis Batch: 2812

Client Sample ID: WES24-04 0-1.0'

Prep Type: Total/NA

Prep Batch: 2764

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		48.0	40.7		mg/Kg		85	44 - 136	1	32
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Di-n-octyl phthalate (Surr)	99		62 - 134								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-77425/1-A

Matrix: Solid

Analysis Batch: 77496

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		5.0	mg/Kg			04/05/24 17:53	1

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-77425/2-A

Matrix: Solid

Analysis Batch: 77496

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	251		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-77425/3-A

Matrix: Solid

Analysis Batch: 77496

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	251		mg/Kg		101	90 - 110	0	20

Lab Sample ID: MB 880-77470/1-A

Matrix: Solid

Analysis Batch: 77508

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		5.0	mg/Kg			04/06/24 10:17	1

Lab Sample ID: LCS 880-77470/2-A

Matrix: Solid

Analysis Batch: 77508

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	258		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-77470/3-A

Matrix: Solid

Analysis Batch: 77508

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	259		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 885-2148-10 MS

Matrix: Solid

Analysis Batch: 77508

Client Sample ID: BES24-18 1'

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	110		250	370		mg/Kg		106	90 - 110

Lab Sample ID: 885-2148-10 MSD

Matrix: Solid

Analysis Batch: 77508

Client Sample ID: BES24-18 1'

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	110		250	369		mg/Kg		105	90 - 110	0	20

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QC Association Summary

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

GC VOA

Prep Batch: 2742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2148-1	BES24-09 1'	Total/NA	Solid	5030C	
885-2148-2	BES24-10 1'	Total/NA	Solid	5030C	
885-2148-3	BES24-11 1'	Total/NA	Solid	5030C	
885-2148-4	BES24-12 1'	Total/NA	Solid	5030C	
885-2148-5	BES24-13 1'	Total/NA	Solid	5030C	
885-2148-6	BES24-14 1'	Total/NA	Solid	5030C	
885-2148-7	BES24-15 1'	Total/NA	Solid	5030C	
885-2148-8	BES24-16 1'	Total/NA	Solid	5030C	
885-2148-9	BES24-17 1'	Total/NA	Solid	5030C	
885-2148-10	BES24-18 1'	Total/NA	Solid	5030C	
885-2148-11	BES24-19 1'	Total/NA	Solid	5030C	
885-2148-12	BES24-20 1'	Total/NA	Solid	5030C	
885-2148-13	BES24-21 1'	Total/NA	Solid	5030C	
885-2148-14	BES24-22 1'	Total/NA	Solid	5030C	
885-2148-15	BES24-23 1'	Total/NA	Solid	5030C	
885-2148-16	BES24-24 1'	Total/NA	Solid	5030C	
885-2148-17	BES24-25 1'	Total/NA	Solid	5030C	
885-2148-18	WES24-03 0-1.0'	Total/NA	Solid	5030C	
885-2148-19	WES24-04 0-1.0'	Total/NA	Solid	5030C	
MB 885-2742/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-2742/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-2742/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-2148-1 MS	BES24-09 1'	Total/NA	Solid	5030C	
885-2148-1 MSD	BES24-09 1'	Total/NA	Solid	5030C	
885-2148-2 MS	BES24-10 1'	Total/NA	Solid	5030C	
885-2148-2 MSD	BES24-10 1'	Total/NA	Solid	5030C	

Analysis Batch: 2904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2148-1	BES24-09 1'	Total/NA	Solid	8015D	2742
885-2148-2	BES24-10 1'	Total/NA	Solid	8015D	2742
885-2148-3	BES24-11 1'	Total/NA	Solid	8015D	2742
885-2148-4	BES24-12 1'	Total/NA	Solid	8015D	2742
885-2148-5	BES24-13 1'	Total/NA	Solid	8015D	2742
885-2148-6	BES24-14 1'	Total/NA	Solid	8015D	2742
885-2148-7	BES24-15 1'	Total/NA	Solid	8015D	2742
885-2148-8	BES24-16 1'	Total/NA	Solid	8015D	2742
885-2148-9	BES24-17 1'	Total/NA	Solid	8015D	2742
885-2148-10	BES24-18 1'	Total/NA	Solid	8015D	2742
885-2148-11	BES24-19 1'	Total/NA	Solid	8015D	2742
885-2148-12	BES24-20 1'	Total/NA	Solid	8015D	2742
885-2148-13	BES24-21 1'	Total/NA	Solid	8015D	2742
885-2148-14	BES24-22 1'	Total/NA	Solid	8015D	2742
885-2148-15	BES24-23 1'	Total/NA	Solid	8015D	2742
885-2148-16	BES24-24 1'	Total/NA	Solid	8015D	2742
885-2148-17	BES24-25 1'	Total/NA	Solid	8015D	2742
885-2148-18	WES24-03 0-1.0'	Total/NA	Solid	8015D	2742
885-2148-19	WES24-04 0-1.0'	Total/NA	Solid	8015D	2742
MB 885-2742/1-A	Method Blank	Total/NA	Solid	8015D	2742
LCS 885-2742/2-A	Lab Control Sample	Total/NA	Solid	8015D	2742
885-2148-1 MS	BES24-09 1'	Total/NA	Solid	8015D	2742

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QC Association Summary

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

GC VOA (Continued)

Analysis Batch: 2904 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2148-1 MSD	BES24-09 1'	Total/NA	Solid	8015D	2742

Analysis Batch: 2905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2148-1	BES24-09 1'	Total/NA	Solid	8021B	2742
885-2148-2	BES24-10 1'	Total/NA	Solid	8021B	2742
885-2148-3	BES24-11 1'	Total/NA	Solid	8021B	2742
885-2148-4	BES24-12 1'	Total/NA	Solid	8021B	2742
885-2148-5	BES24-13 1'	Total/NA	Solid	8021B	2742
885-2148-6	BES24-14 1'	Total/NA	Solid	8021B	2742
885-2148-7	BES24-15 1'	Total/NA	Solid	8021B	2742
885-2148-8	BES24-16 1'	Total/NA	Solid	8021B	2742
885-2148-9	BES24-17 1'	Total/NA	Solid	8021B	2742
885-2148-10	BES24-18 1'	Total/NA	Solid	8021B	2742
885-2148-11	BES24-19 1'	Total/NA	Solid	8021B	2742
885-2148-12	BES24-20 1'	Total/NA	Solid	8021B	2742
885-2148-13	BES24-21 1'	Total/NA	Solid	8021B	2742
885-2148-14	BES24-22 1'	Total/NA	Solid	8021B	2742
885-2148-15	BES24-23 1'	Total/NA	Solid	8021B	2742
885-2148-16	BES24-24 1'	Total/NA	Solid	8021B	2742
885-2148-17	BES24-25 1'	Total/NA	Solid	8021B	2742
885-2148-18	WES24-03 0-1.0'	Total/NA	Solid	8021B	2742
885-2148-19	WES24-04 0-1.0'	Total/NA	Solid	8021B	2742
MB 885-2742/1-A	Method Blank	Total/NA	Solid	8021B	2742
LCS 885-2742/3-A	Lab Control Sample	Total/NA	Solid	8021B	2742
885-2148-2 MS	BES24-10 1'	Total/NA	Solid	8021B	2742
885-2148-2 MSD	BES24-10 1'	Total/NA	Solid	8021B	2742

GC Semi VOA

Prep Batch: 2764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2148-1	BES24-09 1'	Total/NA	Solid	SHAKE	
885-2148-2	BES24-10 1'	Total/NA	Solid	SHAKE	
885-2148-3	BES24-11 1'	Total/NA	Solid	SHAKE	
885-2148-4	BES24-12 1'	Total/NA	Solid	SHAKE	
885-2148-5	BES24-13 1'	Total/NA	Solid	SHAKE	
885-2148-6	BES24-14 1'	Total/NA	Solid	SHAKE	
885-2148-7	BES24-15 1'	Total/NA	Solid	SHAKE	
885-2148-8	BES24-16 1'	Total/NA	Solid	SHAKE	
885-2148-9	BES24-17 1'	Total/NA	Solid	SHAKE	
885-2148-10	BES24-18 1'	Total/NA	Solid	SHAKE	
885-2148-11	BES24-19 1'	Total/NA	Solid	SHAKE	
885-2148-12	BES24-20 1'	Total/NA	Solid	SHAKE	
885-2148-13	BES24-21 1'	Total/NA	Solid	SHAKE	
885-2148-14	BES24-22 1'	Total/NA	Solid	SHAKE	
885-2148-15	BES24-23 1'	Total/NA	Solid	SHAKE	
885-2148-16	BES24-24 1'	Total/NA	Solid	SHAKE	
885-2148-17	BES24-25 1'	Total/NA	Solid	SHAKE	
885-2148-18	WES24-03 0-1.0'	Total/NA	Solid	SHAKE	
885-2148-19	WES24-04 0-1.0'	Total/NA	Solid	SHAKE	

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

GC Semi VOA (Continued)

Prep Batch: 2764 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-2764/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-2764/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-2148-19 MS	WES24-04 0-1.0'	Total/NA	Solid	SHAKE	
885-2148-19 MSD	WES24-04 0-1.0'	Total/NA	Solid	SHAKE	

Analysis Batch: 2812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2148-1	BES24-09 1'	Total/NA	Solid	8015D	2764
885-2148-2	BES24-10 1'	Total/NA	Solid	8015D	2764
885-2148-3	BES24-11 1'	Total/NA	Solid	8015D	2764
885-2148-4	BES24-12 1'	Total/NA	Solid	8015D	2764
885-2148-5	BES24-13 1'	Total/NA	Solid	8015D	2764
885-2148-6	BES24-14 1'	Total/NA	Solid	8015D	2764
885-2148-7	BES24-15 1'	Total/NA	Solid	8015D	2764
885-2148-8	BES24-16 1'	Total/NA	Solid	8015D	2764
885-2148-9	BES24-17 1'	Total/NA	Solid	8015D	2764
885-2148-10	BES24-18 1'	Total/NA	Solid	8015D	2764
885-2148-11	BES24-19 1'	Total/NA	Solid	8015D	2764
885-2148-12	BES24-20 1'	Total/NA	Solid	8015D	2764
885-2148-13	BES24-21 1'	Total/NA	Solid	8015D	2764
885-2148-14	BES24-22 1'	Total/NA	Solid	8015D	2764
885-2148-15	BES24-23 1'	Total/NA	Solid	8015D	2764
885-2148-16	BES24-24 1'	Total/NA	Solid	8015D	2764
885-2148-17	BES24-25 1'	Total/NA	Solid	8015D	2764
885-2148-18	WES24-03 0-1.0'	Total/NA	Solid	8015D	2764
885-2148-19	WES24-04 0-1.0'	Total/NA	Solid	8015D	2764
MB 885-2764/1-A	Method Blank	Total/NA	Solid	8015D	2764
LCS 885-2764/2-A	Lab Control Sample	Total/NA	Solid	8015D	2764
885-2148-19 MS	WES24-04 0-1.0'	Total/NA	Solid	8015D	2764
885-2148-19 MSD	WES24-04 0-1.0'	Total/NA	Solid	8015D	2764

HPLC/IC

Leach Batch: 77425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2148-1	BES24-09 1'	Soluble	Solid	DI Leach	
885-2148-2	BES24-10 1'	Soluble	Solid	DI Leach	
885-2148-3	BES24-11 1'	Soluble	Solid	DI Leach	
885-2148-4	BES24-12 1'	Soluble	Solid	DI Leach	
MB 880-77425/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-77425/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-77425/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 77470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2148-5	BES24-13 1'	Soluble	Solid	DI Leach	
885-2148-6	BES24-14 1'	Soluble	Solid	DI Leach	
885-2148-7	BES24-15 1'	Soluble	Solid	DI Leach	
885-2148-8	BES24-16 1'	Soluble	Solid	DI Leach	
885-2148-9	BES24-17 1'	Soluble	Solid	DI Leach	
885-2148-10	BES24-18 1'	Soluble	Solid	DI Leach	

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

HPLC/IC (Continued)

Leach Batch: 77470 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2148-11	BES24-19 1'	Soluble	Solid	DI Leach	
885-2148-12	BES24-20 1'	Soluble	Solid	DI Leach	
885-2148-13	BES24-21 1'	Soluble	Solid	DI Leach	
885-2148-14	BES24-22 1'	Soluble	Solid	DI Leach	
885-2148-15	BES24-23 1'	Soluble	Solid	DI Leach	
885-2148-16	BES24-24 1'	Soluble	Solid	DI Leach	
885-2148-17	BES24-25 1'	Soluble	Solid	DI Leach	
885-2148-18	WES24-03 0-1.0'	Soluble	Solid	DI Leach	
885-2148-19	WES24-04 0-1.0'	Soluble	Solid	DI Leach	
MB 880-77470/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-77470/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-77470/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
885-2148-10 MS	BES24-18 1'	Soluble	Solid	DI Leach	
885-2148-10 MSD	BES24-18 1'	Soluble	Solid	DI Leach	

Analysis Batch: 77496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2148-1	BES24-09 1'	Soluble	Solid	300.0	77425
885-2148-2	BES24-10 1'	Soluble	Solid	300.0	77425
885-2148-3	BES24-11 1'	Soluble	Solid	300.0	77425
885-2148-4	BES24-12 1'	Soluble	Solid	300.0	77425
MB 880-77425/1-A	Method Blank	Soluble	Solid	300.0	77425
LCS 880-77425/2-A	Lab Control Sample	Soluble	Solid	300.0	77425
LCSD 880-77425/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	77425

Analysis Batch: 77508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2148-5	BES24-13 1'	Soluble	Solid	300.0	77470
885-2148-6	BES24-14 1'	Soluble	Solid	300.0	77470
885-2148-7	BES24-15 1'	Soluble	Solid	300.0	77470
885-2148-8	BES24-16 1'	Soluble	Solid	300.0	77470
885-2148-9	BES24-17 1'	Soluble	Solid	300.0	77470
885-2148-10	BES24-18 1'	Soluble	Solid	300.0	77470
885-2148-11	BES24-19 1'	Soluble	Solid	300.0	77470
885-2148-12	BES24-20 1'	Soluble	Solid	300.0	77470
885-2148-13	BES24-21 1'	Soluble	Solid	300.0	77470
885-2148-14	BES24-22 1'	Soluble	Solid	300.0	77470
885-2148-15	BES24-23 1'	Soluble	Solid	300.0	77470
885-2148-16	BES24-24 1'	Soluble	Solid	300.0	77470
885-2148-17	BES24-25 1'	Soluble	Solid	300.0	77470
885-2148-18	WES24-03 0-1.0'	Soluble	Solid	300.0	77470
885-2148-19	WES24-04 0-1.0'	Soluble	Solid	300.0	77470
MB 880-77470/1-A	Method Blank	Soluble	Solid	300.0	77470
LCS 880-77470/2-A	Lab Control Sample	Soluble	Solid	300.0	77470
LCSD 880-77470/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	77470
885-2148-10 MS	BES24-18 1'	Soluble	Solid	300.0	77470
885-2148-10 MSD	BES24-18 1'	Soluble	Solid	300.0	77470

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-09 1'
Date Collected: 03/29/24 09:30
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2148-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 10:50
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 10:50
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 18:15
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:46
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 20:04

Client Sample ID: BES24-10 1'
Date Collected: 03/29/24 09:35
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2148-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 11:13
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 11:13
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 18:27
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:46
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 20:09

Client Sample ID: BES24-11 1'
Date Collected: 03/29/24 09:40
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2148-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 11:37
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 11:37
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 18:40
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:46
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 20:13

Client Sample ID: BES24-12 1'
Date Collected: 03/29/24 09:45
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2148-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 12:00

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-12 1'

Lab Sample ID: 885-2148-4

Date Collected: 03/29/24 09:45

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 12:00
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 18:52
Soluble	Leach	DI Leach			77425	SA	EET MID	04/05/24 07:46
Soluble	Analysis	300.0		1	77496	SMC	EET MID	04/05/24 20:18

Client Sample ID: BES24-13 1'

Lab Sample ID: 885-2148-5

Date Collected: 03/29/24 09:50

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 12:24
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 12:24
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 19:05
Soluble	Leach	DI Leach			77470	SA	EET MID	04/05/24 11:43
Soluble	Analysis	300.0		1	77508	SMC	EET MID	04/06/24 11:40

Client Sample ID: BES24-14 1'

Lab Sample ID: 885-2148-6

Date Collected: 03/29/24 09:55

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 12:48
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 12:48
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 19:17
Soluble	Leach	DI Leach			77470	SA	EET MID	04/05/24 11:43
Soluble	Analysis	300.0		1	77508	SMC	EET MID	04/06/24 11:46

Client Sample ID: BES24-15 1'

Lab Sample ID: 885-2148-7

Date Collected: 03/29/24 10:00

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 13:11
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 13:11

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-15 1'
Date Collected: 03/29/24 10:00
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2148-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 19:30
Soluble	Leach	DI Leach			77470	SA	EET MID	04/05/24 11:43
Soluble	Analysis	300.0		1	77508	SMC	EET MID	04/06/24 11:53

Client Sample ID: BES24-16 1'
Date Collected: 03/29/24 10:05
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2148-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 13:35
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 13:35
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 19:43
Soluble	Leach	DI Leach			77470	SA	EET MID	04/05/24 11:43
Soluble	Analysis	300.0		1	77508	SMC	EET MID	04/06/24 12:00

Client Sample ID: BES24-17 1'
Date Collected: 03/29/24 10:10
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2148-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 13:58
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 13:58
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 19:55
Soluble	Leach	DI Leach			77470	SA	EET MID	04/05/24 11:43
Soluble	Analysis	300.0		1	77508	SMC	EET MID	04/06/24 12:07

Client Sample ID: BES24-18 1'
Date Collected: 03/29/24 10:15
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2148-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 14:22
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 14:22
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 20:08

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-18 1'

Lab Sample ID: 885-2148-10

Date Collected: 03/29/24 10:15

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Soluble	Leach	DI Leach			77470	SA	EET MID	04/05/24 11:43
Soluble	Analysis	300.0		1	77508	SMC	EET MID	04/06/24 12:14

Client Sample ID: BES24-19 1'

Lab Sample ID: 885-2148-11

Date Collected: 03/29/24 10:20

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 15:09
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 15:09
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 20:20
Soluble	Leach	DI Leach			77470	SA	EET MID	04/05/24 11:43
Soluble	Analysis	300.0		1	77508	SMC	EET MID	04/06/24 12:34

Client Sample ID: BES24-20 1'

Lab Sample ID: 885-2148-12

Date Collected: 03/29/24 10:30

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 15:32
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 15:32
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 20:33
Soluble	Leach	DI Leach			77470	SA	EET MID	04/05/24 11:43
Soluble	Analysis	300.0		1	77508	SMC	EET MID	04/06/24 12:41

Client Sample ID: BES24-21 1'

Lab Sample ID: 885-2148-13

Date Collected: 03/29/24 10:35

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 15:56
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 15:56
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 20:45
Soluble	Leach	DI Leach			77470	SA	EET MID	04/05/24 11:43
Soluble	Analysis	300.0		1	77508	SMC	EET MID	04/06/24 13:02

