Location:	Mis Amigos Battery	
Spill Date:	8/25/2023	

Area 1		
Approximate Area =	168.44	cu.ft.
VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	30.00	bbls

Area 2		
Approximate Area =	4222.00	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 =	0.94	bbls

Area 3		
Approximate Area =	349.00	sq. ft.
Average Saturation (or depth) of spill =	2.00	inches
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	1.94	bbls

Area 4		
Approximate Area =	173.00	sq. ft.
Average Saturation (or depth) of spill =	2.00	inches
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	0.77	bbls

Area 5		
Approximate Area =	1667.00	sq. ft.
Average Saturation (or depth) of spill =	1.00	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	0.74	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**34.39**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**30.00**	**bbls**

Location:	Mis Amigos CTB	
Spill Date:	10/12/2023	
Area 1		
Approximate Area =	84.21	cu.ft.
VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	15.00	bbls
Area 2		
Approximate Area =	1176.00	sq. ft.
Average Saturation (or depth) of spill =	1.00	inches

Average Porosity Factor =	0.03	

VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	0.52	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**15.52**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**15.00**	**bbls**

Incident Number: nAPP2324951631, nAPP2329851014

Release Assessment and Closure

Mis Amigos Tank Battery

Section 31, Township 23 South, Range 33 East

County: Lea

Vertex File Number: 23E-05219

Prepared for:

XTO Energy

Prepared by:

Vertex Resource Services Inc.

Date:

December 2023

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

Prepared for:
XTO Energy
3104 E. Greene Street
Carlsbad, NM 88220

New Mexico Oil Conservation Division – District II
811 S. 1st Street
Artesia, New Mexico 88210

Prepared by:
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3101 Boyd Drive
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Hunter Klein — 12/12/2023

Hunter Klein, B.Sc.
Environmental Technician, REPORTING

Date

Chance Dixon — 12/12/2023

Chance Dixon, B.Sc.
Project Manager, REPORT REVIEW

Date

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1.0 Introduction

XTO Energy (XTO) retained Vertex Resource Services Inc. (Vertex) to conduct a Release Assessment and Closure for a produced water release that occurred on August 25, 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 2 on September 06, 2023. Incident ID number nAPP2324951631was assigned to this incident.

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

2.0 Incident Description

nAPP2324951631

The release occurred on August 25, 2023, due to a threaded reducer break in a pump discharge causing a release of fluids into a liner which overflowed onto the surrounding pad. The incident was reported on September 6, 2023, and involved the release of approximately 34.39 barrels (bbl.) of produced water onto the pad site. Approximately 30 bbl. of free fluid was removed during the initial clean-up. Additional details relevant to the release are presented in the C-141 Report.

nAPP2329851014

The second release occurred on October 12, 2023, due to a seal on the water transfer pump failing. The release occurred entirely within the first release. The incident was reported on October 25, 2023, and involved the release of approximately 15.52 bbl. of produced water onto the pad site. Approximately 15 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. The legal location for the site is Section 31, Township 23 South and Range 33 East in Lea County, New Mexico. The release area is located on State property. An aerial photograph and site schematic are presented in Figure 1.

The location is typical of oil and gas exploration and production sites in the Permian Basin and is currently used for oil and gas production and storage. The following sections specifically describe the release area Mis Amigos Tank Battery on or in proximity to the constructed pad (Figure 1).

The Geological Map of New Mexico (New Mexico Bureau of Geology and Mineral Resources, 2023) indicates the site's surface geology primarily comprises Qep – interlayered eolian and piedmont-slope deposits. The predominant soil texture on the site is PU – Pyote and Maljamar fine sands. Additional soil characteristics include a drainage class of Well

Drained with a runoff class of Negligible. The karst geology potential for the site is Low (Geomatics) (United States Department of the Interior, Bureau of Land Management, 2018).

The surrounding landscape is associated with Plains with elevations ranging between 3000 and 3900 feet. The climate is semiarid with average annual precipitation ranging between 10 and 12 inches. Grasses with shrubs and half-shrubs dominate the historic plant community (United States Department of Agriculture, Natural Resources Conservation Service, 2023). Limited to no vegetation is allowed to grow on the compacted production pad, right-of-way and access road.

4.0 Closure Criteria Determination

The nearest active well to the site is a New Mexico Office of the State Engineer (NMOSE) well located approximately 0.22 miles from the location (United States Geological Survey, 2023). Data from 2021 shows the NMOSE borehole was drilled to 108 feet below ground surface (bgs) and was recorded as a dry hole. Information pertaining to the depth to groundwater determination is included in Appendix B.

There is no surface water present at the site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is a riverine located approximately 1.72 miles southeast of the site (United States Fish and Wildlife Service, 2023).

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

Table 1. Closure Criteria Worksheet			
Site Name: Mis Amigos Tank Battery			
Spill Coordinates: 32.254544, -103.609145		**X:**	**Y:**
Site Specific Conditions		**Value**	**Unit**
1	Depth to Groundwater	**>108**	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	9,081	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	1,425	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	130,416	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**	142,732	feet
	ii) Within 1000 feet of any fresh water well or spring	NO	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	Distance from an area overlying a subsurface mine	91,872	feet
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
10	Distance from a 100-year Floodplain	67,164	feet
11	Soil Type	PU	
12	Ecological Classification	PU	
13	Geology	Qep	
	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

Characterization efforts began on September 25, 2023, and were finalized on November 16, 2023, which identified the area of the releases specified in the initial C-141 Reports. The impacted area was determined to be approximately 148 feet long and 79 feet wide; the total affected area is 5,831 square feet. The second release was sampled with BH23-10 on November 16, 2023, to ensure that the second release did not exceed NMOCD's greater than 100 feet closure criteria at 4 feet bgs. The DFR associated with the site inspection is included in Appendix C. Samples were collected down to 4 feet bgs for vertical delineation below the >100 feet closure criteria.

Remediation efforts began on October 23, 2023, and were finalized on November 16, 2023. The remedial activities were conducted after both releases occurred as the first release completely encompassed the second release. Vertex personnel supervised the excavation of impacted soils. Field screening was completed on a total of 32 sample points and consisted of analysis using a Photo Ionization Detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and an EC meter (chlorides). Field screening results were used to identify areas requiring further remediation. Soils were removed to a depth of 0.5 to 2.5 feet bgs. The vicinity of BES23-20 was excavated to 2.5 feet bgs with WES23-04 as a composite sample for all four walls surrounding it. Approximately 160 cubic yards of contaminated material were removed and transported by a licensed waste hauler and disposed of at an approved waste management facility. Notification that confirmatory samples were being collected was provided to the NMOCD on October 18 and 25, 2023, and is 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 32 samples were collected for laboratory analysis following NMOCD soil sampling procedures. Samples were submitted to Eurofins Xenco 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 3, and the laboratory data reports are included in Appendix E. All confirmatory samples collected and analyzed were below the closure criteria for the on-pad requirements outlined in 19.15.29.12 NMAC. Approximately 160 yards of clean, uncontaminated material was used to backfill the site.

6.0 Closure Request

The release area was fully delineated, remediated, and backfilled with local soil by November 16, 2023. Confirmatory samples were analyzed by the laboratory and found to be below allowable concentrations as per the NMAC Closure Criteria for Soils Impacted by a Release locations “over 100 feet to groundwater”. Based on these findings, XTO Energy requests that this release be closed.

Should you have any questions or concerns, please do not hesitate to contact Chance Dixon at 575.988.1472 or cdixon@vertex.ca.

7.0 References

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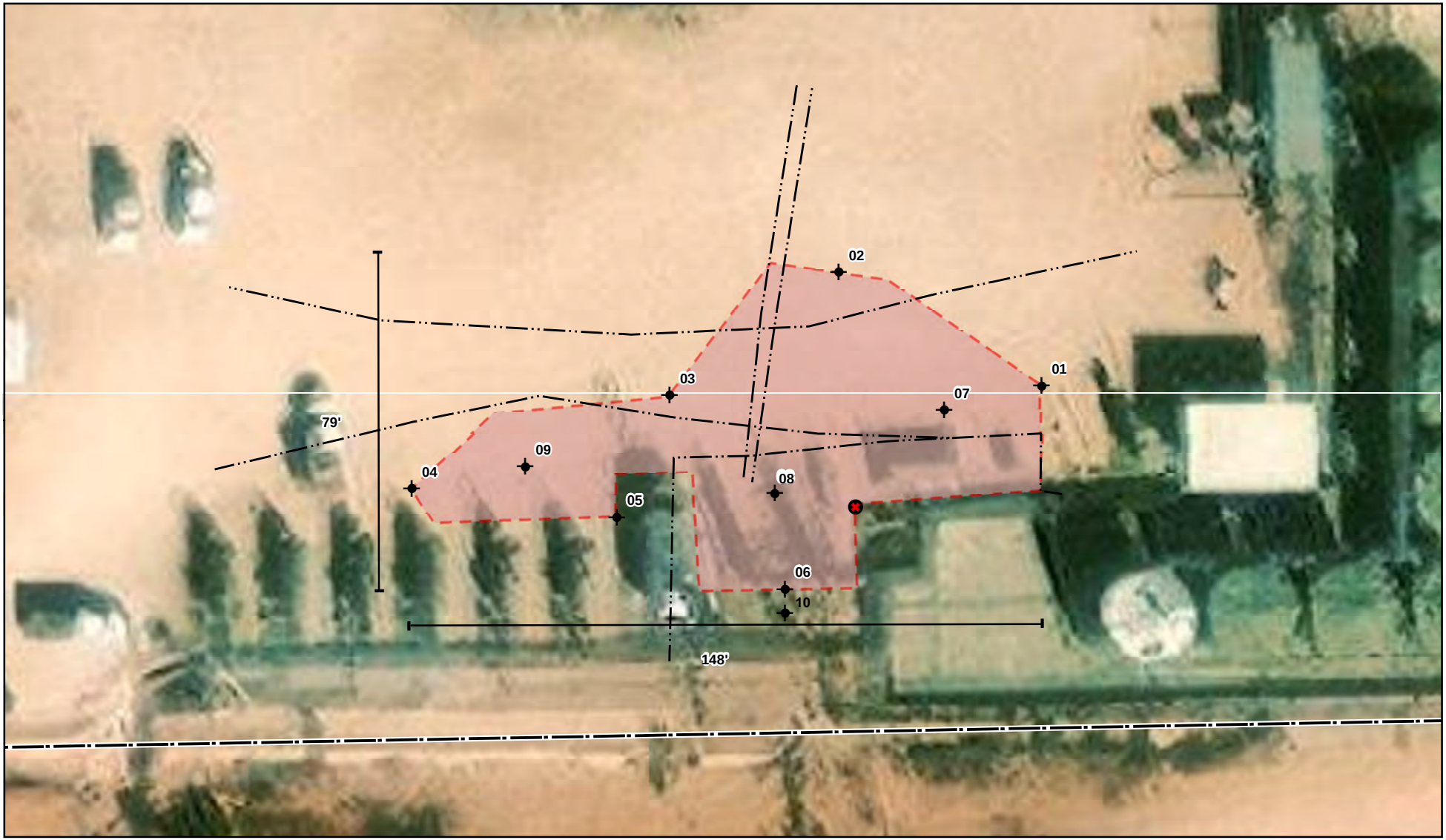
8.0 Limitations

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

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

FIGURES



Borehole (Prefixed by "BH23-") | Point of Release | Buried Petroleum Pipeline | Approximate Lease Boundary | Approximate Release Area (~5,831 sq.ft.)

VERTEX

0 20 40 ft

Map Center:
Lat/Long: 32.254599, -103.609255

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

N

Delineation Schematic
Mis Amigos

FIGURE:
1

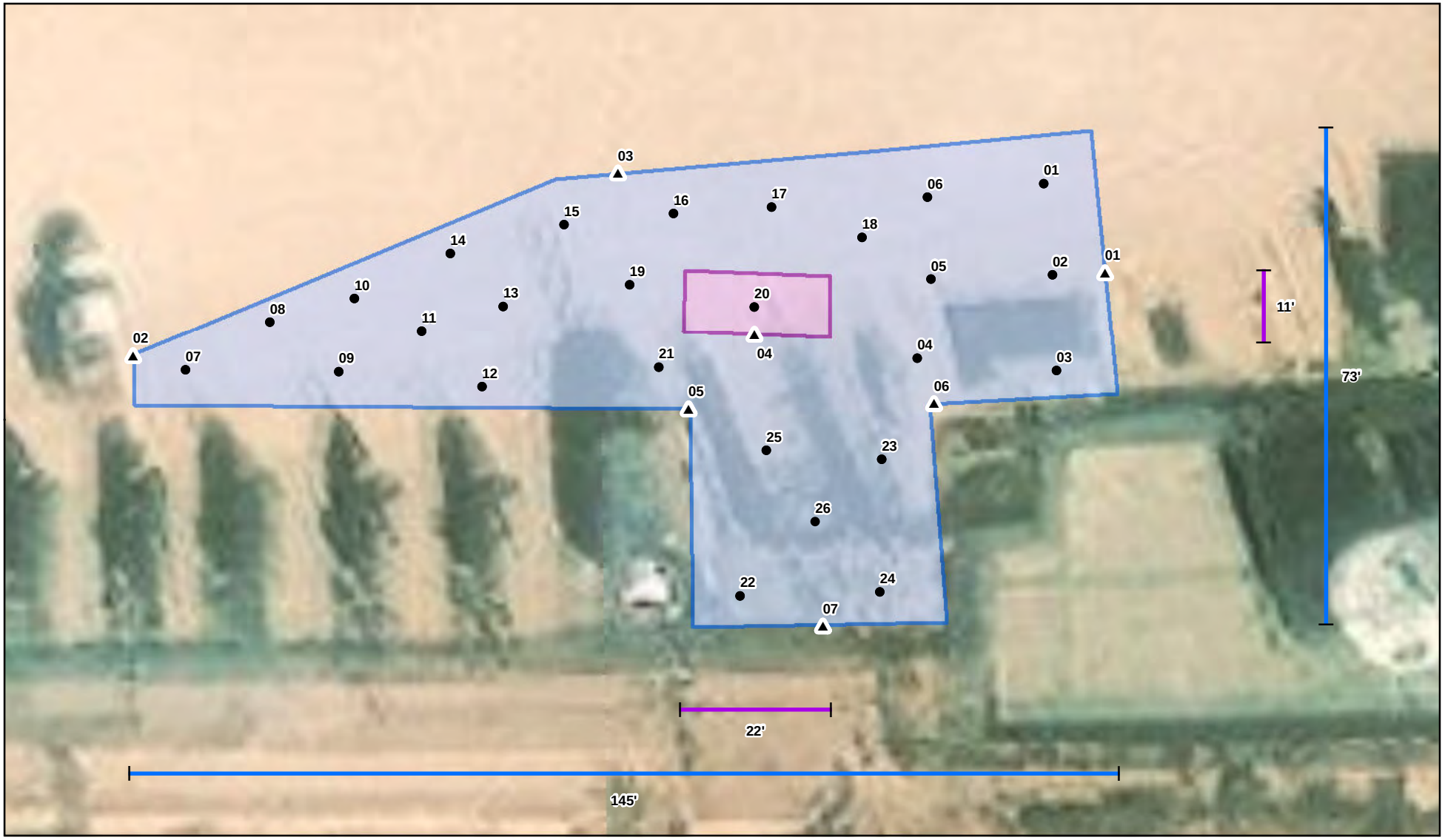
XTO ENERGY

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, 2023.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\XTO Energy\23E-05219\Figure 1 Delineation Schematic (23E-05219)ID17102.mxd



● Base Sample (Excavated) (Prefixed by "BES23-")

▲ Wall Sample (Excavated) (Prefixed by "WES23-")

Excavation to 0.5 ft. bgs (~5,376 sq.ft.)

Excavation to 2.5 ft. bgs (~194 sq.ft.)

VERTEX

0 10 20 ft

Map Center:
Lat/Long: 32.254540, -103.609247

NAD 1983 UTM Zone 13N
Date: Dec 12/23

N

Confirmation Site Schematic
Mis Amigos Tank Battery

FIGURE:
2

XTO ENERGY

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. Site features from GPS, Vertex, 2023.

VERSATILITY. EXPERTISE.

Document Path: C:\Users\scarter\Vertex Resource Group Ltd\Vertex US Operations - General\Environmental Services\10 - Geomatics\SPC\XTO 23E-05219 Mis Amigos Tank Battery\Figure 2 v2 Confirmation Site Schematic (23E-05219) Req.mxd

TABLES

Client Name: XTO Energy
Site Name: Mis Amigos Tank Battery
NMOCD Tracking #: nAPP2324951631, nAPP2324951631
Project #: 23E-05219
Lab Report(sX): 890-5331-1, 890-5338-1, 890-5357-1, 890-5658-1

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

Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
						Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH23-01	0	9/22/2023	-	98	40	ND	ND	ND	ND	ND	ND	ND	362
BH23-01	2	9/22/2023	-	94	47	ND	ND	ND	65.7	ND	65.7	65.7	182
BH23-02	0	9/22/2023	-	35	ND	ND	ND	ND	ND	ND	ND	ND	180
BH23-02	2	9/22/2023	-	17	ND	ND	ND	ND	ND	ND	ND	ND	124
BH23-03	0	9/25/2023	-	51	ND	ND	ND	ND	ND	ND	ND	ND	136
BH23-03	2	9/25/2023	-	43	ND	ND	ND	ND	ND	ND	ND	ND	112
BH23-04	0	9/25/2023	-	31	ND	ND	ND	ND	ND	ND	ND	ND	32.5
BH23-04	2	9/25/2023	-	36	ND	ND	ND	ND	ND	ND	ND	ND	37
BH23-05	0	9/25/2023	-	52	ND	ND	ND	ND	ND	ND	ND	ND	55
BH23-05	2	9/25/2023	-	44	ND	ND	ND	ND	ND	ND	ND	ND	108
BH23-06	0	9/26/2023	-	-	-	ND	ND	ND	94.7	ND	94.7	94.7	**11600**
BH23-06	2	9/26/2023	-	51	ND	ND	ND	ND	ND	ND	ND	ND	**1110**
BH23-06	4	9/26/2023	-	91	215	ND	ND	ND	ND	ND	ND	ND	105
BH23-07	0	9/26/2023	-	231	**8,744**	ND	ND	ND	ND	ND	ND	ND	**6280**
BH23-07	2	9/26/2023	-	57	ND	ND	ND	ND	ND	ND	ND	ND	211
BH23-08	0	9/26/2023	-	**111**	**8,301**	-	-	-	-	-	-	-	-
BH23-08	2	9/26/2023	-	**106**	**1,537**	ND	ND	ND	ND	ND	ND	ND	**1830**
BH23-08	4	9/26/2023	-	50	17	ND	ND	ND	ND	ND	ND	ND	233
BH23-09	0	9/26/2023	-	352	**718**	ND	ND	ND	**297**	ND	**297**	**297**	**821**
BH23-09	2	9/26/2023	-	108	**1,011**	ND	ND	ND	ND	ND	ND	ND	**632**
BH23-09	4	9/26/2023	-	69	98	ND	ND	ND	ND	ND	ND	ND	200
BH23-10	0	11/16/2023	-	217	389	ND	ND	ND	63.5	ND	63.5	63.5	71
BH23-10	2	11/16/2023	-	39	991	ND	ND	ND	ND	ND	ND	ND	521
BH23-10	4	11/16/2023	-	46	434	ND	ND	ND	ND	ND	ND	ND	281

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

Client Name: XTO Energy
Site Name: Mis Amigos Tank Battery
NMOCD Tracking #: nAPP2324951631
Project #: 23E-05219
Lab Report(sX): 880-35072-1, 880-35156-1

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

Sample Description			Field Screening			Petroleum Hydrocarbons							Inorganic
						Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BES23-01	0.5	10.27.2023	-	22	194	ND	ND	ND	ND	ND	ND	ND	66.3
BES23-02	0.5	10.27.2023	-	28	301	ND	ND	ND	ND	ND	ND	ND	116
BES23-03	0.5	10.27.2023	-	31	27	ND	ND	ND	ND	ND	ND	ND	52.8
BES23-04	0.5	10.27.2023	-	45	27	ND	ND	ND	ND	ND	ND	ND	75.5
BES23-05	0.5	10.27.2023	-	41	178	ND	ND	ND	ND	ND	ND	ND	148
BES23-06	0.5	10.27.2023	-	36	51	ND	ND	ND	ND	ND	ND	ND	56.9
BES23-07	0.5	10.27.2023	-	47	145	ND	ND	ND	ND	ND	ND	ND	51
BES23-08	0.5	10.27.2023	-	46	158	ND	ND	ND	ND	ND	ND	ND	83
BES23-09	0.5	10.27.2023	-	31	95	ND	ND	ND	ND	ND	ND	ND	67.5
BES23-10	0.5	10.27.2023	-	28	112	ND	ND	ND	ND	ND	ND	ND	43.5
BES23-11	0.5	10.27.2023	-	30	298	ND	ND	ND	ND	ND	ND	ND	227
BES23-12	0.5	10.27.2023	-	21	158	ND	ND	ND	ND	ND	ND	ND	94.4
BES23-13	0.5	10.27.2023	-	23	212	ND	ND	ND	ND	ND	ND	ND	102
BES23-14	0.5	10.27.2023	-	25	298	ND	ND	ND	ND	ND	ND	ND	77.7
BES23-15	0.5	10.27.2023	-	29	170	ND	ND	ND	ND	ND	ND	ND	78.2
BES23-16	0.5	10.27.2023	-	43	79	ND	ND	ND	ND	ND	ND	ND	86.4
BES23-17	0.5	10.27.2023	-	42	124	ND	ND	ND	ND	ND	ND	ND	115
BES23-18	0.5	10.27.2023	-	39	129	ND	ND	ND	ND	ND	ND	ND	77.7
BES23-19	0.5	10.27.2023	-	35	86	ND	ND	ND	ND	ND	ND	ND	117
BES23-20	2.5	10.27.2023	-	29	167	ND	ND	ND	ND	ND	ND	ND	66.5
BES23-21	0	10.30.2023	-	-	-	ND	ND	ND	ND	ND	ND	ND	222
BES23-22	0	10.30.2023	-	-	-	ND	ND	ND	97.7	ND	97.7	97.7	160
BES23-23	0	10.30.2023	-	-	-	ND	ND	ND	907	80.4	907	987	535
BES23-24	0	10.30.2023	-	-	-	ND	ND	ND	149	ND	149	149	76
BES23-25	0	10.30.2023	-	-	-	ND	ND	ND	116	ND	116	116	750
WES23-01	0-0.5	10.27.2023	-	29	102	ND	ND	ND	ND	ND	ND	ND	86
WES23-02	0-0.5	10.27.2023	-	25	69	ND	ND	ND	ND	ND	ND	ND	68.6
WES23-03	0-0.5	10.27.2023	-	32	259	ND	ND	ND	ND	ND	ND	ND	169
WES23-04	0-2.5	10.27.2023	-	32	189	ND	ND	ND	ND	ND	ND	ND	167
WES23-05	0-0.5	10.30.2023	-	-	-	ND	ND	ND	ND	ND	ND	ND	57.8
WES23-06	0-0.5	10.30.2023	-	-	-	ND	ND	ND	ND	ND	ND	ND	80.9
WES23-07	0-0.5	10.30.2023	-	-	-	ND	ND	ND	ND	ND	ND	ND	72

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

APPENDIX A - NMOCD C-141 Reports

APPENDIX B – Closure Criteria Research Documentation

Mis Amigos POD Location

11/7/2023, 11:42:06 AM

Override 1

GIS WATERS PODs

Pending

Plugged

OSE District Boundary

Water Right Regulations

Closure Area

New Mexico State Trust Lands

Both Estates

1:4,514

0 0.04 0.09 0.17 mi

0 0.05 0.1 0.2 km

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

Online web user

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

OSE DIT AUG 17 2021 PM3:03

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (BH-01)	n/a	C-4551

WELL OWNER NAME(S)	PHONE (OPTIONAL)
XTO Energy (Kyle Littrell)	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
6401 Holiday Hill Dr.	Midland	TX	79707

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	15	18.36	N
	LONGITUDE	103	36	46.04	W

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

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

SE SW Sec. 31T23S R33E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
07/20/2021	07/20/2021	temporary well material	108	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) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	108	±6.5	Boring- HSA	--	--	--	--

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. C-4551	POD NO. 1	TRN NO. 699428	
LOCATION 23S.33E.31.443		WELL TAG ID NO.	PAGE 1 OF 2

OSE DIT AUG 17 2021 PM3:09

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	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	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

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

MISCELLANEOUS INFORMATION: Temporary well 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:

Jack Atkins — 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

U.S. Fish and Wildlife Service
National Wetlands Inventory

Mis Amigos CTB Nearest Watercourse 1.72

September 20, 2023

Wetlands

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

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

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

U.S. Fish and Wildlife Service
National Wetlands Inventory

Mis Amigos CTB Nearest Water Body 0.27

September 20, 2023

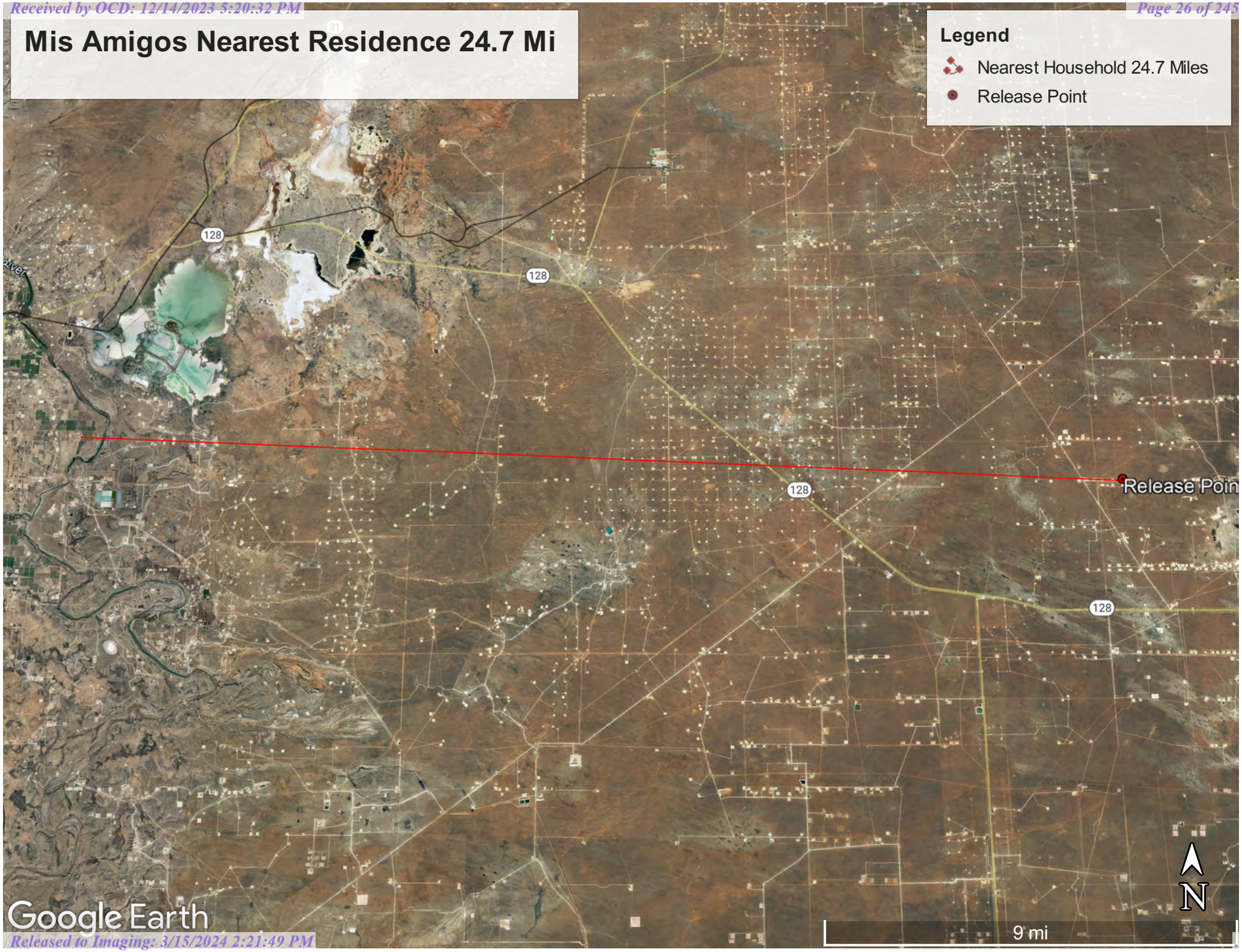
Wetlands

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

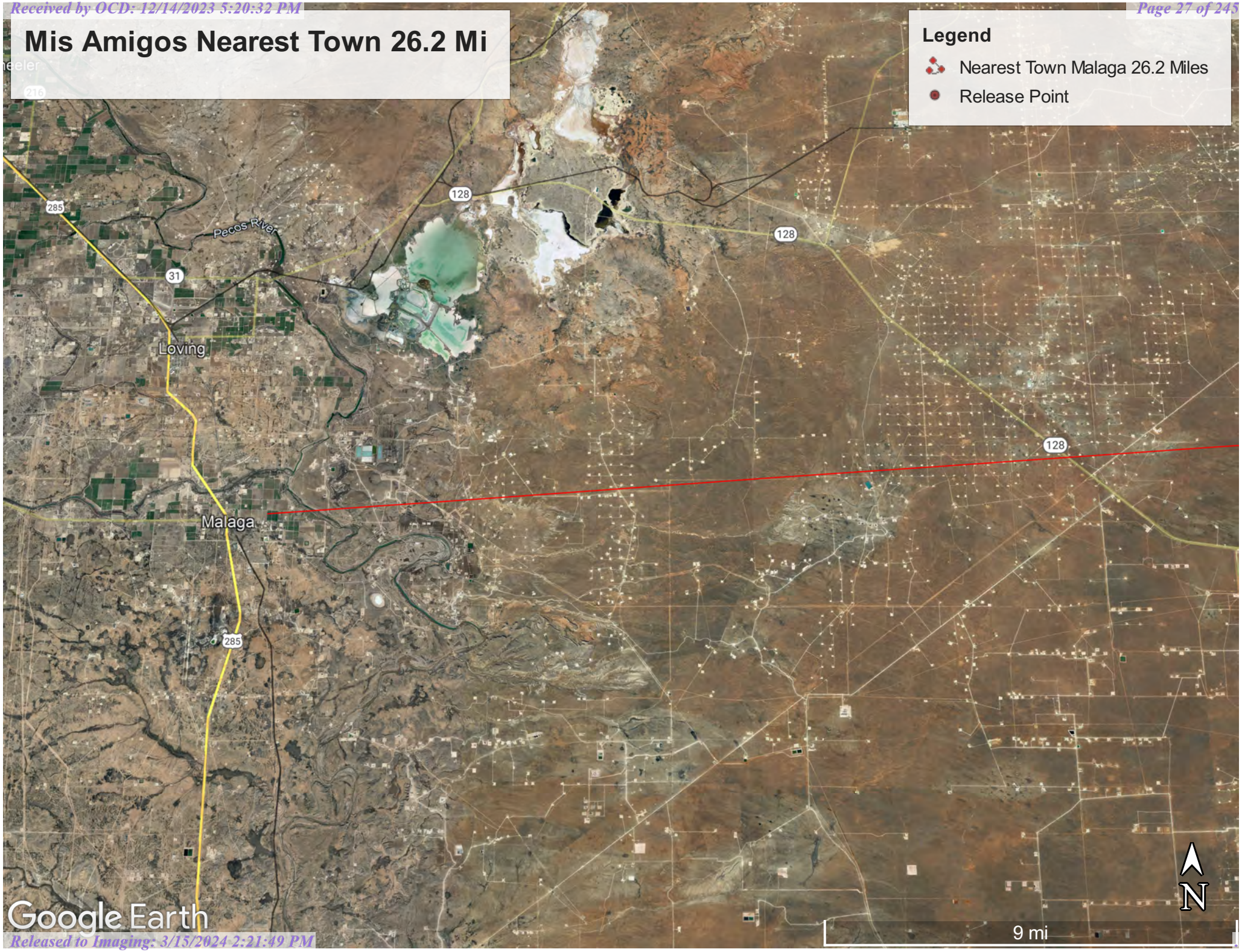
This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

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

Mis Amigos Nearest Residence 24.7 Mi



Mis Amigos Nearest Town 26.2 Mi



U.S. Fish and Wildlife Service
National Wetlands Inventory

Mis Amigos CTB Wetland 2.27 Mi

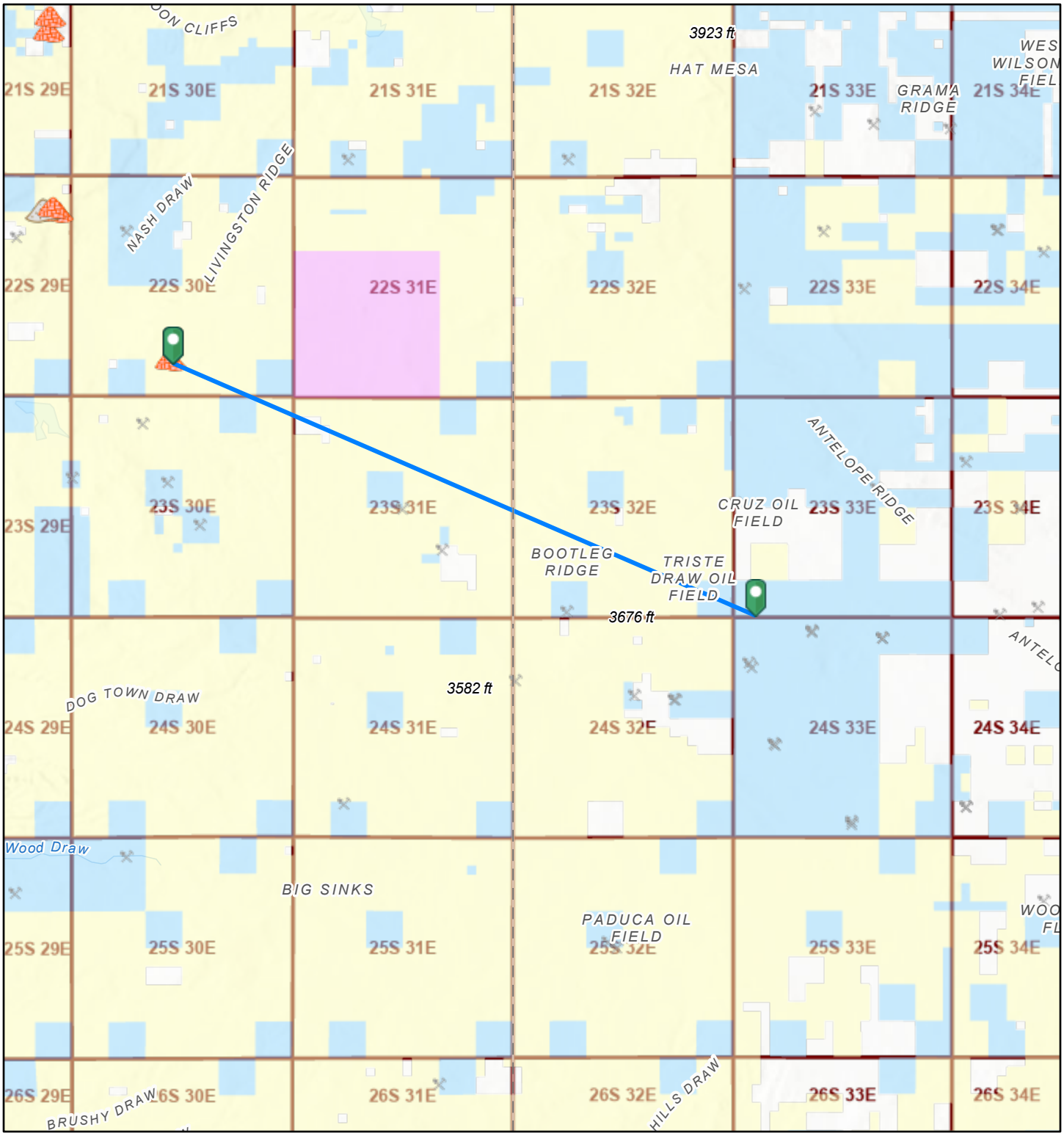
September 20, 2023

Wetlands

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

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/Subsurface Mine 17.4 Miles



12/12/2023, 7:56:54 AM

1:288,895

0 2 4 8 mi

0 3.25 6.5 13 km

Registered Mines

- Aggregate, Stone etc.
- Aggregate, Stone etc.
- Aggregate, Stone etc.
- Potash
- Salt

Land Ownership

- BLM
- DOE
- P
- S
- PLSS Townships

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

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

National Flood Hazard Layer FIRMette

FEMA

103°36'52"W 32°15'32"N

103°36'14"W 32°15'1"N

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

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 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.

APPENDIX C – Daily Field Reports

Daily Site Visit Report

Client:	XTO Energy Inc. (US)	Inspection Date:	9/22/2023
Site Location Name:	Mis Amigos	Report Run Date:	9/22/2023 9:43 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	9/22/2023 9:30 AM
Departed Site	

Field Notes

12:53 Arrived on site and filled out safety paperwork.

12:53 Mapped spill area and buried infrastructure.

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: West	**Viewing Direction**: South
	
Spill area.	Point of release.
Viewing Direction: North	**Viewing Direction**: West
	
Spill area.	Release area.

Daily Site Visit Report

Viewing Direction: East

Release area.

Viewing Direction: South

Release area near infrastructure.

Viewing Direction: South

Release area near infrastructure.

Daily Site Visit Report

Client:	XTO Energy Inc. (US)	Inspection Date:	10/27/2023
Site Location Name:	Mis Amigos	Report Run Date:	10/27/2023 10:44 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	10/27/2023 8:45 AM
Departed Site	10/27/2023 1:30 PM

Field Notes

9:43 Arrived on site and filled out safety paperwork.

9:44 Conducted site walkthrough and tailgate safety discussion with Tex Mex crew.

9:44 Loaded 3 belly dumps of materials to take to haul site.

9:44 Continued surface scrape of the excavation area.

13:13 Finished surface scrape and excavation pending confirmation sampling.

13:14 Collected, field screened, and jarred samples BES23-01 through 20 and WES23-01 through 04.

13:14 Hauled off another 3 belly dump trucks of dirty materials.

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: West	**Viewing Direction**: South
	
Western portion of excavation area near compressors.	Western portion of excavation area near compressors.
Viewing Direction: South	**Viewing Direction**: East
	
Excavation area near equipment.	2.5” excavation area near equipment.

Daily Site Visit Report

Viewing Direction: East

Spill area in equipment area that will be getting deferred.

Viewing Direction: South

Hand dig area in center of release area.

Viewing Direction: North

Excavation area in central-north area of release area.

Viewing Direction: South

Hand dig excavation around point of release, infrastructure, and electrical panels. This area will also be deferred.

Daily Site Visit Report

Viewing Direction: East

Deferred area in front of electrical panel.

Viewing Direction: Northeast

Surface scraped area in north eastern portion of release area.

Viewing Direction: West

Excavation looking from the east side.

Viewing Direction: Southwest

Excavation looking from north side.

APPENDIX D – Notifications

From: Collins, Melanie
To: ocd.enviro (ocd.enviro@emnrd.nm.gov); spills@slo.state.nm.us
Cc: Chance Dixon; Green, Garrett J; Lambert, Tommee L; DelawareSpills /SM
Subject: XTO Sampling Notification nAPP2324951631 Mis Amigos Tank Battery
Date: October 18, 2023 1:10:32 PM
Attachments: image001.png

All,

Please see the sampling schedule below for the Mis Amigos Tank Battery. Sampling will take place from 8 a.m. to 5 p.m. Please do not hesitate to reach out with questions or concerns.

Site Name	Mis Amigos Tank Battery
Location	O-31-23S-33E; Eddy County, NM
Incident ID	nAPP2324951631
Source & Description of Activities	Excavation and Sampling
Expected Duration for Activities	4 Days 10.23.2023 – 10.26.2023
Env Consultant	Vertex
Contractor	TexMex
Sampling Notification Required	Yes, 10.23.2023 – 10.27.2023 (NMOCD District 1)
Surface Owner	SLO

Thank you,

Melanie Collins

XTO ENERGY

Environmental Technician
melanie.collins@exxonmobil.com
432-556-3756

From: Collins, Melanie
To: ocd.enviro (ocd.enviro@emnrd.nm.gov); spills@slo.state.nm.us
Cc: Green, Garrett J; Chance Dixon; DelawareSpills /SM; Lambert, Tommee L
Subject: XTO Sampling Notifications 10/27/23-11/3/23
Date: October 25, 2023 1:11:39 PM
Attachments: image001.png

Please see the notifications below. Sites will be sampled beginning at 130 MT.

Site Name	Mis Amigos Tank Battery
Location	O-31-23S-33E; Eddy County, NM
Incident ID	nAPP2324951631
Source & Description of Activities	Excavation and Sampling
Expected Duration for Activities	4 Days 10.30.2023 – 11.03.2023
Env Consultant	Vertex
Contractor	TexMex
Sampling Notification Required	Yes, 10.27.2023 – 11.03.2023 at 12:00 p.m. (NMOCD District 1)
Surface Owner	SLO

Site Name	PLU Pierce Canyon 20-24-30
Location	B-20-24S-30E; Eddy County, NM
Incident ID	nAPP2324234725
Source & Description of Activities	Excavation and Sampling
Expected Duration for Activities	1 Day
Env Consultant	Vertex
Contractor	TexMex
Sampling Notification Required	Yes, 10.27.2023 – 11.01.2023 at 8:00 a.m. (NMOCD District 2)
Surface Owner	BLM

Thank you,

Melanie Collins
XTO ENERGY
Environmental Technician
melanie.collins@exxonmobil.com
432-556-3756

Collins, Melanie

From: OCDOnline@state.nm.us
Sent: Wednesday, September 6, 2023 3:21 PM
To: Collins, Melanie
Subject: The Oil Conservation Division (OCD) has accepted the application, Application ID: 262763

To whom it may concern (c/o Melanie Collins for XTO ENERGY, INC),

The OCD has accepted the submitted *Notification of a release* (NOR), for incident ID (n#) nAPP2324951631, with the following conditions:

- **When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141.**

Please reference nAPP2324951631, on all subsequent C-141 submissions and communications regarding the remediation of this release.
NOTE: As of December 2019, NMOCD has discontinued the use of the "RP" number.
If you have any questions regarding this application, or don't know why you have received this email, please contact us.

ocd.enviro@state.nm.us

New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Collins, Melanie

From: Collins, Melanie
Sent: Monday, August 28, 2023 9:20 AM
To: ocd.enviro (ocd.enviro@emnrd.nm.gov)
Cc: Green, Garrett J
Subject: 24-hour notification Mis Amigos Battery

All,

This is notification of a spill greater than 25 barrels that occurred Friday at the Mis Amigos Tank Battery. GPS coordinates are listed below. Details will be provided with a Form C-141. Please reach out if you have questions.

GPS 32.25462, -103.60923

Thank you,

Melanie Collins

XTO ENERGY

Environmental Technician
melanie.collins@exxonmobil.com
432-556-3756

APPENDIX E – Laboratory Data Reports and Chain of Custody Forms

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 10/5/2023 12:12:05 PM Revision 1

JOB DESCRIPTION

Mis Amigos CTB
SDG NUMBER 23E-05219

JOB NUMBER

890-5331-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

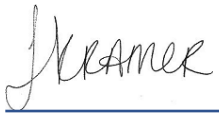
Eurofins Carlsbad

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
10/5/2023 12:12:05 PM
Revision 1

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

Client: Vertex
Project/Site: Mis Amigos CTB

Laboratory Job ID: 890-5331-1
SDG: 23E-05219

Table of Contents

Definitions/Glossary

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

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
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.
¤	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/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

Job ID: 890-5331-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-5331-1

REVISION

The report being provided is a revision of the original report sent on 10/2/2023. The report (revision 1) is being revised due to Chloride E300 and TPH 8015 missing on final report,.

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 9/22/2023 4:10 PM. 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 1.8°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH23-01 0' (890-5331-1), BH23-01 2' (890-5331-2), BH23-02 0' (890-5331-3) and BH23-02 2' (890-5331-4).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-63329 and 880-63562 and analytical batch 880-63583 was outside the upper control limits.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-63583 recovered under the lower control limit for Benzene, 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.>(CCV 880-63583/113)

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 880-63901 and analytical batch 880-63913 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH23-01 0' (890-5331-1), BH23-01 2' (890-5331-2), BH23-02 0' (890-5331-3), BH23-02 2' (890-5331-4), (890-5331-A-1-E MS) and (890-5331-A-1-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-63901/2-A). Evidence of matrix interferences is not obvious.

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: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-63860

Case Narrative

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

Job ID: 890-5331-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

and analytical batch 880-63882 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.

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

Client Sample ID: BH23-01 0'
Date Collected: 09/22/23 09:00
Date Received: 09/22/23 16:10
Sample Depth: 0'

Lab Sample ID: 890-5331-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/26/23 11:47	10/01/23 00:44	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/26/23 11:47	10/01/23 00:44	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/26/23 11:47	10/01/23 00:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/26/23 11:47	10/01/23 00:44	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/26/23 11:47	10/01/23 00:44	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/26/23 11:47	10/01/23 00:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*09/26/23 11:47*	*10/01/23 00:44*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*09/26/23 11:47*	*10/01/23 00:44*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/01/23 00:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			10/04/23 10:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		10/03/23 16:26	10/04/23 10:29	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		10/03/23 16:26	10/04/23 10:29	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		10/03/23 16:26	10/04/23 10:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*134*	*S1+*	*70 - 130*	*10/03/23 16:26*	*10/04/23 10:29*	*1*
o-Terphenyl	*120*		*70 - 130*	*10/03/23 16:26*	*10/04/23 10:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**362**		4.96		mg/Kg			10/03/23 16:44	1

Client Sample ID: BH23-01 2'
Date Collected: 09/22/23 09:05
Date Received: 09/22/23 16:10
Sample Depth: 2'

Lab Sample ID: 890-5331-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		09/26/23 11:47	10/01/23 01:04	1
Toluene	<0.00198	U	0.00198		mg/Kg		09/26/23 11:47	10/01/23 01:04	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		09/26/23 11:47	10/01/23 01:04	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		09/26/23 11:47	10/01/23 01:04	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		09/26/23 11:47	10/01/23 01:04	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		09/26/23 11:47	10/01/23 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*09/26/23 11:47*	*10/01/23 01:04*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

Client Sample ID: BH23-01 2'
Date Collected: 09/22/23 09:05
Date Received: 09/22/23 16:10
Sample Depth: 2'

Lab Sample ID: 890-5331-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*09/26/23 11:47*	*10/01/23 01:04*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			10/01/23 01:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**65.7**		50.3		mg/Kg			10/04/23 11:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		10/03/23 16:26	10/04/23 11:36	1
Diesel Range Organics (Over C10-C28)	**65.7**		50.3		mg/Kg		10/03/23 16:26	10/04/23 11:36	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		10/03/23 16:26	10/04/23 11:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*161*	*S1+*	*70 - 130*	*10/03/23 16:26*	*10/04/23 11:36*	*1*
o-Terphenyl	*141*	*S1+*	*70 - 130*	*10/03/23 16:26*	*10/04/23 11:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**182**		4.97		mg/Kg			10/03/23 17:04	1

Client Sample ID: BH23-02 0'
Date Collected: 09/22/23 09:10
Date Received: 09/22/23 16:10
Sample Depth: 0'

Lab Sample ID: 890-5331-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/26/23 11:47	10/01/23 01:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/26/23 11:47	10/01/23 01:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/26/23 11:47	10/01/23 01:24	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/26/23 11:47	10/01/23 01:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/26/23 11:47	10/01/23 01:24	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/26/23 11:47	10/01/23 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*09/26/23 11:47*	*10/01/23 01:24*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*09/26/23 11:47*	*10/01/23 01:24*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			10/01/23 01:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			10/04/23 11:58	1

Eurofins Carlsbad

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

Client Sample ID: BH23-02 0'
Date Collected: 09/22/23 09:10
Date Received: 09/22/23 16:10
Sample Depth: 0'

Lab Sample ID: 890-5331-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		10/03/23 16:26	10/04/23 11:58	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		10/03/23 16:26	10/04/23 11:58	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		10/03/23 16:26	10/04/23 11:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*131*	*S1+*	*70 - 130*	*10/03/23 16:26*	*10/04/23 11:58*	*1*
o-Terphenyl	*115*		*70 - 130*	*10/03/23 16:26*	*10/04/23 11:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**180**		4.99		mg/Kg			10/03/23 17:11	1

Client Sample ID: BH23-02 2'
Date Collected: 09/22/23 09:15
Date Received: 09/22/23 16:10
Sample Depth: 2'

Lab Sample ID: 890-5331-4
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/26/23 11:47	10/01/23 01:45	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/26/23 11:47	10/01/23 01:45	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/26/23 11:47	10/01/23 01:45	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/26/23 11:47	10/01/23 01:45	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/26/23 11:47	10/01/23 01:45	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/26/23 11:47	10/01/23 01:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*09/26/23 11:47*	*10/01/23 01:45*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*09/26/23 11:47*	*10/01/23 01:45*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/01/23 01:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			10/04/23 12:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		10/03/23 16:26	10/04/23 12:20	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		10/03/23 16:26	10/04/23 12:20	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		10/03/23 16:26	10/04/23 12:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*145*	*S1+*	*70 - 130*	*10/03/23 16:26*	*10/04/23 12:20*	*1*
o-Terphenyl	*125*		*70 - 130*	*10/03/23 16:26*	*10/04/23 12:20*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

Client Sample ID: BH23-02 2'

Date Collected: 09/22/23 09:15
Date Received: 09/22/23 16:10
Sample Depth: 2'

Lab Sample ID: 890-5331-4

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	124		5.03		mg/Kg			10/03/23 17:17	1

Surrogate Summary

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-33598-A-1-C MS	Matrix Spike	107	103
880-33598-A-1-D MSD	Matrix Spike Duplicate	103	106
890-5331-1	BH23-01 0'	107	103
890-5331-2	BH23-01 2'	96	112
890-5331-3	BH23-02 0'	96	109
890-5331-4	BH23-02 2'	98	109
LCS 880-63329/1-A	Lab Control Sample	103	103
LCSD 880-63329/2-A	Lab Control Sample Dup	101	102
MB 880-63329/5-A	Method Blank	123	144 S1+
MB 880-63562/5-A	Method Blank	117	142 S1+

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)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-5331-1	BH23-01 0'	134 S1+	120
890-5331-1 MS	BH23-01 0'	137 S1+	110
890-5331-1 MSD	BH23-01 0'	144 S1+	115
890-5331-2	BH23-01 2'	161 S1+	141 S1+
890-5331-3	BH23-02 0'	131 S1+	115
890-5331-4	BH23-02 2'	145 S1+	125
LCS 880-63901/2-A	Lab Control Sample	131 S1+	138 S1+
LCSD 880-63901/3-A	Lab Control Sample Dup	102	107
MB 880-63901/1-A	Method Blank	137 S1+	129

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-63329/5-A
Matrix: Solid
Analysis Batch: 63583

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 63329

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/26/23 11:47	09/30/23 22:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/26/23 11:47	09/30/23 22:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/26/23 11:47	09/30/23 22:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/26/23 11:47	09/30/23 22:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/26/23 11:47	09/30/23 22:53	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/26/23 11:47	09/30/23 22:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*09/26/23 11:47*	*09/30/23 22:53*	*1*
1,4-Difluorobenzene (Surr)	*144*	*S1+*	*70 - 130*	*09/26/23 11:47*	*09/30/23 22:53*	*1*

Lab Sample ID: LCS 880-63329/1-A
Matrix: Solid
Analysis Batch: 63583

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 63329

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09496		mg/Kg		95	70 - 130
Toluene	0.100	0.08562		mg/Kg		86	70 - 130
Ethylbenzene	0.100	0.08728		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	0.200	0.1933		mg/Kg		97	70 - 130
o-Xylene	0.100	0.08990		mg/Kg		90	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-63329/2-A
Matrix: Solid
Analysis Batch: 63583

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 63329

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1020		mg/Kg		102	70 - 130	7	35
Toluene	0.100	0.09114		mg/Kg		91	70 - 130	6	35
Ethylbenzene	0.100	0.09396		mg/Kg		94	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.2072		mg/Kg		104	70 - 130	7	35
o-Xylene	0.100	0.09677		mg/Kg		97	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 880-33598-A-1-C MS
Matrix: Solid
Analysis Batch: 63583

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 63329

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.09262		mg/Kg		93	70 - 130
Toluene	<0.00199	U	0.0998	0.08525		mg/Kg		85	70 - 130

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

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

Lab Sample ID: 880-33598-A-1-C MS
Matrix: Solid
Analysis Batch: 63583

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 63329

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0998	0.08089		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1860		mg/Kg		93	70 - 130
o-Xylene	<0.00199	U	0.0998	0.08966		mg/Kg		90	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-33598-A-1-D MSD
Matrix: Solid
Analysis Batch: 63583

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 63329

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0990	0.1018		mg/Kg		103	70 - 130	9	35
Toluene	<0.00199	U	0.0990	0.08439		mg/Kg		85	70 - 130	1	35
Ethylbenzene	<0.00199	U	0.0990	0.08888		mg/Kg		90	70 - 130	9	35
m-Xylene & p-Xylene	<0.00398	U	0.198	0.1999		mg/Kg		101	70 - 130	7	35
o-Xylene	<0.00199	U	0.0990	0.09272		mg/Kg		94	70 - 130	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: MB 880-63562/5-A
Matrix: Solid
Analysis Batch: 63583

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 63562

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/28/23 17:46	09/30/23 11:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/28/23 17:46	09/30/23 11:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/28/23 17:46	09/30/23 11:17	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/28/23 17:46	09/30/23 11:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/28/23 17:46	09/30/23 11:17	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/28/23 17:46	09/30/23 11:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*09/28/23 17:46*	*09/30/23 11:17*	*1*
1,4-Difluorobenzene (Surr)	*142*	*S1+*	*70 - 130*	*09/28/23 17:46*	*09/30/23 11:17*	*1*

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

Lab Sample ID: MB 880-63901/1-A
Matrix: Solid
Analysis Batch: 63913

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 63901

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/03/23 16:26	10/04/23 07:45	1

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

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

Lab Sample ID: MB 880-63901/1-A
Matrix: Solid
Analysis Batch: 63913

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 63901

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/03/23 16:26	10/04/23 07:45	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/03/23 16:26	10/04/23 07:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*137*	*S1+*	*70 - 130*	*10/03/23 16:26*	*10/04/23 07:45*	*1*
o-Terphenyl	*129*		*70 - 130*	*10/03/23 16:26*	*10/04/23 07:45*	*1*

Lab Sample ID: LCS 880-63901/2-A
Matrix: Solid
Analysis Batch: 63913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 63901

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	912.7		mg/Kg		91	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	907.4		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*131*	*S1+*	*70 - 130*
o-Terphenyl	*138*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-63901/3-A
Matrix: Solid
Analysis Batch: 63913

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 63901

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	897.4		mg/Kg		90	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	894.8		mg/Kg		89	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

Lab Sample ID: 890-5331-1 MS
Matrix: Solid
Analysis Batch: 63913

Client Sample ID: BH23-01 0'
Prep Type: Total/NA
Prep Batch: 63901

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	999	813.5		mg/Kg		79	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.7	U	999	1053		mg/Kg		103	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*137*	*S1+*	*70 - 130*
o-Terphenyl	*110*		*70 - 130*

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

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

Lab Sample ID: 890-5331-1 MSD
Matrix: Solid
Analysis Batch: 63913

Client Sample ID: BH23-01 0'
Prep Type: Total/NA
Prep Batch: 63901

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	999	835.4		mg/Kg		81	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.7	U	999	1108		mg/Kg		108	70 - 130	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*144*	*S1+*	*70 - 130*
o-Terphenyl	*115*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-63860/1-A
Matrix: Solid
Analysis Batch: 63882

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			10/03/23 14:25	1

Lab Sample ID: LCS 880-63860/2-A
Matrix: Solid
Analysis Batch: 63882

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	247.7		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-63860/3-A
Matrix: Solid
Analysis Batch: 63882

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	249.2		mg/Kg		100	90 - 110	1	20

Lab Sample ID: 880-33936-A-2-C MS
Matrix: Solid
Analysis Batch: 63882

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	967	F1	1250	2613	F1	mg/Kg		132	90 - 110

Lab Sample ID: 880-33936-A-2-E MSD
Matrix: Solid
Analysis Batch: 63882

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	967	F1	1250	2608	F1	mg/Kg		132	90 - 110	0	20

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

GC VOA

Prep Batch: 63329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5331-1	BH23-01 0'	Total/NA	Solid	5035	
890-5331-2	BH23-01 2'	Total/NA	Solid	5035	
890-5331-3	BH23-02 0'	Total/NA	Solid	5035	
890-5331-4	BH23-02 2'	Total/NA	Solid	5035	
MB 880-63329/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-63329/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-63329/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-33598-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-33598-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 63562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-63562/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 63583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5331-1	BH23-01 0'	Total/NA	Solid	8021B	63329
890-5331-2	BH23-01 2'	Total/NA	Solid	8021B	63329
890-5331-3	BH23-02 0'	Total/NA	Solid	8021B	63329
890-5331-4	BH23-02 2'	Total/NA	Solid	8021B	63329
MB 880-63329/5-A	Method Blank	Total/NA	Solid	8021B	63329
MB 880-63562/5-A	Method Blank	Total/NA	Solid	8021B	63562
LCS 880-63329/1-A	Lab Control Sample	Total/NA	Solid	8021B	63329
LCSD 880-63329/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	63329
880-33598-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	63329
880-33598-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	63329