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-22 1'

Lab Sample ID: 885-2148-14

Date Collected: 03/29/24 10:40

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 16:19
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 16:19
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 20:58
Soluble	Leach	DI Leach			77470	SA	EET MID	04/05/24 11:43
Soluble	Analysis	300.0		1	77508	SMC	EET MID	04/06/24 13:08

Client Sample ID: BES24-23 1'

Lab Sample ID: 885-2148-15

Date Collected: 03/29/24 10:45

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 16:43
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 16:43
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 21:11
Soluble	Leach	DI Leach			77470	SA	EET MID	04/05/24 11:43
Soluble	Analysis	300.0		1	77508	SMC	EET MID	04/06/24 13:15

Client Sample ID: BES24-24 1'

Lab Sample ID: 885-2148-16

Date Collected: 03/29/24 10:50

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 17:06
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 17:06
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 21:23
Soluble	Leach	DI Leach			77470	SA	EET MID	04/05/24 11:43
Soluble	Analysis	300.0		1	77508	SMC	EET MID	04/06/24 13:22

Client Sample ID: BES24-25 1'

Lab Sample ID: 885-2148-17

Date Collected: 03/29/24 10:55

Matrix: Solid

Date Received: 04/02/24 07:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 17:30

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Client Sample ID: BES24-25 1'
Date Collected: 03/29/24 10:55
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2148-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 17:30
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 21:36
Soluble	Leach	DI Leach			77470	SA	EET MID	04/05/24 11:43
Soluble	Analysis	300.0		1	77508	SMC	EET MID	04/06/24 13:29

Client Sample ID: WES24-03 0-1.0'
Date Collected: 03/29/24 11:00
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2148-18
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 17:53
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 17:53
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 21:48
Soluble	Leach	DI Leach			77470	SA	EET MID	04/05/24 11:43
Soluble	Analysis	300.0		1	77508	SMC	EET MID	04/06/24 13:36

Client Sample ID: WES24-04 0-1.0'
Date Collected: 03/29/24 11:05
Date Received: 04/02/24 07:45

Lab Sample ID: 885-2148-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8015D		1	2904	JP	EET ALB	04/05/24 18:17
Total/NA	Prep	5030C			2742	JP	EET ALB	04/03/24 15:34
Total/NA	Analysis	8021B		1	2905	JP	EET ALB	04/05/24 18:17
Total/NA	Prep	SHAKE			2764	JU	EET ALB	04/04/24 09:57
Total/NA	Analysis	8015D		1	2812	JU	EET ALB	04/04/24 22:01
Soluble	Leach	DI Leach			77470	SA	EET MID	04/05/24 11:43
Soluble	Analysis	300.0		1	77508	SMC	EET MID	04/06/24 13:43

Laboratory References:

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

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Vertex
Project/Site: Mis Amigos Ctb

Job ID: 885-2148-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total
Oregon	NELAP	NM100001	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24
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		Solid	Chloride

- 1
- 2
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- 10
- 11

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-2148-1

Login Number: 2148
List Number: 1
Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

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

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-2148-1

Login Number: 2148
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 04/05/24 11:25 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 4/12/2024 7:42:09 AM

JOB DESCRIPTION

Mis Amigos

JOB NUMBER

885-2487-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109



Eurofins Albuquerque

Job Notes

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

Authorization



Generated
4/12/2024 7:42:09 AM

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

Client: Vertex
Project/Site: Mis Amigos

Laboratory Job ID: 885-2487-1



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Definitions/Glossary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

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
Project: Mis Amigos

Job ID: 885-2487-1

Job ID: 885-2487-1Eurofins Albuquerque

Job Narrative
885-2487-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt

The samples were received on 4/6/2024 11:37 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C.

Gasoline Range Organics

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

GC VOA

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

Diesel Range Organics

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

HPLC/IC

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

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

Client Sample ID: BES24-26 1ft

Lab Sample ID: 885-2487-1

Date Collected: 04/03/24 10:00

Matrix: Solid

Date Received: 04/06/24 11:37

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/08/24 15:32	04/10/24 11:43		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	100		15 - 244			04/08/24 15:32	04/10/24 11:43		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		04/08/24 15:32	04/10/24 11:43		1
Ethylbenzene	ND		0.048	mg/Kg		04/08/24 15:32	04/10/24 11:43		1
Toluene	ND		0.048	mg/Kg		04/08/24 15:32	04/10/24 11:43		1
Xylenes, Total	ND		0.097	mg/Kg		04/08/24 15:32	04/10/24 11:43		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	86		39 - 146			04/08/24 15:32	04/10/24 11:43		1
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		8.6	mg/Kg		04/09/24 13:09	04/10/24 14:29		1
Motor Oil Range Organics [C28-C40]	ND		43	mg/Kg		04/09/24 13:09	04/10/24 14:29		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	133		62 - 134			04/09/24 13:09	04/10/24 14:29		1
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	92		5.0	mg/Kg			04/10/24 22:50		1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

Client Sample ID: BES24-27 1ft

Lab Sample ID: 885-2487-2

Date Collected: 04/03/24 10:15

Matrix: Solid

Date Received: 04/06/24 11:37

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/08/24 15:32	04/10/24 12:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		15 - 244			04/08/24 15:32	04/10/24 12:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/24 15:32	04/10/24 12:06	1
Ethylbenzene	ND		0.049	mg/Kg		04/08/24 15:32	04/10/24 12:06	1
Toluene	ND		0.049	mg/Kg		04/08/24 15:32	04/10/24 12:06	1
Xylenes, Total	ND		0.098	mg/Kg		04/08/24 15:32	04/10/24 12:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		39 - 146			04/08/24 15:32	04/10/24 12:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		8.4	mg/Kg		04/09/24 13:09	04/10/24 14:41	1
Motor Oil Range Organics [C28-C40]	ND		42	mg/Kg		04/09/24 13:09	04/10/24 14:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	104		62 - 134			04/09/24 13:09	04/10/24 14:41	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	760		5.0	mg/Kg			04/10/24 22:56	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

Client Sample ID: BES24-34 1ft

Lab Sample ID: 885-2487-3

Date Collected: 04/03/24 12:00

Matrix: Solid

Date Received: 04/06/24 11:37

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		04/08/24 15:32	04/10/24 12:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		15 - 244			04/08/24 15:32	04/10/24 12:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/08/24 15:32	04/10/24 12:30	1
Ethylbenzene	ND		0.046	mg/Kg		04/08/24 15:32	04/10/24 12:30	1
Toluene	ND		0.046	mg/Kg		04/08/24 15:32	04/10/24 12:30	1
Xylenes, Total	ND		0.093	mg/Kg		04/08/24 15:32	04/10/24 12:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		39 - 146			04/08/24 15:32	04/10/24 12:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1	mg/Kg		04/09/24 13:09	04/10/24 14:54	1
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		04/09/24 13:09	04/10/24 14:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	122		62 - 134			04/09/24 13:09	04/10/24 14:54	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	320		5.0	mg/Kg			04/11/24 05:22	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

Client Sample ID: BES24-36 1ft Lab Sample ID: 885-2487-4
Date Collected: 04/03/24 12:30 Matrix: Solid
Date Received: 04/06/24 11:37

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/08/24 15:32	04/10/24 12:53	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	103		15 - 244			04/08/24 15:32	04/10/24 12:53	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.025	mg/Kg		04/08/24 15:32	04/10/24 12:53	1	
Ethylbenzene	ND		0.050	mg/Kg		04/08/24 15:32	04/10/24 12:53	1	
Toluene	ND		0.050	mg/Kg		04/08/24 15:32	04/10/24 12:53	1	
Xylenes, Total	ND		0.099	mg/Kg		04/08/24 15:32	04/10/24 12:53	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	87		39 - 146			04/08/24 15:32	04/10/24 12:53	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		8.6	mg/Kg		04/09/24 13:09	04/10/24 15:06	1	
Motor Oil Range Organics [C28-C40]	ND		43	mg/Kg		04/09/24 13:09	04/10/24 15:06	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	72		62 - 134			04/09/24 13:09	04/10/24 15:06	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	290		5.0	mg/Kg			04/11/24 05:41	1	

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

Client Sample ID: WES24-05 1ft

Lab Sample ID: 885-2487-5

Date Collected: 04/03/24 12:45

Matrix: Solid

Date Received: 04/06/24 11:37

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/08/24 15:32	04/10/24 13:16		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	101		15 - 244			04/08/24 15:32	04/10/24 13:16		1
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.023	mg/Kg		04/08/24 15:32	04/10/24 13:16		1
Ethylbenzene	ND		0.047	mg/Kg		04/08/24 15:32	04/10/24 13:16		1
Toluene	ND		0.047	mg/Kg		04/08/24 15:32	04/10/24 13:16		1
Xylenes, Total	ND		0.093	mg/Kg		04/08/24 15:32	04/10/24 13:16		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	87		39 - 146			04/08/24 15:32	04/10/24 13:16		1
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		8.3	mg/Kg		04/09/24 13:09	04/10/24 15:19		1
Motor Oil Range Organics [C28-C40]	ND		42	mg/Kg		04/09/24 13:09	04/10/24 15:19		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	77		62 - 134			04/09/24 13:09	04/10/24 15:19		1
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	660		5.0	mg/Kg			04/11/24 05:47		1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

Client Sample ID: WES24-06 1ft

Lab Sample ID: 885-2487-6

Date Collected: 04/03/24 13:00

Matrix: Solid

Date Received: 04/06/24 11:37

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.6	mg/Kg		04/08/24 15:32	04/10/24 13:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		15 - 244	04/08/24 15:32	04/10/24 13:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.023	mg/Kg		04/08/24 15:32	04/10/24 13:40	1
Ethylbenzene	ND		0.046	mg/Kg		04/08/24 15:32	04/10/24 13:40	1
Toluene	ND		0.046	mg/Kg		04/08/24 15:32	04/10/24 13:40	1
Xylenes, Total	ND		0.093	mg/Kg		04/08/24 15:32	04/10/24 13:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		39 - 146	04/08/24 15:32	04/10/24 13:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.7	mg/Kg		04/09/24 13:09	04/10/24 15:31	1
Motor Oil Range Organics [C28-C40]	ND		48	mg/Kg		04/09/24 13:09	04/10/24 15:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	101		62 - 134	04/09/24 13:09	04/10/24 15:31	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2100		25	mg/Kg			04/11/24 05:53	5

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

Client Sample ID: WES24-07 1ft

Lab Sample ID: 885-2487-7

Date Collected: 04/03/24 13:15

Matrix: Solid

Date Received: 04/06/24 11:37

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/08/24 15:32	04/10/24 14:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		15 - 244			04/08/24 15:32	04/10/24 14:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/08/24 15:32	04/10/24 14:03	1
Ethylbenzene	ND		0.048	mg/Kg		04/08/24 15:32	04/10/24 14:03	1
Toluene	ND		0.048	mg/Kg		04/08/24 15:32	04/10/24 14:03	1
Xylenes, Total	ND		0.096	mg/Kg		04/08/24 15:32	04/10/24 14:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		39 - 146			04/08/24 15:32	04/10/24 14:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		04/09/24 13:09	04/10/24 15:44	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/09/24 13:09	04/10/24 15:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	93		62 - 134			04/09/24 13:09	04/10/24 15:44	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	880		25	mg/Kg			04/11/24 06:00	5

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

Client Sample ID: WES24-11 1ft

Lab Sample ID: 885-2487-8

Date Collected: 04/03/24 13:30

Matrix: Solid

Date Received: 04/06/24 11:37

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/08/24 15:32	04/10/24 14:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		15 - 244			04/08/24 15:32	04/10/24 14:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/24 15:32	04/10/24 14:27	1
Ethylbenzene	ND		0.050	mg/Kg		04/08/24 15:32	04/10/24 14:27	1
Toluene	ND		0.050	mg/Kg		04/08/24 15:32	04/10/24 14:27	1
Xylenes, Total	ND		0.099	mg/Kg		04/08/24 15:32	04/10/24 14:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		39 - 146			04/08/24 15:32	04/10/24 14:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.3	mg/Kg		04/09/24 13:09	04/10/24 15:56	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/09/24 13:09	04/10/24 15:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	94		62 - 134			04/09/24 13:09	04/10/24 15:56	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2400		25	mg/Kg			04/11/24 06:06	5

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

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

Lab Sample ID: MB 885-2924/1-A

Matrix: Solid

Analysis Batch: 3090

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2924

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/08/24 15:32	04/10/24 11:19	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		15 - 244			04/08/24 15:32	04/10/24 11:19	1

Lab Sample ID: LCS 885-2924/2-A

Matrix: Solid

Analysis Batch: 3090

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2924

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	25.5		mg/Kg		102	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	204		15 - 244				

Lab Sample ID: 885-2487-1 MS

Matrix: Solid

Analysis Batch: 3090

Client Sample ID: BES24-26 1ft

Prep Type: Total/NA

Prep Batch: 2924

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	ND		24.4	25.3		mg/Kg		104	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	213		15 - 244						

Lab Sample ID: 885-2487-1 MSD

Matrix: Solid

Analysis Batch: 3090

Client Sample ID: BES24-26 1ft

Prep Type: Total/NA

Prep Batch: 2924

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		24.4	25.4		mg/Kg		104	70 - 130	0	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	213		15 - 244								

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-2924/1-A

Matrix: Solid

Analysis Batch: 3091

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2924

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/08/24 15:32	04/10/24 11:19	1
Ethylbenzene	ND		0.050	mg/Kg		04/08/24 15:32	04/10/24 11:19	1
Toluene	ND		0.050	mg/Kg		04/08/24 15:32	04/10/24 11:19	1

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

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

Lab Sample ID: MB 885-2924/1-A

Matrix: Solid

Analysis Batch: 3091

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2924

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10	mg/Kg		04/08/24 15:32	04/10/24 11:19	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		39 - 146			04/08/24 15:32	04/10/24 11:19	1

Lab Sample ID: LCS 885-2924/3-A

Matrix: Solid

Analysis Batch: 3091

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2924

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.786		mg/Kg		79	70 - 130
Ethylbenzene	1.00	0.804		mg/Kg		80	70 - 130
m,p-Xylene	2.00	1.64		mg/Kg		82	70 - 130
o-Xylene	1.00	0.797		mg/Kg		80	70 - 130
Toluene	1.00	0.795		mg/Kg		80	70 - 130
Xylenes, Total	3.00	2.44		mg/Kg		81	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	88		39 - 146				

Lab Sample ID: 885-2487-2 MS

Matrix: Solid

Analysis Batch: 3091

Client Sample ID: BES24-27 1ft

Prep Type: Total/NA

Prep Batch: 2924

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		0.983	0.792		mg/Kg		81	70 - 130
Ethylbenzene	ND		0.983	0.824		mg/Kg		84	70 - 130
m,p-Xylene	ND		1.97	1.66		mg/Kg		85	70 - 130
o-Xylene	ND		0.983	0.811		mg/Kg		82	70 - 130
Toluene	ND		0.983	0.809		mg/Kg		82	70 - 130
Xylenes, Total	ND		2.95	2.47		mg/Kg		84	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	88		39 - 146						

Lab Sample ID: 885-2487-2 MSD

Matrix: Solid

Analysis Batch: 3091

Client Sample ID: BES24-27 1ft

Prep Type: Total/NA

Prep Batch: 2924

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	ND		0.978	0.767		mg/Kg		78	70 - 130	3	20
Ethylbenzene	ND		0.978	0.809		mg/Kg		83	70 - 130	2	20
m,p-Xylene	ND		1.96	1.65		mg/Kg		84	70 - 130	1	20
o-Xylene	ND		0.978	0.809		mg/Kg		83	70 - 130	0	20
Toluene	ND		0.978	0.791		mg/Kg		81	70 - 130	2	20
Xylenes, Total	ND		2.94	2.46		mg/Kg		84	70 - 130	1	20

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

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

Lab Sample ID: 885-2487-2 MSD
Matrix: Solid
Analysis Batch: 3091

Client Sample ID: BES24-27 1ft
Prep Type: Total/NA
Prep Batch: 2924

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		39 - 146

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

Lab Sample ID: MB 885-2975/1-A
Matrix: Solid
Analysis Batch: 3129

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 2975

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		04/09/24 13:09	04/10/24 11:23	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/09/24 13:09	04/10/24 11:23	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	117		62 - 134			04/09/24 13:09	04/10/24 11:23	1

Lab Sample ID: LCS 885-2975/2-A
Matrix: Solid
Analysis Batch: 3129

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 2975

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	53.5		mg/Kg		107	60 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Di-n-octyl phthalate (Surr)	124		62 - 134				

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-77836/1-A
Matrix: Solid
Analysis Batch: 77865

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		5.0	mg/Kg			04/10/24 19:46	1

Lab Sample ID: LCS 880-77836/2-A
Matrix: Solid
Analysis Batch: 77865

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	258		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-77836/3-A
Matrix: Solid
Analysis Batch: 77865

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	257		mg/Kg		103	90 - 110	1	20

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-77847/1-A
Matrix: Solid
Analysis Batch: 77873

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		5.0	mg/Kg			04/11/24 03:09	1

Lab Sample ID: LCS 880-77847/2-A
Matrix: Solid
Analysis Batch: 77873

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	254		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-77847/3-A
Matrix: Solid
Analysis Batch: 77873

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	254		mg/Kg		102	90 - 110	0	20

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

GC VOA

Prep Batch: 2924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2487-1	BES24-26 1ft	Total/NA	Solid	5030C	
885-2487-2	BES24-27 1ft	Total/NA	Solid	5030C	
885-2487-3	BES24-34 1ft	Total/NA	Solid	5030C	
885-2487-4	BES24-36 1ft	Total/NA	Solid	5030C	
885-2487-5	WES24-05 1ft	Total/NA	Solid	5030C	
885-2487-6	WES24-06 1ft	Total/NA	Solid	5030C	
885-2487-7	WES24-07 1ft	Total/NA	Solid	5030C	
885-2487-8	WES24-11 1ft	Total/NA	Solid	5030C	
MB 885-2924/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-2924/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-2924/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-2487-1 MS	BES24-26 1ft	Total/NA	Solid	5030C	
885-2487-1 MSD	BES24-26 1ft	Total/NA	Solid	5030C	
885-2487-2 MS	BES24-27 1ft	Total/NA	Solid	5030C	
885-2487-2 MSD	BES24-27 1ft	Total/NA	Solid	5030C	

Analysis Batch: 3090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2487-1	BES24-26 1ft	Total/NA	Solid	8015D	2924
885-2487-2	BES24-27 1ft	Total/NA	Solid	8015D	2924
885-2487-3	BES24-34 1ft	Total/NA	Solid	8015D	2924
885-2487-4	BES24-36 1ft	Total/NA	Solid	8015D	2924
885-2487-5	WES24-05 1ft	Total/NA	Solid	8015D	2924
885-2487-6	WES24-06 1ft	Total/NA	Solid	8015D	2924
885-2487-7	WES24-07 1ft	Total/NA	Solid	8015D	2924
885-2487-8	WES24-11 1ft	Total/NA	Solid	8015D	2924
MB 885-2924/1-A	Method Blank	Total/NA	Solid	8015D	2924
LCS 885-2924/2-A	Lab Control Sample	Total/NA	Solid	8015D	2924
885-2487-1 MS	BES24-26 1ft	Total/NA	Solid	8015D	2924
885-2487-1 MSD	BES24-26 1ft	Total/NA	Solid	8015D	2924

Analysis Batch: 3091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2487-1	BES24-26 1ft	Total/NA	Solid	8021B	2924
885-2487-2	BES24-27 1ft	Total/NA	Solid	8021B	2924
885-2487-3	BES24-34 1ft	Total/NA	Solid	8021B	2924
885-2487-4	BES24-36 1ft	Total/NA	Solid	8021B	2924
885-2487-5	WES24-05 1ft	Total/NA	Solid	8021B	2924
885-2487-6	WES24-06 1ft	Total/NA	Solid	8021B	2924
885-2487-7	WES24-07 1ft	Total/NA	Solid	8021B	2924
885-2487-8	WES24-11 1ft	Total/NA	Solid	8021B	2924
MB 885-2924/1-A	Method Blank	Total/NA	Solid	8021B	2924
LCS 885-2924/3-A	Lab Control Sample	Total/NA	Solid	8021B	2924
885-2487-2 MS	BES24-27 1ft	Total/NA	Solid	8021B	2924
885-2487-2 MSD	BES24-27 1ft	Total/NA	Solid	8021B	2924

GC Semi VOA

Prep Batch: 2975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2487-1	BES24-26 1ft	Total/NA	Solid	SHAKE	

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

GC Semi VOA (Continued)

Prep Batch: 2975 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2487-2	BES24-27 1ft	Total/NA	Solid	SHAKE	
885-2487-3	BES24-34 1ft	Total/NA	Solid	SHAKE	
885-2487-4	BES24-36 1ft	Total/NA	Solid	SHAKE	
885-2487-5	WES24-05 1ft	Total/NA	Solid	SHAKE	
885-2487-6	WES24-06 1ft	Total/NA	Solid	SHAKE	
885-2487-7	WES24-07 1ft	Total/NA	Solid	SHAKE	
885-2487-8	WES24-11 1ft	Total/NA	Solid	SHAKE	
MB 885-2975/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-2975/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 3129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2487-1	BES24-26 1ft	Total/NA	Solid	8015D	2975
885-2487-2	BES24-27 1ft	Total/NA	Solid	8015D	2975
885-2487-3	BES24-34 1ft	Total/NA	Solid	8015D	2975
885-2487-4	BES24-36 1ft	Total/NA	Solid	8015D	2975
885-2487-5	WES24-05 1ft	Total/NA	Solid	8015D	2975
885-2487-6	WES24-06 1ft	Total/NA	Solid	8015D	2975
885-2487-7	WES24-07 1ft	Total/NA	Solid	8015D	2975
885-2487-8	WES24-11 1ft	Total/NA	Solid	8015D	2975
MB 885-2975/1-A	Method Blank	Total/NA	Solid	8015D	2975
LCS 885-2975/2-A	Lab Control Sample	Total/NA	Solid	8015D	2975

HPLC/IC

Leach Batch: 77836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2487-1	BES24-26 1ft	Soluble	Solid	DI Leach	
885-2487-2	BES24-27 1ft	Soluble	Solid	DI Leach	
MB 880-77836/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-77836/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-77836/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 77847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2487-3	BES24-34 1ft	Soluble	Solid	DI Leach	
885-2487-4	BES24-36 1ft	Soluble	Solid	DI Leach	
885-2487-5	WES24-05 1ft	Soluble	Solid	DI Leach	
885-2487-6	WES24-06 1ft	Soluble	Solid	DI Leach	
885-2487-7	WES24-07 1ft	Soluble	Solid	DI Leach	
885-2487-8	WES24-11 1ft	Soluble	Solid	DI Leach	
MB 880-77847/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-77847/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-77847/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 77865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2487-1	BES24-26 1ft	Soluble	Solid	300.0	77836
885-2487-2	BES24-27 1ft	Soluble	Solid	300.0	77836
MB 880-77836/1-A	Method Blank	Soluble	Solid	300.0	77836
LCS 880-77836/2-A	Lab Control Sample	Soluble	Solid	300.0	77836

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

HPLC/IC (Continued)

Analysis Batch: 77865 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-77836/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	77836

Analysis Batch: 77873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2487-3	BES24-34 1ft	Soluble	Solid	300.0	77847
885-2487-4	BES24-36 1ft	Soluble	Solid	300.0	77847
885-2487-5	WES24-05 1ft	Soluble	Solid	300.0	77847
885-2487-6	WES24-06 1ft	Soluble	Solid	300.0	77847
885-2487-7	WES24-07 1ft	Soluble	Solid	300.0	77847
885-2487-8	WES24-11 1ft	Soluble	Solid	300.0	77847
MB 880-77847/1-A	Method Blank	Soluble	Solid	300.0	77847
LCS 880-77847/2-A	Lab Control Sample	Soluble	Solid	300.0	77847
LCSD 880-77847/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	77847

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

Client Sample ID: BES24-26 1ft

Lab Sample ID: 885-2487-1

Date Collected: 04/03/24 10:00

Matrix: Solid

Date Received: 04/06/24 11:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8015D		1	3090	JP	EET ALB	04/10/24 11:43
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8021B		1	3091	JP	EET ALB	04/10/24 11:43
Total/NA	Prep	SHAKE			2975	PD	EET ALB	04/09/24 13:09
Total/NA	Analysis	8015D		1	3129	JU	EET ALB	04/10/24 14:29
Soluble	Leach	DI Leach			77836	SA	EET MID	04/10/24 14:12
Soluble	Analysis	300.0		1	77865	SMC	EET MID	04/10/24 22:50

Client Sample ID: BES24-27 1ft

Lab Sample ID: 885-2487-2

Date Collected: 04/03/24 10:15

Matrix: Solid

Date Received: 04/06/24 11:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8015D		1	3090	JP	EET ALB	04/10/24 12:06
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8021B		1	3091	JP	EET ALB	04/10/24 12:06
Total/NA	Prep	SHAKE			2975	PD	EET ALB	04/09/24 13:09
Total/NA	Analysis	8015D		1	3129	JU	EET ALB	04/10/24 14:41
Soluble	Leach	DI Leach			77836	SA	EET MID	04/10/24 14:12
Soluble	Analysis	300.0		1	77865	SMC	EET MID	04/10/24 22:56

Client Sample ID: BES24-34 1ft

Lab Sample ID: 885-2487-3

Date Collected: 04/03/24 12:00

Matrix: Solid

Date Received: 04/06/24 11:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8015D		1	3090	JP	EET ALB	04/10/24 12:30
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8021B		1	3091	JP	EET ALB	04/10/24 12:30
Total/NA	Prep	SHAKE			2975	PD	EET ALB	04/09/24 13:09
Total/NA	Analysis	8015D		1	3129	JU	EET ALB	04/10/24 14:54
Soluble	Leach	DI Leach			77847	SA	EET MID	04/10/24 14:45
Soluble	Analysis	300.0		1	77873	SMC	EET MID	04/11/24 05:22

Client Sample ID: BES24-36 1ft

Lab Sample ID: 885-2487-4

Date Collected: 04/03/24 12:30

Matrix: Solid

Date Received: 04/06/24 11:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8015D		1	3090	JP	EET ALB	04/10/24 12:53

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

Client Sample ID: BES24-36 1ft

Lab Sample ID: 885-2487-4

Date Collected: 04/03/24 12:30

Matrix: Solid

Date Received: 04/06/24 11:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8021B		1	3091	JP	EET ALB	04/10/24 12:53
Total/NA	Prep	SHAKE			2975	PD	EET ALB	04/09/24 13:09
Total/NA	Analysis	8015D		1	3129	JU	EET ALB	04/10/24 15:06
Soluble	Leach	DI Leach			77847	SA	EET MID	04/10/24 14:45
Soluble	Analysis	300.0		1	77873	SMC	EET MID	04/11/24 05:41

Client Sample ID: WES24-05 1ft

Lab Sample ID: 885-2487-5

Date Collected: 04/03/24 12:45

Matrix: Solid

Date Received: 04/06/24 11:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8015D		1	3090	JP	EET ALB	04/10/24 13:16
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8021B		1	3091	JP	EET ALB	04/10/24 13:16
Total/NA	Prep	SHAKE			2975	PD	EET ALB	04/09/24 13:09
Total/NA	Analysis	8015D		1	3129	JU	EET ALB	04/10/24 15:19
Soluble	Leach	DI Leach			77847	SA	EET MID	04/10/24 14:45
Soluble	Analysis	300.0		1	77873	SMC	EET MID	04/11/24 05:47

Client Sample ID: WES24-06 1ft

Lab Sample ID: 885-2487-6

Date Collected: 04/03/24 13:00

Matrix: Solid

Date Received: 04/06/24 11:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8015D		1	3090	JP	EET ALB	04/10/24 13:40
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8021B		1	3091	JP	EET ALB	04/10/24 13:40
Total/NA	Prep	SHAKE			2975	PD	EET ALB	04/09/24 13:09
Total/NA	Analysis	8015D		1	3129	JU	EET ALB	04/10/24 15:31
Soluble	Leach	DI Leach			77847	SA	EET MID	04/10/24 14:45
Soluble	Analysis	300.0		5	77873	SMC	EET MID	04/11/24 05:53

Client Sample ID: WES24-07 1ft

Lab Sample ID: 885-2487-7

Date Collected: 04/03/24 13:15

Matrix: Solid

Date Received: 04/06/24 11:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8015D		1	3090	JP	EET ALB	04/10/24 14:03
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8021B		1	3091	JP	EET ALB	04/10/24 14:03

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

Client Sample ID: WES24-07 1ft
Date Collected: 04/03/24 13:15
Date Received: 04/06/24 11:37

Lab Sample ID: 885-2487-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			2975	PD	EET ALB	04/09/24 13:09
Total/NA	Analysis	8015D		1	3129	JU	EET ALB	04/10/24 15:44
Soluble	Leach	DI Leach			77847	SA	EET MID	04/10/24 14:45
Soluble	Analysis	300.0		5	77873	SMC	EET MID	04/11/24 06:00

Client Sample ID: WES24-11 1ft
Date Collected: 04/03/24 13:30
Date Received: 04/06/24 11:37

Lab Sample ID: 885-2487-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8015D		1	3090	JP	EET ALB	04/10/24 14:27
Total/NA	Prep	5030C			2924	JP	EET ALB	04/08/24 15:32
Total/NA	Analysis	8021B		1	3091	JP	EET ALB	04/10/24 14:27
Total/NA	Prep	SHAKE			2975	PD	EET ALB	04/09/24 13:09
Total/NA	Analysis	8015D		1	3129	JU	EET ALB	04/10/24 15:56
Soluble	Leach	DI Leach			77847	SA	EET MID	04/10/24 14:45
Soluble	Analysis	300.0		5	77873	SMC	EET MID	04/11/24 06:06

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2487-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total
Oregon	NELAP	NM100001	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24
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		Solid	Chloride

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-2487-1

Login Number: 2487

List Number: 1

Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

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

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-2487-1

Login Number: 2487
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 04/10/24 01:43 PM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

Mis Amigos

JOB NUMBER

885-2619-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109



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

Client: Vertex
Project/Site: Mis Amigos

Laboratory Job ID: 885-2619-1

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Definitions/Glossary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

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
Project: Mis Amigos

Job ID: 885-2619-1

Job ID: 885-2619-1

Eurofins Albuquerque

Job Narrative 885-2619-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt

The samples were received on 4/10/2024 7:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C.

Gasoline Range Organics

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

GC VOA

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

Diesel Range Organics

Method 8015D_DRO: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 885-3047 and analytical batch 885-3182 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

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

HPLC/IC

Method 300_ORGFM_28D - Soluble: The Chloride matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-78020 and analytical batch 880-78093 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.

BES24-35 2ft (885-2619-1)

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

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

Client Sample ID: BES24-35 2ft

Lab Sample ID: 885-2619-1

Date Collected: 04/04/24 10:00

Matrix: Solid

Date Received: 04/10/24 07:55

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/10/24 12:54	04/11/24 18:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		15 - 244			04/10/24 12:54	04/11/24 18:54	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/10/24 12:54	04/11/24 18:54	1
Ethylbenzene	ND		0.050	mg/Kg		04/10/24 12:54	04/11/24 18:54	1
Toluene	ND		0.050	mg/Kg		04/10/24 12:54	04/11/24 18:54	1
Xylenes, Total	ND		0.10	mg/Kg		04/10/24 12:54	04/11/24 18:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		39 - 146			04/10/24 12:54	04/11/24 18:54	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4	mg/Kg		04/10/24 14:37	04/11/24 12:37	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		04/10/24 14:37	04/11/24 12:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	100		62 - 134			04/10/24 14:37	04/11/24 12:37	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	200		5.0	mg/Kg			04/13/24 06:55	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

Client Sample ID: BES24-28 2ft

Lab Sample ID: 885-2619-2

Date Collected: 04/04/24 10:15

Matrix: Solid

Date Received: 04/10/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/10/24 12:54	04/11/24 20:04	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	99		15 - 244			04/10/24 12:54	04/11/24 20:04	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.025	mg/Kg		04/10/24 12:54	04/11/24 20:04	1	
Ethylbenzene	ND		0.050	mg/Kg		04/10/24 12:54	04/11/24 20:04	1	
Toluene	ND		0.050	mg/Kg		04/10/24 12:54	04/11/24 20:04	1	
Xylenes, Total	ND		0.099	mg/Kg		04/10/24 12:54	04/11/24 20:04	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	83		39 - 146			04/10/24 12:54	04/11/24 20:04	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		8.7	mg/Kg		04/10/24 14:37	04/11/24 13:01	1	
Motor Oil Range Organics [C28-C40]	ND		44	mg/Kg		04/10/24 14:37	04/11/24 13:01	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	96		62 - 134			04/10/24 14:37	04/11/24 13:01	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	430		5.0	mg/Kg			04/13/24 01:42	1	

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

Client Sample ID: BES24-29 2ft

Lab Sample ID: 885-2619-3

Date Collected: 04/04/24 10:45

Matrix: Solid

Date Received: 04/10/24 07:55

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8	mg/Kg		04/10/24 12:54	04/11/24 21:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		15 - 244			04/10/24 12:54	04/11/24 21:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/10/24 12:54	04/11/24 21:15	1
Ethylbenzene	ND		0.048	mg/Kg		04/10/24 12:54	04/11/24 21:15	1
Toluene	ND		0.048	mg/Kg		04/10/24 12:54	04/11/24 21:15	1
Xylenes, Total	ND		0.095	mg/Kg		04/10/24 12:54	04/11/24 21:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		39 - 146			04/10/24 12:54	04/11/24 21:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0	mg/Kg		04/10/24 14:37	04/11/24 13:25	1
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		04/10/24 14:37	04/11/24 13:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	94		62 - 134			04/10/24 14:37	04/11/24 13:25	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	420		5.0	mg/Kg			04/13/24 01:48	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

Client Sample ID: BES24-31 2ft

Lab Sample ID: 885-2619-4

Date Collected: 04/04/24 11:00

Matrix: Solid

Date Received: 04/10/24 07:55

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/10/24 12:54	04/11/24 21:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		15 - 244			04/10/24 12:54	04/11/24 21:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/10/24 12:54	04/11/24 21:39	1
Ethylbenzene	ND		0.049	mg/Kg		04/10/24 12:54	04/11/24 21:39	1
Toluene	ND		0.049	mg/Kg		04/10/24 12:54	04/11/24 21:39	1
Xylenes, Total	ND		0.098	mg/Kg		04/10/24 12:54	04/11/24 21:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		39 - 146			04/10/24 12:54	04/11/24 21:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.0	mg/Kg		04/10/24 14:37	04/11/24 13:49	1
Motor Oil Range Organics [C28-C40]	ND		45	mg/Kg		04/10/24 14:37	04/11/24 13:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	95		62 - 134			04/10/24 14:37	04/11/24 13:49	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	200		5.0	mg/Kg			04/13/24 01:55	1

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

Client Sample ID: BES24-32 2ft

Lab Sample ID: 885-2619-5

Date Collected: 04/04/24 11:30

Matrix: Solid

Date Received: 04/10/24 07:55

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg		04/10/24 12:54	04/11/24 22:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		15 - 244			04/10/24 12:54	04/11/24 22:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/10/24 12:54	04/11/24 22:02	1
Ethylbenzene	ND		0.047	mg/Kg		04/10/24 12:54	04/11/24 22:02	1
Toluene	ND		0.047	mg/Kg		04/10/24 12:54	04/11/24 22:02	1
Xylenes, Total	ND		0.095	mg/Kg		04/10/24 12:54	04/11/24 22:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		39 - 146			04/10/24 12:54	04/11/24 22:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.1	mg/Kg		04/10/24 14:37	04/11/24 19:01	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/10/24 14:37	04/11/24 19:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	118		62 - 134			04/10/24 14:37	04/11/24 19:01	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	320		5.0	mg/Kg			04/13/24 02:01	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

Client Sample ID: BES24-30 2.25ft

Lab Sample ID: 885-2619-6

Date Collected: 04/04/24 15:00

Matrix: Solid

Date Received: 04/10/24 07:55

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics [C6 - C10]	ND		4.7	mg/Kg	-	04/10/24 12:54	04/11/24 22:26	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	104		15 - 244			04/10/24 12:54	04/11/24 22:26	1	
Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg	-	04/10/24 12:54	04/11/24 22:26	1	
Ethylbenzene	ND		0.047	mg/Kg	-	04/10/24 12:54	04/11/24 22:26	1	
Toluene	ND		0.047	mg/Kg	-	04/10/24 12:54	04/11/24 22:26	1	
Xylenes, Total	ND		0.094	mg/Kg	-	04/10/24 12:54	04/11/24 22:26	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	87		39 - 146			04/10/24 12:54	04/11/24 22:26	1	
Method: SW846 8015D - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		9.2	mg/Kg	-	04/10/24 14:37	04/11/24 19:26	1	
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg	-	04/10/24 14:37	04/11/24 19:26	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	98		62 - 134			04/10/24 14:37	04/11/24 19:26	1	
Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	250		5.0	mg/Kg	-		04/13/24 02:07	1	