Analysis Batch: 63789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5331-1	BH23-01 0'	Total/NA	Solid	Total BTEX	
890-5331-2	BH23-01 2'	Total/NA	Solid	Total BTEX	
890-5331-3	BH23-02 0'	Total/NA	Solid	Total BTEX	
890-5331-4	BH23-02 2'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 63901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5331-1	BH23-01 0'	Total/NA	Solid	8015NM Prep	
890-5331-2	BH23-01 2'	Total/NA	Solid	8015NM Prep	
890-5331-3	BH23-02 0'	Total/NA	Solid	8015NM Prep	
890-5331-4	BH23-02 2'	Total/NA	Solid	8015NM Prep	
MB 880-63901/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-63901/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-63901/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5331-1 MS	BH23-01 0'	Total/NA	Solid	8015NM Prep	
890-5331-1 MSD	BH23-01 0'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 63913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5331-1	BH23-01 0'	Total/NA	Solid	8015B NM	63901

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

GC Semi VOA (Continued)

Analysis Batch: 63913 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5331-2	BH23-01 2'	Total/NA	Solid	8015B NM	63901
890-5331-3	BH23-02 0'	Total/NA	Solid	8015B NM	63901
890-5331-4	BH23-02 2'	Total/NA	Solid	8015B NM	63901
MB 880-63901/1-A	Method Blank	Total/NA	Solid	8015B NM	63901
LCS 880-63901/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	63901
LCSD 880-63901/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	63901
890-5331-1 MS	BH23-01 0'	Total/NA	Solid	8015B NM	63901
890-5331-1 MSD	BH23-01 0'	Total/NA	Solid	8015B NM	63901

Analysis Batch: 64010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5331-1	BH23-01 0'	Total/NA	Solid	8015 NM	
890-5331-2	BH23-01 2'	Total/NA	Solid	8015 NM	
890-5331-3	BH23-02 0'	Total/NA	Solid	8015 NM	
890-5331-4	BH23-02 2'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 63860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5331-1	BH23-01 0'	Soluble	Solid	DI Leach	
890-5331-2	BH23-01 2'	Soluble	Solid	DI Leach	
890-5331-3	BH23-02 0'	Soluble	Solid	DI Leach	
890-5331-4	BH23-02 2'	Soluble	Solid	DI Leach	
MB 880-63860/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-63860/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-63860/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-33936-A-2-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-33936-A-2-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 63882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5331-1	BH23-01 0'	Soluble	Solid	300.0	63860
890-5331-2	BH23-01 2'	Soluble	Solid	300.0	63860
890-5331-3	BH23-02 0'	Soluble	Solid	300.0	63860
890-5331-4	BH23-02 2'	Soluble	Solid	300.0	63860
MB 880-63860/1-A	Method Blank	Soluble	Solid	300.0	63860
LCS 880-63860/2-A	Lab Control Sample	Soluble	Solid	300.0	63860
LCSD 880-63860/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	63860
880-33936-A-2-C MS	Matrix Spike	Soluble	Solid	300.0	63860
880-33936-A-2-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	63860

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

Client Sample ID: BH23-01 0'
Date Collected: 09/22/23 09:00
Date Received: 09/22/23 16:10

Lab Sample ID: 890-5331-1
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			5.02 g	5 mL	63329	09/26/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63583	10/01/23 00:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63789	10/01/23 00:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			64010	10/04/23 10:29	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	63901	10/03/23 16:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63913	10/04/23 10:29	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	63860	10/03/23 11:02	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63882	10/03/23 16:44	CH	EET MID

Client Sample ID: BH23-01 2'
Date Collected: 09/22/23 09:05
Date Received: 09/22/23 16:10

Lab Sample ID: 890-5331-2
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	63329	09/26/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63583	10/01/23 01:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63789	10/01/23 01:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			64010	10/04/23 11:36	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	63901	10/03/23 16:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63913	10/04/23 11:36	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	63860	10/03/23 11:02	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63882	10/03/23 17:04	CH	EET MID

Client Sample ID: BH23-02 0'
Date Collected: 09/22/23 09:10
Date Received: 09/22/23 16:10

Lab Sample ID: 890-5331-3
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			5.01 g	5 mL	63329	09/26/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63583	10/01/23 01:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63789	10/01/23 01:24	SM	EET MID
Total/NA	Analysis	8015 NM		1			64010	10/04/23 11:58	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	63901	10/03/23 16:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63913	10/04/23 11:58	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	63860	10/03/23 11:02	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63882	10/03/23 17:11	CH	EET MID

Client Sample ID: BH23-02 2'
Date Collected: 09/22/23 09:15
Date Received: 09/22/23 16:10

Lab Sample ID: 890-5331-4
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			5.03 g	5 mL	63329	09/26/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63583	10/01/23 01:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63789	10/01/23 01:45	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5331-1
SDG: 23E-05219

Client Sample ID: BH23-02 2'

Date Collected: 09/22/23 09:15
Date Received: 09/22/23 16:10

Lab Sample ID: 890-5331-4

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			64010	10/04/23 12:20	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	63901	10/03/23 16:26	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63913	10/04/23 12:20	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	63860	10/03/23 11:02	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63882	10/03/23 17:17	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 CTB

Job ID: 890-5331-1
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 CTB

Job ID: 890-5331-1
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 CTB

Job ID: 890-5331-1
SDG: 23E-05219

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5331-1	BH23-01 0'	Solid	09/22/23 09:00	09/22/23 16:10	0'
890-5331-2	BH23-01 2'	Solid	09/22/23 09:05	09/22/23 16:10	2'
890-5331-3	BH23-02 0'	Solid	09/22/23 09:10	09/22/23 16:10	0'
890-5331-4	BH23-02 2'	Solid	09/22/23 09:15	09/22/23 16:10	2'

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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

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Chance Dixon	Bill to: (if different)	Garrett Green
Company Name:	Vertex	Company Name:	XTO
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	Email:	cdixon@vertex.cg	

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:

Project Name:	Mis Amigos CTB	Turn Around	
Project Number:	23E-05819	☒ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Hunter Klein	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR#0007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.0
Total Containers:		Corrected Temperature:	1.8

Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	TPH	BTEX	Cl	Sample Comments
BH23-01	0'	Soil	9/22/23	9:00					X	X	X	
BH23-01	2'			9:05					X	X	X	
BH23-02	0'			9:10					X	X	X	
BH23-02	2'	↓	↓	9:15					X	X	X	

890-5331 Chain of Custody

ANALYSIS REQUEST

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

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 Tl 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 Tl 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	Hunter Klein	[illegible]	16 10 9-22			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Vertex

Job Number: 890-5331-1
SDG Number: 23E-05219

Login Number: 5331
List Number: 1
Creator: Bruns, Shannon

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: 890-5331-1
SDG Number: 23E-05219

Login Number: 5331
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 09/26/23 10:43 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	

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 10/3/2023 12:23:52 PM

JOB DESCRIPTION

Mis Amigos CTB
SDG NUMBER 23E-05219

JOB NUMBER

890-5338-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

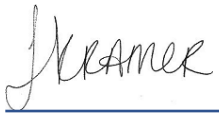
Eurofins Carlsbad

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



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10/3/2023 12:23:52 PM

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

Client: Vertex
Project/Site: Mis Amigos CTB

Laboratory Job ID: 890-5338-1
SDG: 23E-05219

Table of Contents

Definitions/Glossary

Client: Vertex Job ID: 890-5338-1
Project/Site: Mis Amigos CTB SDG: 23E-05219

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
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/Site: Mis Amigos CTB

Job ID: 890-5338-1
SDG: 23E-05219

Job ID: 890-5338-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-5338-1

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 9/25/2023 4:18 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH23-03 0 (890-5338-1), BH23-03 2 (890-5338-2), BH23-04 0 (890-5338-3), BH23-04 2 (890-5338-4), BH23-05 2 (890-5338-5) and BH23-05 0 (890-5338-6).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-63670 and analytical batch 880-63715 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 880-63535 and analytical batch 880-63577 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: BH23-04 2 (890-5338-4). 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
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5338-1
SDG: 23E-05219

Client Sample ID: BH23-03 0

Date Collected: 09/25/23 09:30
Date Received: 09/25/23 16:18

Lab Sample ID: 890-5338-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		09/29/23 16:40	10/02/23 17:44	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		09/29/23 16:40	10/02/23 17:44	1
Toluene	<0.00199	U	0.00199		mg/Kg		09/29/23 16:40	10/02/23 17:44	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		09/29/23 16:40	10/02/23 17:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		09/29/23 16:40	10/02/23 17:44	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		09/29/23 16:40	10/02/23 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*09/29/23 16:40*	*10/02/23 17:44*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*09/29/23 16:40*	*10/02/23 17:44*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			10/02/23 17:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/29/23 10:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/28/23 13:45	09/29/23 10:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/28/23 13:45	09/29/23 10:55	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/28/23 13:45	09/29/23 10:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*09/28/23 13:45*	*09/29/23 10:55*	*1*
o-Terphenyl	*103*		*70 - 130*	*09/28/23 13:45*	*09/29/23 10:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**136**		5.02		mg/Kg			09/28/23 21:18	1

Client Sample ID: BH23-03 2

Date Collected: 09/25/23 09:35
Date Received: 09/25/23 16:18

Lab Sample ID: 890-5338-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 18:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 18:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 18:04	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/29/23 16:40	10/02/23 18:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/29/23 16:40	10/02/23 18:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 18:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*09/29/23 16:40*	*10/02/23 18:04*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*09/29/23 16:40*	*10/02/23 18:04*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5338-1
SDG: 23E-05219

Client Sample ID: BH23-03 2

Date Collected: 09/25/23 09:35
Date Received: 09/25/23 16:18

Lab Sample ID: 890-5338-2
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			10/02/23 18:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			09/29/23 12:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		09/28/23 13:45	09/29/23 12:02	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		09/28/23 13:45	09/29/23 12:02	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		09/28/23 13:45	09/29/23 12:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*09/28/23 13:45*	*09/29/23 12:02*	*1*
o-Terphenyl	*79*		*70 - 130*	*09/28/23 13:45*	*09/29/23 12:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**112**		5.05		mg/Kg			09/28/23 21:38	1

Client Sample ID: BH23-04 0

Date Collected: 09/25/23 09:40
Date Received: 09/25/23 16:18

Lab Sample ID: 890-5338-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/29/23 16:40	10/02/23 18:25	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/29/23 16:40	10/02/23 18:25	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/29/23 16:40	10/02/23 18:25	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/29/23 16:40	10/02/23 18:25	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/29/23 16:40	10/02/23 18:25	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/29/23 16:40	10/02/23 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*09/29/23 16:40*	*10/02/23 18:25*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*09/29/23 16:40*	*10/02/23 18:25*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			10/02/23 18:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/29/23 12:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/28/23 13:45	09/29/23 12:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/28/23 13:45	09/29/23 12:24	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5338-1
SDG: 23E-05219

Client Sample ID: BH23-04 0

Date Collected: 09/25/23 09:40
Date Received: 09/25/23 16:18

Lab Sample ID: 890-5338-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/28/23 13:45	09/29/23 12:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*126*		*70 - 130*	*09/28/23 13:45*	*09/29/23 12:24*	*1*
o-Terphenyl	*112*		*70 - 130*	*09/28/23 13:45*	*09/29/23 12:24*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**32.5**		4.99		mg/Kg			09/28/23 21:44	1

Client Sample ID: BH23-04 2

Date Collected: 09/25/23 09:45
Date Received: 09/25/23 16:18

Lab Sample ID: 890-5338-4

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 18:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 18:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 18:45	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		09/29/23 16:40	10/02/23 18:45	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		09/29/23 16:40	10/02/23 18:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*09/29/23 16:40*	*10/02/23 18:45*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*09/29/23 16:40*	*10/02/23 18:45*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			10/02/23 18:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			09/29/23 12:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		09/28/23 13:45	09/29/23 12:46	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		09/28/23 13:45	09/29/23 12:46	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		09/28/23 13:45	09/29/23 12:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*133*	*S1+*	*70 - 130*	*09/28/23 13:45*	*09/29/23 12:46*	*1*
o-Terphenyl	*119*		*70 - 130*	*09/28/23 13:45*	*09/29/23 12:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.3**		5.00		mg/Kg			09/28/23 21:51	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5338-1
SDG: 23E-05219

Client Sample ID: BH23-05 2

Date Collected: 09/25/23 09:50
Date Received: 09/25/23 16:18

Lab Sample ID: 890-5338-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 19:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 19:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 19:05	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/29/23 16:40	10/02/23 19:05	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/29/23 16:40	10/02/23 19:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 19:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*09/29/23 16:40*	*10/02/23 19:05*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*09/29/23 16:40*	*10/02/23 19:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			10/02/23 19:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			09/29/23 13:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		09/28/23 13:45	09/29/23 13:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/28/23 13:45	09/29/23 13:09	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/28/23 13:45	09/29/23 13:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*125*		*70 - 130*	*09/28/23 13:45*	*09/29/23 13:09*	*1*
o-Terphenyl	*114*		*70 - 130*	*09/28/23 13:45*	*09/29/23 13:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**108**		5.00		mg/Kg			09/28/23 21:58	1

Client Sample ID: BH23-05 0

Date Collected: 09/25/23 09:55
Date Received: 09/25/23 16:18

Lab Sample ID: 890-5338-6
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		09/29/23 16:40	10/02/23 19:26	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		09/29/23 16:40	10/02/23 19:26	1
Toluene	<0.00198	U	0.00198		mg/Kg		09/29/23 16:40	10/02/23 19:26	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		09/29/23 16:40	10/02/23 19:26	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		09/29/23 16:40	10/02/23 19:26	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		09/29/23 16:40	10/02/23 19:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*09/29/23 16:40*	*10/02/23 19:26*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*09/29/23 16:40*	*10/02/23 19:26*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5338-1
SDG: 23E-05219

Client Sample ID: BH23-05 0

Date Collected: 09/25/23 09:55
Date Received: 09/25/23 16:18

Lab Sample ID: 890-5338-6

Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			10/02/23 19:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			09/29/23 13:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/28/23 13:45	09/29/23 13:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/28/23 13:45	09/29/23 13:31	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/28/23 13:45	09/29/23 13:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*09/28/23 13:45*	*09/29/23 13:31*	*1*
o-Terphenyl	*101*		*70 - 130*	*09/28/23 13:45*	*09/29/23 13:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**55.0**		5.04		mg/Kg			09/28/23 22:04	1

Surrogate Summary

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5338-1
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 (70-130)	DFBZ1 (70-130)
890-5338-1	BH23-03 0	92	107
890-5338-2	BH23-03 2	100	102
890-5338-3	BH23-04 0	99	107
890-5338-4	BH23-04 2	101	112
890-5338-5	BH23-05 2	106	108
890-5338-6	BH23-05 0	102	110
890-5373-A-1-A MS	Matrix Spike	107	108
890-5373-A-1-B MSD	Matrix Spike Duplicate	105	102
LCS 880-63670/1-A	Lab Control Sample	98	100
LCSD 880-63670/2-A	Lab Control Sample Dup	95	101
MB 880-63670/5-A	Method Blank	116	141 S1+

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 (70-130)	OTPH1 (70-130)
890-5338-1	BH23-03 0	115	103
890-5338-1 MS	BH23-03 0	116	94
890-5338-1 MSD	BH23-03 0	119	95
890-5338-2	BH23-03 2	87	79
890-5338-3	BH23-04 0	126	112
890-5338-4	BH23-04 2	133 S1+	119
890-5338-5	BH23-05 2	125	114
890-5338-6	BH23-05 0	111	101
LCS 880-63535/2-A	Lab Control Sample	111	128
LCSD 880-63535/3-A	Lab Control Sample Dup	115	125
MB 880-63535/1-A	Method Blank	176 S1+	174 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5338-1
SDG: 23E-05219

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-63670/5-A
Matrix: Solid
Analysis Batch: 63715

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 63670

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 12:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 12:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 12:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/29/23 16:40	10/02/23 12:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/29/23 16:40	10/02/23 12:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/29/23 16:40	10/02/23 12:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*09/29/23 16:40*	*10/02/23 12:00*	*1*
1,4-Difluorobenzene (Surr)	*141*	*S1+*	*70 - 130*	*09/29/23 16:40*	*10/02/23 12:00*	*1*

Lab Sample ID: LCS 880-63670/1-A
Matrix: Solid
Analysis Batch: 63715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 63670

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1067		mg/Kg		107	70 - 130
Ethylbenzene	0.100	0.1003		mg/Kg		100	70 - 130
Toluene	0.100	0.1006		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	0.200	0.2199		mg/Kg		110	70 - 130
o-Xylene	0.100	0.1011		mg/Kg		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-63670/2-A
Matrix: Solid
Analysis Batch: 63715

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 63670

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1116		mg/Kg		112	70 - 130	5	35
Ethylbenzene	0.100	0.09783		mg/Kg		98	70 - 130	3	35
Toluene	0.100	0.1030		mg/Kg		103	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2063		mg/Kg		103	70 - 130	6	35
o-Xylene	0.100	0.09615		mg/Kg		96	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-5373-A-1-A MS
Matrix: Solid
Analysis Batch: 63715

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 63670

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0990	0.1060		mg/Kg		107	70 - 130
Ethylbenzene	<0.00200	U	0.0990	0.08474		mg/Kg		86	70 - 130

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5338-1
SDG: 23E-05219

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

Lab Sample ID: 890-5373-A-1-A MS
Matrix: Solid
Analysis Batch: 63715

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 63670

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	<0.00200	U	0.0990	0.09041		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.198	0.1831		mg/Kg		92	70 - 130
o-Xylene	<0.00200	U	0.0990	0.09980		mg/Kg		100	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: 890-5373-A-1-B MSD
Matrix: Solid
Analysis Batch: 63715

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 63670

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.09539		mg/Kg		96	70 - 130	11	35
Ethylbenzene	<0.00200	U	0.0990	0.08686		mg/Kg		88	70 - 130	2	35
Toluene	<0.00200	U	0.0990	0.08679		mg/Kg		88	70 - 130	4	35
m-Xylene & p-Xylene	<0.00399	U	0.198	0.1965		mg/Kg		99	70 - 130	7	35
o-Xylene	<0.00200	U	0.0990	0.09409		mg/Kg		95	70 - 130	6	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

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

Lab Sample ID: MB 880-63535/1-A
Matrix: Solid
Analysis Batch: 63577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 63535

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/28/23 13:45	09/29/23 08:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/28/23 13:45	09/29/23 08:01	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/28/23 13:45	09/29/23 08:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*176*	*S1+*	*70 - 130*	*09/28/23 13:45*	*09/29/23 08:01*	*1*
o-Terphenyl	*174*	*S1+*	*70 - 130*	*09/28/23 13:45*	*09/29/23 08:01*	*1*

Lab Sample ID: LCS 880-63535/2-A
Matrix: Solid
Analysis Batch: 63577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 63535

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1088		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1062		mg/Kg		106	70 - 130

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QC Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5338-1
SDG: 23E-05219

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

Lab Sample ID: LCS 880-63535/2-A
Matrix: Solid
Analysis Batch: 63577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 63535

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	128		70 - 130

Lab Sample ID: LCSD 880-63535/3-A
Matrix: Solid
Analysis Batch: 63577

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 63535

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1105		mg/Kg		111	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	1060		mg/Kg		106	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	125		70 - 130

Lab Sample ID: 890-5338-1 MS
Matrix: Solid
Analysis Batch: 63577

Client Sample ID: BH23-03 0
Prep Type: Total/NA
Prep Batch: 63535

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1010	1293		mg/Kg		125	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	1010	1151		mg/Kg		114	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	116		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-5338-1 MSD
Matrix: Solid
Analysis Batch: 63577

Client Sample ID: BH23-03 0
Prep Type: Total/NA
Prep Batch: 63535

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	<49.9	U	1010	1312		mg/Kg		127	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1010	1174		mg/Kg		117	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	119		70 - 130
o-Terphenyl	95		70 - 130

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5338-1
SDG: 23E-05219

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-63489/1-A
Matrix: Solid
Analysis Batch: 63547

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/28/23 18:58	1

Lab Sample ID: LCS 880-63489/2-A
Matrix: Solid
Analysis Batch: 63547

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	247.2		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-63489/3-A
Matrix: Solid
Analysis Batch: 63547

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	247.7		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 880-33744-A-1-B MS
Matrix: Solid
Analysis Batch: 63547

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	739		252	967.8		mg/Kg		91	90 - 110		

Lab Sample ID: 880-33744-A-1-C MSD
Matrix: Solid
Analysis Batch: 63547

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	739		252	968.5		mg/Kg		91	90 - 110	0	20

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5338-1
SDG: 23E-05219

GC VOA

Prep Batch: 63670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5338-1	BH23-03 0	Total/NA	Solid	5035	
890-5338-2	BH23-03 2	Total/NA	Solid	5035	
890-5338-3	BH23-04 0	Total/NA	Solid	5035	
890-5338-4	BH23-04 2	Total/NA	Solid	5035	
890-5338-5	BH23-05 2	Total/NA	Solid	5035	
890-5338-6	BH23-05 0	Total/NA	Solid	5035	
MB 880-63670/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-63670/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-63670/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5373-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-5373-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 63715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5338-1	BH23-03 0	Total/NA	Solid	8021B	63670
890-5338-2	BH23-03 2	Total/NA	Solid	8021B	63670
890-5338-3	BH23-04 0	Total/NA	Solid	8021B	63670
890-5338-4	BH23-04 2	Total/NA	Solid	8021B	63670
890-5338-5	BH23-05 2	Total/NA	Solid	8021B	63670
890-5338-6	BH23-05 0	Total/NA	Solid	8021B	63670
MB 880-63670/5-A	Method Blank	Total/NA	Solid	8021B	63670
LCS 880-63670/1-A	Lab Control Sample	Total/NA	Solid	8021B	63670
LCSD 880-63670/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	63670
890-5373-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	63670
890-5373-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	63670

Analysis Batch: 63875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5338-1	BH23-03 0	Total/NA	Solid	Total BTEX	
890-5338-2	BH23-03 2	Total/NA	Solid	Total BTEX	
890-5338-3	BH23-04 0	Total/NA	Solid	Total BTEX	
890-5338-4	BH23-04 2	Total/NA	Solid	Total BTEX	
890-5338-5	BH23-05 2	Total/NA	Solid	Total BTEX	
890-5338-6	BH23-05 0	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 63535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5338-1	BH23-03 0	Total/NA	Solid	8015NM Prep	
890-5338-2	BH23-03 2	Total/NA	Solid	8015NM Prep	
890-5338-3	BH23-04 0	Total/NA	Solid	8015NM Prep	
890-5338-4	BH23-04 2	Total/NA	Solid	8015NM Prep	
890-5338-5	BH23-05 2	Total/NA	Solid	8015NM Prep	
890-5338-6	BH23-05 0	Total/NA	Solid	8015NM Prep	
MB 880-63535/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-63535/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-63535/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5338-1 MS	BH23-03 0	Total/NA	Solid	8015NM Prep	
890-5338-1 MSD	BH23-03 0	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5338-1
SDG: 23E-05219

GC Semi VOA

Analysis Batch: 63577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5338-1	BH23-03 0	Total/NA	Solid	8015B NM	63535
890-5338-2	BH23-03 2	Total/NA	Solid	8015B NM	63535
890-5338-3	BH23-04 0	Total/NA	Solid	8015B NM	63535
890-5338-4	BH23-04 2	Total/NA	Solid	8015B NM	63535
890-5338-5	BH23-05 2	Total/NA	Solid	8015B NM	63535
890-5338-6	BH23-05 0	Total/NA	Solid	8015B NM	63535
MB 880-63535/1-A	Method Blank	Total/NA	Solid	8015B NM	63535
LCS 880-63535/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	63535
LCSD 880-63535/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	63535
890-5338-1 MS	BH23-03 0	Total/NA	Solid	8015B NM	63535
890-5338-1 MSD	BH23-03 0	Total/NA	Solid	8015B NM	63535

Analysis Batch: 63743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5338-1	BH23-03 0	Total/NA	Solid	8015 NM	
890-5338-2	BH23-03 2	Total/NA	Solid	8015 NM	
890-5338-3	BH23-04 0	Total/NA	Solid	8015 NM	
890-5338-4	BH23-04 2	Total/NA	Solid	8015 NM	
890-5338-5	BH23-05 2	Total/NA	Solid	8015 NM	
890-5338-6	BH23-05 0	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 63489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5338-1	BH23-03 0	Soluble	Solid	DI Leach	
890-5338-2	BH23-03 2	Soluble	Solid	DI Leach	
890-5338-3	BH23-04 0	Soluble	Solid	DI Leach	
890-5338-4	BH23-04 2	Soluble	Solid	DI Leach	
890-5338-5	BH23-05 2	Soluble	Solid	DI Leach	
890-5338-6	BH23-05 0	Soluble	Solid	DI Leach	
MB 880-63489/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-63489/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-63489/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-33744-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-33744-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 63547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5338-1	BH23-03 0	Soluble	Solid	300.0	63489
890-5338-2	BH23-03 2	Soluble	Solid	300.0	63489
890-5338-3	BH23-04 0	Soluble	Solid	300.0	63489
890-5338-4	BH23-04 2	Soluble	Solid	300.0	63489
890-5338-5	BH23-05 2	Soluble	Solid	300.0	63489
890-5338-6	BH23-05 0	Soluble	Solid	300.0	63489
MB 880-63489/1-A	Method Blank	Soluble	Solid	300.0	63489
LCS 880-63489/2-A	Lab Control Sample	Soluble	Solid	300.0	63489
LCSD 880-63489/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	63489
880-33744-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	63489
880-33744-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	63489

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5338-1
SDG: 23E-05219

Client Sample ID: BH23-03 0

Lab Sample ID: 890-5338-1

Date Collected: 09/25/23 09:30
Matrix: Solid
Date Received: 09/25/23 16:18

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	63670	09/29/23 16:40	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63715	10/02/23 17:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63875	10/02/23 17:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			63743	09/29/23 10:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	63535	09/28/23 13:45	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63577	09/29/23 10:55	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	63489	09/28/23 12:57	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63547	09/28/23 21:18	CH	EET MID

Client Sample ID: BH23-03 2

Lab Sample ID: 890-5338-2

Date Collected: 09/25/23 09:35
Matrix: Solid
Date Received: 09/25/23 16:18

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	63670	09/29/23 16:40	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63715	10/02/23 18:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63875	10/02/23 18:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			63743	09/29/23 12:02	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	63535	09/28/23 13:45	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63577	09/29/23 12:02	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	63489	09/28/23 12:57	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63547	09/28/23 21:38	CH	EET MID

Client Sample ID: BH23-04 0

Lab Sample ID: 890-5338-3

Date Collected: 09/25/23 09:40
Matrix: Solid
Date Received: 09/25/23 16:18

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	63670	09/29/23 16:40	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63715	10/02/23 18:25	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63875	10/02/23 18:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			63743	09/29/23 12:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	63535	09/28/23 13:45	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63577	09/29/23 12:24	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	63489	09/28/23 12:57	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63547	09/28/23 21:44	CH	EET MID

Client Sample ID: BH23-04 2

Lab Sample ID: 890-5338-4

Date Collected: 09/25/23 09:45
Matrix: Solid
Date Received: 09/25/23 16:18

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	63670	09/29/23 16:40	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63715	10/02/23 18:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63875	10/02/23 18:45	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos CTB

Job ID: 890-5338-1
SDG: 23E-05219

Client Sample ID: BH23-04 2

Lab Sample ID: 890-5338-4
Matrix: Solid
Date Collected: 09/25/23 09:45
Date Received: 09/25/23 16:18

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			63743	09/29/23 12:46	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	63535	09/28/23 13:45	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63577	09/29/23 12:46	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	63489	09/28/23 12:57	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63547	09/28/23 21:51	CH	EET MID

Client Sample ID: BH23-05 2

Lab Sample ID: 890-5338-5
Matrix: Solid
Date Collected: 09/25/23 09:50
Date Received: 09/25/23 16:18

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	63670	09/29/23 16:40	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63715	10/02/23 19:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63875	10/02/23 19:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			63743	09/29/23 13:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	63535	09/28/23 13:45	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63577	09/29/23 13:09	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	63489	09/28/23 12:57	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63547	09/28/23 21:58	CH	EET MID

Client Sample ID: BH23-05 0

Lab Sample ID: 890-5338-6
Matrix: Solid
Date Collected: 09/25/23 09:55
Date Received: 09/25/23 16:18

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	63670	09/29/23 16:40	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63715	10/02/23 19:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63875	10/02/23 19:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			63743	09/29/23 13:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	63535	09/28/23 13:45	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63577	09/29/23 13:31	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	63489	09/28/23 12:57	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63547	09/28/23 22:04	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 CTB

Job ID: 890-5338-1
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 CTB

Job ID: 890-5338-1
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 CTB

Job ID: 890-5338-1
SDG: 23E-05219

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-5338-1	BH23-03 0	Solid	09/25/23 09:30	09/25/23 16:18
890-5338-2	BH23-03 2	Solid	09/25/23 09:35	09/25/23 16:18
890-5338-3	BH23-04 0	Solid	09/25/23 09:40	09/25/23 16:18
890-5338-4	BH23-04 2	Solid	09/25/23 09:45	09/25/23 16:18
890-5338-5	BH23-05 2	Solid	09/25/23 09:50	09/25/23 16:18
890-5338-6	BH23-05 0	Solid	09/25/23 09:55	09/25/23 16:18

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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

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Chance Dixon	Bill to: (if different)	Garrett Green
Company Name:	Vertex	Company Name:	XTO
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	Email:		

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:

Project Name:	Mis Amigos CTB	Turn Around	
Project Number:	23E-05819	☒ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Hunter Klein	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	~~TM007~~
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.2
Total Containers:		Corrected Temperature:	2.0

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	TPH	BTEX	Cl
BH23-03 0'	Soil	9/25/23	9:30				X	X	X
BH23-03 2'			9:35						
BH23-04 0'			9:40						
BH23-04 2'			9:45						
BH23-05 0'			9:50						
BH23-05 2'			9:55						

890-5338 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

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 Tl 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 Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Hunter Klein	Abraham	16:18 9-25	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone. 575-988-3199 Fax. 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-1529 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Jessica Kramer@et.eurofinsus.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-5338-1
Address: 1211 W Florida Ave	Due Date Requested: 9/29/2023			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: mis amigos ctb	Project #: 89000162			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q - Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX - LL	Total_BTEX_GCV	8015MOD_Calc	Total Number of containers	Special Instructions/Note.
			Preservation Code:										
BH23-03 0 (890-5338-1)	9/25/23	09 30 Mountain		Solid			X	X	X	X	X	1	
BH23-03 2 (890-5338-2)	9/25/23	09 35 Mountain		Solid			X	X	X	X	X	1	
BH23-04 0 (890-5338-3)	9/25/23	09 40 Mountain		Solid			X	X	X	X	X	1	
BH23-04 2 (890-5338-4)	9/25/23	09 45 Mountain		Solid			X	X	X	X	X	1	
BH23-05 2 (890-5338-5)	9/25/23	09 50 Mountain		Solid			X	X	X	X	X	1	
BH23-05 0 (890-5338-6)	9/25/23	09 55 Mountain		Solid			X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Vertex

Job Number: 890-5338-1
SDG Number: 23E-05219

Login Number: 5338
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: 890-5338-1
SDG Number: 23E-05219

Login Number: 5338
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 09/27/23 10:53 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	

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 10/2/2023 2:14:05 PM

JOB DESCRIPTION

MIS AMIGOS CTB
SDG NUMBER 23E 05219

JOB NUMBER

890-5357-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

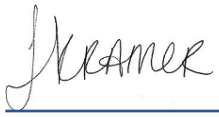
Eurofins Carlsbad

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
10/2/2023 2:14:05 PM

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

Client: Vertex
Project/Site: MIS AMIGOS CTB

Laboratory Job ID: 890-5357-1
SDG: 23E 05219

Table of Contents

Definitions/Glossary

Client: Vertex Job ID: 890-5357-1
Project/Site: MIS AMIGOS CTB SDG: 23E 05219

Qualifiers

GC 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.