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

Client Sample ID: BES24-33 3ft

Lab Sample ID: 885-2619-7

Date Collected: 04/04/24 15:15

Matrix: Solid

Date Received: 04/10/24 07:55

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.9	mg/Kg		04/10/24 12:54	04/11/24 22:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		15 - 244			04/10/24 12:54	04/11/24 22:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		04/10/24 12:54	04/11/24 22:50	1
Ethylbenzene	ND		0.049	mg/Kg		04/10/24 12:54	04/11/24 22:50	1
Toluene	ND		0.049	mg/Kg		04/10/24 12:54	04/11/24 22:50	1
Xylenes, Total	ND		0.098	mg/Kg		04/10/24 12:54	04/11/24 22:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		39 - 146			04/10/24 12:54	04/11/24 22:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.2	mg/Kg		04/10/24 14:37	04/11/24 19:50	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		04/10/24 14:37	04/11/24 19:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	110		62 - 134			04/10/24 14:37	04/11/24 19:50	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	830		5.0	mg/Kg			04/13/24 02:14	1

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

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

Lab Sample ID: MB 885-3040/1-A

Matrix: Solid

Analysis Batch: 3180

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3040

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0	mg/Kg		04/10/24 12:54	04/11/24 15:46	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		15 - 244			04/10/24 12:54	04/11/24 15:46	1

Lab Sample ID: LCS 885-3040/2-A

Matrix: Solid

Analysis Batch: 3180

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	25.0	26.2		mg/Kg		105	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	208		15 - 244				

Lab Sample ID: 885-2619-1 MS

Matrix: Solid

Analysis Batch: 3180

Client Sample ID: BES24-35 2ft

Prep Type: Total/NA

Prep Batch: 3040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics [C6 - C10]	ND		24.8	26.1		mg/Kg		105	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	214		15 - 244						

Lab Sample ID: 885-2619-1 MSD

Matrix: Solid

Analysis Batch: 3180

Client Sample ID: BES24-35 2ft

Prep Type: Total/NA

Prep Batch: 3040

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	ND		25.0	26.2		mg/Kg		105	70 - 130	0	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	214		15 - 244								

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-3040/1-A

Matrix: Solid

Analysis Batch: 3181

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3040

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025	mg/Kg		04/10/24 12:54	04/11/24 15:46	1
Ethylbenzene	ND		0.050	mg/Kg		04/10/24 12:54	04/11/24 15:46	1
Toluene	ND		0.050	mg/Kg		04/10/24 12:54	04/11/24 15:46	1

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

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

Lab Sample ID: MB 885-3040/1-A

Matrix: Solid

Analysis Batch: 3181

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3040

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		0.10	mg/Kg		04/10/24 12:54	04/11/24 15:46	1
Surrogate	%Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		39 - 146			04/10/24 12:54	04/11/24 15:46	1

Lab Sample ID: LCS 885-3040/3-A

Matrix: Solid

Analysis Batch: 3181

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	1.00	0.777		mg/Kg		78	70 - 130
Ethylbenzene	1.00	0.811		mg/Kg		81	70 - 130
m,p-Xylene	2.00	1.66		mg/Kg		83	70 - 130
o-Xylene	1.00	0.808		mg/Kg		81	70 - 130
Toluene	1.00	0.794		mg/Kg		79	70 - 130
Xylenes, Total	3.00	2.47		mg/Kg		82	70 - 130
Surrogate	%Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	86		39 - 146				

Lab Sample ID: 885-2619-2 MS

Matrix: Solid

Analysis Batch: 3181

Client Sample ID: BES24-28 2ft

Prep Type: Total/NA

Prep Batch: 3040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		0.991	0.770		mg/Kg		78	70 - 130
Ethylbenzene	ND		0.991	0.846		mg/Kg		85	70 - 130
m,p-Xylene	ND		1.98	1.72		mg/Kg		87	70 - 130
o-Xylene	ND		0.991	0.839		mg/Kg		85	70 - 130
Toluene	ND		0.991	0.812		mg/Kg		82	70 - 130
Xylenes, Total	ND		2.97	2.56		mg/Kg		86	70 - 130
Surrogate	%Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	89		39 - 146						

Lab Sample ID: 885-2619-2 MSD

Matrix: Solid

Analysis Batch: 3181

Client Sample ID: BES24-28 2ft

Prep Type: Total/NA

Prep Batch: 3040

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	ND		0.989	0.710		mg/Kg		72	70 - 130	8	20
Ethylbenzene	ND		0.989	0.732		mg/Kg		74	70 - 130	14	20
m,p-Xylene	ND		1.98	1.50		mg/Kg		76	70 - 130	14	20
o-Xylene	ND		0.989	0.732		mg/Kg		74	70 - 130	14	20
Toluene	ND		0.989	0.723		mg/Kg		73	70 - 130	12	20
Xylenes, Total	ND		2.97	2.23		mg/Kg		75	70 - 130	14	20

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

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

Lab Sample ID: 885-2619-2 MSD
Matrix: Solid
Analysis Batch: 3181

Client Sample ID: BES24-28 2ft
Prep Type: Total/NA
Prep Batch: 3040

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		39 - 146

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

Lab Sample ID: MB 885-3047/1-A
Matrix: Solid
Analysis Batch: 3182

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3047

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		04/10/24 14:37	04/11/24 11:49	1
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		04/10/24 14:37	04/11/24 11:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	94		62 - 134	04/10/24 14:37	04/11/24 11:49	1

Lab Sample ID: LCS 885-3047/2-A
Matrix: Solid
Analysis Batch: 3182

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3047

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	50.0	50.6		mg/Kg		101	60 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Di-n-octyl phthalate (Surr)	96		62 - 134

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-78019/1-A
Matrix: Solid
Analysis Batch: 78083

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		5.0	mg/Kg			04/12/24 23:10	1

Lab Sample ID: LCS 880-78019/2-A
Matrix: Solid
Analysis Batch: 78083

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	252		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-78019/3-A
Matrix: Solid
Analysis Batch: 78083

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	250		mg/Kg		100	90 - 110	1	20

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-78020/1-A
Matrix: Solid
Analysis Batch: 78093

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		5.0	mg/Kg			04/13/24 04:35	1

Lab Sample ID: LCS 880-78020/2-A
Matrix: Solid
Analysis Batch: 78093

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	272		mg/Kg		109	90 - 110

Lab Sample ID: LCSD 880-78020/3-A
Matrix: Solid
Analysis Batch: 78093

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	272		mg/Kg		109	90 - 110	0	20

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

GC VOA

Prep Batch: 3040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2619-1	BES24-35 2ft	Total/NA	Solid	5030C	
885-2619-2	BES24-28 2ft	Total/NA	Solid	5030C	
885-2619-3	BES24-29 2ft	Total/NA	Solid	5030C	
885-2619-4	BES24-31 2ft	Total/NA	Solid	5030C	
885-2619-5	BES24-32 2ft	Total/NA	Solid	5030C	
885-2619-6	BES24-30 2.25ft	Total/NA	Solid	5030C	
885-2619-7	BES24-33 3ft	Total/NA	Solid	5030C	
MB 885-3040/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-3040/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-3040/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-2619-1 MS	BES24-35 2ft	Total/NA	Solid	5030C	
885-2619-1 MSD	BES24-35 2ft	Total/NA	Solid	5030C	
885-2619-2 MS	BES24-28 2ft	Total/NA	Solid	5030C	
885-2619-2 MSD	BES24-28 2ft	Total/NA	Solid	5030C	

Analysis Batch: 3180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2619-1	BES24-35 2ft	Total/NA	Solid	8015D	3040
885-2619-2	BES24-28 2ft	Total/NA	Solid	8015D	3040
885-2619-3	BES24-29 2ft	Total/NA	Solid	8015D	3040
885-2619-4	BES24-31 2ft	Total/NA	Solid	8015D	3040
885-2619-5	BES24-32 2ft	Total/NA	Solid	8015D	3040
885-2619-6	BES24-30 2.25ft	Total/NA	Solid	8015D	3040
885-2619-7	BES24-33 3ft	Total/NA	Solid	8015D	3040
MB 885-3040/1-A	Method Blank	Total/NA	Solid	8015D	3040
LCS 885-3040/2-A	Lab Control Sample	Total/NA	Solid	8015D	3040
885-2619-1 MS	BES24-35 2ft	Total/NA	Solid	8015D	3040
885-2619-1 MSD	BES24-35 2ft	Total/NA	Solid	8015D	3040

Analysis Batch: 3181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2619-1	BES24-35 2ft	Total/NA	Solid	8021B	3040
885-2619-2	BES24-28 2ft	Total/NA	Solid	8021B	3040
885-2619-3	BES24-29 2ft	Total/NA	Solid	8021B	3040
885-2619-4	BES24-31 2ft	Total/NA	Solid	8021B	3040
885-2619-5	BES24-32 2ft	Total/NA	Solid	8021B	3040
885-2619-6	BES24-30 2.25ft	Total/NA	Solid	8021B	3040
885-2619-7	BES24-33 3ft	Total/NA	Solid	8021B	3040
MB 885-3040/1-A	Method Blank	Total/NA	Solid	8021B	3040
LCS 885-3040/3-A	Lab Control Sample	Total/NA	Solid	8021B	3040
885-2619-2 MS	BES24-28 2ft	Total/NA	Solid	8021B	3040
885-2619-2 MSD	BES24-28 2ft	Total/NA	Solid	8021B	3040

GC Semi VOA

Prep Batch: 3047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2619-1	BES24-35 2ft	Total/NA	Solid	SHAKE	
885-2619-2	BES24-28 2ft	Total/NA	Solid	SHAKE	
885-2619-3	BES24-29 2ft	Total/NA	Solid	SHAKE	
885-2619-4	BES24-31 2ft	Total/NA	Solid	SHAKE	

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QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

GC Semi VOA (Continued)

Prep Batch: 3047 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2619-5	BES24-32 2ft	Total/NA	Solid	SHAKE	
885-2619-6	BES24-30 2.25ft	Total/NA	Solid	SHAKE	
885-2619-7	BES24-33 3ft	Total/NA	Solid	SHAKE	
MB 885-3047/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-3047/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 3182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2619-1	BES24-35 2ft	Total/NA	Solid	8015D	3047
885-2619-2	BES24-28 2ft	Total/NA	Solid	8015D	3047
885-2619-3	BES24-29 2ft	Total/NA	Solid	8015D	3047
885-2619-4	BES24-31 2ft	Total/NA	Solid	8015D	3047
885-2619-5	BES24-32 2ft	Total/NA	Solid	8015D	3047
885-2619-6	BES24-30 2.25ft	Total/NA	Solid	8015D	3047
885-2619-7	BES24-33 3ft	Total/NA	Solid	8015D	3047
MB 885-3047/1-A	Method Blank	Total/NA	Solid	8015D	3047
LCS 885-3047/2-A	Lab Control Sample	Total/NA	Solid	8015D	3047

HPLC/IC

Leach Batch: 78019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2619-2	BES24-28 2ft	Soluble	Solid	DI Leach	
885-2619-3	BES24-29 2ft	Soluble	Solid	DI Leach	
885-2619-4	BES24-31 2ft	Soluble	Solid	DI Leach	
885-2619-5	BES24-32 2ft	Soluble	Solid	DI Leach	
885-2619-6	BES24-30 2.25ft	Soluble	Solid	DI Leach	
885-2619-7	BES24-33 3ft	Soluble	Solid	DI Leach	
MB 880-78019/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-78019/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-78019/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 78020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2619-1	BES24-35 2ft	Soluble	Solid	DI Leach	
MB 880-78020/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-78020/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-78020/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 78083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2619-2	BES24-28 2ft	Soluble	Solid	300.0	78019
885-2619-3	BES24-29 2ft	Soluble	Solid	300.0	78019
885-2619-4	BES24-31 2ft	Soluble	Solid	300.0	78019
885-2619-5	BES24-32 2ft	Soluble	Solid	300.0	78019
885-2619-6	BES24-30 2.25ft	Soluble	Solid	300.0	78019
885-2619-7	BES24-33 3ft	Soluble	Solid	300.0	78019
MB 880-78019/1-A	Method Blank	Soluble	Solid	300.0	78019
LCS 880-78019/2-A	Lab Control Sample	Soluble	Solid	300.0	78019
LCSD 880-78019/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	78019

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

HPLC/IC

Analysis Batch: 78093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-2619-1	BES24-35 2ft	Soluble	Solid	300.0	78020
MB 880-78020/1-A	Method Blank	Soluble	Solid	300.0	78020
LCS 880-78020/2-A	Lab Control Sample	Soluble	Solid	300.0	78020
LCSD 880-78020/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	78020

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Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

Client Sample ID: BES24-35 2ft
Date Collected: 04/04/24 10:00
Date Received: 04/10/24 07:55

Lab Sample ID: 885-2619-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3040	JP	EET ALB	04/10/24 12:54
Total/NA	Analysis	8015D		1	3180	JP	EET ALB	04/11/24 18:54
Total/NA	Prep	5030C			3040	JP	EET ALB	04/10/24 12:54
Total/NA	Analysis	8021B		1	3181	JP	EET ALB	04/11/24 18:54
Total/NA	Prep	SHAKE			3047	JU	EET ALB	04/10/24 14:37
Total/NA	Analysis	8015D		1	3182	JU	EET ALB	04/11/24 12:37
Soluble	Leach	DI Leach			78020	SMC	EET MID	04/12/24 10:27
Soluble	Analysis	300.0		1	78093	SMC	EET MID	04/13/24 06:55

Client Sample ID: BES24-28 2ft
Date Collected: 04/04/24 10:15
Date Received: 04/10/24 07:55

Lab Sample ID: 885-2619-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3040	JP	EET ALB	04/10/24 12:54
Total/NA	Analysis	8015D		1	3180	JP	EET ALB	04/11/24 20:04
Total/NA	Prep	5030C			3040	JP	EET ALB	04/10/24 12:54
Total/NA	Analysis	8021B		1	3181	JP	EET ALB	04/11/24 20:04
Total/NA	Prep	SHAKE			3047	JU	EET ALB	04/10/24 14:37
Total/NA	Analysis	8015D		1	3182	JU	EET ALB	04/11/24 13:01
Soluble	Leach	DI Leach			78019	SMC	EET MID	04/12/24 10:23
Soluble	Analysis	300.0		1	78083	SMC	EET MID	04/13/24 01:42

Client Sample ID: BES24-29 2ft
Date Collected: 04/04/24 10:45
Date Received: 04/10/24 07:55

Lab Sample ID: 885-2619-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3040	JP	EET ALB	04/10/24 12:54
Total/NA	Analysis	8015D		1	3180	JP	EET ALB	04/11/24 21:15
Total/NA	Prep	5030C			3040	JP	EET ALB	04/10/24 12:54
Total/NA	Analysis	8021B		1	3181	JP	EET ALB	04/11/24 21:15
Total/NA	Prep	SHAKE			3047	JU	EET ALB	04/10/24 14:37
Total/NA	Analysis	8015D		1	3182	JU	EET ALB	04/11/24 13:25
Soluble	Leach	DI Leach			78019	SMC	EET MID	04/12/24 10:23
Soluble	Analysis	300.0		1	78083	SMC	EET MID	04/13/24 01:48

Client Sample ID: BES24-31 2ft
Date Collected: 04/04/24 11:00
Date Received: 04/10/24 07:55

Lab Sample ID: 885-2619-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3040	JP	EET ALB	04/10/24 12:54
Total/NA	Analysis	8015D		1	3180	JP	EET ALB	04/11/24 21:39

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Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

Client Sample ID: BES24-31 2ft
Date Collected: 04/04/24 11:00
Date Received: 04/10/24 07:55

Lab Sample ID: 885-2619-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3040	JP	EET ALB	04/10/24 12:54
Total/NA	Analysis	8021B		1	3181	JP	EET ALB	04/11/24 21:39
Total/NA	Prep	SHAKE			3047	JU	EET ALB	04/10/24 14:37
Total/NA	Analysis	8015D		1	3182	JU	EET ALB	04/11/24 13:49
Soluble	Leach	DI Leach			78019	SMC	EET MID	04/12/24 10:23
Soluble	Analysis	300.0		1	78083	SMC	EET MID	04/13/24 01:55

Client Sample ID: BES24-32 2ft
Date Collected: 04/04/24 11:30
Date Received: 04/10/24 07:55

Lab Sample ID: 885-2619-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3040	JP	EET ALB	04/10/24 12:54
Total/NA	Analysis	8015D		1	3180	JP	EET ALB	04/11/24 22:02
Total/NA	Prep	5030C			3040	JP	EET ALB	04/10/24 12:54
Total/NA	Analysis	8021B		1	3181	JP	EET ALB	04/11/24 22:02
Total/NA	Prep	SHAKE			3047	JU	EET ALB	04/10/24 14:37
Total/NA	Analysis	8015D		1	3182	JU	EET ALB	04/11/24 19:01
Soluble	Leach	DI Leach			78019	SMC	EET MID	04/12/24 10:23
Soluble	Analysis	300.0		1	78083	SMC	EET MID	04/13/24 02:01

Client Sample ID: BES24-30 2.25ft
Date Collected: 04/04/24 15:00
Date Received: 04/10/24 07:55

Lab Sample ID: 885-2619-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3040	JP	EET ALB	04/10/24 12:54
Total/NA	Analysis	8015D		1	3180	JP	EET ALB	04/11/24 22:26
Total/NA	Prep	5030C			3040	JP	EET ALB	04/10/24 12:54
Total/NA	Analysis	8021B		1	3181	JP	EET ALB	04/11/24 22:26
Total/NA	Prep	SHAKE			3047	JU	EET ALB	04/10/24 14:37
Total/NA	Analysis	8015D		1	3182	JU	EET ALB	04/11/24 19:26
Soluble	Leach	DI Leach			78019	SMC	EET MID	04/12/24 10:23
Soluble	Analysis	300.0		1	78083	SMC	EET MID	04/13/24 02:07

Client Sample ID: BES24-33 3ft
Date Collected: 04/04/24 15:15
Date Received: 04/10/24 07:55

Lab Sample ID: 885-2619-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			3040	JP	EET ALB	04/10/24 12:54
Total/NA	Analysis	8015D		1	3180	JP	EET ALB	04/11/24 22:50
Total/NA	Prep	5030C			3040	JP	EET ALB	04/10/24 12:54
Total/NA	Analysis	8021B		1	3181	JP	EET ALB	04/11/24 22:50

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

Client Sample ID: BES24-33 3ft

Lab Sample ID: 885-2619-7

Date Collected: 04/04/24 15:15

Matrix: Solid

Date Received: 04/10/24 07:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	SHAKE			3047	JU	EET ALB	04/10/24 14:37
Total/NA	Analysis	8015D		1	3182	JU	EET ALB	04/11/24 19:50
Soluble	Leach	DI Leach			78019	SMC	EET MID	04/12/24 10:23
Soluble	Analysis	300.0		1	78083	SMC	EET MID	04/13/24 02:14

Laboratory References:
EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975
EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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Accreditation/Certification Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-2619-1

Laboratory: Eurofins Albuquerque

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

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total
Oregon	NELAP	NM100001	02-26-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24
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		Solid	Chloride

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-2619-1

Login Number: 2619
List Number: 1
Creator: Casarrubias, Tracy

List Source: Eurofins Albuquerque

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

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-2619-1

Login Number: 2619

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 04/12/24 10:57 AM

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



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 6/10/2024 10:23:55 AM

JOB DESCRIPTION

Mis Amigos

JOB NUMBER

885-5415-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.
Released to Imaging: 8/20/2024 1:31:08 PM



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
6/10/2024 10:23:55 AM

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

Client: Vertex
Project/Site: Mis Amigos

Laboratory Job ID: 885-5415-1

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Definitions/Glossary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-5415-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Glossary

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

Case Narrative

Client: Vertex
Project: Mis Amigos

Job ID: 885-5415-1

Job ID: 885-5415-1Eurofins Albuquerque

Job Narrative
885-5415-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

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

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

Receipt

The samples were received on 6/1/2024 7:50 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 0.1°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 laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 885-6045 and analytical batch 885-6136 recovered outside control limits for the following analytes: Diesel Range Organics [C10-C28]. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. Samples with DRO hits are being re-extracted and will not be reported.

Method 8015D_DRO: The continuing calibration verification (CCV) associated with batch 885-6136 recovered outside acceptance criteria, low biased, for Di-n-octyl phthalate (Surr). Samples with Di-n-octyl phthalate (Surr) in normal range will still be reported. The following sample is associated (CCV 885-6136/1).

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.

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-5415-1

Client Sample ID: WES24-05 1ft

Lab Sample ID: 885-5415-1

Date Collected: 05/30/24 09:00

Matrix: Solid

Date Received: 06/01/24 07:50

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		06/03/24 12:21	06/07/24 00:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		35 - 166			06/03/24 12:21	06/07/24 00:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		06/03/24 12:21	06/07/24 00:49	1
Ethylbenzene	ND		0.048	mg/Kg		06/03/24 12:21	06/07/24 00:49	1
Toluene	ND		0.048	mg/Kg		06/03/24 12:21	06/07/24 00:49	1
Xylenes, Total	ND		0.095	mg/Kg		06/03/24 12:21	06/07/24 00:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		48 - 145			06/03/24 12:21	06/07/24 00:49	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	*+	9.1	mg/Kg		06/03/24 16:14	06/04/24 23:12	1
Motor Oil Range Organics [C28-C40]	ND		46	mg/Kg		06/03/24 16:14	06/04/24 23:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	96		62 - 134			06/03/24 16:14	06/04/24 23:12	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	150		60	mg/Kg		06/04/24 08:18	06/04/24 11:04	20

Eurofins Albuquerque

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-5415-1

Client Sample ID: WES24-12 1ft

Lab Sample ID: 885-5415-2

Date Collected: 05/30/24 12:00

Matrix: Solid

Date Received: 06/01/24 07:50

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		06/03/24 12:21	06/07/24 01:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		35 - 166			06/03/24 12:21	06/07/24 01:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		06/03/24 12:21	06/07/24 01:13	1
Ethylbenzene	ND		0.048	mg/Kg		06/03/24 12:21	06/07/24 01:13	1
Toluene	ND		0.048	mg/Kg		06/03/24 12:21	06/07/24 01:13	1
Xylenes, Total	ND		0.096	mg/Kg		06/03/24 12:21	06/07/24 01:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		48 - 145			06/03/24 12:21	06/07/24 01:13	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	*+	8.6	mg/Kg		06/03/24 16:14	06/04/24 23:36	1
Motor Oil Range Organics [C28-C40]	ND		43	mg/Kg		06/03/24 16:14	06/04/24 23:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	99		62 - 134			06/03/24 16:14	06/04/24 23:36	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	160		60	mg/Kg		06/04/24 08:18	06/04/24 11:19	20

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-5415-1

Client Sample ID: BES24-27 1ft
Date Collected: 05/30/24 10:00
Date Received: 06/01/24 07:50

Lab Sample ID: 885-5415-3
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		4.8	mg/Kg		06/03/24 12:21	06/07/24 01:36	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	99		35 - 166			06/03/24 12:21	06/07/24 01:36	1	

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.024	mg/Kg		06/03/24 12:21	06/07/24 01:36	1	
Ethylbenzene	ND		0.048	mg/Kg		06/03/24 12:21	06/07/24 01:36	1	
Toluene	ND		0.048	mg/Kg		06/03/24 12:21	06/07/24 01:36	1	
Xylenes, Total	ND		0.096	mg/Kg		06/03/24 12:21	06/07/24 01:36	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	93		48 - 145			06/03/24 12:21	06/07/24 01:36	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	*+	8.5	mg/Kg		06/03/24 16:14	06/05/24 00:01	1	
Motor Oil Range Organics [C28-C40]	ND		43	mg/Kg		06/03/24 16:14	06/05/24 00:01	1	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	104		62 - 134			06/03/24 16:14	06/05/24 00:01	1	

Method: EPA 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	100		60	mg/Kg		06/04/24 08:18	06/04/24 11:34	20	

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-5415-1

Client Sample ID: BES24-30 3ft

Lab Sample ID: 885-5415-4

Date Collected: 05/30/24 11:00

Matrix: Solid

Date Received: 06/01/24 07:50

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		06/03/24 12:21	06/07/24 01:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		35 - 166			06/03/24 12:21	06/07/24 01:59	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024	mg/Kg		06/03/24 12:21	06/07/24 01:59	1
Ethylbenzene	ND		0.048	mg/Kg		06/03/24 12:21	06/07/24 01:59	1
Toluene	ND		0.048	mg/Kg		06/03/24 12:21	06/07/24 01:59	1
Xylenes, Total	ND		0.097	mg/Kg		06/03/24 12:21	06/07/24 01:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		48 - 145			06/03/24 12:21	06/07/24 01:59	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		06/03/24 16:14	06/05/24 00:25	1
Motor Oil Range Organics [C28-C40]	ND		47	mg/Kg		06/03/24 16:14	06/05/24 00:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate (Surr)	102		62 - 134			06/03/24 16:14	06/05/24 00:25	1

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	180		60	mg/Kg		06/04/24 08:18	06/04/24 11:49	20

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-5415-1

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

Lab Sample ID: MB 885-6016/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 6156						Prep Batch: 6016			
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	ND		5.0	mg/Kg		06/03/24 12:21	06/05/24 11:30	1	
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	97		35 - 166			06/03/24 12:21	06/05/24 11:30	1	

Lab Sample ID: LCS 885-6016/2-A						Client Sample ID: Lab Control Sample			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 6156						Prep Batch: 6016			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	25.0	24.3		mg/Kg		97	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	209	S1+	35 - 166						

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-6016/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 6157						Prep Batch: 6016			
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.025	mg/Kg		06/03/24 12:21	06/05/24 11:30	1	
Ethylbenzene	ND		0.050	mg/Kg		06/03/24 12:21	06/05/24 11:30	1	
Toluene	ND		0.050	mg/Kg		06/03/24 12:21	06/05/24 11:30	1	
Xylenes, Total	ND		0.10	mg/Kg		06/03/24 12:21	06/05/24 11:30	1	
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	92		48 - 145			06/03/24 12:21	06/05/24 11:30	1	

Lab Sample ID: LCS 885-6016/3-A						Client Sample ID: Lab Control Sample			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 6157						Prep Batch: 6016			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	1.00	0.894		mg/Kg		89	70 - 130		
Ethylbenzene	1.00	0.869		mg/Kg		87	70 - 130		
m-Xylene & p-Xylene	2.00	1.75		mg/Kg		87	70 - 130		
o-Xylene	1.00	0.849		mg/Kg		85	70 - 130		
Toluene	1.00	0.843		mg/Kg		84	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	96		48 - 145						

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-5415-1

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

Lab Sample ID: MB 885-6045/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 6136						Prep Batch: 6045			
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Diesel Range Organics [C10-C28]	ND		10	mg/Kg		06/03/24 16:14	06/04/24 15:29	1	
Motor Oil Range Organics [C28-C40]	ND		50	mg/Kg		06/03/24 16:14	06/04/24 15:29	1	
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
Di-n-octyl phthalate (Surr)	104		62 - 134			06/03/24 16:14	06/04/24 15:29	1	

Lab Sample ID: LCS 885-6045/2-A						Client Sample ID: Lab Control Sample			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 6136						Prep Batch: 6045			
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]			50.0	70.2	*+	mg/Kg		140	60 - 135
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
Di-n-octyl phthalate (Surr)	134		62 - 134						

Lab Sample ID: 885-5415-4 MS						Client Sample ID: BES24-30 3ft			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 6136						Prep Batch: 6045			
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]	ND	*+	47.7	37.8		mg/Kg		79	44 - 136
Surrogate	MS %Recovery	MS Qualifier	Limits						
Di-n-octyl phthalate (Surr)	82		62 - 134						

Lab Sample ID: 885-5415-4 MSD								Client Sample ID: BES24-30 3ft			
Matrix: Solid								Prep Type: Total/NA			
Analysis Batch: 6136								Prep Batch: 6045			
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	33.0		mg/Kg		72	44 - 136	14	32
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
Di-n-octyl phthalate (Surr)	71		62 - 134								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-6062/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 6133						Prep Batch: 6062			
Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	ND		1.5	mg/Kg		06/04/24 08:18	06/04/24 09:33	1	

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-5415-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 885-6062/2-A				Client Sample ID: Lab Control Sample			
Matrix: Solid				Prep Type: Total/NA			
Analysis Batch: 6133				Prep Batch: 6062			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	15.0	14.2		mg/Kg		95	90 - 110

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-5415-1

GC VOA

Prep Batch: 6016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5415-1	WES24-05 1ft	Total/NA	Solid	5030C	
885-5415-2	WES24-12 1ft	Total/NA	Solid	5030C	
885-5415-3	BES24-27 1ft	Total/NA	Solid	5030C	
885-5415-4	BES24-30 3ft	Total/NA	Solid	5030C	
MB 885-6016/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-6016/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-6016/3-A	Lab Control Sample	Total/NA	Solid	5030C	

Analysis Batch: 6156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-6016/1-A	Method Blank	Total/NA	Solid	8015M/D	6016
LCS 885-6016/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	6016

Analysis Batch: 6157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-6016/1-A	Method Blank	Total/NA	Solid	8021B	6016
LCS 885-6016/3-A	Lab Control Sample	Total/NA	Solid	8021B	6016

Analysis Batch: 6304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5415-1	WES24-05 1ft	Total/NA	Solid	8015M/D	6016
885-5415-2	WES24-12 1ft	Total/NA	Solid	8015M/D	6016
885-5415-3	BES24-27 1ft	Total/NA	Solid	8015M/D	6016
885-5415-4	BES24-30 3ft	Total/NA	Solid	8015M/D	6016

Analysis Batch: 6306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5415-1	WES24-05 1ft	Total/NA	Solid	8021B	6016
885-5415-2	WES24-12 1ft	Total/NA	Solid	8021B	6016
885-5415-3	BES24-27 1ft	Total/NA	Solid	8021B	6016
885-5415-4	BES24-30 3ft	Total/NA	Solid	8021B	6016

GC Semi VOA

Prep Batch: 6045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5415-1	WES24-05 1ft	Total/NA	Solid	SHAKE	
885-5415-2	WES24-12 1ft	Total/NA	Solid	SHAKE	
885-5415-3	BES24-27 1ft	Total/NA	Solid	SHAKE	
885-5415-4	BES24-30 3ft	Total/NA	Solid	SHAKE	
MB 885-6045/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-6045/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	
885-5415-4 MS	BES24-30 3ft	Total/NA	Solid	SHAKE	
885-5415-4 MSD	BES24-30 3ft	Total/NA	Solid	SHAKE	

Analysis Batch: 6136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5415-1	WES24-05 1ft	Total/NA	Solid	8015M/D	6045
885-5415-2	WES24-12 1ft	Total/NA	Solid	8015M/D	6045
885-5415-3	BES24-27 1ft	Total/NA	Solid	8015M/D	6045
885-5415-4	BES24-30 3ft	Total/NA	Solid	8015M/D	6045

Eurofins Albuquerque

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-5415-1

GC Semi VOA (Continued)

Analysis Batch: 6136 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 885-6045/1-A	Method Blank	Total/NA	Solid	8015M/D	6045
LCS 885-6045/2-A	Lab Control Sample	Total/NA	Solid	8015M/D	6045
885-5415-4 MS	BES24-30 3ft	Total/NA	Solid	8015M/D	6045
885-5415-4 MSD	BES24-30 3ft	Total/NA	Solid	8015M/D	6045

HPLC/IC

Prep Batch: 6062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5415-1	WES24-05 1ft	Total/NA	Solid	300_Prep	
885-5415-2	WES24-12 1ft	Total/NA	Solid	300_Prep	
885-5415-3	BES24-27 1ft	Total/NA	Solid	300_Prep	
885-5415-4	BES24-30 3ft	Total/NA	Solid	300_Prep	
MB 885-6062/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-6062/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 6133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-5415-1	WES24-05 1ft	Total/NA	Solid	300.0	6062
885-5415-2	WES24-12 1ft	Total/NA	Solid	300.0	6062
885-5415-3	BES24-27 1ft	Total/NA	Solid	300.0	6062
885-5415-4	BES24-30 3ft	Total/NA	Solid	300.0	6062
MB 885-6062/1-A	Method Blank	Total/NA	Solid	300.0	6062
LCS 885-6062/2-A	Lab Control Sample	Total/NA	Solid	300.0	6062

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-5415-1

Client Sample ID: WES24-05 1ft
Date Collected: 05/30/24 09:00
Date Received: 06/01/24 07:50

Lab Sample ID: 885-5415-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			6016	AT	EET ALB	06/03/24 12:21
Total/NA	Analysis	8015M/D		1	6304	JP	EET ALB	06/07/24 00:49
Total/NA	Prep	5030C			6016	AT	EET ALB	06/03/24 12:21
Total/NA	Analysis	8021B		1	6306	JP	EET ALB	06/07/24 00:49
Total/NA	Prep	SHAKE			6045	DH	EET ALB	06/03/24 16:14
Total/NA	Analysis	8015M/D		1	6136	JU	EET ALB	06/04/24 23:12
Total/NA	Prep	300_Prep			6062	RC	EET ALB	06/04/24 08:18
Total/NA	Analysis	300.0		20	6133	SS	EET ALB	06/04/24 11:04

Client Sample ID: WES24-12 1ft
Date Collected: 05/30/24 12:00
Date Received: 06/01/24 07:50

Lab Sample ID: 885-5415-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			6016	AT	EET ALB	06/03/24 12:21
Total/NA	Analysis	8015M/D		1	6304	JP	EET ALB	06/07/24 01:13
Total/NA	Prep	5030C			6016	AT	EET ALB	06/03/24 12:21
Total/NA	Analysis	8021B		1	6306	JP	EET ALB	06/07/24 01:13
Total/NA	Prep	SHAKE			6045	DH	EET ALB	06/03/24 16:14
Total/NA	Analysis	8015M/D		1	6136	JU	EET ALB	06/04/24 23:36
Total/NA	Prep	300_Prep			6062	RC	EET ALB	06/04/24 08:18
Total/NA	Analysis	300.0		20	6133	SS	EET ALB	06/04/24 11:19

Client Sample ID: BES24-27 1ft
Date Collected: 05/30/24 10:00
Date Received: 06/01/24 07:50

Lab Sample ID: 885-5415-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			6016	AT	EET ALB	06/03/24 12:21
Total/NA	Analysis	8015M/D		1	6304	JP	EET ALB	06/07/24 01:36
Total/NA	Prep	5030C			6016	AT	EET ALB	06/03/24 12:21
Total/NA	Analysis	8021B		1	6306	JP	EET ALB	06/07/24 01:36
Total/NA	Prep	SHAKE			6045	DH	EET ALB	06/03/24 16:14
Total/NA	Analysis	8015M/D		1	6136	JU	EET ALB	06/05/24 00:01
Total/NA	Prep	300_Prep			6062	RC	EET ALB	06/04/24 08:18
Total/NA	Analysis	300.0		20	6133	SS	EET ALB	06/04/24 11:34

Client Sample ID: BES24-30 3ft
Date Collected: 05/30/24 11:00
Date Received: 06/01/24 07:50

Lab Sample ID: 885-5415-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			6016	AT	EET ALB	06/03/24 12:21
Total/NA	Analysis	8015M/D		1	6304	JP	EET ALB	06/07/24 01:59

Eurofins Albuquerque

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-5415-1

Client Sample ID: BES24-30 3ft
Date Collected: 05/30/24 11:00
Date Received: 06/01/24 07:50

Lab Sample ID: 885-5415-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			6016	AT	EET ALB	06/03/24 12:21
Total/NA	Analysis	8021B		1	6306	JP	EET ALB	06/07/24 01:59
Total/NA	Prep	SHAKE			6045	DH	EET ALB	06/03/24 16:14
Total/NA	Analysis	8015M/D		1	6136	JU	EET ALB	06/05/24 00:25
Total/NA	Prep	300_Prep			6062	RC	EET ALB	06/04/24 08:18
Total/NA	Analysis	300.0		20	6133	SS	EET ALB	06/04/24 11:49

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

Accreditation/Certification Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 885-5415-1

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 Vertex(XTO Energy)

Turn-Around Time

☒ Standard ☒ Rush 5 Day
 Project Name Mis Amigos

Mailing Address On File

Project # 24E-05219

Phone # On File

email or Fax# Scarttar@vertex.ca

QA/QC Package

☐ Standard ☐ Level 4 (Full Validation)
Accreditation ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Project Manager Sally Carttar

Sampler Wyatt Wadleigh

On Ice: ☐ Yes ☐ No# of Coolers: 1Cooler Temp (including CF): 0-2-0-1-50-1

Container Type and #

Preservative Type

HEAL No.

Date Time Matrix Sample Name

05/30/24 9 00 Soil WES24-05 1 ft

05/30/24 12 00 Soil WES24-12 1 ft

05/30/24 10 00 Soil BES24-27 1ft

05/30/24 11 00 Soil BES24-30 3ft

**HALL ENVIRONMENTAL
ANALYSIS LAB**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87

Tel 505-345-3975 Fax 505-345-410 885-5415 COC



Analysis Request

BTX / 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

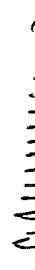
Cl, F, Br, NO₃, NO₂, PO₄, SO₄

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

Received by Via Date Time


 5/31/24 9:15

Received by Via Date Time


 6/1/24 7:50

Remarks Please CC wwadleigh@vertex.ca

Cost center Number # 1055621001

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 noted on the analytical report.