GC Semi VOA

Qualifier	Qualifier Description
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/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

Job ID: 890-5357-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-5357-1

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 9/27/2023 9:40 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 -1.2°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH23-06 (890-5357-1), BH23-06 (890-5357-2), BH23-06 (890-5357-3), BH23-07 (890-5357-4), BH23-07 (890-5357-5), BH23-08 (890-5357-6), BH23-08 (890-5357-7), BH23-09 (890-5357-8), BH23-09 (890-5357-9) and BH23-09 (890-5357-10).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: BH23-06 (890-5357-1), BH23-06 (890-5357-2) and (LCSD 880-63531/2-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-63478 recovered above the upper control limit for Ethylbenzene and o-Xylene. The samples associated with this CCV was ran within 12 hours of passing CCV; therefore, the data have been reported.

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH23-08 (890-5357-6) and BH23-09 (890-5357-10). 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.

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-63658 and analytical batch 880-63688 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (CCV 880-63690/45). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

Client Sample ID: BH23-06

Date Collected: 09/26/23 09:30
Date Received: 09/27/23 09:40
Sample Depth: 0'

Lab Sample ID: 890-5357-1
Matrix: Solid

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		09/28/23 13:02	09/28/23 22:23	1
Toluene	<0.00198	U	0.00198		mg/Kg		09/28/23 13:02	09/28/23 22:23	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		09/28/23 13:02	09/28/23 22:23	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		09/28/23 13:02	09/28/23 22:23	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		09/28/23 13:02	09/28/23 22:23	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		09/28/23 13:02	09/28/23 22:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*09/28/23 13:02*	*09/28/23 22:23*	*1*
1,4-Difluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*09/28/23 13:02*	*09/28/23 22:23*	*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			09/28/23 22:23	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			09/30/23 20:02	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		09/29/23 14:33	09/30/23 20:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/29/23 14:33	09/30/23 20:02	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/29/23 14:33	09/30/23 20:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*09/29/23 14:33*	*09/30/23 20:02*	*1*
o-Terphenyl	*109*		*70 - 130*	*09/29/23 14:33*	*09/30/23 20:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**105**		4.95		mg/Kg			09/28/23 19:18	1

Client Sample ID: BH23-06

Date Collected: 09/26/23 09:35
Date Received: 09/27/23 09:40
Sample Depth: 2'

Lab Sample ID: 890-5357-2
Matrix: Solid

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		09/28/23 13:02	09/28/23 22:44	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/28/23 13:02	09/28/23 22:44	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/28/23 13:02	09/28/23 22:44	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		09/28/23 13:02	09/28/23 22:44	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/28/23 13:02	09/28/23 22:44	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/28/23 13:02	09/28/23 22:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*09/28/23 13:02*	*09/28/23 22:44*	*1*

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Client Sample Results

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

Client Sample ID: BH23-06

Date Collected: 09/26/23 09:35
Date Received: 09/27/23 09:40
Sample Depth: 2'

Lab Sample ID: 890-5357-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*62*	*S1-*	*70 - 130*	*09/28/23 13:02*	*09/28/23 22:44*	*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			09/28/23 22:44	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			09/30/23 21:06	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	<50.3	U	50.3	mg/Kg		09/29/23 14:33	09/30/23 21:06	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3	mg/Kg		09/29/23 14:33	09/30/23 21:06	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3	mg/Kg		09/29/23 14:33	09/30/23 21:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*09/29/23 14:33*	*09/30/23 21:06*	*1*
o-Terphenyl	*91*		*70 - 130*	*09/29/23 14:33*	*09/30/23 21:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1110**		4.99	mg/Kg			09/28/23 19:38	1

Client Sample ID: BH23-06

Date Collected: 09/26/23 09:40
Date Received: 09/27/23 09:40
Sample Depth: 0'

Lab Sample ID: 890-5357-3
Matrix: Solid

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		09/28/23 13:02	09/28/23 23:04	1
Toluene	<0.00201	U	0.00201	mg/Kg		09/28/23 13:02	09/28/23 23:04	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		09/28/23 13:02	09/28/23 23:04	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		09/28/23 13:02	09/28/23 23:04	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		09/28/23 13:02	09/28/23 23:04	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		09/28/23 13:02	09/28/23 23:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*09/28/23 13:02*	*09/28/23 23:04*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*09/28/23 13:02*	*09/28/23 23:04*	*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			09/28/23 23:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**94.7**		50.5	mg/Kg			09/30/23 21:28	1

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Client Sample Results

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

Client Sample ID: BH23-06

Lab Sample ID: 890-5357-3
Matrix: Solid
Date Collected: 09/26/23 09:40
Date Received: 09/27/23 09:40
Sample Depth: 0'

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		09/29/23 14:33	09/30/23 21:28	1
Diesel Range Organics (Over C10-C28)	**94.7**		50.5		mg/Kg		09/29/23 14:33	09/30/23 21:28	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		09/29/23 14:33	09/30/23 21:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*09/29/23 14:33*	*09/30/23 21:28*	*1*
o-Terphenyl	*95*		*70 - 130*	*09/29/23 14:33*	*09/30/23 21:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11600**		99.6		mg/Kg			09/28/23 19:44	20

Client Sample ID: BH23-07

Lab Sample ID: 890-5357-4
Matrix: Solid
Date Collected: 09/26/23 09:45
Date Received: 09/27/23 09:40
Sample Depth: 2'

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		09/28/23 13:02	09/28/23 23:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/28/23 23:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/28/23 23:24	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		09/28/23 13:02	09/28/23 23:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/28/23 23:24	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		09/28/23 13:02	09/28/23 23:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*09/28/23 13:02*	*09/28/23 23:24*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*09/28/23 13:02*	*09/28/23 23:24*	*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			09/28/23 23:24	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			09/30/23 21:49	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		09/29/23 14:33	09/30/23 21:49	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		09/29/23 14:33	09/30/23 21:49	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		09/29/23 14:33	09/30/23 21:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*09/29/23 14:33*	*09/30/23 21:49*	*1*
o-Terphenyl	*93*		*70 - 130*	*09/29/23 14:33*	*09/30/23 21:49*	*1*

Client Sample Results

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

Client Sample ID: BH23-07

Lab Sample ID: 890-5357-4
Matrix: Solid
Date Collected: 09/26/23 09:45
Date Received: 09/27/23 09:40
Sample Depth: 2'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	211		5.00		mg/Kg			09/28/23 19:51	1

Client Sample ID: BH23-07

Lab Sample ID: 890-5357-5
Matrix: Solid
Date Collected: 09/26/23 09:50
Date Received: 09/27/23 09:40
Sample Depth: 0'

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		09/28/23 13:02	09/28/23 23:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/28/23 23:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/28/23 23:45	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/28/23 13:02	09/28/23 23:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/28/23 23:45	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/28/23 13:02	09/28/23 23:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*09/28/23 13:02*	*09/28/23 23:45*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*09/28/23 13:02*	*09/28/23 23:45*	*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			09/28/23 23:45	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			09/30/23 22:10	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		09/29/23 14:33	09/30/23 22:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/29/23 14:33	09/30/23 22:10	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/29/23 14:33	09/30/23 22:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*09/29/23 14:33*	*09/30/23 22:10*	*1*
o-Terphenyl	*84*		*70 - 130*	*09/29/23 14:33*	*09/30/23 22:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6280		49.7		mg/Kg			09/28/23 19:58	10

Client Sample Results

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

Client Sample ID: BH23-08

Date Collected: 09/26/23 09:55
Date Received: 09/27/23 09:40
Sample Depth: 2'

Lab Sample ID: 890-5357-6
Matrix: Solid

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		09/28/23 13:02	09/29/23 00:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/29/23 00:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/29/23 00:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/28/23 13:02	09/29/23 00:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/29/23 00:05	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/28/23 13:02	09/29/23 00:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*55*	*S1-*	*70 - 130*	*09/28/23 13:02*	*09/29/23 00:05*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*09/28/23 13:02*	*09/29/23 00:05*	*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			09/29/23 00:05	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			09/30/23 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	<49.6	U	49.6		mg/Kg		09/29/23 14:33	09/30/23 22:31	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		09/29/23 14:33	09/30/23 22:31	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		09/29/23 14:33	09/30/23 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*09/29/23 14:33*	*09/30/23 22:31*	*1*
o-Terphenyl	*91*		*70 - 130*	*09/29/23 14:33*	*09/30/23 22:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1830**		24.8		mg/Kg			09/28/23 20:18	5

Client Sample ID: BH23-08

Date Collected: 09/26/23 10:00
Date Received: 09/27/23 09:40
Sample Depth: 4'

Lab Sample ID: 890-5357-7
Matrix: Solid

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		09/28/23 13:02	09/29/23 00:26	1
Toluene	<0.00198	U	0.00198		mg/Kg		09/28/23 13:02	09/29/23 00:26	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		09/28/23 13:02	09/29/23 00:26	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		09/28/23 13:02	09/29/23 00:26	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		09/28/23 13:02	09/29/23 00:26	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		09/28/23 13:02	09/29/23 00:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*09/28/23 13:02*	*09/29/23 00:26*	*1*

Client Sample Results

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

Client Sample ID: BH23-08

Date Collected: 09/26/23 10:00
Date Received: 09/27/23 09:40
Sample Depth: 4'

Lab Sample ID: 890-5357-7
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*09/28/23 13:02*	*09/29/23 00:26*	*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			09/29/23 00:26	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			09/30/23 22:52	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		09/29/23 14:33	09/30/23 22:52	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		09/29/23 14:33	09/30/23 22:52	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		09/29/23 14:33	09/30/23 22:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*09/29/23 14:33*	*09/30/23 22:52*	*1*
o-Terphenyl	*90*		*70 - 130*	*09/29/23 14:33*	*09/30/23 22:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**233**		5.05	mg/Kg			09/28/23 20:24	1

Client Sample ID: BH23-09

Date Collected: 09/26/23 10:05
Date Received: 09/27/23 09:40
Sample Depth: 0'

Lab Sample ID: 890-5357-8
Matrix: Solid

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		09/28/23 13:02	09/29/23 00:46	1
Toluene	<0.00202	U	0.00202	mg/Kg		09/28/23 13:02	09/29/23 00:46	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		09/28/23 13:02	09/29/23 00:46	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		09/28/23 13:02	09/29/23 00:46	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		09/28/23 13:02	09/29/23 00:46	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		09/28/23 13:02	09/29/23 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*09/28/23 13:02*	*09/29/23 00:46*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*09/28/23 13:02*	*09/29/23 00:46*	*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			09/29/23 00:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**297**		50.2	mg/Kg			09/30/23 23:13	1

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Client Sample Results

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

Client Sample ID: BH23-09

Date Collected: 09/26/23 10:05
Date Received: 09/27/23 09:40
Sample Depth: 0'

Lab Sample ID: 890-5357-8
Matrix: Solid

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		09/29/23 14:33	09/30/23 23:13	1
Diesel Range Organics (Over C10-C28)	**297**		50.2		mg/Kg		09/29/23 14:33	09/30/23 23:13	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		09/29/23 14:33	09/30/23 23:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*09/29/23 14:33*	*09/30/23 23:13*	*1*
o-Terphenyl	*91*		*70 - 130*	*09/29/23 14:33*	*09/30/23 23:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**821**		4.98		mg/Kg			09/28/23 20:31	1

Client Sample ID: BH23-09

Date Collected: 09/26/23 10:10
Date Received: 09/27/23 09:40
Sample Depth: 2'

Lab Sample ID: 890-5357-9
Matrix: Solid

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		09/28/23 13:02	09/29/23 01:06	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/28/23 13:02	09/29/23 01:06	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/28/23 13:02	09/29/23 01:06	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/28/23 13:02	09/29/23 01:06	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/28/23 13:02	09/29/23 01:06	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/28/23 13:02	09/29/23 01:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*09/28/23 13:02*	*09/29/23 01:06*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*09/28/23 13:02*	*09/29/23 01:06*	*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			09/29/23 01:06	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			09/30/23 18:58	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		09/29/23 14:33	09/30/23 18:58	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		09/29/23 14:33	09/30/23 18:58	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		09/29/23 14:33	09/30/23 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*09/29/23 14:33*	*09/30/23 18:58*	*1*
o-Terphenyl	*114*		*70 - 130*	*09/29/23 14:33*	*09/30/23 18:58*	*1*

Client Sample Results

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

Client Sample ID: BH23-09

Date Collected: 09/26/23 10:10
Date Received: 09/27/23 09:40
Sample Depth: 2'

Lab Sample ID: 890-5357-9
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	632		5.05		mg/Kg			09/28/23 20:38	1

Client Sample ID: BH23-09

Date Collected: 09/26/23 10:15
Date Received: 09/27/23 09:40
Sample Depth: 4'

Lab Sample ID: 890-5357-10
Matrix: Solid

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		09/28/23 13:02	09/29/23 01:27	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/29/23 01:27	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/29/23 01:27	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		09/28/23 13:02	09/29/23 01:27	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/29/23 01:27	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		09/28/23 13:02	09/29/23 01:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*09/28/23 13:02*	*09/29/23 01:27*	*1*
1,4-Difluorobenzene (Surr)	*57*	*S1-*	*70 - 130*	*09/28/23 13:02*	*09/29/23 01:27*	*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			09/29/23 01:27	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			09/30/23 19:19	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		09/29/23 14:33	09/30/23 19:19	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		09/29/23 14:33	09/30/23 19:19	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		09/29/23 14:33	09/30/23 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*09/29/23 14:33*	*09/30/23 19:19*	*1*
o-Terphenyl	*110*		*70 - 130*	*09/29/23 14:33*	*09/30/23 19:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	200		4.99		mg/Kg			09/28/23 20:44	1

Surrogate Summary

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
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 (70-130)	DFBZ1 (70-130)
890-5357-1	BH23-06	88	68 S1-
890-5357-1 MS	BH23-06	126	109
890-5357-1 MSD	BH23-06	128	103
890-5357-2	BH23-06	80	62 S1-
890-5357-3	BH23-06	112	84
890-5357-4	BH23-07	89	82
890-5357-5	BH23-07	76	81
890-5357-6	BH23-08	55 S1-	94
890-5357-7	BH23-08	80	86
890-5357-8	BH23-09	81	86
890-5357-9	BH23-09	82	86
890-5357-10	BH23-09	89	57 S1-
LCS 880-63531/1-A	Lab Control Sample	122	92
LCSD 880-63531/2-A	Lab Control Sample Dup	135 S1+	125
MB 880-63478/8	Method Blank	70	93
MB 880-63531/5-A	Method Blank	81	80

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 (70-130)	OTPH1 (70-130)
890-5357-1	BH23-06	127	109
890-5357-1 MS	BH23-06	106	79
890-5357-1 MSD	BH23-06	106	80
890-5357-2	BH23-06	110	91
890-5357-3	BH23-06	112	95
890-5357-4	BH23-07	111	93
890-5357-5	BH23-07	101	84
890-5357-6	BH23-08	108	91
890-5357-7	BH23-08	107	90
890-5357-8	BH23-09	108	91
890-5357-9	BH23-09	111	114
890-5357-10	BH23-09	108	110
LCS 880-63658/2-A	Lab Control Sample	103	114
LCSD 880-63658/3-A	Lab Control Sample Dup	106	112
MB 880-63658/1-A	Method Blank	154 S1+	142 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-63478/8
Matrix: Solid
Analysis Batch: 63478

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

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			09/28/23 11:49	1
Toluene	<0.00200	U	0.00200		mg/Kg			09/28/23 11:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			09/28/23 11:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg			09/28/23 11:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			09/28/23 11:49	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			09/28/23 11:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*70*		*70 - 130*		*09/28/23 11:49*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*		*09/28/23 11:49*	*1*

Lab Sample ID: MB 880-63531/5-A
Matrix: Solid
Analysis Batch: 63478

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 63531

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/28/23 22:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/28/23 22:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/28/23 22:02	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/28/23 13:02	09/28/23 22:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/28/23 13:02	09/28/23 22:02	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/28/23 13:02	09/28/23 22:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*09/28/23 13:02*	*09/28/23 22:02*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*09/28/23 13:02*	*09/28/23 22:02*	*1*

Lab Sample ID: LCS 880-63531/1-A
Matrix: Solid
Analysis Batch: 63478

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 63531

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09492		mg/Kg		95	70 - 130		
Toluene			0.100	0.1103		mg/Kg		110	70 - 130		
Ethylbenzene			0.100	0.1256		mg/Kg		126	70 - 130		
m-Xylene & p-Xylene			0.200	0.2592		mg/Kg		130	70 - 130		
o-Xylene			0.100	0.1271		mg/Kg		127	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: LCSD 880-63531/2-A
Matrix: Solid
Analysis Batch: 63478

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 63531

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09682		mg/Kg		97	70 - 130	2	35

QC Sample Results

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

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

Lab Sample ID: LCSD 880-63531/2-A
Matrix: Solid
Analysis Batch: 63478

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 63531

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1077		mg/Kg		108	70 - 130	2	35
Ethylbenzene			0.100	0.1222		mg/Kg		122	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2556		mg/Kg		128	70 - 130	1	35
o-Xylene			0.100	0.1259		mg/Kg		126	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*125*		*70 - 130*

Lab Sample ID: 890-5357-1 MS
Matrix: Solid
Analysis Batch: 63478

Client Sample ID: BH23-06
Prep Type: Total/NA
Prep Batch: 63531

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00198	U	0.0996	0.08885		mg/Kg		89	70 - 130
Toluene	<0.00198	U	0.0996	0.1054		mg/Kg		106	70 - 130
Ethylbenzene	<0.00198	U	0.0996	0.1184		mg/Kg		119	70 - 130
m-Xylene & p-Xylene	<0.00396	U	0.199	0.2387		mg/Kg		120	70 - 130
o-Xylene	<0.00198	U	0.0996	0.1166		mg/Kg		117	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: 890-5357-1 MSD
Matrix: Solid
Analysis Batch: 63478

Client Sample ID: BH23-06
Prep Type: Total/NA
Prep Batch: 63531

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.100	0.07257		mg/Kg		72	70 - 130	20	35
Toluene	<0.00198	U	0.100	0.09463		mg/Kg		94	70 - 130	11	35
Ethylbenzene	<0.00198	U	0.100	0.1104		mg/Kg		110	70 - 130	7	35
m-Xylene & p-Xylene	<0.00396	U	0.200	0.2199		mg/Kg		110	70 - 130	8	35
o-Xylene	<0.00198	U	0.100	0.1092		mg/Kg		109	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

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

Lab Sample ID: MB 880-63658/1-A
Matrix: Solid
Analysis Batch: 63688

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 63658

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		09/29/23 14:33	09/30/23 18:58	1

QC Sample Results

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

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

Lab Sample ID: MB 880-63658/1-A
Matrix: Solid
Analysis Batch: 63688

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 63658

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/29/23 14:33	09/30/23 18:58	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/29/23 14:33	09/30/23 18:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*154*	*S1+*	*70 - 130*	*09/29/23 14:33*	*09/30/23 18:58*	*1*
o-Terphenyl	*142*	*S1+*	*70 - 130*	*09/29/23 14:33*	*09/30/23 18:58*	*1*

Lab Sample ID: LCS 880-63658/2-A
Matrix: Solid
Analysis Batch: 63688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 63658

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	901.7		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	959.3		mg/Kg		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*103*		*70 - 130*
o-Terphenyl	*114*		*70 - 130*

Lab Sample ID: LCSD 880-63658/3-A
Matrix: Solid
Analysis Batch: 63688

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 63658

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	900.9		mg/Kg		90	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	967.0		mg/Kg		97	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*106*		*70 - 130*
o-Terphenyl	*112*		*70 - 130*

Lab Sample ID: 890-5357-1 MS
Matrix: Solid
Analysis Batch: 63688

Client Sample ID: BH23-06
Prep Type: Total/NA
Prep Batch: 63658

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	993	843.7		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	993	1143		mg/Kg		113	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*106*		*70 - 130*
o-Terphenyl	*79*		*70 - 130*

QC Sample Results

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

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

Lab Sample ID: 890-5357-1 MSD — **Client Sample ID: BH23-06**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 63688 — **Prep Batch: 63658**

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	<49.9	U	993	854.6		mg/Kg		83	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	993	1169		mg/Kg		116	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*106*		*70 - 130*
o-Terphenyl	*80*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-63489/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 63547

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/28/23 18:58	1

Lab Sample ID: LCS 880-63489/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 63547

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	247.2		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-63489/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 63547

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	247.7		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 890-5357-1 MS — **Client Sample ID: BH23-06**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 63547

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	105		248	368.2		mg/Kg		106	90 - 110		

Lab Sample ID: 890-5357-1 MSD — **Client Sample ID: BH23-06**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 63547

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	105		248	368.4		mg/Kg		107	90 - 110	0	20

QC Association Summary

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

GC VOA

Analysis Batch: 63478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5357-1	BH23-06	Total/NA	Solid	8021B	63531
890-5357-2	BH23-06	Total/NA	Solid	8021B	63531
890-5357-3	BH23-06	Total/NA	Solid	8021B	63531
890-5357-4	BH23-07	Total/NA	Solid	8021B	63531
890-5357-5	BH23-07	Total/NA	Solid	8021B	63531
890-5357-6	BH23-08	Total/NA	Solid	8021B	63531
890-5357-7	BH23-08	Total/NA	Solid	8021B	63531
890-5357-8	BH23-09	Total/NA	Solid	8021B	63531
890-5357-9	BH23-09	Total/NA	Solid	8021B	63531
890-5357-10	BH23-09	Total/NA	Solid	8021B	63531
MB 880-63478/8	Method Blank	Total/NA	Solid	8021B	
MB 880-63531/5-A	Method Blank	Total/NA	Solid	8021B	63531
LCS 880-63531/1-A	Lab Control Sample	Total/NA	Solid	8021B	63531
LCSD 880-63531/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	63531
890-5357-1 MS	BH23-06	Total/NA	Solid	8021B	63531
890-5357-1 MSD	BH23-06	Total/NA	Solid	8021B	63531

Prep Batch: 63531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5357-1	BH23-06	Total/NA	Solid	5035	
890-5357-2	BH23-06	Total/NA	Solid	5035	
890-5357-3	BH23-06	Total/NA	Solid	5035	
890-5357-4	BH23-07	Total/NA	Solid	5035	
890-5357-5	BH23-07	Total/NA	Solid	5035	
890-5357-6	BH23-08	Total/NA	Solid	5035	
890-5357-7	BH23-08	Total/NA	Solid	5035	
890-5357-8	BH23-09	Total/NA	Solid	5035	
890-5357-9	BH23-09	Total/NA	Solid	5035	
890-5357-10	BH23-09	Total/NA	Solid	5035	
MB 880-63531/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-63531/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-63531/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5357-1 MS	BH23-06	Total/NA	Solid	5035	
890-5357-1 MSD	BH23-06	Total/NA	Solid	5035	

Analysis Batch: 63644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5357-1	BH23-06	Total/NA	Solid	Total BTEX	
890-5357-2	BH23-06	Total/NA	Solid	Total BTEX	
890-5357-3	BH23-06	Total/NA	Solid	Total BTEX	
890-5357-4	BH23-07	Total/NA	Solid	Total BTEX	
890-5357-5	BH23-07	Total/NA	Solid	Total BTEX	
890-5357-6	BH23-08	Total/NA	Solid	Total BTEX	
890-5357-7	BH23-08	Total/NA	Solid	Total BTEX	
890-5357-8	BH23-09	Total/NA	Solid	Total BTEX	
890-5357-9	BH23-09	Total/NA	Solid	Total BTEX	
890-5357-10	BH23-09	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

GC Semi VOA

Prep Batch: 63658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5357-1	BH23-06	Total/NA	Solid	8015NM Prep	
890-5357-2	BH23-06	Total/NA	Solid	8015NM Prep	
890-5357-3	BH23-06	Total/NA	Solid	8015NM Prep	
890-5357-4	BH23-07	Total/NA	Solid	8015NM Prep	
890-5357-5	BH23-07	Total/NA	Solid	8015NM Prep	
890-5357-6	BH23-08	Total/NA	Solid	8015NM Prep	
890-5357-7	BH23-08	Total/NA	Solid	8015NM Prep	
890-5357-8	BH23-09	Total/NA	Solid	8015NM Prep	
890-5357-9	BH23-09	Total/NA	Solid	8015NM Prep	
890-5357-10	BH23-09	Total/NA	Solid	8015NM Prep	
MB 880-63658/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-63658/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-63658/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5357-1 MS	BH23-06	Total/NA	Solid	8015NM Prep	
890-5357-1 MSD	BH23-06	Total/NA	Solid	8015NM Prep	

Analysis Batch: 63688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5357-1	BH23-06	Total/NA	Solid	8015B NM	63658
890-5357-2	BH23-06	Total/NA	Solid	8015B NM	63658
890-5357-3	BH23-06	Total/NA	Solid	8015B NM	63658
890-5357-4	BH23-07	Total/NA	Solid	8015B NM	63658
890-5357-5	BH23-07	Total/NA	Solid	8015B NM	63658
890-5357-6	BH23-08	Total/NA	Solid	8015B NM	63658
890-5357-7	BH23-08	Total/NA	Solid	8015B NM	63658
890-5357-8	BH23-09	Total/NA	Solid	8015B NM	63658
MB 880-63658/1-A	Method Blank	Total/NA	Solid	8015B NM	63658
LCS 880-63658/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	63658
LCSD 880-63658/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	63658
890-5357-1 MS	BH23-06	Total/NA	Solid	8015B NM	63658
890-5357-1 MSD	BH23-06	Total/NA	Solid	8015B NM	63658

Analysis Batch: 63690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5357-9	BH23-09	Total/NA	Solid	8015B NM	63658
890-5357-10	BH23-09	Total/NA	Solid	8015B NM	63658

Analysis Batch: 63758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5357-1	BH23-06	Total/NA	Solid	8015 NM	
890-5357-2	BH23-06	Total/NA	Solid	8015 NM	
890-5357-3	BH23-06	Total/NA	Solid	8015 NM	
890-5357-4	BH23-07	Total/NA	Solid	8015 NM	
890-5357-5	BH23-07	Total/NA	Solid	8015 NM	
890-5357-6	BH23-08	Total/NA	Solid	8015 NM	
890-5357-7	BH23-08	Total/NA	Solid	8015 NM	
890-5357-8	BH23-09	Total/NA	Solid	8015 NM	
890-5357-9	BH23-09	Total/NA	Solid	8015 NM	
890-5357-10	BH23-09	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