Login Sample Receipt Checklist

Client: Vertex

Job Number: 885-5415-1

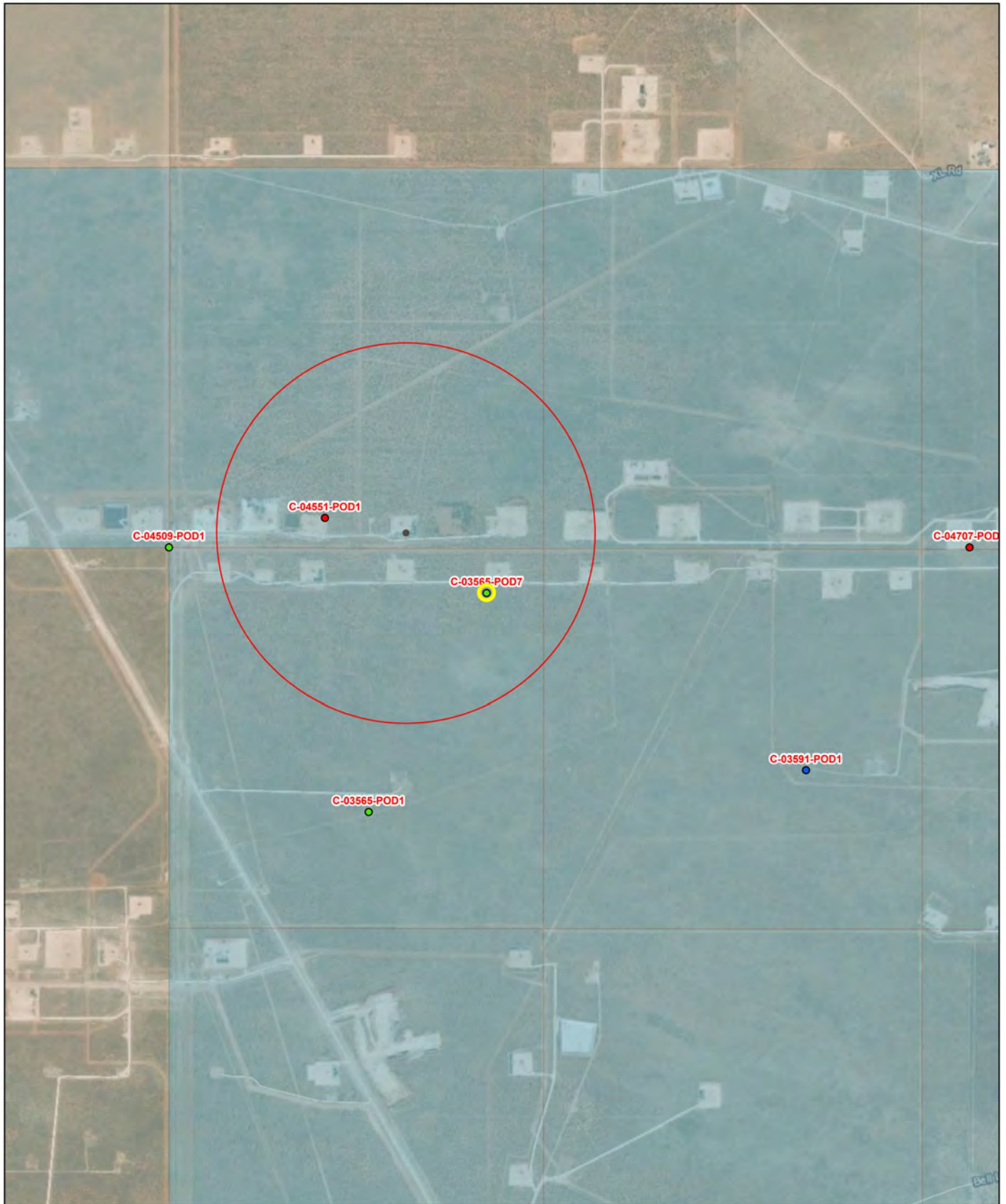
Login Number: 5415

List Source: Eurofins Albuquerque

List Number: 1

Creator: Casarrubias, Tracy

Question	Answer	Comment
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	IDs on containers do not match the COC. Logged in per COC.
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	



7/3/2024, 6:59:04 PM

GIS WATERS PODs

● Active	OSE District Boundary	New Mexico State Trust Lands
● Pending	Water Right Regulations	Subsurface Estate
● Plugged	Closure Area	Both Estates
	Artesian Planning Area	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



(R=POD has been replaced,
O=orphaned,
C=the file is closed)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

8

Maximum Depth: --

UTMNAD83 Radius Search (in meters):

Radius: 2000

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

WATER COLUMN/ AVERAGE DEPTH TO WATER



New Mexico Office of the State Engineer

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 Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	C 04551 POD1	4	4	3	31	23S	33E	630671	3569556 
x									
Driller License:	1249	Driller Company:				ATKINS ENGINEERING ASSOC. INC.			
Driller Name:	ATKINS, JACKIE D.UELENER								
Drill Start Date:	07/20/2021	Drill Finish Date:				07/20/2021	Plug Date:	07/27/2021	
Log File Date:	08/17/2021	PCW Rev Date:				Source:			
Pump Type:		Pipe Discharge Size:				Estimated Yield:			
Casing Size:		Depth Well:				Depth Water:			
x									

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Cross Reference: -

Primary Status: PMT PERMIT

Header: -

Cause/Case: -

Contact: KYLE LITRELL

—
x

get
images

—

POD Number
C 04551 POD1

WATER RIGHT SUMMARY



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

USE DTI AUG 17 2021 4:03

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (BH-01)		WELL TAG ID NO. n/a		OSE FILE NO(S). C-4551			
	WELL OWNER NAME(S) XTO Energy (Kyle Littrell)				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 6401 Holiday Hill Dr.				CITY Midland	STATE TX	ZIP 79707	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 15	SECONDS 18.36 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
		LONGITUDE 103	36	46.04 W	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE SE SW Sec. 31T23S R33E								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 07/20/2021		DRILLING ENDED 07/20/2021		DEPTH OF COMPLETED WELL (FT) temporary well material	BORE HOLE DEPTH (FT) 108	DEPTH WATER FIRST ENCOUNTERED (FT) n/a	
	COMPLETED WELL IS: ☐ ARTESIAN ☒ DRY HOLE ☐ SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a		
	DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☒ OTHER - SPECIFY: Hollow Stem Auger							
	DEPTH (feet bgl)		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)
	FROM	TO						
	0	108	±6.5	Boring- HSA	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. C-4551	POD NO. 1	TRN NO. 699428
LOCATION 135-33E-31 443	WELL TAG ID NO.	PAGE 1 OF 2

DSE DTI AUG 17 2021 PM 3:09

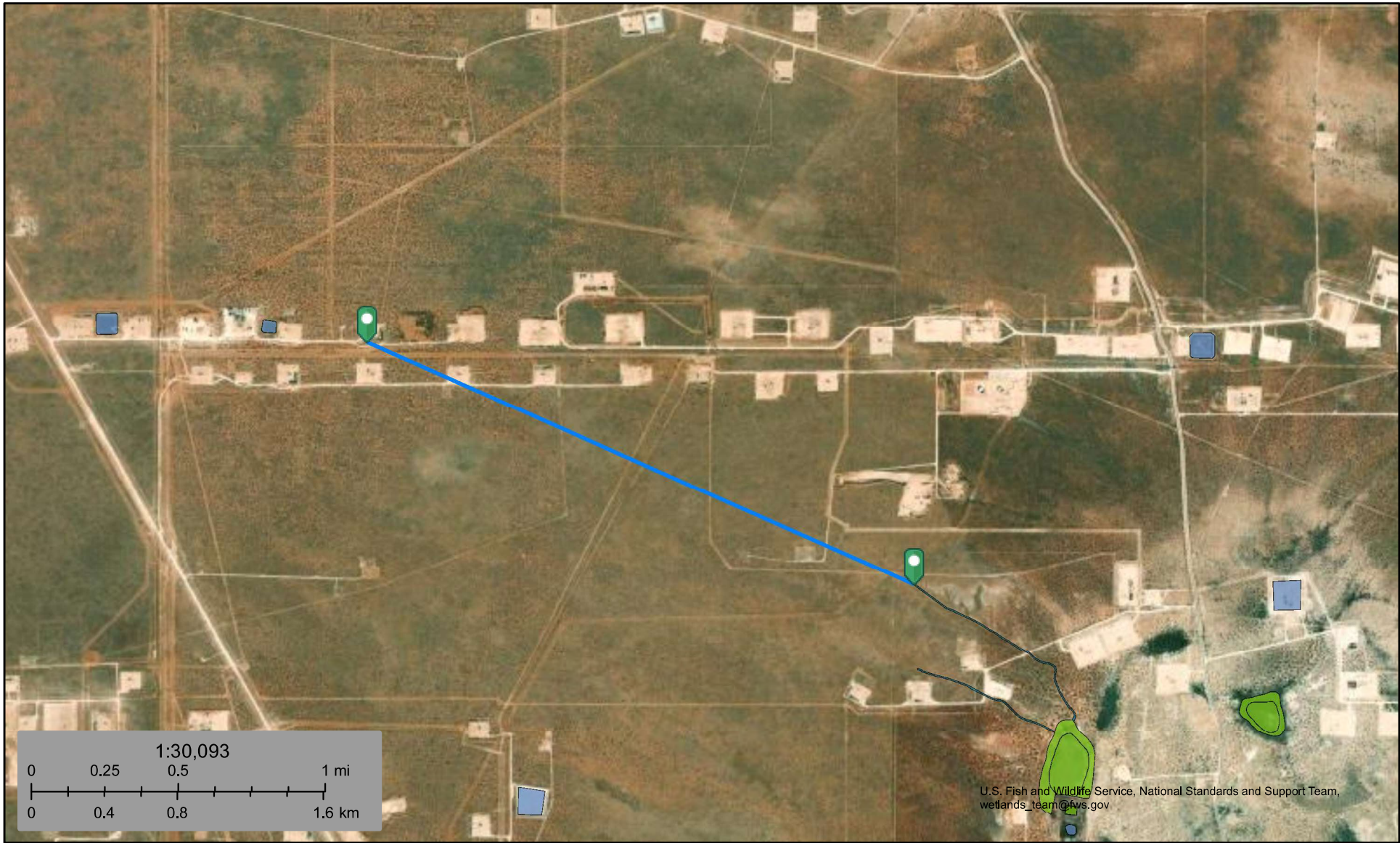
4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0	15	15	Sand, fine grain, poorly graded, moist, Reddish Brown	Y ✓ N	
	15	40	25	Caliche, poorly consolidated, Tan-Off White	Y ✓ N	
	40	45	5	Sand, medium-fine grain, poorly graded, trace caliche, Light Brown	Y ✓ N	
	45	50	5	Clayey Sand, fine- medium grain , poorly graded, cohesive, Reddish Brown	Y ✓ N	
	50	55	5	Sandy Clay, fine- medium grain , poorly graded, cohesive, Reddish Brown	Y ✓ N	
	55	70	15	Claystone, poorly cemented, cohesive, Reddish brown,	Y ✓ N	
	70	75	5	Clayey Sand, medium grain , poorly graded, cohesive, Light Brown	Y ✓ N	
	75	80	5	Silty Sand, fine- very finegrain , poorly graded, cohesive, Light Brown	Y ✓ N	
	80	85	5	Clayey Sand, fine- medium grain , poorly graded, cohesive, Light Brown	Y ✓ N	
	85	100	15	Sandy Clay, poorly graded, cohesive, Reddish Brown	Y ✓ N	
	100	105	5	Clay, low plasticity, cohesive, Brown-Blueish Gray, Dry	Y ✓ N	
	105	108	3	Claystone, poorly cemented, cohesive, Reddish brown, dry	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:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	
☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER - SPECIFY:						
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 materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from WSP on-site geologist.					
	PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge, Carmelo Trevino, 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:					
	 Jackie D. Atkins				08/13/2021	
	SIGNATURE OF DRILLER / PRINT SIGNEE NAME				DATE	

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO. C-4551	POD NO. 1	TRN NO. 699428
LOCATION 23S-33E-31 443	WELL TAG ID NO.	PAGE 2 OF 2

Intermittent 9,093 feet

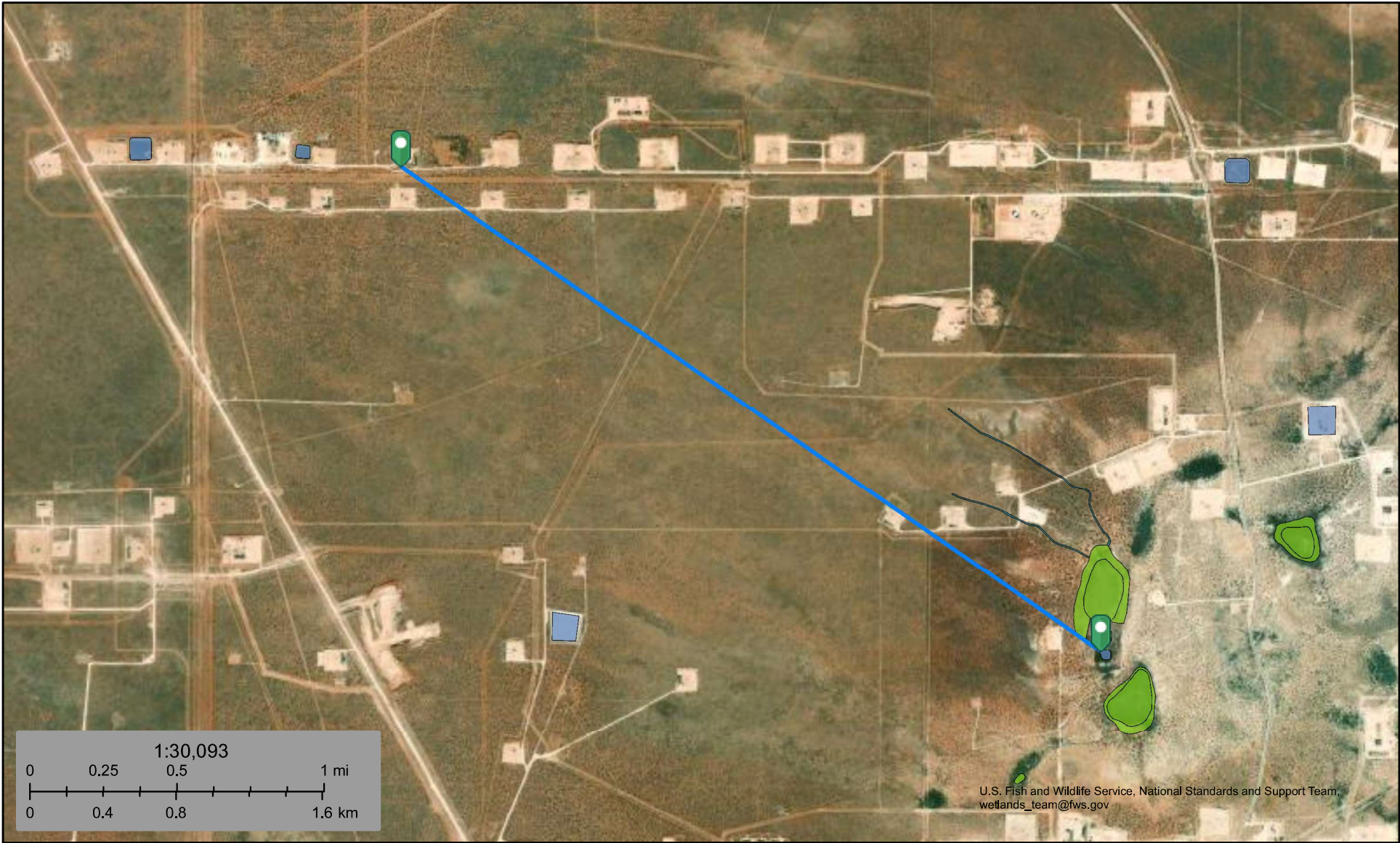


July 4, 2024

Wetlands

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



July 3, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

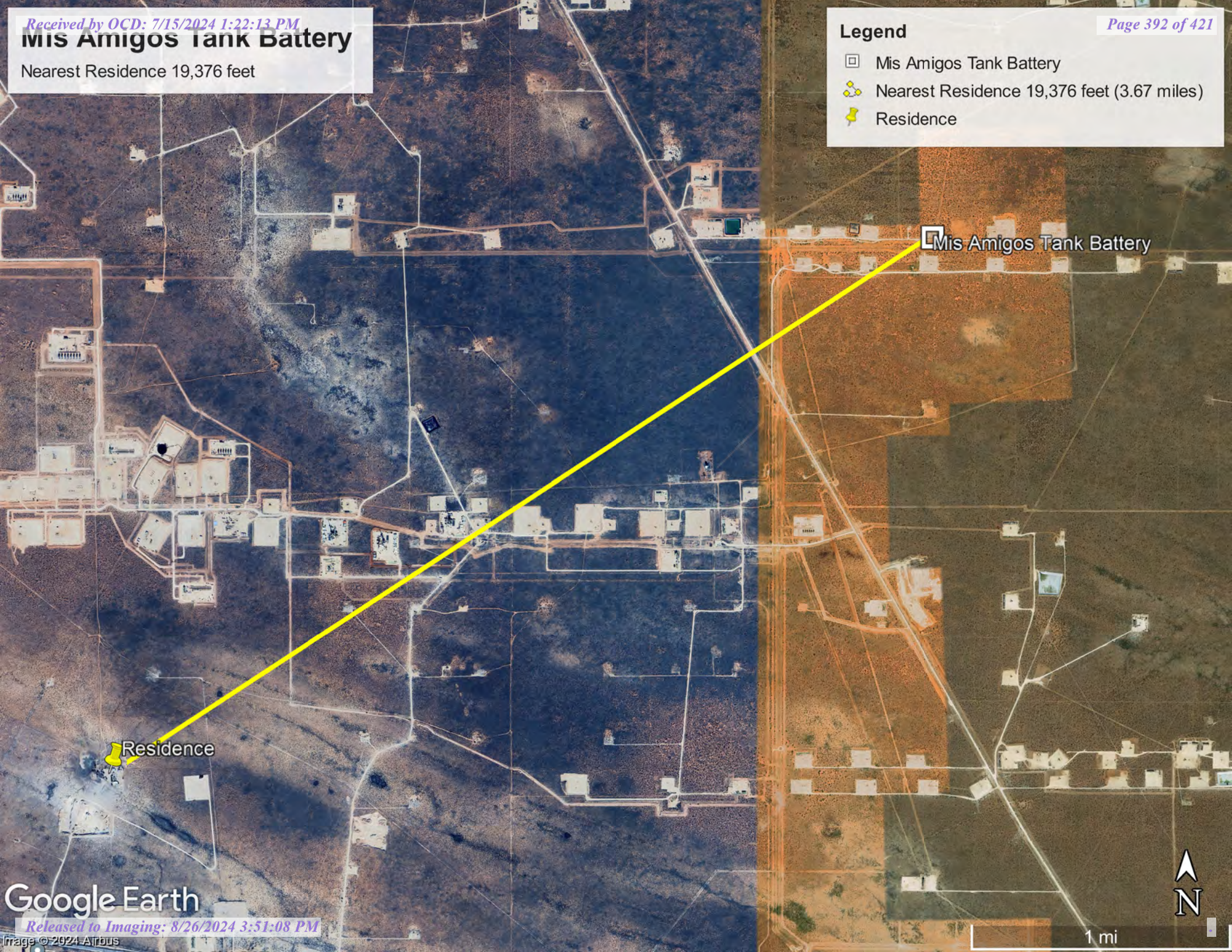
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Mis Amigos Tank Battery

Nearest Residence 19,376 feet

Legend

-  Mis Amigos Tank Battery
-  Nearest Residence 19,376 feet (3.67 miles)
-  Residence