HPLC/IC

Leach Batch: 63489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5357-1	BH23-06	Soluble	Solid	DI Leach	
890-5357-2	BH23-06	Soluble	Solid	DI Leach	
890-5357-3	BH23-06	Soluble	Solid	DI Leach	
890-5357-4	BH23-07	Soluble	Solid	DI Leach	
890-5357-5	BH23-07	Soluble	Solid	DI Leach	
890-5357-6	BH23-08	Soluble	Solid	DI Leach	
890-5357-7	BH23-08	Soluble	Solid	DI Leach	
890-5357-8	BH23-09	Soluble	Solid	DI Leach	
890-5357-9	BH23-09	Soluble	Solid	DI Leach	
890-5357-10	BH23-09	Soluble	Solid	DI Leach	
MB 880-63489/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-63489/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-63489/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5357-1 MS	BH23-06	Soluble	Solid	DI Leach	
890-5357-1 MSD	BH23-06	Soluble	Solid	DI Leach	

Analysis Batch: 63547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5357-1	BH23-06	Soluble	Solid	300.0	63489
890-5357-2	BH23-06	Soluble	Solid	300.0	63489
890-5357-3	BH23-06	Soluble	Solid	300.0	63489
890-5357-4	BH23-07	Soluble	Solid	300.0	63489
890-5357-5	BH23-07	Soluble	Solid	300.0	63489
890-5357-6	BH23-08	Soluble	Solid	300.0	63489
890-5357-7	BH23-08	Soluble	Solid	300.0	63489
890-5357-8	BH23-09	Soluble	Solid	300.0	63489
890-5357-9	BH23-09	Soluble	Solid	300.0	63489
890-5357-10	BH23-09	Soluble	Solid	300.0	63489
MB 880-63489/1-A	Method Blank	Soluble	Solid	300.0	63489
LCS 880-63489/2-A	Lab Control Sample	Soluble	Solid	300.0	63489
LCSD 880-63489/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	63489
890-5357-1 MS	BH23-06	Soluble	Solid	300.0	63489
890-5357-1 MSD	BH23-06	Soluble	Solid	300.0	63489

Lab Chronicle

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

Client Sample ID: BH23-06
Date Collected: 09/26/23 09:30
Date Received: 09/27/23 09:40

Lab Sample ID: 890-5357-1
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			5.05 g	5 mL	63531	09/28/23 13:02	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63478	09/28/23 22:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63644	09/28/23 22:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			63758	09/30/23 20:02	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	63658	09/29/23 14:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63688	09/30/23 20:02	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	63489	09/28/23 10:22	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63547	09/28/23 19:18	CH	EET MID

Client Sample ID: BH23-06
Date Collected: 09/26/23 09:35
Date Received: 09/27/23 09:40

Lab Sample ID: 890-5357-2
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			4.96 g	5 mL	63531	09/28/23 13:02	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63478	09/28/23 22:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63644	09/28/23 22:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			63758	09/30/23 21:06	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	63658	09/29/23 14:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63688	09/30/23 21:06	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	63489	09/28/23 10:22	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63547	09/28/23 19:38	CH	EET MID

Client Sample ID: BH23-06
Date Collected: 09/26/23 09:40
Date Received: 09/27/23 09:40

Lab Sample ID: 890-5357-3
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			4.98 g	5 mL	63531	09/28/23 13:02	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63478	09/28/23 23:04	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63644	09/28/23 23:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			63758	09/30/23 21:28	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	63658	09/29/23 14:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63688	09/30/23 21:28	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	63489	09/28/23 10:22	SMC	EET MID
Soluble	Analysis	300.0		20	50 mL	50 mL	63547	09/28/23 19:44	CH	EET MID

Client Sample ID: BH23-07
Date Collected: 09/26/23 09:45
Date Received: 09/27/23 09:40

Lab Sample ID: 890-5357-4
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			4.99 g	5 mL	63531	09/28/23 13:02	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63478	09/28/23 23:24	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63644	09/28/23 23:24	SM	EET MID

Lab Chronicle

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

Client Sample ID: BH23-07
Date Collected: 09/26/23 09:45
Date Received: 09/27/23 09:40

Lab Sample ID: 890-5357-4
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			63758	09/30/23 21:49	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	63658	09/29/23 14:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63688	09/30/23 21:49	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	63489	09/28/23 10:22	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63547	09/28/23 19:51	CH	EET MID

Client Sample ID: BH23-07
Date Collected: 09/26/23 09:50
Date Received: 09/27/23 09:40

Lab Sample ID: 890-5357-5
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	63531	09/28/23 13:02	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63478	09/28/23 23:45	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63644	09/28/23 23:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			63758	09/30/23 22:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	63658	09/29/23 14:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63688	09/30/23 22:10	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	63489	09/28/23 10:22	SMC	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	63547	09/28/23 19:58	CH	EET MID

Client Sample ID: BH23-08
Date Collected: 09/26/23 09:55
Date Received: 09/27/23 09:40

Lab Sample ID: 890-5357-6
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			5.00 g	5 mL	63531	09/28/23 13:02	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63478	09/29/23 00:05	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63644	09/29/23 00:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			63758	09/30/23 22:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	63658	09/29/23 14:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63688	09/30/23 22:31	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	63489	09/28/23 10:22	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	63547	09/28/23 20:18	CH	EET MID

Client Sample ID: BH23-08
Date Collected: 09/26/23 10:00
Date Received: 09/27/23 09:40

Lab Sample ID: 890-5357-7
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			5.05 g	5 mL	63531	09/28/23 13:02	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63478	09/29/23 00:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63644	09/29/23 00:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			63758	09/30/23 22:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	63658	09/29/23 14:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63688	09/30/23 22:52	SM	EET MID

Lab Chronicle

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
SDG: 23E 05219

Client Sample ID: BH23-08
Date Collected: 09/26/23 10:00
Date Received: 09/27/23 09:40

Lab Sample ID: 890-5357-7
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	63489	09/28/23 10:22	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63547	09/28/23 20:24	CH	EET MID

Client Sample ID: BH23-09
Date Collected: 09/26/23 10:05
Date Received: 09/27/23 09:40

Lab Sample ID: 890-5357-8
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			4.95 g	5 mL	63531	09/28/23 13:02	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63478	09/29/23 00:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63644	09/29/23 00:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			63758	09/30/23 23:13	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	63658	09/29/23 14:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63688	09/30/23 23:13	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	63489	09/28/23 10:22	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63547	09/28/23 20:31	CH	EET MID

Client Sample ID: BH23-09
Date Collected: 09/26/23 10:10
Date Received: 09/27/23 09:40

Lab Sample ID: 890-5357-9
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			4.97 g	5 mL	63531	09/28/23 13:02	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63478	09/29/23 01:06	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63644	09/29/23 01:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			63758	09/30/23 18:58	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	63658	09/29/23 14:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63690	09/30/23 18:58	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	63489	09/28/23 10:22	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63547	09/28/23 20:38	CH	EET MID

Client Sample ID: BH23-09
Date Collected: 09/26/23 10:15
Date Received: 09/27/23 09:40

Lab Sample ID: 890-5357-10
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			4.99 g	5 mL	63531	09/28/23 13:02	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	63478	09/29/23 01:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			63644	09/29/23 01:27	SM	EET MID
Total/NA	Analysis	8015 NM		1			63758	09/30/23 19:19	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	63658	09/29/23 14:33	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	63690	09/30/23 19:19	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	63489	09/28/23 10:22	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	63547	09/28/23 20:44	CH	EET MID

Accreditation/Certification Summary

Client: Vertex
Project/Site: MIS AMIGOS CTB

Job ID: 890-5357-1
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 CTB

Job ID: 890-5357-1
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 CTB

Job ID: 890-5357-1
SDG: 23E 05219

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5357-1	BH23-06	Solid	09/26/23 09:30	09/27/23 09:40	0'
890-5357-2	BH23-06	Solid	09/26/23 09:35	09/27/23 09:40	2'
890-5357-3	BH23-06	Solid	09/26/23 09:40	09/27/23 09:40	0'
890-5357-4	BH23-07	Solid	09/26/23 09:45	09/27/23 09:40	2'
890-5357-5	BH23-07	Solid	09/26/23 09:50	09/27/23 09:40	0'
890-5357-6	BH23-08	Solid	09/26/23 09:55	09/27/23 09:40	2'
890-5357-7	BH23-08	Solid	09/26/23 10:00	09/27/23 09:40	4'
890-5357-8	BH23-09	Solid	09/26/23 10:05	09/27/23 09:40	0'
890-5357-9	BH23-09	Solid	09/26/23 10:10	09/27/23 09:40	2'
890-5357-10	BH23-09	Solid	09/26/23 10:15	09/27/23 09:40	4'

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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

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Chance Dixon	Bill to: (if different)	XTO Garret Green
Company Name:	Vertex	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	Email:	cdixon@vertex.ca	

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:

Project Name:	Mis Amigos CTB	Turn Around	
Project Number:	23E-05219	☐ Routine ☒ Rush	
Project Location:		Due Date:	48hr
Sampler's Name:	Hunter Klein	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TNM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	-1.4
Total Containers:		Corrected Temperature:	-1.2

ANALYSIS REQUEST

890-5357 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: TPH	Cl	BTEX	Sample Comments
BH23-06 0'	Soil	9/26/23	9:30				X	X	X	
BH23-06 2'			9:35							
BH23-07 0'			9:40							
BH23-07 2'			9:45							
BH23-08 0'			9:50							
BH23-08 2'			9:55							
BH23-08 4'			10:00							
BH23-09 0'			10:05							
BH23-09 2'			10:10							
BH23-09 4'			10:15							

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 Tl 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 Tl 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 Hunter Klein	Sam S	9/27 946	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Vertex

Job Number: 890-5357-1
SDG Number: 23E 05219

Login Number: 5357
List Number: 1
Creator: Bruns, Shannon

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: 890-5357-1
SDG Number: 23E 05219

Login Number: 5357
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 09/28/23 03:15 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	

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 11/22/2023 11:20:22 AM

JOB DESCRIPTION

MIS AMIGOS
23E--05219

JOB NUMBER

890-5658-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

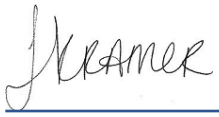
Eurofins Carlsbad

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
11/22/2023 11:20:22 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: 890-5658-1
SDG: 23E--05219

Table of Contents

Definitions/Glossary

Client: Vertex Job ID: 890-5658-1
Project/Site: MIS AMIGOS 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
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/Site: MIS AMIGOS

Job ID: 890-5658-1
SDG: 23E--05219

Job ID: 890-5658-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-5658-1

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 11/17/2023 12:41 PM. 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: BES 23 - 26 0' (890-5658-1), BES 23 - 26 2' (890-5658-2) and BES 23 - 27 4' (890-5658-3).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (CCV 880-67531/2). 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.

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-67421 and analytical batch 880-67486 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-35979-A-40-C), (880-35979-A-40-D MS) and (880-35979-A-40-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The continuing calibration verification (CCV) associated with batch 880-67486 recovered above the upper control limit for Diesel Range Organics (Over C10-C28). Since an acceptable CCV was ran within the 12 hour window, the data has been qualified and reported. The associated sample is impacted: (CCV 880-67486/5).

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

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

Client Sample Results

Client: Vertex
Project/Site: MIS AMIGOS

Job ID: 890-5658-1
SDG: 23E--05219

Client Sample ID: BH 23 - 10 0'

Date Collected: 11/16/23 09:00
Date Received: 11/17/23 12:41

Lab Sample ID: 890-5658-1
Matrix: Solid

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		11/20/23 09:23	11/21/23 13:57	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/20/23 09:23	11/21/23 13:57	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/20/23 09:23	11/21/23 13:57	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/20/23 09:23	11/21/23 13:57	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/20/23 09:23	11/21/23 13:57	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/20/23 09:23	11/21/23 13:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*71*		*70 - 130*	*11/20/23 09:23*	*11/21/23 13:57*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*11/20/23 09:23*	*11/21/23 13:57*	*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			11/21/23 13:57	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**63.5**		50.4		mg/Kg			11/21/23 12:22	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	<50.4	U	50.4		mg/Kg		11/20/23 12:14	11/21/23 12:22	1
Diesel Range Organics (Over C10-C28)	**63.5**		50.4		mg/Kg		11/20/23 12:14	11/21/23 12:22	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		11/20/23 12:14	11/21/23 12:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*11/20/23 12:14*	*11/21/23 12:22*	*1*
o-Terphenyl	*118*		*70 - 130*	*11/20/23 12:14*	*11/21/23 12:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**70.9**		5.05		mg/Kg			11/20/23 12:58	1

Client Sample ID: BH 23 - 10 2'

Date Collected: 11/16/23 09:05
Date Received: 11/17/23 12:41

Lab Sample ID: 890-5658-2
Matrix: Solid

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		11/20/23 09:23	11/21/23 13:16	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/20/23 09:23	11/21/23 13:16	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/20/23 09:23	11/21/23 13:16	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/20/23 09:23	11/21/23 13:16	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/20/23 09:23	11/21/23 13:16	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/20/23 09:23	11/21/23 13:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*11/20/23 09:23*	*11/21/23 13:16*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*11/20/23 09:23*	*11/21/23 13:16*	*1*

Client Sample Results

Client: Vertex
Project/Site: MIS AMIGOS

Job ID: 890-5658-1
SDG: 23E--05219

Client Sample ID: BH 23 - 10 2'

Date Collected: 11/16/23 09:05
Date Received: 11/17/23 12:41

Lab Sample ID: 890-5658-2
Matrix: Solid

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			11/21/23 13:16	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			11/21/23 12:43	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	<50.5	U	50.5		mg/Kg		11/20/23 12:14	11/21/23 12:43	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		11/20/23 12:14	11/21/23 12:43	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		11/20/23 12:14	11/21/23 12:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*11/20/23 12:14*	*11/21/23 12:43*	*1*
o-Terphenyl	*96*		*70 - 130*	*11/20/23 12:14*	*11/21/23 12:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**521**		4.97		mg/Kg			11/20/23 13:15	1

Client Sample ID: BH 23 - 10 4'

Date Collected: 11/16/23 09:10
Date Received: 11/17/23 12:41

Lab Sample ID: 890-5658-3
Matrix: Solid

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		11/20/23 09:23	11/21/23 13:37	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/20/23 09:23	11/21/23 13:37	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/20/23 09:23	11/21/23 13:37	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		11/20/23 09:23	11/21/23 13:37	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/20/23 09:23	11/21/23 13:37	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		11/20/23 09:23	11/21/23 13:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*11/20/23 09:23*	*11/21/23 13:37*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*11/20/23 09:23*	*11/21/23 13:37*	*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			11/21/23 13:37	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			11/21/23 13:30	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		11/20/23 12:14	11/21/23 13:30	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		11/20/23 12:14	11/21/23 13:30	1

Client Sample Results

Client: Vertex
Project/Site: MIS AMIGOS

Job ID: 890-5658-1
SDG: 23E--05219

Client Sample ID: BH 23 - 10 4'
Date Collected: 11/16/23 09:10
Date Received: 11/17/23 12:41

Lab Sample ID: 890-5658-3
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		11/20/23 12:14	11/21/23 13:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*124*		*70 - 130*	*11/20/23 12:14*	*11/21/23 13:30*	*1*
o-Terphenyl	*106*		*70 - 130*	*11/20/23 12:14*	*11/21/23 13:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**281**		5.03		mg/Kg			11/20/23 13:20	1

Surrogate Summary

Client: Vertex
Project/Site: MIS AMIGOS

Job ID: 890-5658-1
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 (70-130)	DFBZ1 (70-130)
890-5658-1	BES 23 - 26 0'	71	80
890-5658-1 MS	BES 23 - 26 0'	116	112
890-5658-1 MSD	BES 23 - 26 0'	111	113
890-5658-2	BES 23 - 26 2'	97	82
890-5658-3	BES 23 - 27 4'	91	94
LCS 880-67374/1-B	Lab Control Sample	122	117
LCSD 880-67374/2-B	Lab Control Sample Dup	115	118
MB 880-67374/5-B	Method Blank	72	99

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 (70-130)	OTPH1 (70-130)
880-35979-A-40-D MS	Matrix Spike	162 S1+	133 S1+
880-35979-A-40-E MSD	Matrix Spike Duplicate	165 S1+	132 S1+
890-5658-1	BES 23 - 26 0'	127	118
890-5658-2	BES 23 - 26 2'	109	96
890-5658-3	BES 23 - 27 4'	124	106
LCS 880-67421/2-A	Lab Control Sample	94	103
LCSD 880-67421/3-A	Lab Control Sample Dup	87	95
MB 880-67421/1-A	Method Blank	136 S1+	126

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Vertex
Project/Site: MIS AMIGOS

Job ID: 890-5658-1
SDG: 23E--05219

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-67374/5-B
Matrix: Solid
Analysis Batch: 67531

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 67374

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/20/23 09:23	11/21/23 12:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/20/23 09:23	11/21/23 12:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/20/23 09:23	11/21/23 12:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/20/23 09:23	11/21/23 12:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/20/23 09:23	11/21/23 12:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/20/23 09:23	11/21/23 12:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*72*		*70 - 130*	*11/20/23 09:23*	*11/21/23 12:34*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/20/23 09:23*	*11/21/23 12:34*	*1*

Lab Sample ID: LCS 880-67374/1-B
Matrix: Solid
Analysis Batch: 67531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67374

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1166		mg/Kg		117	70 - 130		
Toluene			0.100	0.1091		mg/Kg		109	70 - 130		
Ethylbenzene			0.100	0.1115		mg/Kg		111	70 - 130		
m-Xylene & p-Xylene			0.200	0.2372		mg/Kg		119	70 - 130		
o-Xylene			0.100	0.1130		mg/Kg		113	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*

Lab Sample ID: LCSD 880-67374/2-B
Matrix: Solid
Analysis Batch: 67531

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 67374

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1102		mg/Kg		110	70 - 130	6	35
Toluene			0.100	0.1037		mg/Kg		104	70 - 130	5	35
Ethylbenzene			0.100	0.1015		mg/Kg		101	70 - 130	9	35
m-Xylene & p-Xylene			0.200	0.2175		mg/Kg		109	70 - 130	9	35
o-Xylene			0.100	0.1041		mg/Kg		104	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*

Lab Sample ID: 890-5658-1 MS
Matrix: Solid
Analysis Batch: 67531

Client Sample ID: BES 23 - 26 0'
Prep Type: Total/NA
Prep Batch: 67374

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.0990	0.1082		mg/Kg		109	70 - 130		
Toluene	<0.00199	U	0.0990	0.08862		mg/Kg		90	70 - 130		

QC Sample Results

Client: Vertex
Project/Site: MIS AMIGOS

Job ID: 890-5658-1
SDG: 23E--05219

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

Lab Sample ID: 890-5658-1 MS — **Client Sample ID: BES 23 - 26 0'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 67531 — **Prep Batch: 67374**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0990	0.08971		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.198	0.1806		mg/Kg		91	70 - 130
o-Xylene	<0.00199	U	0.0990	0.09339		mg/Kg		94	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: 890-5658-1 MSD — **Client Sample ID: BES 23 - 26 0'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 67531 — **Prep Batch: 67374**

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	0.1083		mg/Kg		108	70 - 130	0	35
Toluene	<0.00199	U	0.100	0.08077		mg/Kg		80	70 - 130	9	35
Ethylbenzene	<0.00199	U	0.100	0.08206		mg/Kg		82	70 - 130	9	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1645		mg/Kg		82	70 - 130	9	35
o-Xylene	<0.00199	U	0.100	0.08990		mg/Kg		90	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*

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

Lab Sample ID: MB 880-67421/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 67486 — **Prep Batch: 67421**

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		11/20/23 12:14	11/21/23 08:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/20/23 12:14	11/21/23 08:21	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/20/23 12:14	11/21/23 08:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*136*	*S1+*	*70 - 130*	*11/20/23 12:14*	*11/21/23 08:21*	*1*
o-Terphenyl	*126*		*70 - 130*	*11/20/23 12:14*	*11/21/23 08:21*	*1*

Lab Sample ID: LCS 880-67421/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 67486 — **Prep Batch: 67421**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1001		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)			1000	991.1		mg/Kg		99	70 - 130

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QC Sample Results

Client: Vertex
Project/Site: MIS AMIGOS

Job ID: 890-5658-1
SDG: 23E--05219

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

Lab Sample ID: LCS 880-67421/2-A
Matrix: Solid
Analysis Batch: 67486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 67421

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: LCSD 880-67421/3-A
Matrix: Solid
Analysis Batch: 67486

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 67421

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1043		mg/Kg		104	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1004		mg/Kg		100	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	95		70 - 130

Lab Sample ID: 880-35979-A-40-D MS
Matrix: Solid
Analysis Batch: 67486

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 67421

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.5	U	1010	1213		mg/Kg		120	70 - 130
Diesel Range Organics (Over C10-C28)	<49.5	U	1010	1246		mg/Kg		122	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	162	S1+	70 - 130
o-Terphenyl	133	S1+	70 - 130

Lab Sample ID: 880-35979-A-40-E MSD
Matrix: Solid
Analysis Batch: 67486

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 67421

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	<49.5	U	1010	1134		mg/Kg		113	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	<49.5	U	1010	1264		mg/Kg		124	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	165	S1+	70 - 130
o-Terphenyl	132	S1+	70 - 130

QC Sample Results

Client: Vertex
Project/Site: MIS AMIGOS

Job ID: 890-5658-1
SDG: 23E--05219

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-67322/1-A
Matrix: Solid
Analysis Batch: 67430

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			11/19/23 16:27	1

Lab Sample ID: LCS 880-67322/2-A
Matrix: Solid
Analysis Batch: 67430

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	230.1		mg/Kg		92	90 - 110		

Lab Sample ID: LCSD 880-67322/3-A
Matrix: Solid
Analysis Batch: 67430

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	233.7		mg/Kg		93	90 - 110	2	20

Lab Sample ID: 890-5658-1 MS
Matrix: Solid
Analysis Batch: 67430

Client Sample ID: BES 23 - 26 0'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	70.9		253	299.9		mg/Kg		91	90 - 110		

Lab Sample ID: 890-5658-1 MSD
Matrix: Solid
Analysis Batch: 67430

Client Sample ID: BES 23 - 26 0'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	70.9		253	301.4		mg/Kg		91	90 - 110	1	20

QC Association Summary

Client: Vertex
Project/Site: MIS AMIGOS

Job ID: 890-5658-1
SDG: 23E--05219

GC VOA

Prep Batch: 67374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5658-1	BH 23 - 10 0'	Total/NA	Solid	5035	
890-5658-2	BH 23 - 10 2'	Total/NA	Solid	5035	
890-5658-3	BH 23 - 10 4'	Total/NA	Solid	5035	
MB 880-67374/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-67374/1-B	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-67374/2-B	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5658-1 MS	BH 23 - 10 0'	Total/NA	Solid	5035	
890-5658-1 MSD	BH 23 - 10 0'	Total/NA	Solid	5035	

Analysis Batch: 67531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5658-1	BH 23 - 10 0'	Total/NA	Solid	8021B	67374
890-5658-2	BH 23 - 10 2'	Total/NA	Solid	8021B	67374
890-5658-3	BH 23 -10 4'	Total/NA	Solid	8021B	67374
MB 880-67374/5-B	Method Blank	Total/NA	Solid	8021B	67374
LCS 880-67374/1-B	Lab Control Sample	Total/NA	Solid	8021B	67374
LCSD 880-67374/2-B	Lab Control Sample Dup	Total/NA	Solid	8021B	67374
890-5658-1 MS	BH 23 - 10 0'	Total/NA	Solid	8021B	67374
890-5658-1 MSD	BH 23 - 10 0'	Total/NA	Solid	8021B	67374

Analysis Batch: 67623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5658-1	BH 23 - 10 0'	Total/NA	Solid	Total BTEX	
890-5658-2	BH 23 - 10 2'	Total/NA	Solid	Total BTEX	
890-5658-3	BH 23 - 10 4'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 67421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5658-1	BH 23 - 10 0'	Total/NA	Solid	8015NM Prep	
890-5658-2	BH 23 - 10 2'	Total/NA	Solid	8015NM Prep	
890-5658-3	BH 23 - 10 4'	Total/NA	Solid	8015NM Prep	
MB 880-67421/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-67421/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-67421/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-35979-A-40-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-35979-A-40-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 67486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5658-1	BES 23 - 26 0'	Total/NA	Solid	8015B NM	67421
890-5658-2	BES 23 - 26 2'	Total/NA	Solid	8015B NM	67421
890-5658-3	BES 23 - 27 4'	Total/NA	Solid	8015B NM	67421
MB 880-67421/1-A	Method Blank	Total/NA	Solid	8015B NM	67421
LCS 880-67421/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	67421
LCSD 880-67421/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	67421
880-35979-A-40-D MS	Matrix Spike	Total/NA	Solid	8015B NM	67421
880-35979-A-40-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	67421

QC Association Summary

Client: Vertex
Project/Site: MIS AMIGOS

Job ID: 890-5658-1
SDG: 23E--05219

GC Semi VOA

Analysis Batch: 67588

Lab Sample ID	Client Sample ID		Prep Type	Matrix	Method	Prep Batch
890-5658-1	BH 23 - 10	0'	Total/NA	Solid	8015 NM	
890-5658-2	BH 23 - 10	2'	Total/NA	Solid	8015 NM	
890-5658-3	BH 23 - 10	4'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 67322

Lab Sample ID	Client Sample ID		Prep Type	Matrix	Method	Prep Batch
890-5658-1	BH 23 - 10	0'	Soluble	Solid	DI Leach	
890-5658-2	BH 23 - 10	2'	Soluble	Solid	DI Leach	
890-5658-3	BH 23 - 10	4'	Soluble	Solid	DI Leach	
MB 880-67322/1-A	Method Blank		Soluble	Solid	DI Leach	
LCS 880-67322/2-A	Lab Control Sample		Soluble	Solid	DI Leach	
LCSD 880-67322/3-A	Lab Control Sample Dup		Soluble	Solid	DI Leach	
890-5658-1 MS	BH 23 - 10	0'	Soluble	Solid	DI Leach	
890-5658-1 MSD	BH 23 - 10	0'	Soluble	Solid	DI Leach	

Analysis Batch: 67430

Lab Sample ID	Client Sample ID		Prep Type	Matrix	Method	Prep Batch
890-5658-1	BH 23 - 10	0'	Soluble	Solid	300.0	67322
890-5658-2	BH 23 - 10	2'	Soluble	Solid	300.0	67322
890-5658-3	BH 23 - 10	4'	Soluble	Solid	300.0	67322
MB 880-67322/1-A	Method Blank		Soluble	Solid	300.0	67322
LCS 880-67322/2-A	Lab Control Sample		Soluble	Solid	300.0	67322
LCSD 880-67322/3-A	Lab Control Sample Dup		Soluble	Solid	300.0	67322
890-5658-1 MS	BH 23 - 10	0'	Soluble	Solid	300.0	67322
890-5658-1 MSD	BH 23 - 10	0'	Soluble	Solid	300.0	67322

Lab Chronicle

Client: Vertex
Project/Site: MIS AMIGOS

Job ID: 890-5658-1
SDG: 23E--05219

Client Sample ID: BH 23 - 10 0'

Lab Sample ID: 890-5658-1
Matrix: Solid
Date Collected: 11/16/23 09:00
Date Received: 11/17/23 12:41

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	67374	11/20/23 09:23	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67531	11/21/23 13:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67623	11/21/23 13:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			67588	11/21/23 12:22	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 12:22	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	67322	11/20/23 09:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67430	11/20/23 12:58	SMC	EET MID

Client Sample ID: BH 23 - 10 2'

Lab Sample ID: 890-5658-2
Matrix: Solid
Date Collected: 11/16/23 09:05
Date Received: 11/17/23 12:41

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	67374	11/20/23 09:23	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67531	11/21/23 13:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67623	11/21/23 13:16	SM	EET MID
Total/NA	Analysis	8015 NM		1			67588	11/21/23 12:43	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 12:43	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	67322	11/20/23 09:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67430	11/20/23 13:15	SMC	EET MID

Client Sample ID: BH 23 - 10 4'

Lab Sample ID: 890-5658-3
Matrix: Solid
Date Collected: 11/16/23 09:10 Date Received: 11/17/23 12:41

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	67374	11/20/23 09:23	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	67531	11/21/23 13:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			67623	11/21/23 13:37	SM	EET MID
Total/NA	Analysis	8015 NM		1			67588	11/21/23 13:30	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	67421	11/20/23 12:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	67486	11/21/23 13:30	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	67322	11/20/23 09:00	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	67430	11/20/23 13:20	SMC	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: 890-5658-1
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: 890-5658-1
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: 890-5658-1
SDG: 23E--05219