Google Earth

Released to Imaging: 8/26/2024 3:51:08 PM



1 mi



New Mexico Office of the State Engineer

(NAD83 UTM in meters)

5

UTMNAD83 Radius Search (in meters):

Radius: 2000

Sorted by: Distance

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

ACTIVE & INACTIVE POINTS OF DIVERSION



New Mexico Office of the State Engineer

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 Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y		
C	03591 POD1	2	1	4	05	24S	33E	632731	3568518		
Driller License: 331		Driller Company:				SBQ2, LLC DBA STEWART BROTHERS DRILLING CO.					
Driller Name:											
Drill Start Date: 12/08/2012		Drill Finish Date:				01/10/2013		Plug Date:			
Log File Date: 01/25/2013		PCW Rcv Date:						Source:		Artesian	
Pump Type:		Pipe Discharge Size:						Estimated Yield:			
Casing Size:		Depth Well:						Depth Water:			

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7/3/24 6:38 PM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Water Right Summary

[get image list](#)**WR File Number:** C 03591**Subbasin:** CUB**Cross Reference:** -**Primary Purpose:** EXP EXPLORATION**Primary Status:****Total Acres:****Subfile:** -**Header:** -**Total Diversion:** 0**Cause/Case:** -**Owner:** INTERCONTINENTAL POTASH CORP**Contact:** TOM COPE

Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
			1	2					
	517368	EXPL	2012-11-21	PMT	LOG	C-3591 BOREHOLES	T	0	0

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q	64Q16Q4Sec	Tw	Rng	X	Y	Other Location Desc
C 03591 POD1		Artesian	2	1	4	05 24S 33E	632731	3568518	 ICP-088

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

7/3/24 7:30 PM

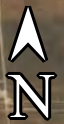
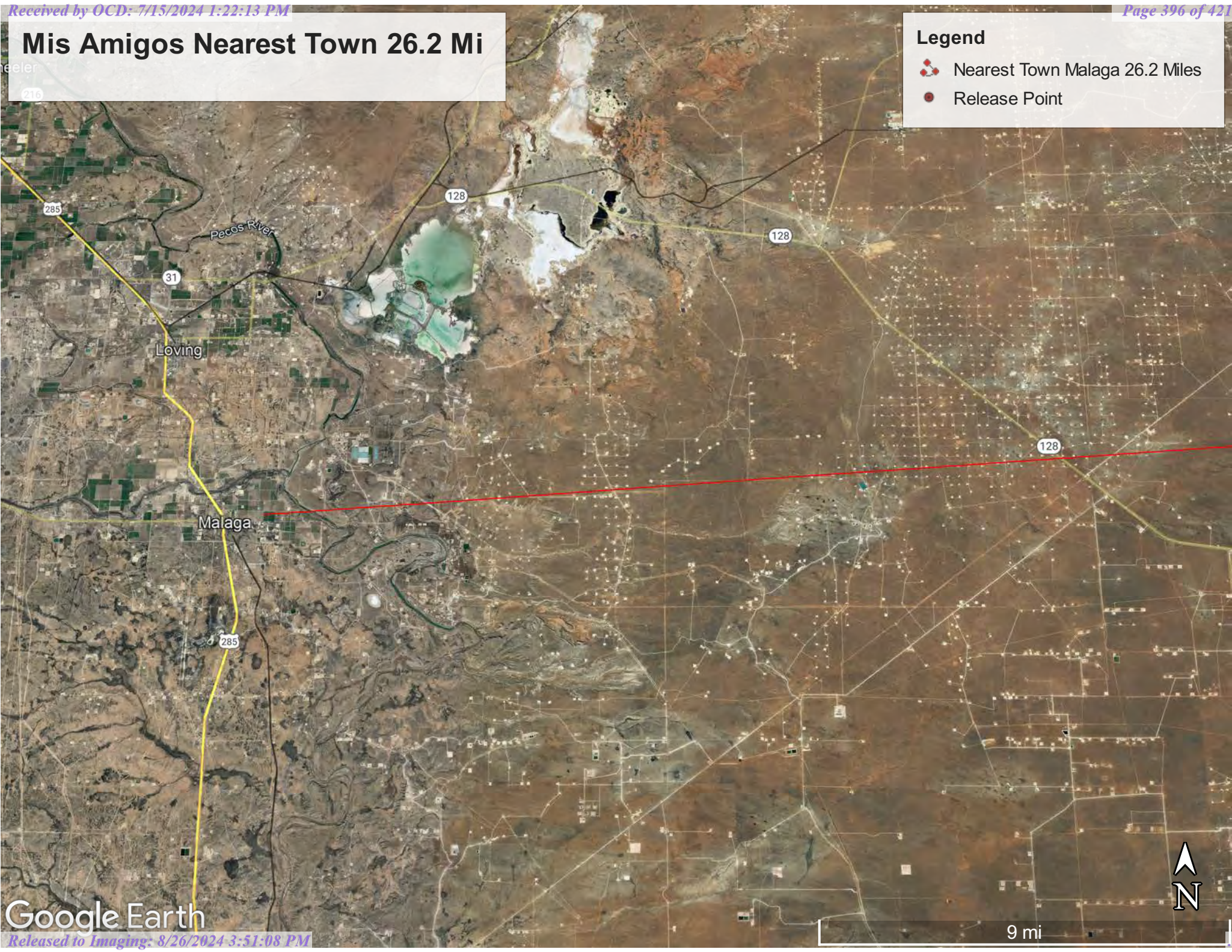
WATER RIGHT SUMMARY

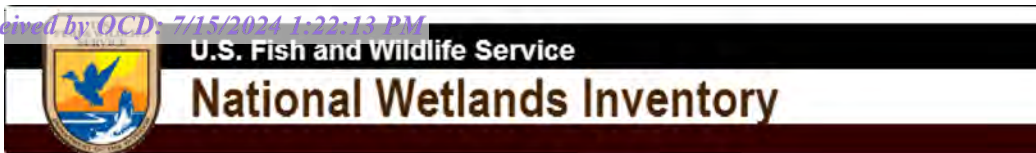
Mis Amigos Nearest Town 26.2 Mi

Legend

 Nearest Town Malaga 26.2 Miles

 Release Point





Mis Amigos CTB Wetland 2.27 Mi



September 20, 2023

Wetlands

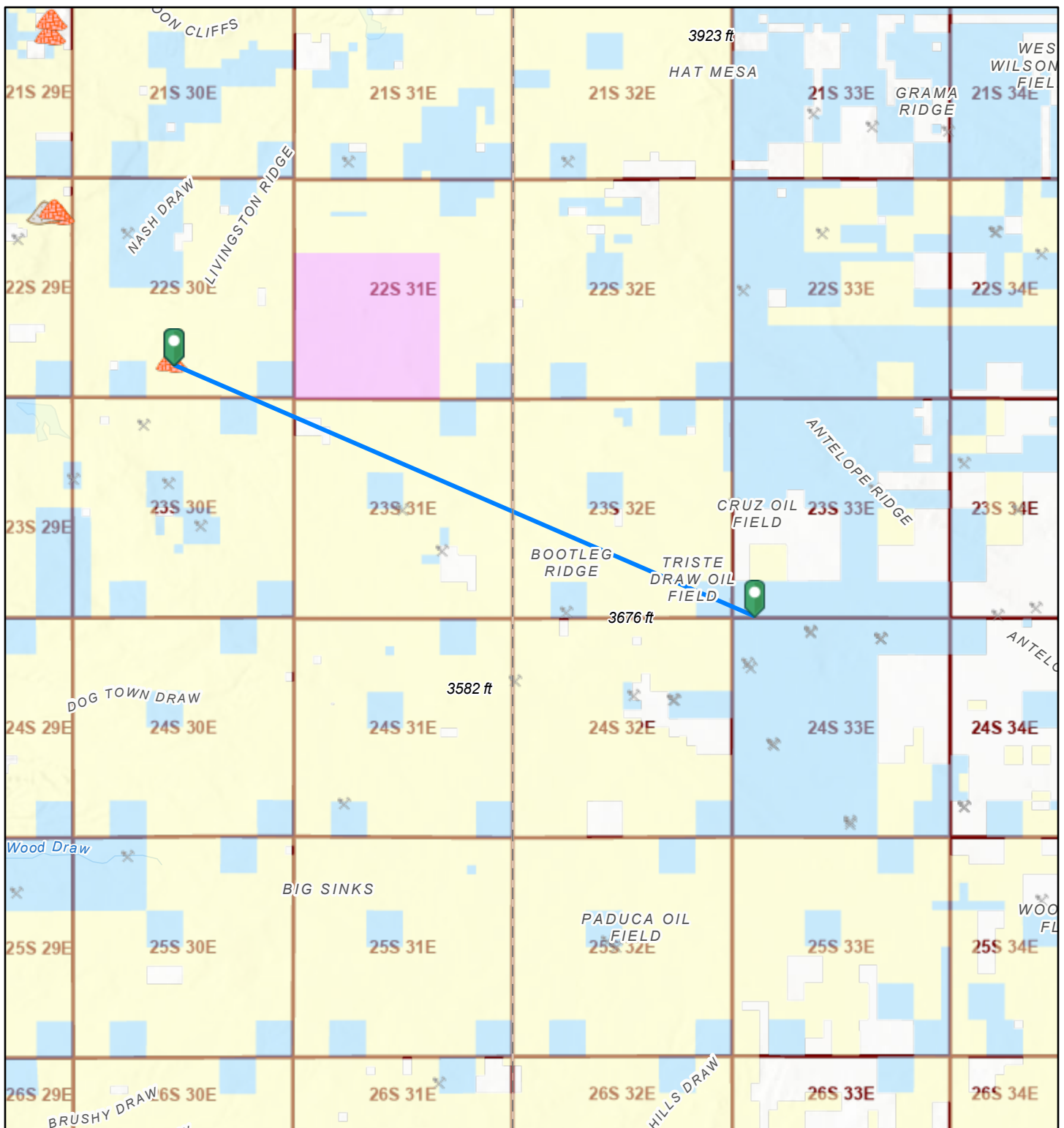
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

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Mis Amigos/Subsurface Mine 17.4 Miles



12/12/2023, 7:56:54 AM

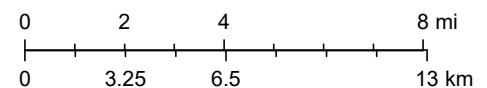
1:288,895

Registered Mines

Land Ownership

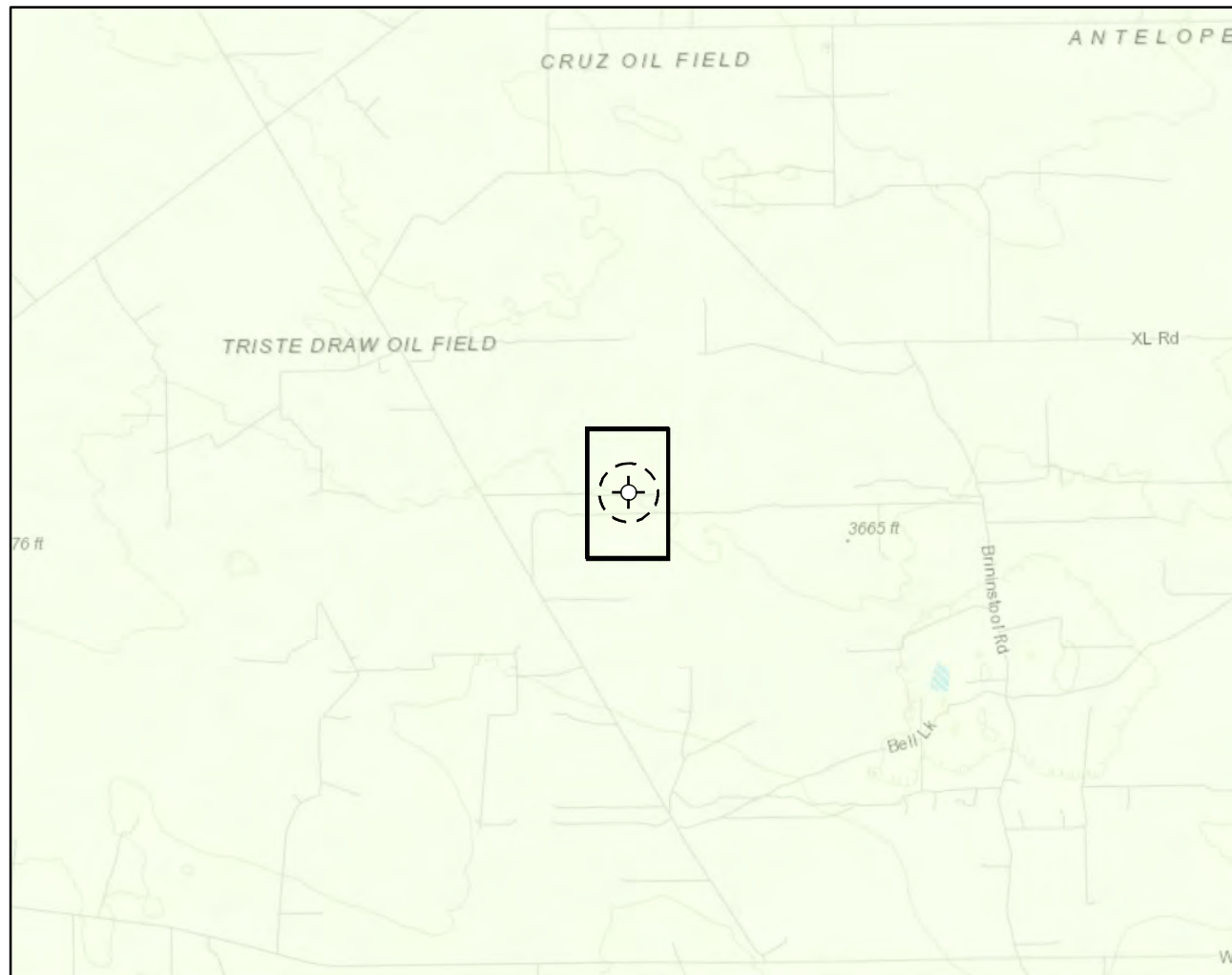
- ✕ Aggregate, Stone etc.
- ✕ Aggregate, Stone etc.
- ✕ Aggregate, Stone etc.
- 🔺 Potash
- 🔺 Salt

- BLM
- DOE
- P
- S
- PLSS Townships



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

EMNRD MMD GIS Coordinator



Karst Potential

- Critical
- High
- Medium
- Low

- Site Location
- Buffer Location (1,000 ft.)

Overview Map

0 0.25 0.5 1 mi

Detail Map

0 150 300 600 ft



Map Center:
Lat/Long: 32.254544, -103.609145

NAD 1983 UTM Zone 13N
Date: Sep 27/23



**Karst Potential Map
Mis Amigos CTB**

FIGURE:

X



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

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

VERSATILITY. EXPERTISE.

Released to Imaging: 8/26/2024 3:51:08 PM

Mis Amigos Tank Battery

0.72 miles to unstable karst zone

Legend

 10.72 miles

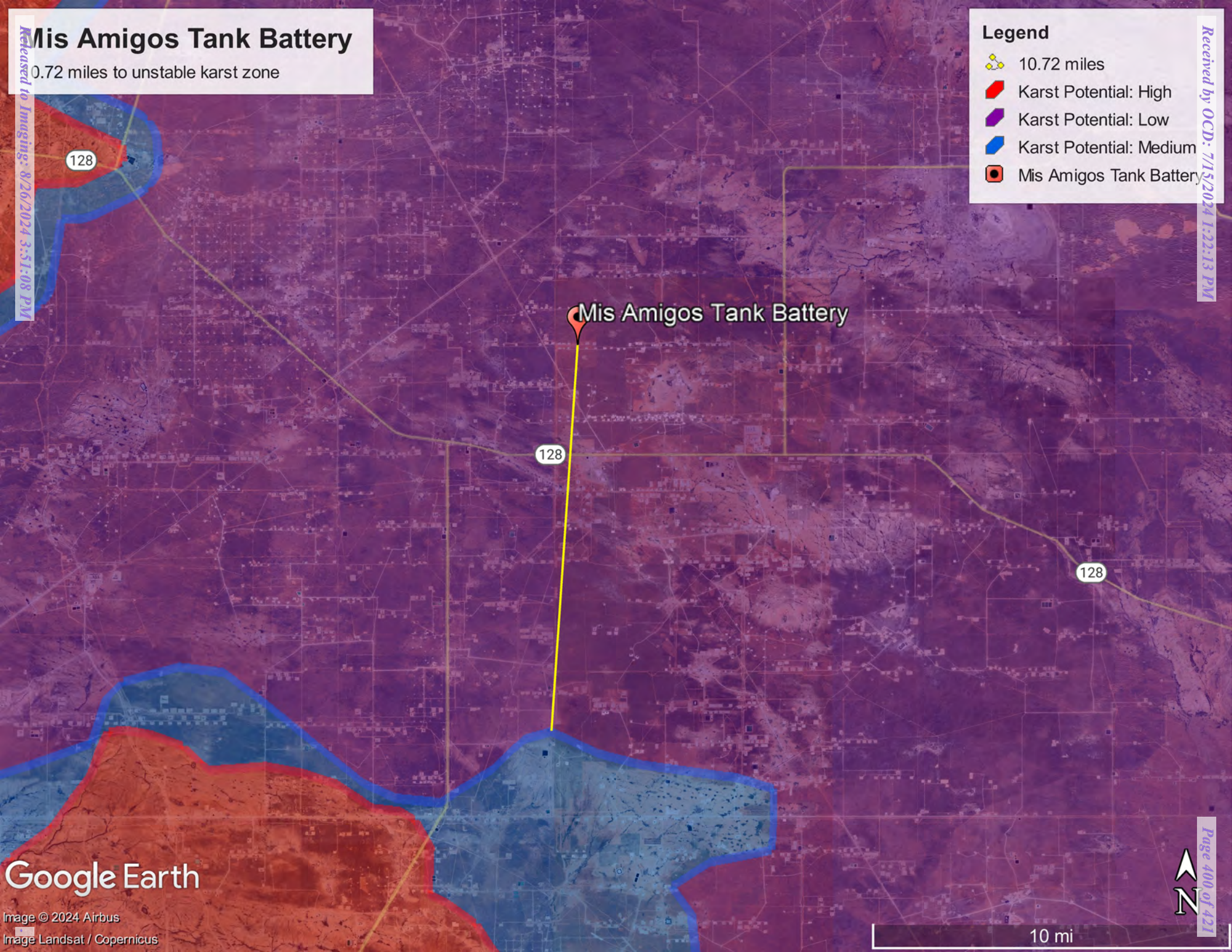
 Karst Potential: High

 Karst Potential: Low

 Karst Potential: Medium

 Mis Amigos Tank Battery

Received by OCD: 7/15/2024 1:22:13 PM



Google Earth

Image © 2024 Airbus
Image Landsat / Copernicus

10 mi

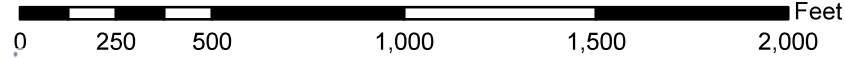

N

Page 400 of 421

National Flood Hazard Layer FIRMette



103°36'52"W 32°15'32"N



1:6,000

103°36'14"W 32°15'1"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 X
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
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

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 9/20/2023 at 12:49 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.

Released to Imaging: 8/26/2024 3:51:08 PM

Received by OCD: 7/15/2024 1:22:13 PM

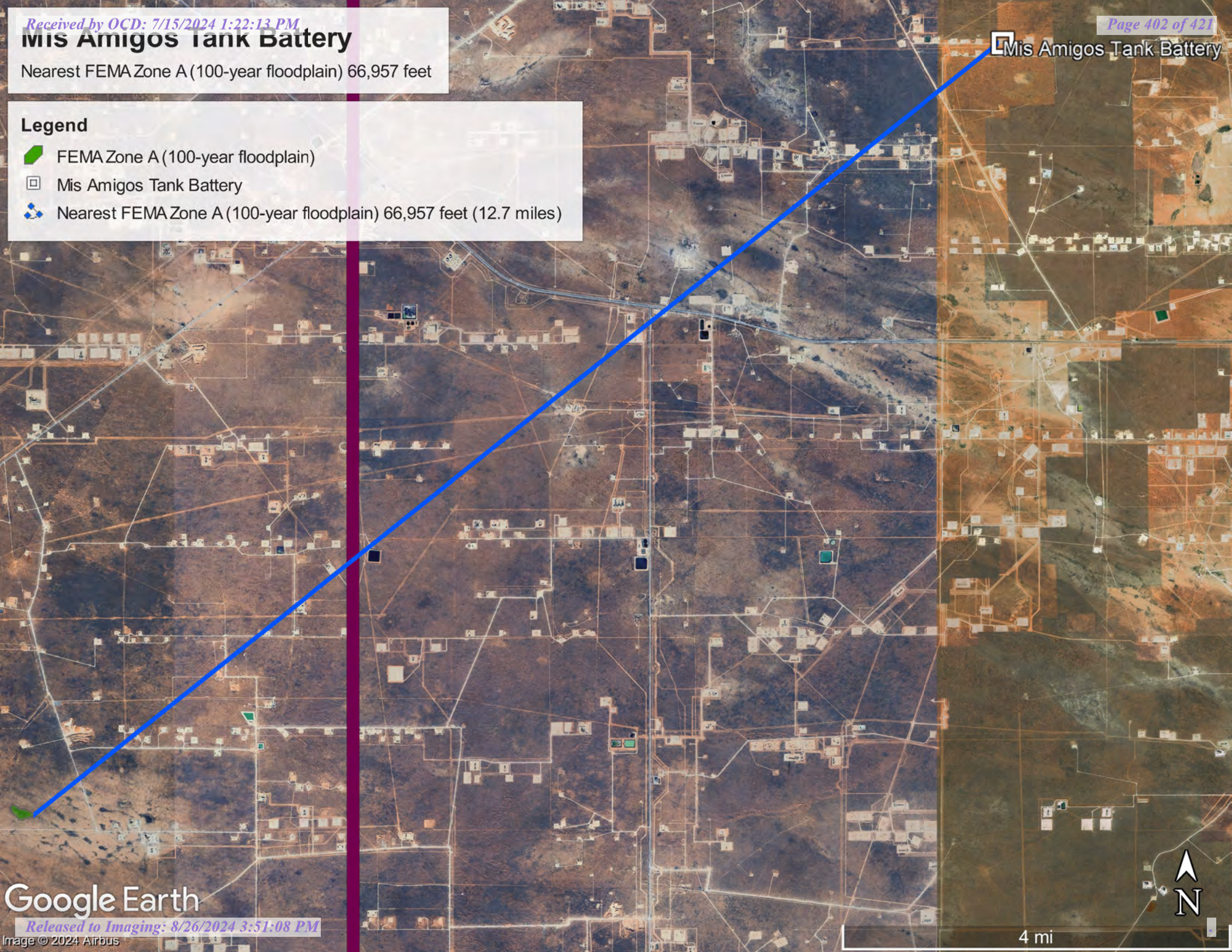
Page 401 of 421

Mis Amigos Tank Battery

Nearest FEMA Zone A (100-year floodplain) 66,957 feet

Legend

-  FEMA Zone A (100-year floodplain)
-  Mis Amigos Tank Battery
-  Nearest FEMA Zone A (100-year floodplain) 66,957 feet (12.7 miles)

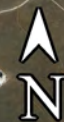


Google Earth

Released to Imaging: 8/26/2024 3:51:08 PM

Image © 2024 Airbus

4 mi





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 **Lea County, New Mexico**

Mis Amigos CTB Soil Map



September 20, 2023

Custom Soil Resource Report Soil Map



Custom Soil Resource Report

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: Lea County, New Mexico
Survey Area Data: Version 19, Sep 8, 2022

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.

Custom Soil Resource Report

Lea County, New Mexico

PU—Pyote and Maljamar fine sands

Map Unit Setting

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

Map Unit Composition

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

Description of Pyote

Setting

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

Typical profile

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

Properties and qualities

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

Interpretive groups

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

Custom Soil Resource Report

Description of Maljamar**Setting**

Landform: Plains

Landform position (three-dimensional): Rise

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 24 inches: fine sand

Bt - 24 to 50 inches: sandy clay loam

Bkm - 50 to 60 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 40 to 60 inches to petrocalcic

Drainage class: Well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Gypsum, maximum content: 1 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 2.0

Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): 6e

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: B

Ecological site: R070BD003NM - Loamy Sand

Hydric soil rating: No

Minor Components**Kermit**

Percent of map unit: 10 percent

Ecological site: R070BC022NM - Sandhills

Hydric soil rating: No



Ecological site R070BD003NM

Loamy Sand

Accessed: 06/06/2024

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
R070BD005NM	Deep Sand Deep Sand

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

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

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

Table 2. Representative physiographic features

Landforms	(1) Fan piedmont (2) Alluvial fan (3) Dune
Elevation	2,800–5,000 ft
Slope	0–9%
Aspect	Aspect is not a significant factor

Climatic features

The average annual precipitation ranges from 8 to 13 inches. Variations of 5 inches, more or less, are common. Over 80 percent of the precipitation falls from April through October. Most of the summer precipitation comes in the form of high intensity-short duration thunderstorms. Temperatures are characterized by distinct seasonal changes and large annual and diurnal temperature changes.

The average annual temperature is 61 degrees with extremes of 25 degrees below zero in the winter to 112 degrees in the summer.

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

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

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

Table 3. Representative climatic features

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

Influencing water features

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

Soil features

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

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

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

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

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

Characteristic soils are:

Maljamar

Berino

Parjarito

Palomas

Wink

Pyote

Table 4. Representative soil features

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

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

Ecological dynamics

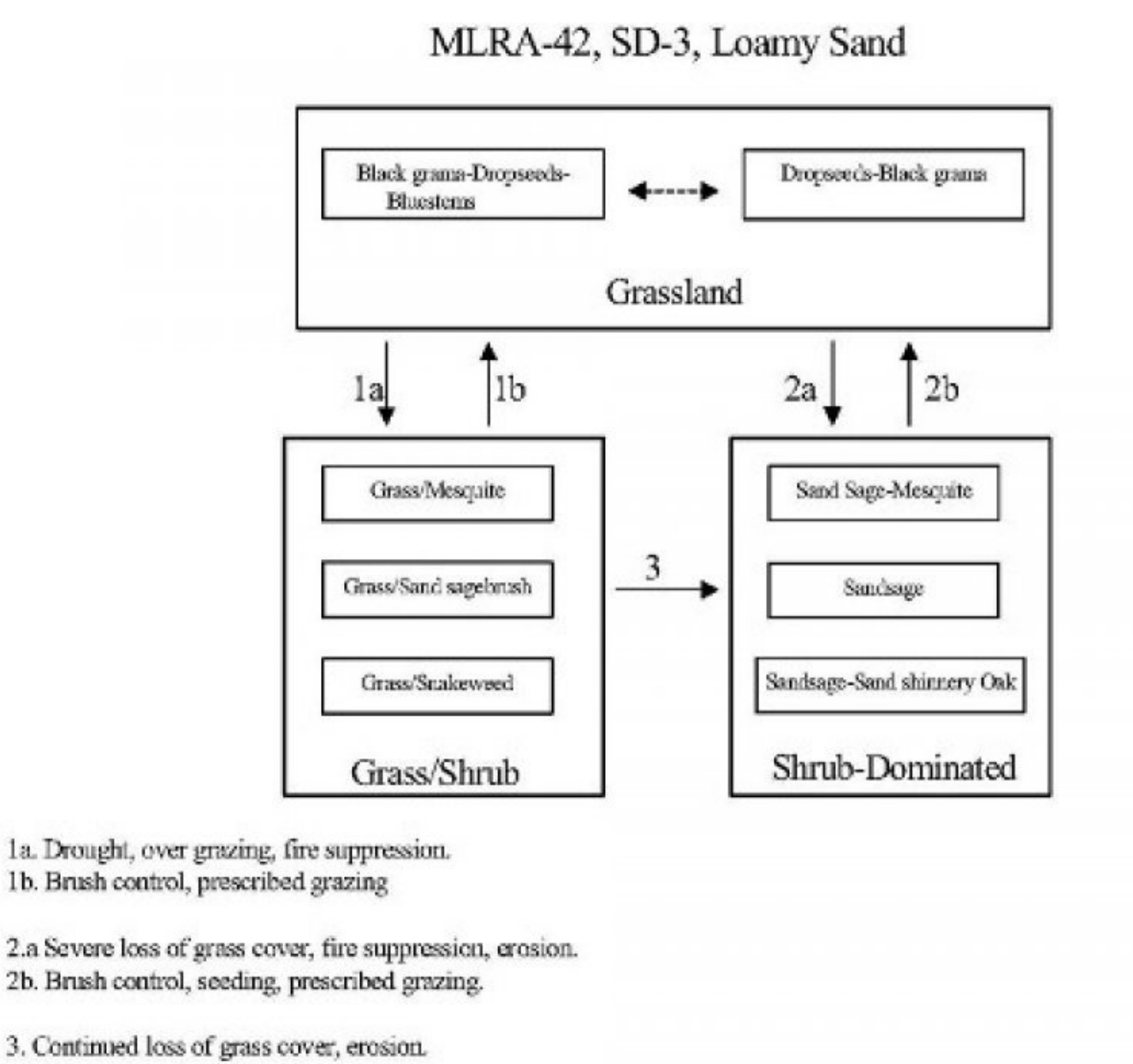
Overview

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

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

State and transition model

Plant Communities and Transitional Pathways (diagram):



State 1
Historic Climax Plant Community

Community 1.1
Historic Climax Plant Community

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

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

Table 5. Annual production by plant type

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

Table 6. Ground cover

Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	28%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	50%
Surface fragments >0.25" and <=3"	0%
Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	22%

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

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

State 3 Shrub Dominated

Community 3.1 Shrub Dominated

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

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Home

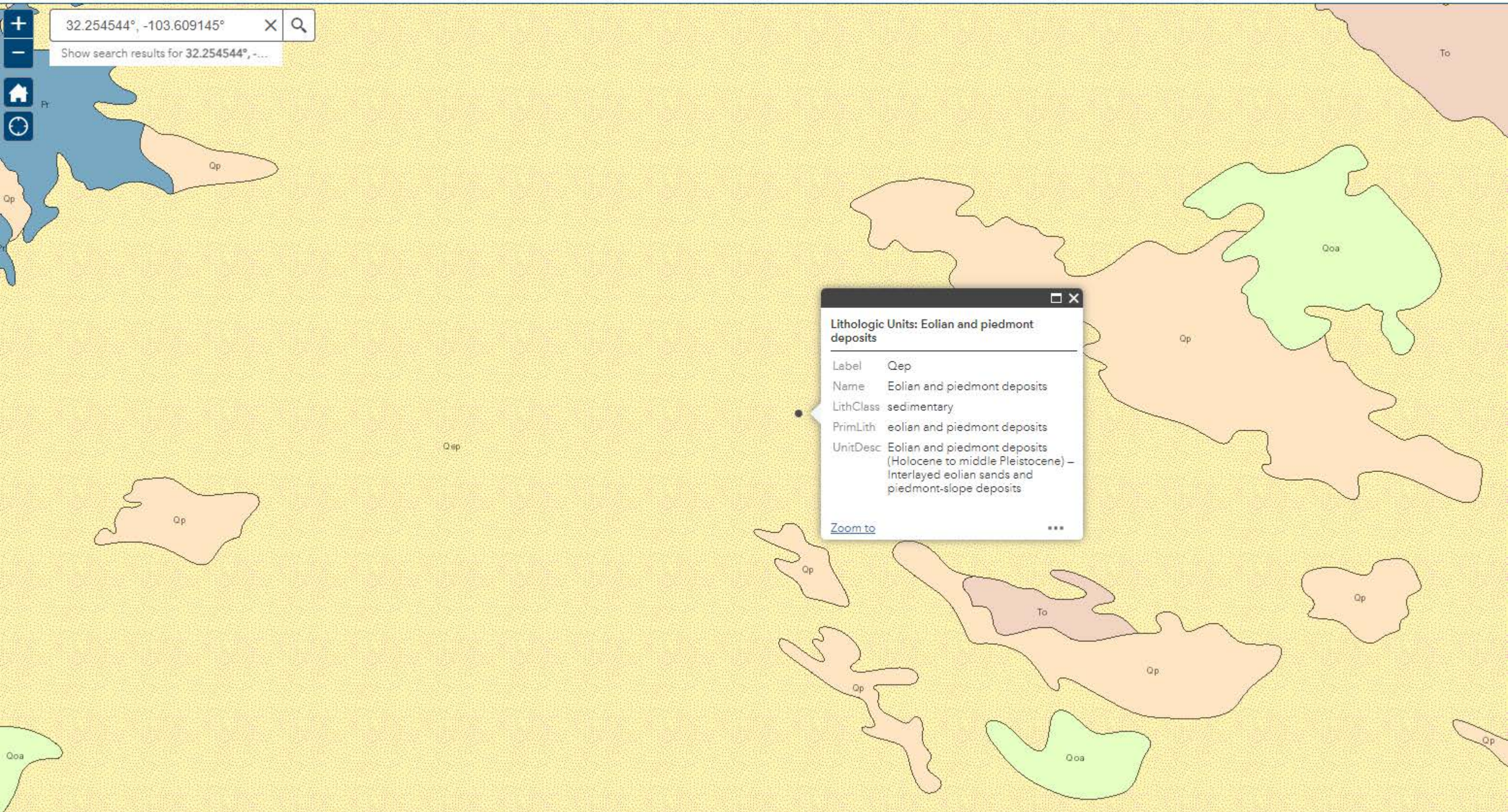
History

32.254544°, -103.609145°

×

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Show search results for 32.254544°, -103.609145°



District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

QUESTIONS

Action 364087

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 364087
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2335431615
Incident Name	NAPP2335431615 MIS AMIGOS TANK BATTERY @ 0
Incident Type	Produced Water Release
Incident Status	Deferral Request Received

Location of Release Source	
Please answer all the questions in this group.	
Site Name	MIS AMIGOS TANK BATTERY
Date Release Discovered	12/18/2023
Surface Owner	State

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Corrosion Other (Specify) Produced Water Released: 7 BBL Recovered: 6 BBL Lost: 1 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
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Santa Fe, NM 87505

QUESTIONS, Page 2

Action 364087

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:	5380
	Action Number:	364087
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

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	Not answered.

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

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

I hereby agree and sign off to the above statement	Name: Melanie Collins Title: Regulatory Analyst Email: Melanie.Collins@exxonmobil.com Date: 12/20/2023
--	---

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QUESTIONS, Page 3

Action 364087

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:	5380
	Action Number:	364087
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

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 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
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)	Between 1000 (ft.) and ½ (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	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1 and 5 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride	(EPA 300.0 or SM4500 Cl B)	15244
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	60.7
GRO+DRO	(EPA SW-846 Method 8015M)	60.7
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	03/18/2024
On what date will (or did) the final sampling or liner inspection occur	06/18/2024
On what date will (or was) the remediation complete(d)	06/18/2024
What is the estimated surface area (in square feet) that will be reclaimed	5233.8
What is the estimated volume (in cubic yards) that will be reclaimed	190
What is the estimated surface area (in square feet) that will be remediated	5233.8
What is the estimated volume (in cubic yards) that will be remediated	190

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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Action 364087

QUESTIONS (continued)

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QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(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	No
OR is the off-site disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Alan Romero Title: Regulatory Analyst Email: alan.romero1@exxonmobil.com Date: 07/15/2024
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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Action 364087

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:	5380
	Action Number:	364087
	Action Type:	[C-141] Deferral Request C-141 (C-141-v-Deferral)

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	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Is the remaining contamination in areas immediately under or around production equipment where remediation could cause a major facility deconstruction	Yes
Please list or describe the production equipment and how (re)moving the equipment would cause major facility deconstruction	Portions of the release that are designated in proximity to dense production/separation equipment and is deemed unsafe for excavation of contaminated materials (See Figure 2). The release has been fully delineated with the understanding that should the deferral request be accepted, restoration of this portion of the release will be deferred until such time as all oil and gas activities are terminated and the site is reclaimed following remediation activities as per NMAC 19.15.29.13.
What is the remaining surface area (in square feet) that will still need to be remediated if a deferral is granted	2600
What is the remaining volume (in cubic yards) that will still need to be remediated if a deferral is granted	300
Per Paragraph (2) of Subsection C of 19.15.29.12 NMAC if contamination is located in areas immediately under or around production equipment such as production tanks, wellheads and pipelines where remediation could cause a major facility deconstruction, the remediation, restoration and reclamation may be deferred with division written approval until the equipment is removed during other operations, or when the well or facility is plugged or abandoned, whichever comes first.	
Enter the facility ID (F#) on which this deferral should be granted	MIS AMIGOS BATTERY [fAPP2203533509]
Enter the well API (30-) on which this deferral should be granted	Not answered.
Contamination does not cause an imminent risk to human health, the environment, or groundwater	True
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: Alan Romero Title: Regulatory Analyst Email: alan.romero1@exxonmobil.com Date: 07/15/2024

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Action 364087

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:
	5380
	Action Number:
	364087
Action Type:	
[C-141] Deferral Request C-141 (C-141-v-Deferral)	

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	346956
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	05/30/2024
What was the (estimated) number of samples that were to be gathered	6
What was the sampling surface area in square feet	1200

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

Action 364087

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 364087
	Action Type: [C-141] Deferral Request C-141 (C-141-v-Deferral)

CONDITIONS

Created By	Condition	Condition Date
scott.rodgers	Deferral approved. Deferral of WES24-6,7,11 is approved until plugging and abandonment or a major facility deconstruction, whichever comes first. A complete and accurate remediation report and/or reclamation report will need to be submitted at that time.	8/26/2024