Lab Sample ID	Client Sample ID		Matrix	Collected	Received
890-5658-1	BH 23 - 10	0'	Solid	11/16/23 09:00	11/17/23 12:41
890-5658-2	BH 23 - 10	2'	Solid	11/16/23 09:05	11/17/23 12:41
890-5658-3	BH 23 - 10	4'	Solid	11/16/23 09:10	11/17/23 12:41

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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

Work Order No: _____

www.xenco.com Page _____ of _____

Project Manager:	Chance Dixon	Bill to: (if different)	Garret Green
Company Name:	Vertex	Company Name:	XTO
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	Email:	cdixon@vertex.ca	

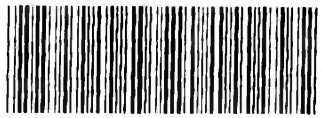
Work Order Comments

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

Project Name:	Mis Amigos	Turn Around	
Project Number:	23E-05219	☐ Routine ☒ Rush 24hr	Pres. Code
Project Location:		Due Date:	
Sampler's Name:	Hunter Klein	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TNM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	-0.4
Total Containers:		Corrected Temperature:	-0.2

ANALYSIS REQUEST



Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: BTEX NM	TPH NM	Cl NM
BES23-26 0'	Soil	11/16/23	9:00		C	5	X	X	X
BES23-25 2'			9:05				X	X	X
BES23-27 4'			9:10				X	X	X

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

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 Tl 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 Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Hunter Klein		11/17	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-1823 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Jessica Kramer@et.eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-5658-1
Address: 1211 W Florida Ave, ,	Due Date Requested: 11/20/2023			
City: Midland	TAT Requested (days):			
State Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: MIS AMIGOS	Project #: 89000161			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
BES 23 - 26 0' (890-5658-1)	11/16/23	09 00 Mountain		Solid			X	X	X	X	X	1	
BES 23 - 26 2' (890-5658-2)	11/16/23	09 05 Mountain		Solid			X	X	X	X	X	1	
BES 23 - 27 4' (890-5658-3)	11/16/23	09 10 Mountain		Solid			X	X	X	X	X	1	

Preservation Codes

A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N - None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)

Other:

Note: Since laboratory accreditations are subject to change Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company	
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Vertex

Job Number: 890-5658-1
SDG Number: 23E--05219

Login Number: 5658
List Number: 1
Creator: Bruns, Shannon

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: 890-5658-1
SDG Number: 23E--05219

Login Number: 5658
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 11/20/23 10:41 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	

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 11/6/2023 10:23:31 AM

JOB DESCRIPTION

Mis Amigos
SDG NUMBER 23E-05219

JOB NUMBER

880-35072-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

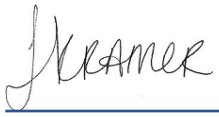
Eurofins Midland

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
11/6/2023 10:23:31 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: 880-35072-1
SDG: 23E-05219

Table of Contents

Definitions/Glossary

Client: Vertex Job ID: 880-35072-1
Project/Site: Mis Amigos SDG: 23E-05219

Qualifiers

GC 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.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Job ID: 880-35072-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-35072-1

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 10/31/2023 11:33 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 1.5°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BES23-01 0.5' (880-35072-1), BES23-02 0.5' (880-35072-2), BES23-03 0.5' (880-35072-3), BES23-04 0.5' (880-35072-4), BES23-05 0.5' (880-35072-5), BES23-06 0.5' (880-35072-6), BES23-07 0.5' (880-35072-7), BES23-08 0.5' (880-35072-8), BES23-09 0.5' (880-35072-9), BES23-10 0.5' (880-35072-10), BES23-11 0.5' (880-35072-11), BES23-12 0.5' (880-35072-12), BES23-13 0.5' (880-35072-13), BES23-14 0.5' (880-35072-14), BES23-15 0.5' (880-35072-15), BES23-16 0.5' (880-35072-16), BES23-17 0.5' (880-35072-17), BES23-18 0.5' (880-35072-18), BES23-19 0.5' (880-35072-19), BES23-20 2.5' (880-35072-20), WES23-01 0.5' (880-35072-21), WES23-02 0.5' (880-35072-22), WES23-03 0.5' (880-35072-23) and WES23-04 2.5' (880-35072-24).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: BES23-16 0.5' (880-35072-16), BES23-18 0.5' (880-35072-18) and BES23-19 0.5' (880-35072-19). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (CCV 880-65862/20). Evidence of matrix interferences is not obvious.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-66035 and analytical batch 880-66027 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 880-65868 and analytical batch 880-65857 was outside the upper control limits.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-65868 and analytical batch 880-65857 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 8015MOD_NM: The continuing calibration verification (CCV) associated with batch 880-65857 recovered below the lower control limit for Diesel Range Organics (Over C10-C28). An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-65857/8).

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-65869 and analytical batch 880-65852

Case Narrative

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Job ID: 880-35072-1 (Continued)

Laboratory: Eurofins Midland (Continued)

was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BES23-01 0.5' (880-35072-1), BES23-02 0.5' (880-35072-2), BES23-03 0.5' (880-35072-3), BES23-04 0.5' (880-35072-4), BES23-05 0.5' (880-35072-5), BES23-07 0.5' (880-35072-7), BES23-09 0.5' (880-35072-9), BES23-12 0.5' (880-35072-12), BES23-13 0.5' (880-35072-13) and BES23-14 0.5' (880-35072-14). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-65852/21), (CCV 880-65852/32), (CCV 880-65852/5) and (CCV 880-65852/8). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-01 0.5'

Date Collected: 10/27/23 09:00
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-1
Matrix: Solid

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		10/31/23 13:33	10/31/23 23:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	10/31/23 23:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	10/31/23 23:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	10/31/23 23:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	10/31/23 23:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	10/31/23 23:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*10/31/23 13:33*	*10/31/23 23:40*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*10/31/23 13:33*	*10/31/23 23:40*	*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			10/31/23 23:40	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.5	U	49.5		mg/Kg			10/31/23 14:48	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	<49.5	U	49.5		mg/Kg		10/31/23 12:00	10/31/23 14:48	1
Diesel Range Organics (Over C10-C28)	<49.5	U	49.5		mg/Kg		10/31/23 12:00	10/31/23 14:48	1
OII Range Organics (Over C28-C36)	<49.5	U	49.5		mg/Kg		10/31/23 12:00	10/31/23 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*138*	*S1+*	*70 - 130*	*10/31/23 12:00*	*10/31/23 14:48*	*1*
o-Terphenyl	*132*	*S1+*	*70 - 130*	*10/31/23 12:00*	*10/31/23 14:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**66.3**		5.05		mg/Kg			11/03/23 23:54	1

Client Sample ID: BES23-02 0.5'

Date Collected: 10/27/23 09:05
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-2
Matrix: Solid

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		10/31/23 13:33	11/01/23 00:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/31/23 13:33	11/01/23 00:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/31/23 13:33	11/01/23 00:00	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/31/23 13:33	11/01/23 00:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/31/23 13:33	11/01/23 00:00	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/31/23 13:33	11/01/23 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*10/31/23 13:33*	*11/01/23 00:00*	*1*

Eurofins Midland

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-02 0.5'

Date Collected: 10/27/23 09:05
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*10/31/23 13:33*	*11/01/23 00:00*	*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			11/01/23 00:00	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			10/31/23 16:19	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		10/31/23 12:00	10/31/23 16:19	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		10/31/23 12:00	10/31/23 16:19	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		10/31/23 12:00	10/31/23 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*140*	*S1+*	*70 - 130*	*10/31/23 12:00*	*10/31/23 16:19*	*1*
o-Terphenyl	*131*	*S1+*	*70 - 130*	*10/31/23 12:00*	*10/31/23 16:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**116**		5.00	mg/Kg			11/04/23 00:13	1

Client Sample ID: BES23-03 0.5'

Date Collected: 10/27/23 09:10
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-3
Matrix: Solid

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		10/31/23 13:33	11/01/23 00:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/31/23 13:33	11/01/23 00:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/31/23 13:33	11/01/23 00:21	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/31/23 13:33	11/01/23 00:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/31/23 13:33	11/01/23 00:21	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/31/23 13:33	11/01/23 00:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*10/31/23 13:33*	*11/01/23 00:21*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*10/31/23 13:33*	*11/01/23 00:21*	*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			11/01/23 00:21	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			10/31/23 16:41	1

Eurofins Midland

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-03 0.5'

Lab Sample ID: 880-35072-3
Matrix: Solid
Date Collected: 10/27/23 09:10
Date Received: 10/31/23 11:33
Sample Depth: 5'

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		10/31/23 12:00	10/31/23 16:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/31/23 12:00	10/31/23 16:41	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/31/23 12:00	10/31/23 16:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*133*	*S1+*	*70 - 130*	*10/31/23 12:00*	*10/31/23 16:41*	*1*
o-Terphenyl	*123*		*70 - 130*	*10/31/23 12:00*	*10/31/23 16:41*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**52.8**		5.05		mg/Kg			11/04/23 00:20	1

Client Sample ID: BES23-04 0.5'

Lab Sample ID: 880-35072-4
Matrix: Solid
Date Collected: 10/27/23 09:15
Date Received: 10/31/23 11:33
Sample Depth: 5'

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		10/31/23 13:33	11/01/23 00:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/31/23 13:33	11/01/23 00:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/31/23 13:33	11/01/23 00:42	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		10/31/23 13:33	11/01/23 00:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/31/23 13:33	11/01/23 00:42	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		10/31/23 13:33	11/01/23 00:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*10/31/23 13:33*	*11/01/23 00:42*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*10/31/23 13:33*	*11/01/23 00:42*	*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			11/01/23 00:42	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			10/31/23 17:02	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		10/31/23 12:00	10/31/23 17:02	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		10/31/23 12:00	10/31/23 17:02	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		10/31/23 12:00	10/31/23 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*144*	*S1+*	*70 - 130*	*10/31/23 12:00*	*10/31/23 17:02*	*1*
o-Terphenyl	*133*	*S1+*	*70 - 130*	*10/31/23 12:00*	*10/31/23 17:02*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-04 0.5'

Lab Sample ID: 880-35072-4
Matrix: Solid
Date Collected: 10/27/23 09:15
Date Received: 10/31/23 11:33
Sample Depth: 5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	75.5		4.99		mg/Kg			11/04/23 00:27	1

Client Sample ID: BES23-05 0.5'

Lab Sample ID: 880-35072-5
Matrix: Solid
Date Collected: 10/27/23 09:20
Date Received: 10/31/23 11:33
Sample Depth: 5'

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		10/31/23 13:33	11/01/23 01:02	1
Toluene	<0.00202	U	0.00202		mg/Kg		10/31/23 13:33	11/01/23 01:02	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		10/31/23 13:33	11/01/23 01:02	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		10/31/23 13:33	11/01/23 01:02	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		10/31/23 13:33	11/01/23 01:02	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		10/31/23 13:33	11/01/23 01:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*10/31/23 13:33*	*11/01/23 01:02*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*10/31/23 13:33*	*11/01/23 01:02*	*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			11/01/23 01:02	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			10/31/23 17:25	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		10/31/23 12:00	10/31/23 17:25	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		10/31/23 12:00	10/31/23 17:25	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		10/31/23 12:00	10/31/23 17:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*140*	*S1+*	*70 - 130*	*10/31/23 12:00*	*10/31/23 17:25*	*1*
o-Terphenyl	*129*		*70 - 130*	*10/31/23 12:00*	*10/31/23 17:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	148		5.03		mg/Kg			11/04/23 00:33	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-06 0.5'

Lab Sample ID: 880-35072-6
Matrix: Solid
Date Collected: 10/27/23 09:25
Date Received: 10/31/23 11:33
Sample Depth: 5'

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		10/31/23 13:33	11/01/23 01:23	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 01:23	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 01:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	11/01/23 01:23	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 01:23	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	11/01/23 01:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*10/31/23 13:33*	*11/01/23 01:23*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*10/31/23 13:33*	*11/01/23 01:23*	*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			11/01/23 01:23	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			10/31/23 17:47	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	<50.3	U	50.3		mg/Kg		10/31/23 12:00	10/31/23 17:47	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		10/31/23 12:00	10/31/23 17:47	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		10/31/23 12:00	10/31/23 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*10/31/23 12:00*	*10/31/23 17:47*	*1*
o-Terphenyl	*116*		*70 - 130*	*10/31/23 12:00*	*10/31/23 17:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**56.9**		5.04		mg/Kg			11/04/23 00:40	1

Client Sample ID: BES23-07 0.5'

Lab Sample ID: 880-35072-7
Matrix: Solid
Date Collected: 10/27/23 09:30
Date Received: 10/31/23 11:33
Sample Depth: 5'

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		10/31/23 13:33	11/01/23 01:43	1
Toluene	<0.00198	U	0.00198		mg/Kg		10/31/23 13:33	11/01/23 01:43	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		10/31/23 13:33	11/01/23 01:43	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		10/31/23 13:33	11/01/23 01:43	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		10/31/23 13:33	11/01/23 01:43	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		10/31/23 13:33	11/01/23 01:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*10/31/23 13:33*	*11/01/23 01:43*	*1*

Eurofins Midland

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-07 0.5'

Lab Sample ID: 880-35072-7
Matrix: Solid
Date Collected: 10/27/23 09:30
Date Received: 10/31/23 11:33
Sample Depth: 5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*10/31/23 13:33*	*11/01/23 01:43*	*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			11/01/23 01:43	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			10/31/23 18:08	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	<49.8	U	49.8	mg/Kg		10/31/23 12:00	10/31/23 18:08	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/31/23 12:00	10/31/23 18:08	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/31/23 12:00	10/31/23 18:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*141*	*S1+*	*70 - 130*	*10/31/23 12:00*	*10/31/23 18:08*	*1*
o-Terphenyl	*131*	*S1+*	*70 - 130*	*10/31/23 12:00*	*10/31/23 18:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**51.0**		5.00	mg/Kg			11/04/23 00:46	1

Client Sample ID: BES23-08 0.5'

Lab Sample ID: 880-35072-8
Matrix: Solid
Date Collected: 10/27/23 09:35
Date Received: 10/31/23 11:33
Sample Depth: 5'

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		10/31/23 13:33	11/01/23 02:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/31/23 13:33	11/01/23 02:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/31/23 13:33	11/01/23 02:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/31/23 13:33	11/01/23 02:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/31/23 13:33	11/01/23 02:04	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/31/23 13:33	11/01/23 02:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*10/31/23 13:33*	*11/01/23 02:04*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*10/31/23 13:33*	*11/01/23 02:04*	*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			11/01/23 02:04	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			10/31/23 18:31	1

Eurofins Midland

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-08 0.5'

Lab Sample ID: 880-35072-8
Matrix: Solid
Date Collected: 10/27/23 09:35
Date Received: 10/31/23 11:33
Sample Depth: 5'

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		10/31/23 12:00	10/31/23 18:31	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		10/31/23 12:00	10/31/23 18:31	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		10/31/23 12:00	10/31/23 18:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*10/31/23 12:00*	*10/31/23 18:31*	*1*
o-Terphenyl	*117*		*70 - 130*	*10/31/23 12:00*	*10/31/23 18:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**83.0**		5.00		mg/Kg			11/04/23 01:06	1

Client Sample ID: BES23-09 0.5'

Lab Sample ID: 880-35072-9
Matrix: Solid
Date Collected: 10/27/23 09:40
Date Received: 10/31/23 11:33
Sample Depth: 5'

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		10/31/23 13:33	11/01/23 02:25	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/31/23 13:33	11/01/23 02:25	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/31/23 13:33	11/01/23 02:25	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		10/31/23 13:33	11/01/23 02:25	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		10/31/23 13:33	11/01/23 02:25	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/31/23 13:33	11/01/23 02:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*10/31/23 13:33*	*11/01/23 02:25*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*10/31/23 13:33*	*11/01/23 02:25*	*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			11/01/23 02:25	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			10/31/23 18:53	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	<50.4	U	50.4		mg/Kg		10/31/23 12:00	10/31/23 18:53	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		10/31/23 12:00	10/31/23 18:53	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		10/31/23 12:00	10/31/23 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*152*	*S1+*	*70 - 130*	*10/31/23 12:00*	*10/31/23 18:53*	*1*
o-Terphenyl	*136*	*S1+*	*70 - 130*	*10/31/23 12:00*	*10/31/23 18:53*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-09 0.5'

Lab Sample ID: 880-35072-9
Matrix: Solid
Date Collected: 10/27/23 09:40
Date Received: 10/31/23 11:33
Sample Depth: 5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	67.5		4.99		mg/Kg			11/04/23 01:13	1

Client Sample ID: BES23-10 0.5'

Lab Sample ID: 880-35072-10
Matrix: Solid
Date Collected: 10/27/23 09:45
Date Received: 10/31/23 11:33
Sample Depth: 5'

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		10/31/23 13:33	11/01/23 02:45	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/31/23 13:33	11/01/23 02:45	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/31/23 13:33	11/01/23 02:45	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		10/31/23 13:33	11/01/23 02:45	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		10/31/23 13:33	11/01/23 02:45	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/31/23 13:33	11/01/23 02:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*10/31/23 13:33*	*11/01/23 02:45*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*10/31/23 13:33*	*11/01/23 02:45*	*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			11/01/23 02:45	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			10/31/23 19:15	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	<50.2	U	50.2		mg/Kg		10/31/23 12:00	10/31/23 19:15	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		10/31/23 12:00	10/31/23 19:15	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		10/31/23 12:00	10/31/23 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*130*		*70 - 130*	*10/31/23 12:00*	*10/31/23 19:15*	*1*
o-Terphenyl	*118*		*70 - 130*	*10/31/23 12:00*	*10/31/23 19:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43.5		4.97		mg/Kg			11/04/23 01:33	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-11 0.5'

Date Collected: 10/27/23 09:50
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-11
Matrix: Solid

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		10/31/23 13:33	11/01/23 04:09	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 04:09	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 04:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	11/01/23 04:09	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 04:09	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	11/01/23 04:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*10/31/23 13:33*	*11/01/23 04:09*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*10/31/23 13:33*	*11/01/23 04:09*	*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			11/01/23 04:09	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			10/31/23 19:59	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		10/31/23 12:00	10/31/23 19:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/31/23 12:00	10/31/23 19:59	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/31/23 12:00	10/31/23 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*10/31/23 12:00*	*10/31/23 19:59*	*1*
o-Terphenyl	*101*		*70 - 130*	*10/31/23 12:00*	*10/31/23 19:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**227**		5.04		mg/Kg			11/04/23 01:39	1

Client Sample ID: BES23-12 0.5'

Date Collected: 10/27/23 09:55
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-12
Matrix: Solid

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		10/31/23 13:33	11/01/23 04:30	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 04:30	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 04:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	11/01/23 04:30	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 04:30	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	11/01/23 04:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*10/31/23 13:33*	*11/01/23 04:30*	*1*

Eurofins Midland

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-12 0.5'

Date Collected: 10/27/23 09:55
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-12
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*10/31/23 13:33*	*11/01/23 04:30*	*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			11/01/23 04:30	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			10/31/23 20:22	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	<49.6	U	49.6	mg/Kg		10/31/23 12:00	10/31/23 20:22	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6	mg/Kg		10/31/23 12:00	10/31/23 20:22	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6	mg/Kg		10/31/23 12:00	10/31/23 20:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*145*	*S1+*	*70 - 130*	*10/31/23 12:00*	*10/31/23 20:22*	*1*
o-Terphenyl	*127*		*70 - 130*	*10/31/23 12:00*	*10/31/23 20:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**94.3**		4.96	mg/Kg			11/04/23 01:46	1

Client Sample ID: BES23-13 0.5'

Date Collected: 10/27/23 10:00
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-13
Matrix: Solid

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		10/31/23 13:33	11/01/23 04:50	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/31/23 13:33	11/01/23 04:50	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/31/23 13:33	11/01/23 04:50	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/31/23 13:33	11/01/23 04:50	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/31/23 13:33	11/01/23 04:50	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/31/23 13:33	11/01/23 04:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*10/31/23 13:33*	*11/01/23 04:50*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*10/31/23 13:33*	*11/01/23 04:50*	*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			11/01/23 04:50	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			10/31/23 20:45	1

Eurofins Midland

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-13 0.5'

Lab Sample ID: 880-35072-13
Matrix: Solid
Date Collected: 10/27/23 10:00
Date Received: 10/31/23 11:33
Sample Depth: 5'

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		10/31/23 12:00	10/31/23 20:45	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		10/31/23 12:00	10/31/23 20:45	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		10/31/23 12:00	10/31/23 20:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*137*	*S1+*	*70 - 130*	*10/31/23 12:00*	*10/31/23 20:45*	*1*
o-Terphenyl	*124*		*70 - 130*	*10/31/23 12:00*	*10/31/23 20:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**102**		5.02		mg/Kg			11/04/23 01:53	1

Client Sample ID: BES23-14 0.5'

Lab Sample ID: 880-35072-14
Matrix: Solid
Date Collected: 10/27/23 10:05
Date Received: 10/31/23 11:33
Sample Depth: 5'

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		10/31/23 13:33	11/01/23 05:11	1
Toluene	<0.00202	U	0.00202		mg/Kg		10/31/23 13:33	11/01/23 05:11	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		10/31/23 13:33	11/01/23 05:11	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		10/31/23 13:33	11/01/23 05:11	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		10/31/23 13:33	11/01/23 05:11	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		10/31/23 13:33	11/01/23 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*10/31/23 13:33*	*11/01/23 05:11*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*10/31/23 13:33*	*11/01/23 05:11*	*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			11/01/23 05:11	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			10/31/23 21:08	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	<50.3	U	50.3		mg/Kg		10/31/23 12:00	10/31/23 21:08	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		10/31/23 12:00	10/31/23 21:08	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		10/31/23 12:00	10/31/23 21:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*137*	*S1+*	*70 - 130*	*10/31/23 12:00*	*10/31/23 21:08*	*1*
o-Terphenyl	*127*		*70 - 130*	*10/31/23 12:00*	*10/31/23 21:08*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-14 0.5'

Lab Sample ID: 880-35072-14
Matrix: Solid
Date Collected: 10/27/23 10:05
Date Received: 10/31/23 11:33
Sample Depth: 5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	77.7		5.00		mg/Kg			11/04/23 01:59	1

Client Sample ID: BES23-15 0.5'

Lab Sample ID: 880-35072-15
Matrix: Solid
Date Collected: 10/27/23 10:10
Date Received: 10/31/23 11:33
Sample Depth: 5'

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		10/31/23 13:33	11/01/23 05:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 05:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 05:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	11/01/23 05:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 05:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	11/01/23 05:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*10/31/23 13:33*	*11/01/23 05:31*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*10/31/23 13:33*	*11/01/23 05:31*	*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			11/01/23 05:31	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			10/31/23 21:31	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	<49.7	U	49.7		mg/Kg		10/31/23 12:00	10/31/23 21:31	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		10/31/23 12:00	10/31/23 21:31	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		10/31/23 12:00	10/31/23 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*10/31/23 12:00*	*10/31/23 21:31*	*1*
o-Terphenyl	*108*		*70 - 130*	*10/31/23 12:00*	*10/31/23 21:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	78.2		4.95		mg/Kg			11/04/23 02:06	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-16 0.5'

Date Collected: 10/27/23 10:15
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-16
Matrix: Solid

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		10/31/23 13:33	11/01/23 05:52	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 05:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 05:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	11/01/23 05:52	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 05:52	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	11/01/23 05:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*10/31/23 13:33*	*11/01/23 05:52*	*1*
1,4-Difluorobenzene (Surr)	*51*	*S1-*	*70 - 130*	*10/31/23 13:33*	*11/01/23 05:52*	*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			11/01/23 05:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.5	U	49.5		mg/Kg			10/31/23 21:53	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	<49.5	U	49.5		mg/Kg		10/31/23 12:00	10/31/23 21:53	1
Diesel Range Organics (Over C10-C28)	<49.5	U	49.5		mg/Kg		10/31/23 12:00	10/31/23 21:53	1
OII Range Organics (Over C28-C36)	<49.5	U	49.5		mg/Kg		10/31/23 12:00	10/31/23 21:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*10/31/23 12:00*	*10/31/23 21:53*	*1*
o-Terphenyl	*110*		*70 - 130*	*10/31/23 12:00*	*10/31/23 21:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**86.4**		5.03		mg/Kg			11/04/23 02:12	1

Client Sample ID: BES23-17 0.5'

Date Collected: 10/27/23 10:20
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-17
Matrix: Solid

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		10/31/23 13:33	11/01/23 06:12	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 06:12	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 06:12	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	11/01/23 06:12	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 06:12	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	11/01/23 06:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*10/31/23 13:33*	*11/01/23 06:12*	*1*

Eurofins Midland

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-17 0.5'

Date Collected: 10/27/23 10:20
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-17
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*10/31/23 13:33*	*11/01/23 06:12*	*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			11/01/23 06:12	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.5	U	49.5	mg/Kg			10/31/23 22:16	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	<49.5	U	49.5	mg/Kg		10/31/23 12:00	10/31/23 22:16	1
Diesel Range Organics (Over C10-C28)	<49.5	U	49.5	mg/Kg		10/31/23 12:00	10/31/23 22:16	1
OII Range Organics (Over C28-C36)	<49.5	U	49.5	mg/Kg		10/31/23 12:00	10/31/23 22:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*10/31/23 12:00*	*10/31/23 22:16*	*1*
o-Terphenyl	*106*		*70 - 130*	*10/31/23 12:00*	*10/31/23 22:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**115**		5.04	mg/Kg			11/03/23 09:09	1

Client Sample ID: BES23-18 0.5'

Date Collected: 10/27/23 10:25
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-18
Matrix: Solid

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		10/31/23 13:33	11/01/23 06:33	1
Toluene	<0.00200	U	0.00200	mg/Kg		10/31/23 13:33	11/01/23 06:33	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		10/31/23 13:33	11/01/23 06:33	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		10/31/23 13:33	11/01/23 06:33	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		10/31/23 13:33	11/01/23 06:33	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		10/31/23 13:33	11/01/23 06:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*10/31/23 13:33*	*11/01/23 06:33*	*1*
1,4-Difluorobenzene (Surr)	*61*	*S1-*	*70 - 130*	*10/31/23 13:33*	*11/01/23 06:33*	*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			11/01/23 06:33	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			10/31/23 22:39	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-18 0.5'

Date Collected: 10/27/23 10:25
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-18
Matrix: Solid

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		10/31/23 12:00	10/31/23 22:39	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		10/31/23 12:00	10/31/23 22:39	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		10/31/23 12:00	10/31/23 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*10/31/23 12:00*	*10/31/23 22:39*	*1*
o-Terphenyl	*101*		*70 - 130*	*10/31/23 12:00*	*10/31/23 22:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**77.7**		4.98		mg/Kg			11/03/23 09:15	1

Client Sample ID: BES23-19 0.5'

Date Collected: 10/27/23 10:30
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-19
Matrix: Solid

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		10/31/23 13:33	11/01/23 06:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/31/23 13:33	11/01/23 06:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/31/23 13:33	11/01/23 06:53	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		10/31/23 13:33	11/01/23 06:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/31/23 13:33	11/01/23 06:53	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		10/31/23 13:33	11/01/23 06:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*10/31/23 13:33*	*11/01/23 06:53*	*1*
1,4-Difluorobenzene (Surr)	*60*	*S1-*	*70 - 130*	*10/31/23 13:33*	*11/01/23 06:53*	*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			11/01/23 06:53	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			10/31/23 23:02	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		10/31/23 12:00	10/31/23 23:02	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		10/31/23 12:00	10/31/23 23:02	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		10/31/23 12:00	10/31/23 23:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*10/31/23 12:00*	*10/31/23 23:02*	*1*
o-Terphenyl	*110*		*70 - 130*	*10/31/23 12:00*	*10/31/23 23:02*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-19 0.5'

Lab Sample ID: 880-35072-19
Matrix: Solid
Date Collected: 10/27/23 10:30
Date Received: 10/31/23 11:33
Sample Depth: 5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	117		4.99		mg/Kg			11/03/23 09:20	1

Client Sample ID: BES23-20 0.5'

Lab Sample ID: 880-35072-20
Matrix: Solid
Date Collected: 10/27/23 10:35
Date Received: 10/31/23 11:33
Sample Depth: 5'

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		10/31/23 13:33	11/01/23 07:14	1
Toluene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 07:14	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 07:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	11/01/23 07:14	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		10/31/23 13:33	11/01/23 07:14	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		10/31/23 13:33	11/01/23 07:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*10/31/23 13:33*	*11/01/23 07:14*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*10/31/23 13:33*	*11/01/23 07:14*	*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			11/01/23 07:14	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			10/31/23 23:25	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		10/31/23 12:06	10/31/23 23:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/31/23 12:06	10/31/23 23:25	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/31/23 12:06	10/31/23 23:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*10/31/23 12:06*	*10/31/23 23:25*	*1*
o-Terphenyl	*114*		*70 - 130*	*10/31/23 12:06*	*10/31/23 23:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	66.5		5.01		mg/Kg			11/03/23 09:25	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: WES23-01 0-0.5'

Date Collected: 10/27/23 10:40
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-21
Matrix: Solid

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		11/02/23 08:43	11/02/23 18:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:43	11/02/23 18:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:43	11/02/23 18:55	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/02/23 08:43	11/02/23 18:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:43	11/02/23 18:55	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/02/23 08:43	11/02/23 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*11/02/23 08:43*	*11/02/23 18:55*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*11/02/23 08:43*	*11/02/23 18:55*	*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			11/02/23 18:55	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			10/31/23 22:17	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	<50.5	U	50.5		mg/Kg		10/31/23 11:56	10/31/23 22:17	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		10/31/23 11:56	10/31/23 22:17	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		10/31/23 11:56	10/31/23 22:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*10/31/23 11:56*	*10/31/23 22:17*	*1*
o-Terphenyl	*86*		*70 - 130*	*10/31/23 11:56*	*10/31/23 22:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**86.0**		5.01		mg/Kg			11/03/23 09:41	1

Client Sample ID: WES23-02 0-0.5'

Date Collected: 10/27/23 10:45
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-22
Matrix: Solid

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		11/02/23 08:43	11/02/23 19:15	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/02/23 08:43	11/02/23 19:15	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/02/23 08:43	11/02/23 19:15	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/02/23 08:43	11/02/23 19:15	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/02/23 08:43	11/02/23 19:15	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/02/23 08:43	11/02/23 19:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*11/02/23 08:43*	*11/02/23 19:15*	*1*

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: WES23-02 0-0.5'

Date Collected: 10/27/23 10:45
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-22
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*11/02/23 08:43*	*11/02/23 19:15*	*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			11/02/23 19:15	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			10/31/23 22:43	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	<50.5	U	50.5		mg/Kg		10/31/23 11:56	10/31/23 22:43	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		10/31/23 11:56	10/31/23 22:43	1
OII Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		10/31/23 11:56	10/31/23 22:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*78*		*70 - 130*	*10/31/23 11:56*	*10/31/23 22:43*	*1*
o-Terphenyl	*88*		*70 - 130*	*10/31/23 11:56*	*10/31/23 22:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**68.6**		5.04		mg/Kg			11/03/23 09:46	1

Client Sample ID: WES23-03 0-0.5'

Date Collected: 10/27/23 10:50
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-23
Matrix: Solid

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		11/02/23 08:43	11/02/23 19:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:43	11/02/23 19:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:43	11/02/23 19:36	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/02/23 08:43	11/02/23 19:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:43	11/02/23 19:36	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/02/23 08:43	11/02/23 19:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*11/02/23 08:43*	*11/02/23 19:36*	*1*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*	*11/02/23 08:43*	*11/02/23 19:36*	*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			11/02/23 19:36	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			10/31/23 23:10	1

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Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: WES23-03 0-0.5'

Lab Sample ID: 880-35072-23
Matrix: Solid
Date Collected: 10/27/23 10:50
Date Received: 10/31/23 11:33
Sample Depth: 5'

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		10/31/23 11:56	10/31/23 23:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/31/23 11:56	10/31/23 23:10	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/31/23 11:56	10/31/23 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*10/31/23 11:56*	*10/31/23 23:10*	*1*
o-Terphenyl	*99*		*70 - 130*	*10/31/23 11:56*	*10/31/23 23:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**169**		4.99		mg/Kg			11/03/23 09:51	1

Client Sample ID: WES23-04 0-2.5'

Lab Sample ID: 880-35072-24
Matrix: Solid
Date Collected: 10/27/23 10:55
Date Received: 10/31/23 11:33
Sample Depth: 5'

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		11/02/23 08:43	11/02/23 19:56	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/02/23 08:43	11/02/23 19:56	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/02/23 08:43	11/02/23 19:56	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/02/23 08:43	11/02/23 19:56	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/02/23 08:43	11/02/23 19:56	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/02/23 08:43	11/02/23 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*11/02/23 08:43*	*11/02/23 19:56*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*11/02/23 08:43*	*11/02/23 19:56*	*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			11/02/23 19:56	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			10/31/23 23:37	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		10/31/23 11:56	10/31/23 23:37	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		10/31/23 11:56	10/31/23 23:37	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		10/31/23 11:56	10/31/23 23:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*10/31/23 11:56*	*10/31/23 23:37*	*1*
o-Terphenyl	*77*		*70 - 130*	*10/31/23 11:56*	*10/31/23 23:37*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: WES23-04 0-2.5'
Date Collected: 10/27/23 10:55
Date Received: 10/31/23 11:33
Sample Depth: 5'

Lab Sample ID: 880-35072-24
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	167		5.05		mg/Kg			11/03/23 09:56	1

Surrogate Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-34990-A-8-A MB	Method Blank	89	77
880-35072-1	BES23-01 0.5'	84	89
880-35072-1 MS	BES23-01 0.5'	102	121
880-35072-1 MSD	BES23-01 0.5'	103	119
880-35072-2	BES23-02 0.5'	88	83
880-35072-3	BES23-03 0.5'	89	95
880-35072-4	BES23-04 0.5'	92	92
880-35072-5	BES23-05 0.5'	88	81
880-35072-6	BES23-06 0.5'	90	83
880-35072-7	BES23-07 0.5'	91	91
880-35072-8	BES23-08 0.5'	90	91
880-35072-9	BES23-09 0.5'	93	89
880-35072-10	BES23-10 0.5'	92	86
880-35072-11	BES23-11 0.5'	87	93
880-35072-12	BES23-12 0.5'	93	81
880-35072-13	BES23-13 0.5'	89	83
880-35072-14	BES23-14 0.5'	82	90
880-35072-15	BES23-15 0.5'	89	76
880-35072-16	BES23-16 0.5'	90	51 S1-
880-35072-17	BES23-17 0.5'	79	75
880-35072-18	BES23-18 0.5'	89	61 S1-
880-35072-19	BES23-19 0.5'	89	60 S1-
880-35072-20	BES23-20 2.5'	89	84
880-35072-21	WES23-01 0.5'	93	113
880-35072-22	WES23-02 0.5'	104	111
880-35072-23	WES23-03 0.5'	98	123
880-35072-24	WES23-04 2.5'	98	109
880-35134-A-4-D MS	Matrix Spike	102	104
880-35134-A-4-E MSD	Matrix Spike Duplicate	91	99
LCS 880-65905/1-A	Lab Control Sample	107	118
LCS 880-66035/1-A	Lab Control Sample	95	104
LCSD 880-65905/2-A	Lab Control Sample Dup	108	114
LCSD 880-66035/2-A	Lab Control Sample Dup	102	106
MB 880-65905/5-A	Method Blank	70	101
MB 880-66035/5-A	Method Blank	110	144 S1+

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)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-34966-A-1-B MS	Matrix Spike	77	73
880-34966-A-1-C MSD	Matrix Spike Duplicate	76	73
880-35072-1	BES23-01 0.5'	138 S1+	132 S1+
880-35072-1 MS	BES23-01 0.5'	126	107

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Surrogate Summary

Client: Vertex Job ID: 880-35072-1
Project/Site: Mis Amigos SDG: 23E-05219

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-35072-1 MSD	BES23-01 0.5'	126	107										
880-35072-2	BES23-02 0.5'	140 S1+	131 S1+										
880-35072-3	BES23-03 0.5'	133 S1+	123										
880-35072-4	BES23-04 0.5'	144 S1+	133 S1+										
880-35072-5	BES23-05 0.5'	140 S1+	129										
880-35072-6	BES23-06 0.5'	127	116										
880-35072-7	BES23-07 0.5'	141 S1+	131 S1+										
880-35072-8	BES23-08 0.5'	128	117										
880-35072-9	BES23-09 0.5'	152 S1+	136 S1+										
880-35072-10	BES23-10 0.5'	130	118										
880-35072-11	BES23-11 0.5'	115	101										
880-35072-12	BES23-12 0.5'	145 S1+	127										
880-35072-13	BES23-13 0.5'	137 S1+	124										
880-35072-14	BES23-14 0.5'	137 S1+	127										
880-35072-15	BES23-15 0.5'	119	108										
880-35072-16	BES23-16 0.5'	121	110										
880-35072-17	BES23-17 0.5'	118	106										
880-35072-18	BES23-18 0.5'	110	101										
880-35072-19	BES23-19 0.5'	120	110										
880-35072-20	BES23-20 2.5'	121	114										
880-35072-21	WES23-01 0.5'	73	86										
880-35072-22	WES23-02 0.5'	78	88										
880-35072-23	WES23-03 0.5'	89	99										
880-35072-24	WES23-04 2.5'	70	77										
LCS 880-65868/2-A	Lab Control Sample	89	96										
LCS 880-65869/2-A	Lab Control Sample	101	111										
LCSD 880-65868/3-A	Lab Control Sample Dup	88	97										
LCSD 880-65869/3-A	Lab Control Sample Dup	100	103										
MB 880-65868/1-A	Method Blank	122	148 S1+										
MB 880-65869/1-A	Method Blank	215 S1+	205 S1+										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: 880-34990-A-8-A MB
Matrix: Solid
Analysis Batch: 65862

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 65867

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/31/23 10:25	10/31/23 18:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/31/23 10:25	10/31/23 18:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/31/23 10:25	10/31/23 18:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/31/23 10:25	10/31/23 18:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/31/23 10:25	10/31/23 18:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/31/23 10:25	10/31/23 18:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*10/31/23 10:25*	*10/31/23 18:09*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*10/31/23 10:25*	*10/31/23 18:09*	*1*

Lab Sample ID: MB 880-65905/5-A
Matrix: Solid
Analysis Batch: 65862

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 65905

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/31/23 13:33	10/31/23 23:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/31/23 13:33	10/31/23 23:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/31/23 13:33	10/31/23 23:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/31/23 13:33	10/31/23 23:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/31/23 13:33	10/31/23 23:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/31/23 13:33	10/31/23 23:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*70*		*70 - 130*	*10/31/23 13:33*	*10/31/23 23:18*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*10/31/23 13:33*	*10/31/23 23:18*	*1*

Lab Sample ID: LCS 880-65905/1-A
Matrix: Solid
Analysis Batch: 65862

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 65905

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1054		mg/Kg		105	70 - 130		
Toluene			0.100	0.09589		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.09078		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1925		mg/Kg		96	70 - 130		
o-Xylene			0.100	0.09376		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*

Lab Sample ID: LCSD 880-65905/2-A
Matrix: Solid
Analysis Batch: 65862

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 65905

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09973		mg/Kg		100	70 - 130	5	35

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

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

Lab Sample ID: LCSD 880-65905/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 65862 — **Prep Batch: 65905**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09197		mg/Kg		92	70 - 130	4	35
Ethylbenzene			0.100	0.08653		mg/Kg		87	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1806		mg/Kg		90	70 - 130	6	35
o-Xylene			0.100	0.08883		mg/Kg		89	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: 880-35072-1 MS — **Client Sample ID: BES23-01 0.5'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 65862 — **Prep Batch: 65905**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0996	0.1012		mg/Kg		102	70 - 130
Toluene	<0.00199	U	0.0996	0.09205		mg/Kg		92	70 - 130
Ethylbenzene	<0.00199	U	0.0996	0.08690		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1828		mg/Kg		92	70 - 130
o-Xylene	<0.00199	U	0.0996	0.08780		mg/Kg		88	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*121*		*70 - 130*

Lab Sample ID: 880-35072-1 MSD — **Client Sample ID: BES23-01 0.5'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 65862 — **Prep Batch: 65905**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0992	0.1116		mg/Kg		113	70 - 130	10	35
Toluene	<0.00199	U	0.0992	0.1040		mg/Kg		105	70 - 130	12	35
Ethylbenzene	<0.00199	U	0.0992	0.09804		mg/Kg		99	70 - 130	12	35
m-Xylene & p-Xylene	<0.00398	U	0.198	0.2064		mg/Kg		104	70 - 130	12	35
o-Xylene	<0.00199	U	0.0992	0.09902		mg/Kg		100	70 - 130	12	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*

Lab Sample ID: MB 880-66035/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 66027 — **Prep Batch: 66035**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:43	11/02/23 11:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:43	11/02/23 11:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:43	11/02/23 11:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/02/23 08:43	11/02/23 11:29	1

Eurofins Midland

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

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

Lab Sample ID: MB 880-66035/5-A
Matrix: Solid
Analysis Batch: 66027

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 66035

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:43	11/02/23 11:29	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/02/23 08:43	11/02/23 11:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*11/02/23 08:43*	*11/02/23 11:29*	*1*
1,4-Difluorobenzene (Surr)	*144*	*S1+*	*70 - 130*	*11/02/23 08:43*	*11/02/23 11:29*	*1*

Lab Sample ID: LCS 880-66035/1-A
Matrix: Solid
Analysis Batch: 66027

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 66035

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09947		mg/Kg		99	70 - 130		
Toluene			0.100	0.08623		mg/Kg		86	70 - 130		
Ethylbenzene			0.100	0.08715		mg/Kg		87	70 - 130		
m-Xylene & p-Xylene			0.200	0.1907		mg/Kg		95	70 - 130		
o-Xylene			0.100	0.08967		mg/Kg		90	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-66035/2-A
Matrix: Solid
Analysis Batch: 66027

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 66035

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1054		mg/Kg		105	70 - 130	6	35
Toluene			0.100	0.08968		mg/Kg		90	70 - 130	4	35
Ethylbenzene			0.100	0.09339		mg/Kg		93	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.2051		mg/Kg		103	70 - 130	7	35
o-Xylene			0.100	0.09722		mg/Kg		97	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 880-35134-A-4-D MS
Matrix: Solid
Analysis Batch: 66027

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 66035

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.0996	0.1066		mg/Kg		107	70 - 130		
Toluene	<0.00199	U	0.0996	0.09336		mg/Kg		94	70 - 130		
Ethylbenzene	<0.00199	U	0.0996	0.09136		mg/Kg		92	70 - 130		
m-Xylene & p-Xylene	<0.00398	U	0.199	0.2067		mg/Kg		104	70 - 130		
o-Xylene	<0.00199	U	0.0996	0.09830		mg/Kg		98	70 - 130		

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

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

Lab Sample ID: 880-35134-A-4-D MS
Matrix: Solid
Analysis Batch: 66027

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 66035

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 880-35134-A-4-E MSD
Matrix: Solid
Analysis Batch: 66027

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 66035

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	0.1091		mg/Kg		109	70 - 130	2	35
Toluene	<0.00199	U	0.100	0.09621		mg/Kg		96	70 - 130	3	35
Ethylbenzene	<0.00199	U	0.100	0.08962		mg/Kg		89	70 - 130	2	35
m-Xylene & p-Xylene	<0.00398	U	0.201	0.2017		mg/Kg		100	70 - 130	2	35
o-Xylene	<0.00199	U	0.100	0.09642		mg/Kg		96	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

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

Lab Sample ID: MB 880-65868/1-A
Matrix: Solid
Analysis Batch: 65857

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 65868

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		10/31/23 07:56	10/31/23 07:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/31/23 07:56	10/31/23 07:58	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/31/23 07:56	10/31/23 07:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130	10/31/23 07:56	10/31/23 07:58	1
o-Terphenyl	148	S1+	70 - 130	10/31/23 07:56	10/31/23 07:58	1

Lab Sample ID: LCS 880-65868/2-A
Matrix: Solid
Analysis Batch: 65857

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 65868

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	812.0		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	840.5		mg/Kg		84	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	96		70 - 130

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

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

Lab Sample ID: LCSD 880-65868/3-A
Matrix: Solid
Analysis Batch: 65857

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 65868

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	969.2		mg/Kg		97	70 - 130	18	20
Diesel Range Organics (Over C10-C28)			1000	871.1		mg/Kg		87	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Lab Sample ID: 880-34966-A-1-B MS
Matrix: Solid
Analysis Batch: 65857

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 65868

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	991	663.3	F1	mg/Kg		64	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U F1	991	655.0	F1	mg/Kg		66	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*77*		*70 - 130*
o-Terphenyl	*73*		*70 - 130*

Lab Sample ID: 880-34966-A-1-C MSD
Matrix: Solid
Analysis Batch: 65857

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 65868

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	<50.0	U F1	991	660.1	F1	mg/Kg		64	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	991	668.9	F1	mg/Kg		67	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*76*		*70 - 130*
o-Terphenyl	*73*		*70 - 130*

Lab Sample ID: MB 880-65869/1-A
Matrix: Solid
Analysis Batch: 65852

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 65869

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		10/31/23 08:00	10/31/23 08:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/31/23 08:00	10/31/23 08:36	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/31/23 08:00	10/31/23 08:36	1

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

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

Lab Sample ID: MB 880-65869/1-A
Matrix: Solid
Analysis Batch: 65852

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 65869

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	215	S1+	70 - 130	10/31/23 08:00	10/31/23 08:36	1
o-Terphenyl	205	S1+	70 - 130	10/31/23 08:00	10/31/23 08:36	1

Lab Sample ID: LCS 880-65869/2-A
Matrix: Solid
Analysis Batch: 65852

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 65869

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	905.2		mg/Kg		91	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	899.4		mg/Kg		90	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	111		70 - 130

Lab Sample ID: LCSD 880-65869/3-A
Matrix: Solid
Analysis Batch: 65852

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 65869

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	854.2		mg/Kg		85	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	852.5		mg/Kg		85	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 880-35072-1 MS
Matrix: Solid
Analysis Batch: 65852

Client Sample ID: BES23-01 0.5'
Prep Type: Total/NA
Prep Batch: 65869

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.5	U	1010	1241		mg/Kg		121	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.5	U	1010	1182		mg/Kg		116	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	126		70 - 130
o-Terphenyl	107		70 - 130

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

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

Lab Sample ID: 880-35072-1 MSD
Matrix: Solid
Analysis Batch: 65852

Client Sample ID: BES23-01 0.5'
Prep Type: Total/NA
Prep Batch: 65869

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	<49.5	U	1010	1232		mg/Kg		120	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.5	U	1010	1187		mg/Kg		116	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*126*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-65885/1-A
Matrix: Solid
Analysis Batch: 65984

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			11/03/23 08:38	1

Lab Sample ID: LCS 880-65885/2-A
Matrix: Solid
Analysis Batch: 65984

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	256.2		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-65885/3-A
Matrix: Solid
Analysis Batch: 65984

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	259.1		mg/Kg		104	90 - 110	1	20

Lab Sample ID: 880-35073-A-2-B MS
Matrix: Solid
Analysis Batch: 65984

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	188		248	431.3		mg/Kg		98	90 - 110		

Lab Sample ID: 880-35073-A-2-C MSD
Matrix: Solid
Analysis Batch: 65984

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	188		248	438.0		mg/Kg		101	90 - 110	2	20

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-65886/1-A
Matrix: Solid
Analysis Batch: 65985

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			11/03/23 22:54	1

Lab Sample ID: LCS 880-65886/2-A
Matrix: Solid
Analysis Batch: 65985

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	251.1		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-65886/3-A
Matrix: Solid
Analysis Batch: 65985

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	251.3		mg/Kg		101	90 - 110	0	20

Lab Sample ID: 880-35072-7 MS
Matrix: Solid
Analysis Batch: 65985

Client Sample ID: BES23-07 0.5'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	51.0		250	314.7		mg/Kg		105	90 - 110		

Lab Sample ID: 880-35072-7 MSD
Matrix: Solid
Analysis Batch: 65985

Client Sample ID: BES23-07 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	51.0		250	313.9		mg/Kg		105	90 - 110	0	20

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

GC VOA

Analysis Batch: 65862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-1	BES23-01 0.5'	Total/NA	Solid	8021B	65905
880-35072-2	BES23-02 0.5'	Total/NA	Solid	8021B	65905
880-35072-3	BES23-03 0.5'	Total/NA	Solid	8021B	65905
880-35072-4	BES23-04 0.5'	Total/NA	Solid	8021B	65905
880-35072-5	BES23-05 0.5'	Total/NA	Solid	8021B	65905
880-35072-6	BES23-06 0.5'	Total/NA	Solid	8021B	65905
880-35072-7	BES23-07 0.5'	Total/NA	Solid	8021B	65905
880-35072-8	BES23-08 0.5'	Total/NA	Solid	8021B	65905
880-35072-9	BES23-09 0.5'	Total/NA	Solid	8021B	65905
880-35072-10	BES23-10 0.5'	Total/NA	Solid	8021B	65905
880-35072-11	BES23-11 0.5'	Total/NA	Solid	8021B	65905
880-35072-12	BES23-12 0.5'	Total/NA	Solid	8021B	65905
880-35072-13	BES23-13 0.5'	Total/NA	Solid	8021B	65905
880-35072-14	BES23-14 0.5'	Total/NA	Solid	8021B	65905
880-35072-15	BES23-15 0.5'	Total/NA	Solid	8021B	65905
880-35072-16	BES23-16 0.5'	Total/NA	Solid	8021B	65905
880-35072-17	BES23-17 0.5'	Total/NA	Solid	8021B	65905
880-35072-18	BES23-18 0.5'	Total/NA	Solid	8021B	65905
880-35072-19	BES23-19 0.5'	Total/NA	Solid	8021B	65905
880-35072-20	BES23-20 2.5'	Total/NA	Solid	8021B	65905
880-34990-A-8-A MB	Method Blank	Total/NA	Solid	8021B	65867
MB 880-65905/5-A	Method Blank	Total/NA	Solid	8021B	65905
LCS 880-65905/1-A	Lab Control Sample	Total/NA	Solid	8021B	65905
LCSD 880-65905/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	65905
880-35072-1 MS	BES23-01 0.5'	Total/NA	Solid	8021B	65905
880-35072-1 MSD	BES23-01 0.5'	Total/NA	Solid	8021B	65905

Prep Batch: 65867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-34990-A-8-A MB	Method Blank	Total/NA	Solid	5030B	

Prep Batch: 65905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-1	BES23-01 0.5'	Total/NA	Solid	5035	
880-35072-2	BES23-02 0.5'	Total/NA	Solid	5035	
880-35072-3	BES23-03 0.5'	Total/NA	Solid	5035	
880-35072-4	BES23-04 0.5'	Total/NA	Solid	5035	
880-35072-5	BES23-05 0.5'	Total/NA	Solid	5035	
880-35072-6	BES23-06 0.5'	Total/NA	Solid	5035	
880-35072-7	BES23-07 0.5'	Total/NA	Solid	5035	
880-35072-8	BES23-08 0.5'	Total/NA	Solid	5035	
880-35072-9	BES23-09 0.5'	Total/NA	Solid	5035	
880-35072-10	BES23-10 0.5'	Total/NA	Solid	5035	
880-35072-11	BES23-11 0.5'	Total/NA	Solid	5035	
880-35072-12	BES23-12 0.5'	Total/NA	Solid	5035	
880-35072-13	BES23-13 0.5'	Total/NA	Solid	5035	
880-35072-14	BES23-14 0.5'	Total/NA	Solid	5035	
880-35072-15	BES23-15 0.5'	Total/NA	Solid	5035	
880-35072-16	BES23-16 0.5'	Total/NA	Solid	5035	
880-35072-17	BES23-17 0.5'	Total/NA	Solid	5035	
880-35072-18	BES23-18 0.5'	Total/NA	Solid	5035	

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

GC VOA (Continued)

Prep Batch: 65905 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-19	BES23-19 0.5'	Total/NA	Solid	5035	
880-35072-20	BES23-20 2.5'	Total/NA	Solid	5035	
MB 880-65905/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-65905/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-65905/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-35072-1 MS	BES23-01 0.5'	Total/NA	Solid	5035	
880-35072-1 MSD	BES23-01 0.5'	Total/NA	Solid	5035	

Analysis Batch: 66027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-21	WES23-01 0.5'	Total/NA	Solid	8021B	66035
880-35072-22	WES23-02 0.5'	Total/NA	Solid	8021B	66035
880-35072-23	WES23-03 0.5'	Total/NA	Solid	8021B	66035
880-35072-24	WES23-04 2.5'	Total/NA	Solid	8021B	66035
MB 880-66035/5-A	Method Blank	Total/NA	Solid	8021B	66035
LCS 880-66035/1-A	Lab Control Sample	Total/NA	Solid	8021B	66035
LCSD 880-66035/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	66035
880-35134-A-4-D MS	Matrix Spike	Total/NA	Solid	8021B	66035
880-35134-A-4-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	66035

Prep Batch: 66035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-21	WES23-01 0.5'	Total/NA	Solid	5035	
880-35072-22	WES23-02 0.5'	Total/NA	Solid	5035	
880-35072-23	WES23-03 0.5'	Total/NA	Solid	5035	
880-35072-24	WES23-04 2.5'	Total/NA	Solid	5035	
MB 880-66035/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-66035/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-66035/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-35134-A-4-D MS	Matrix Spike	Total/NA	Solid	5035	
880-35134-A-4-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 66095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-1	BES23-01 0.5'	Total/NA	Solid	Total BTEX	
880-35072-2	BES23-02 0.5'	Total/NA	Solid	Total BTEX	
880-35072-3	BES23-03 0.5'	Total/NA	Solid	Total BTEX	
880-35072-4	BES23-04 0.5'	Total/NA	Solid	Total BTEX	
880-35072-5	BES23-05 0.5'	Total/NA	Solid	Total BTEX	
880-35072-6	BES23-06 0.5'	Total/NA	Solid	Total BTEX	
880-35072-7	BES23-07 0.5'	Total/NA	Solid	Total BTEX	
880-35072-8	BES23-08 0.5'	Total/NA	Solid	Total BTEX	
880-35072-9	BES23-09 0.5'	Total/NA	Solid	Total BTEX	
880-35072-10	BES23-10 0.5'	Total/NA	Solid	Total BTEX	
880-35072-11	BES23-11 0.5'	Total/NA	Solid	Total BTEX	
880-35072-12	BES23-12 0.5'	Total/NA	Solid	Total BTEX	
880-35072-13	BES23-13 0.5'	Total/NA	Solid	Total BTEX	
880-35072-14	BES23-14 0.5'	Total/NA	Solid	Total BTEX	
880-35072-15	BES23-15 0.5'	Total/NA	Solid	Total BTEX	
880-35072-16	BES23-16 0.5'	Total/NA	Solid	Total BTEX	
880-35072-17	BES23-17 0.5'	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

GC VOA (Continued)

Analysis Batch: 66095 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-18	BES23-18 0.5'	Total/NA	Solid	Total BTEX	
880-35072-19	BES23-19 0.5'	Total/NA	Solid	Total BTEX	
880-35072-20	BES23-20 2.5'	Total/NA	Solid	Total BTEX	
880-35072-21	WES23-01 0.5'	Total/NA	Solid	Total BTEX	
880-35072-22	WES23-02 0.5'	Total/NA	Solid	Total BTEX	
880-35072-23	WES23-03 0.5'	Total/NA	Solid	Total BTEX	
880-35072-24	WES23-04 2.5'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 65852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-1	BES23-01 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-2	BES23-02 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-3	BES23-03 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-4	BES23-04 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-5	BES23-05 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-6	BES23-06 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-7	BES23-07 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-8	BES23-08 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-9	BES23-09 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-10	BES23-10 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-11	BES23-11 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-12	BES23-12 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-13	BES23-13 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-14	BES23-14 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-15	BES23-15 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-16	BES23-16 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-17	BES23-17 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-18	BES23-18 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-19	BES23-19 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-20	BES23-20 2.5'	Total/NA	Solid	8015B NM	65869
MB 880-65869/1-A	Method Blank	Total/NA	Solid	8015B NM	65869
LCS 880-65869/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	65869
LCSD 880-65869/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	65869
880-35072-1 MS	BES23-01 0.5'	Total/NA	Solid	8015B NM	65869
880-35072-1 MSD	BES23-01 0.5'	Total/NA	Solid	8015B NM	65869

Analysis Batch: 65857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-21	WES23-01 0.5'	Total/NA	Solid	8015B NM	65868
880-35072-22	WES23-02 0.5'	Total/NA	Solid	8015B NM	65868
880-35072-23	WES23-03 0.5'	Total/NA	Solid	8015B NM	65868
880-35072-24	WES23-04 2.5'	Total/NA	Solid	8015B NM	65868
MB 880-65868/1-A	Method Blank	Total/NA	Solid	8015B NM	65868
LCS 880-65868/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	65868
LCSD 880-65868/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	65868
880-34966-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	65868
880-34966-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	65868

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

GC Semi VOA

Prep Batch: 65868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-21	WES23-01 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-22	WES23-02 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-23	WES23-03 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-24	WES23-04 2.5'	Total/NA	Solid	8015NM Prep	
MB 880-65868/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-65868/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-65868/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-34966-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-34966-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 65869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-1	BES23-01 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-2	BES23-02 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-3	BES23-03 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-4	BES23-04 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-5	BES23-05 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-6	BES23-06 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-7	BES23-07 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-8	BES23-08 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-9	BES23-09 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-10	BES23-10 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-11	BES23-11 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-12	BES23-12 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-13	BES23-13 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-14	BES23-14 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-15	BES23-15 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-16	BES23-16 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-17	BES23-17 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-18	BES23-18 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-19	BES23-19 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-20	BES23-20 2.5'	Total/NA	Solid	8015NM Prep	
MB 880-65869/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-65869/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-65869/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-35072-1 MS	BES23-01 0.5'	Total/NA	Solid	8015NM Prep	
880-35072-1 MSD	BES23-01 0.5'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 65977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-1	BES23-01 0.5'	Total/NA	Solid	8015 NM	
880-35072-2	BES23-02 0.5'	Total/NA	Solid	8015 NM	
880-35072-3	BES23-03 0.5'	Total/NA	Solid	8015 NM	
880-35072-4	BES23-04 0.5'	Total/NA	Solid	8015 NM	
880-35072-5	BES23-05 0.5'	Total/NA	Solid	8015 NM	
880-35072-6	BES23-06 0.5'	Total/NA	Solid	8015 NM	
880-35072-7	BES23-07 0.5'	Total/NA	Solid	8015 NM	
880-35072-8	BES23-08 0.5'	Total/NA	Solid	8015 NM	
880-35072-9	BES23-09 0.5'	Total/NA	Solid	8015 NM	
880-35072-10	BES23-10 0.5'	Total/NA	Solid	8015 NM	
880-35072-11	BES23-11 0.5'	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

GC Semi VOA (Continued)

Analysis Batch: 65977 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-12	BES23-12 0.5'	Total/NA	Solid	8015 NM	
880-35072-13	BES23-13 0.5'	Total/NA	Solid	8015 NM	
880-35072-14	BES23-14 0.5'	Total/NA	Solid	8015 NM	
880-35072-15	BES23-15 0.5'	Total/NA	Solid	8015 NM	
880-35072-16	BES23-16 0.5'	Total/NA	Solid	8015 NM	
880-35072-17	BES23-17 0.5'	Total/NA	Solid	8015 NM	
880-35072-18	BES23-18 0.5'	Total/NA	Solid	8015 NM	
880-35072-19	BES23-19 0.5'	Total/NA	Solid	8015 NM	
880-35072-20	BES23-20 2.5'	Total/NA	Solid	8015 NM	
880-35072-21	WES23-01 0.5'	Total/NA	Solid	8015 NM	
880-35072-22	WES23-02 0.5'	Total/NA	Solid	8015 NM	
880-35072-23	WES23-03 0.5'	Total/NA	Solid	8015 NM	
880-35072-24	WES23-04 2.5'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 65885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-17	BES23-17 0.5'	Soluble	Solid	DI Leach	
880-35072-18	BES23-18 0.5'	Soluble	Solid	DI Leach	
880-35072-19	BES23-19 0.5'	Soluble	Solid	DI Leach	
880-35072-20	BES23-20 2.5'	Soluble	Solid	DI Leach	
880-35072-21	WES23-01 0.5'	Soluble	Solid	DI Leach	
880-35072-22	WES23-02 0.5'	Soluble	Solid	DI Leach	
880-35072-23	WES23-03 0.5'	Soluble	Solid	DI Leach	
880-35072-24	WES23-04 2.5'	Soluble	Solid	DI Leach	
MB 880-65885/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-65885/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-65885/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-35073-A-2-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-35073-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 65886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-1	BES23-01 0.5'	Soluble	Solid	DI Leach	
880-35072-2	BES23-02 0.5'	Soluble	Solid	DI Leach	
880-35072-3	BES23-03 0.5'	Soluble	Solid	DI Leach	
880-35072-4	BES23-04 0.5'	Soluble	Solid	DI Leach	
880-35072-5	BES23-05 0.5'	Soluble	Solid	DI Leach	
880-35072-6	BES23-06 0.5'	Soluble	Solid	DI Leach	
880-35072-7	BES23-07 0.5'	Soluble	Solid	DI Leach	
880-35072-8	BES23-08 0.5'	Soluble	Solid	DI Leach	
880-35072-9	BES23-09 0.5'	Soluble	Solid	DI Leach	
880-35072-10	BES23-10 0.5'	Soluble	Solid	DI Leach	
880-35072-11	BES23-11 0.5'	Soluble	Solid	DI Leach	
880-35072-12	BES23-12 0.5'	Soluble	Solid	DI Leach	
880-35072-13	BES23-13 0.5'	Soluble	Solid	DI Leach	
880-35072-14	BES23-14 0.5'	Soluble	Solid	DI Leach	
880-35072-15	BES23-15 0.5'	Soluble	Solid	DI Leach	
880-35072-16	BES23-16 0.5'	Soluble	Solid	DI Leach	
MB 880-65886/1-A	Method Blank	Soluble	Solid	DI Leach	

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

HPLC/IC (Continued)

Leach Batch: 65886 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-65886/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-65886/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-35072-7 MS	BES23-07 0.5'	Soluble	Solid	DI Leach	
880-35072-7 MSD	BES23-07 0.5'	Soluble	Solid	DI Leach	

Analysis Batch: 65984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-17	BES23-17 0.5'	Soluble	Solid	300.0	65885
880-35072-18	BES23-18 0.5'	Soluble	Solid	300.0	65885
880-35072-19	BES23-19 0.5'	Soluble	Solid	300.0	65885
880-35072-20	BES23-20 2.5'	Soluble	Solid	300.0	65885
880-35072-21	WES23-01 0.5'	Soluble	Solid	300.0	65885
880-35072-22	WES23-02 0.5'	Soluble	Solid	300.0	65885
880-35072-23	WES23-03 0.5'	Soluble	Solid	300.0	65885
880-35072-24	WES23-04 2.5'	Soluble	Solid	300.0	65885
MB 880-65885/1-A	Method Blank	Soluble	Solid	300.0	65885
LCS 880-65885/2-A	Lab Control Sample	Soluble	Solid	300.0	65885
LCSD 880-65885/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	65885
880-35073-A-2-B MS	Matrix Spike	Soluble	Solid	300.0	65885
880-35073-A-2-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	65885

Analysis Batch: 65985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35072-1	BES23-01 0.5'	Soluble	Solid	300.0	65886
880-35072-2	BES23-02 0.5'	Soluble	Solid	300.0	65886
880-35072-3	BES23-03 0.5'	Soluble	Solid	300.0	65886
880-35072-4	BES23-04 0.5'	Soluble	Solid	300.0	65886
880-35072-5	BES23-05 0.5'	Soluble	Solid	300.0	65886
880-35072-6	BES23-06 0.5'	Soluble	Solid	300.0	65886
880-35072-7	BES23-07 0.5'	Soluble	Solid	300.0	65886
880-35072-8	BES23-08 0.5'	Soluble	Solid	300.0	65886
880-35072-9	BES23-09 0.5'	Soluble	Solid	300.0	65886
880-35072-10	BES23-10 0.5'	Soluble	Solid	300.0	65886
880-35072-11	BES23-11 0.5'	Soluble	Solid	300.0	65886
880-35072-12	BES23-12 0.5'	Soluble	Solid	300.0	65886
880-35072-13	BES23-13 0.5'	Soluble	Solid	300.0	65886
880-35072-14	BES23-14 0.5'	Soluble	Solid	300.0	65886
880-35072-15	BES23-15 0.5'	Soluble	Solid	300.0	65886
880-35072-16	BES23-16 0.5'	Soluble	Solid	300.0	65886
MB 880-65886/1-A	Method Blank	Soluble	Solid	300.0	65886
LCS 880-65886/2-A	Lab Control Sample	Soluble	Solid	300.0	65886
LCSD 880-65886/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	65886
880-35072-7 MS	BES23-07 0.5'	Soluble	Solid	300.0	65886
880-35072-7 MSD	BES23-07 0.5'	Soluble	Solid	300.0	65886

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-01 0.5'

Lab Sample ID: 880-35072-1
Matrix: Solid
Date Collected: 10/27/23 09:00
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	10/31/23 23:40	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	10/31/23 23:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 14:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 14:48	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/03/23 23:54	CH	EET MID

Client Sample ID: BES23-02 0.5'

Lab Sample ID: 880-35072-2
Matrix: Solid
Date Collected: 10/27/23 09:05
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 00:00	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 00:00	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 16:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 16:19	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/04/23 00:13	CH	EET MID

Client Sample ID: BES23-03 0.5'

Lab Sample ID: 880-35072-3
Matrix: Solid
Date Collected: 10/27/23 09:10
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 00:21	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 00:21	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 16:41	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 16:41	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/04/23 00:20	CH	EET MID

Client Sample ID: BES23-04 0.5'

Lab Sample ID: 880-35072-4
Matrix: Solid
Date Collected: 10/27/23 09:15
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 00:42	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 00:42	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-04 0.5'

Lab Sample ID: 880-35072-4
Matrix: Solid
Date Collected: 10/27/23 09:15
Date Received: 10/31/23 11:33

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			65977	10/31/23 17:02	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 17:02	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/04/23 00:27	CH	EET MID

Client Sample ID: BES23-05 0.5'

Lab Sample ID: 880-35072-5
Matrix: Solid
Date Collected: 10/27/23 09:20
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 01:02	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 01:02	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 17:25	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 17:25	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/04/23 00:33	CH	EET MID

Client Sample ID: BES23-06 0.5'

Lab Sample ID: 880-35072-6
Matrix: Solid
Date Collected: 10/27/23 09:25
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 01:23	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 01:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 17:47	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 17:47	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/04/23 00:40	CH	EET MID

Client Sample ID: BES23-07 0.5'

Lab Sample ID: 880-35072-7
Matrix: Solid
Date Collected: 10/27/23 09:30
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 01:43	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 01:43	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 18:08	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 18:08	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-07 0.5'

Lab Sample ID: 880-35072-7
Matrix: Solid
Date Collected: 10/27/23 09:30
Date Received: 10/31/23 11:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.00 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/04/23 00:46	CH	EET MID

Client Sample ID: BES23-08 0.5'

Lab Sample ID: 880-35072-8
Matrix: Solid
Date Collected: 10/27/23 09:35
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 02:04	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 02:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 18:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 18:31	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/04/23 01:06	CH	EET MID

Client Sample ID: BES23-09 0.5'

Lab Sample ID: 880-35072-9
Matrix: Solid
Date Collected: 10/27/23 09:40
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 02:25	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 02:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 18:53	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 18:53	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/04/23 01:13	CH	EET MID

Client Sample ID: BES23-10 0.5'

Lab Sample ID: 880-35072-10
Matrix: Solid
Date Collected: 10/27/23 09:45
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 02:45	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 02:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 19:15	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 19:15	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/04/23 01:33	CH	EET MID

Eurofins Midland

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-11 0.5'
Date Collected: 10/27/23 09:50
Date Received: 10/31/23 11:33

Lab Sample ID: 880-35072-11
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			5.02 g	5 mL	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 04:09	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 04:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 19:59	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 19:59	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/04/23 01:39	CH	EET MID

Client Sample ID: BES23-12 0.5'
Date Collected: 10/27/23 09:55
Date Received: 10/31/23 11:33

Lab Sample ID: 880-35072-12
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			5.03 g	5 mL	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 04:30	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 04:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 20:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 20:22	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/04/23 01:46	CH	EET MID

Client Sample ID: BES23-13 0.5'
Date Collected: 10/27/23 10:00
Date Received: 10/31/23 11:33

Lab Sample ID: 880-35072-13
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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 04:50	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 04:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 20:45	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 20:45	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/04/23 01:53	CH	EET MID

Client Sample ID: BES23-14 0.5'
Date Collected: 10/27/23 10:05
Date Received: 10/31/23 11:33

Lab Sample ID: 880-35072-14
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			4.95 g	5 mL	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 05:11	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 05:11	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-14 0.5'

Lab Sample ID: 880-35072-14
Matrix: Solid
Date Collected: 10/27/23 10:05
Date Received: 10/31/23 11:33

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			65977	10/31/23 21:08	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 21:08	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/04/23 01:59	CH	EET MID

Client Sample ID: BES23-15 0.5'

Lab Sample ID: 880-35072-15
Matrix: Solid
Date Collected: 10/27/23 10:10
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 05:31	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 05:31	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 21:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 21:31	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/04/23 02:06	CH	EET MID

Client Sample ID: BES23-16 0.5'

Lab Sample ID: 880-35072-16
Matrix: Solid
Date Collected: 10/27/23 10:15
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 05:52	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 05:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 21:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 21:53	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	65886	10/31/23 12:44	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65985	11/04/23 02:12	CH	EET MID

Client Sample ID: BES23-17 0.5'

Lab Sample ID: 880-35072-17
Matrix: Solid
Date Collected: 10/27/23 10:20
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 06:12	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 06:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 22:16	SM	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 22:16	SM	EET MID

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: BES23-17 0.5'

Lab Sample ID: 880-35072-17
Matrix: Solid
Date Collected: 10/27/23 10:20
Date Received: 10/31/23 11:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	65885	10/31/23 12:43	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65984	11/03/23 09:09	CH	EET MID

Client Sample ID: BES23-18 0.5'

Lab Sample ID: 880-35072-18
Matrix: Solid
Date Collected: 10/27/23 10:25
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 06:33	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 06:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 22:39	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 22:39	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	65885	10/31/23 12:43	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65984	11/03/23 09:15	CH	EET MID

Client Sample ID: BES23-19 0.5'

Lab Sample ID: 880-35072-19
Matrix: Solid
Date Collected: 10/27/23 10:30
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 06:53	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 06:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 23:02	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	65869	10/31/23 12:00	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 23:02	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	65885	10/31/23 12:43	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65984	11/03/23 09:20	CH	EET MID

Client Sample ID: BES23-20 2.5'

Lab Sample ID: 880-35072-20
Matrix: Solid
Date Collected: 10/27/23 10:35
Date Received: 10/31/23 11:33

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	65905	10/31/23 13:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	65862	11/01/23 07:14	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/01/23 07:14	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 23:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	65869	10/31/23 12:06	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65852	10/31/23 23:25	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	65885	10/31/23 12:43	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65984	11/03/23 09:25	CH	EET MID

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: WES23-01 0.5'

Lab Sample ID: 880-35072-21
Matrix: Solid
Date Collected: 10/27/23 10:40
Date Received: 10/31/23 11:33

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	66035	11/02/23 08:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66027	11/02/23 18:55	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/02/23 18:55	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 22:17	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	65868	10/31/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65857	10/31/23 22:17	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	65885	10/31/23 12:43	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65984	11/03/23 09:41	CH	EET MID

Client Sample ID: WES23-02 0.5'

Lab Sample ID: 880-35072-22
Matrix: Solid
Date Collected: 10/27/23 10:45
Date Received: 10/31/23 11:33

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	66035	11/02/23 08:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66027	11/02/23 19:15	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/02/23 19:15	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 22:43	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	65868	10/31/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65857	10/31/23 22:43	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	65885	10/31/23 12:43	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65984	11/03/23 09:46	CH	EET MID

Client Sample ID: WES23-03 0.5'

Lab Sample ID: 880-35072-23
Matrix: Solid
Date Collected: 10/27/23 10:50
Date Received: 10/31/23 11:33

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	66035	11/02/23 08:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66027	11/02/23 19:36	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/02/23 19:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			65977	10/31/23 23:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	65868	10/31/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65857	10/31/23 23:10	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	65885	10/31/23 12:43	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65984	11/03/23 09:51	CH	EET MID

Client Sample ID: WES23-04 2.5'

Lab Sample ID: 880-35072-24
Matrix: Solid
Date Collected: 10/27/23 10:55
Date Received: 10/31/23 11:33

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	66035	11/02/23 08:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66027	11/02/23 19:56	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			66095	11/02/23 19:56	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35072-1
SDG: 23E-05219

Client Sample ID: WES23-04 2.5'

Date Collected: 10/27/23 10:55
Date Received: 10/31/23 11:33

Lab Sample ID: 880-35072-24

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			65977	10/31/23 23:37	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	65868	10/31/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65857	10/31/23 23:37	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	65885	10/31/23 12:43	SMC	EET MID
Soluble	Analysis	300.0		1	10 mL	10 mL	65984	11/03/23 09:56	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: 880-35072-1
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: 880-35072-1
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: 880-35072-1
SDG: 23E-05219

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-35072-1	BES23-01 0.5'	Solid	10/27/23 09:00	10/31/23 11:33	5'
880-35072-2	BES23-02 0.5'	Solid	10/27/23 09:05	10/31/23 11:33	5'
880-35072-3	BES23-03 0.5'	Solid	10/27/23 09:10	10/31/23 11:33	5'
880-35072-4	BES23-04 0.5'	Solid	10/27/23 09:15	10/31/23 11:33	5'
880-35072-5	BES23-05 0.5'	Solid	10/27/23 09:20	10/31/23 11:33	5'
880-35072-6	BES23-06 0.5'	Solid	10/27/23 09:25	10/31/23 11:33	5'
880-35072-7	BES23-07 0.5'	Solid	10/27/23 09:30	10/31/23 11:33	5'
880-35072-8	BES23-08 0.5'	Solid	10/27/23 09:35	10/31/23 11:33	5'
880-35072-9	BES23-09 0.5'	Solid	10/27/23 09:40	10/31/23 11:33	5'
880-35072-10	BES23-10 0.5'	Solid	10/27/23 09:45	10/31/23 11:33	5'
880-35072-11	BES23-11 0.5'	Solid	10/27/23 09:50	10/31/23 11:33	5'
880-35072-12	BES23-12 0.5'	Solid	10/27/23 09:55	10/31/23 11:33	5'
880-35072-13	BES23-13 0.5'	Solid	10/27/23 10:00	10/31/23 11:33	5'
880-35072-14	BES23-14 0.5'	Solid	10/27/23 10:05	10/31/23 11:33	5'
880-35072-15	BES23-15 0.5'	Solid	10/27/23 10:10	10/31/23 11:33	5'
880-35072-16	BES23-16 0.5'	Solid	10/27/23 10:15	10/31/23 11:33	5'
880-35072-17	BES23-17 0.5'	Solid	10/27/23 10:20	10/31/23 11:33	5'
880-35072-18	BES23-18 0.5'	Solid	10/27/23 10:25	10/31/23 11:33	5'
880-35072-19	BES23-19 0.5'	Solid	10/27/23 10:30	10/31/23 11:33	5'
880-35072-20	BES23-20 2.5'	Solid	10/27/23 10:35	10/31/23 11:33	5'
880-35072-21	WES23-01 0.5'	Solid	10/27/23 10:40	10/31/23 11:33	5'
880-35072-22	WES23-02 0.5'	Solid	10/27/23 10:45	10/31/23 11:33	5'
880-35072-23	WES23-03 0.5'	Solid	10/27/23 10:50	10/31/23 11:33	5'
880-35072-24	WES23-04 2.5'	Solid	10/27/23 10:55	10/31/23 11:33	5'

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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

Work O

880-35072 Chain of Custody

www.:

Project Manager·	Chance Dixon	Bill to· (if different)	Garret Greene
Company Name	Vertex	Company Name	XTO
Address		Address.	
City State ZIP·		City State ZIP·	
Phone	Email		cdixon@vertex.ca

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·

Project Name·	Mis Amigos	Turn Around	
Project Number·	23E-05219	☒ Routine ☐ Rush	
Project Location		Due Date	
Sampler's Name·	Hunter Klein	TAT starts the day received by the lab, if received by 4.30pm	
PO #			

SAMPLE RECEIPT			
Temp Blank.	Yes (No)	Wet Ice·	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID	IR8
Cooler Custody Seals	Yes No (N/A)	Correction Factor·	+.2
Sample Custody Seals	Yes No (N/A)	Temperature Reading	1.3
Total Containers.		Corrected Temperature	1.5

ANALYSIS REQUEST

Preservative Codes

None NO · DI Water· H_2O
Cool Cool · MeOH Me
HCL. HC · HNO_3 HN
H_2SO_4 H_2 · NaOH Na
H_3PO_4 HP
NaHSO 4 NABIS
$Na_2S_2O_3$ $NaSO_3$
Zn Acetate+NaOH Zn
NaOH+Ascorbic Acid SAPC

Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: BTEX NM	TPH NM	Cl NM	Sample Comments
BES23-01	0.5'	Soil	10/27/23	9:00		5'						
BES23-02	0.5'			9:05								
BES23-03	0.5'			9:10								
BES23-04	0.5'			9:15								
BES23-05	0.5'			9:20								
BES23-06	0.5'			9:25								
BES23-07	0.5'			9:30								
BES23-08	0.5'			9:35								
BES23-09	0.5'			9:40								
BES23-10	0.5'			9:45								

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 Tl 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 Tl U Hg 1631 / 245 1 / 7470 / 7471

Relinquished by· (Signature)	Received by· (Signature)	Date/Time	Relinquished by· (Signature)	Received by· (Signature)	Date/Time
1 Hunter Klein		10/31/23 1133	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev 2020.2

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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

Work Order No: 35072

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Project Manager·		Bill to (if different)	
Company Name·		Company Name·	
Address.		Address	
City, State ZIP·		City State ZIP	
Phone	Email		

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·

Project Name	Mis Amigos	Turn Around	
Project Number·		☑ Routine ☐ Rush	
Project Location		Due Date	
Sampler's Name·	Hunter Klein	TAT starts the day received by the lab, if received by 4.30pm	
PO #			

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

Preservative Codes

None NO | DI Water· H_2O
Cool Cool | MeOH Me
HCL HC | HNO_3 HN
H_2SO_4 H_2 | NaOH Na
H_3PO_4 HP
$NaHSO_4$ NABIS
$Na_2S_2O_3$ $NaSO_3$
Zn Acetate+NaOH Zn
NaOH+Ascorbic Acid SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: TPH NM	BTEX NM	Cl NM	Sample Comments
BES23-011 0.5'	So.l	10/27/23	9:50		5'						
BES23-12 0.5'			9:55								
BES23-13 0.5'			10:00								
BES23-14 0.5'			10:05								
BES23-15 0.5'			10:10								
BES23-16 0.5'			10:15								
BES23-17 0.5'			10:20								
BES23-18 0.5			10:25								
BES23-19 0.5			10:30								
BES23-20 2.5			10:35								

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 Tl 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 Tl 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 Hunter Klein		10/31/23 1533	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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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

Work Order No: Loc: 880 35072

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Project Manager		Bill to (if different)	
Company Name		Company Name	
Address		Address	
City, State ZIP		City State ZIP	
Phone	Email		

Work Order Comme

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

Project Name	Mis Amigos	Turn Around	
Project Number		☒ Routine ☐ Rush	
Project Location		Due Date	
Sampler's Name	Hunter Klein	TAT starts the day received by the lab, if received by 4:30pm	
PO #			

SAMPLE RECEIPT			
Temp Blank	Yes No	Wet Ice	Yes No
Samples Received Intact	Yes No	Thermometer ID	TNM00
Cooler Custody Seals	Yes No N/A	Correction Factor	-0.2
Sample Custody Seals	Yes No N/A	Temperature Reading	0.2
Total Containers		Corrected Temperature	0.0

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: TPH NM	Cl NM	BTEX NM
WES23-01 0.5'	Soil	10/27/23	10:40		Comp	5		X	X	X
WES23-02 0.5'			10:45							
WES23-03 0.5'			10:50							
WES23-04 0-2.5'			10:55							

ANALYSIS REQUEST

Preservative Codes

None NO DI Water H_2O
Cool Cool MeOH Me
HCL HC HNO_3 HN
H_2SO_4 H_2 NaOH Na
H_3PO_4 HP
$NaHSO_4$ NABIS
$Na_2S_2O_3$ $NaSO_3$
Zn Acetate+NaOH Zn
NaOH+Ascorbic Acid SAPC

Sample Comments

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 Tl 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 Tl 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 Hunter Klein		10/27	2 1614		10/31/23 1133
3			4		
5			6		

Revised Date: 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Vertex

Job Number: 880-35072-1
SDG Number: 23E-05219

Login Number: 35072
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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	

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 11/3/2023 6:28:14 PM

JOB DESCRIPTION

Mis Amigos
SDG NUMBER 23-E05219

JOB NUMBER

880-35156-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

Eurofins Midland

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

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11/3/2023 6:28:14 PM

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: 880-35156-1
SDG: 23-E05219

Table of Contents

Definitions/Glossary

Client: Vertex Job ID: 880-35156-1
Project/Site: Mis Amigos SDG: 23-E05219

Qualifiers

GC 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.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

Job ID: 880-35156-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-35156-1

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 11/1/2023 1:14 PM. 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 4.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: WES23-05 0' (880-35156-1), WES23-06 0' (880-35156-2), WES23-07 0' (880-35156-3), WES23-21 0' (880-35156-4), WES23-22 0' (880-35156-5), WES23-23 0' (880-35156-6), WES23-24 0' (880-35156-7) and WES23-25 0' (880-35156-8).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-66035 and 880-66069 and analytical batch 880-66027 was outside the upper control limits.

Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-66069 and analytical batch 880-66027 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: WES23-25 0' (880-35156-8). 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.

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-65999 and analytical batch 880-65947 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: WES23-05 0' (880-35156-1), WES23-06 0' (880-35156-2), WES23-07 0' (880-35156-3), WES23-21 0' (880-35156-4), WES23-22 0' (880-35156-5) and (880-35139-A-28-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-65999 and analytical batch 880-65947 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The continuing calibration verification (CCV) associated with batch 880-65947 recovered above the upper control limit for Gasoline Range Organics (GRO)-C6-C10. 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 880-65947/47).

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-66046 and analytical batch 880-66022

Case Narrative

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

Job ID: 880-35156-1 (Continued)

Laboratory: Eurofins Midland (Continued)

was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: WES23-23 0' (880-35156-6), WES23-24 0' (880-35156-7), (880-35156-A-6-D MS) and (880-35156-A-6-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike (MS) recoveries for preparation batch 880-66046 and analytical batch 880-66022 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery 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

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

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

Client Sample ID: WES23-05 0-0.5'

Date Collected: 10/30/23 10:00
Date Received: 11/01/23 13:14

Lab Sample ID: 880-35156-1

Matrix: Solid

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		11/02/23 12:07	11/03/23 02:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/23 12:07	11/03/23 02:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/23 12:07	11/03/23 02:38	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/02/23 12:07	11/03/23 02:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/23 12:07	11/03/23 02:38	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/02/23 12:07	11/03/23 02:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*11/02/23 12:07*	*11/03/23 02:38*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*11/02/23 12:07*	*11/03/23 02:38*	*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			11/03/23 02:38	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			11/02/23 03:57	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	<50.2	U	50.2		mg/Kg		11/01/23 14:52	11/02/23 03:57	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		11/01/23 14:52	11/02/23 03:57	1
OII Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		11/01/23 14:52	11/02/23 03:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*142*	*S1+*	*70 - 130*	*11/01/23 14:52*	*11/02/23 03:57*	*1*
o-Terphenyl	*161*	*S1+*	*70 - 130*	*11/01/23 14:52*	*11/02/23 03:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**57.8**		5.00		mg/Kg			11/02/23 17:11	1

Client Sample ID: WES23-06 0-0.5'

Date Collected: 10/30/23 10:05
Date Received: 11/01/23 13:14

Lab Sample ID: 880-35156-2

Matrix: Solid

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		11/02/23 08:57	11/02/23 15:51	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/02/23 08:57	11/02/23 15:51	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/02/23 08:57	11/02/23 15:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/02/23 08:57	11/02/23 15:51	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/02/23 08:57	11/02/23 15:51	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/02/23 08:57	11/02/23 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*11/02/23 08:57*	*11/02/23 15:51*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*11/02/23 08:57*	*11/02/23 15:51*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

Client Sample ID: WES23-06 0-0.5'

Lab Sample ID: 880-35156-2

Date Collected: 10/30/23 10:05
Matrix: Solid
Date Received: 11/01/23 13:14

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			11/02/23 15:51	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			11/02/23 04:18	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	<50.1	U	50.1		mg/Kg		11/01/23 14:52	11/02/23 04:18	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		11/01/23 14:52	11/02/23 04:18	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		11/01/23 14:52	11/02/23 04:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*146*	*S1+*	*70 - 130*	*11/01/23 14:52*	*11/02/23 04:18*	*1*
o-Terphenyl	*170*	*S1+*	*70 - 130*	*11/01/23 14:52*	*11/02/23 04:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**80.9**		4.99		mg/Kg			11/02/23 17:26	1

Client Sample ID: WES23-07 0-0.5'

Lab Sample ID: 880-35156-3

Date Collected: 10/30/23 10:10
Matrix: Solid
Date Received: 11/01/23 13:14

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		11/02/23 08:57	11/02/23 16:12	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/02/23 08:57	11/02/23 16:12	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/02/23 08:57	11/02/23 16:12	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/02/23 08:57	11/02/23 16:12	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/02/23 08:57	11/02/23 16:12	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/02/23 08:57	11/02/23 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*11/02/23 08:57*	*11/02/23 16:12*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*11/02/23 08:57*	*11/02/23 16:12*	*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			11/02/23 16:12	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			11/02/23 04:40	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		11/01/23 14:52	11/02/23 04:40	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		11/01/23 14:52	11/02/23 04:40	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

Client Sample ID: WES23-07 0-0.5'

Date Collected: 10/30/23 10:10
Date Received: 11/01/23 13:14

Lab Sample ID: 880-35156-3

Matrix: Solid

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		11/01/23 14:52	11/02/23 04:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*11/01/23 14:52*	*11/02/23 04:40*	*1*
o-Terphenyl	*142*	*S1+*	*70 - 130*	*11/01/23 14:52*	*11/02/23 04:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**72.0**		5.01		mg/Kg			11/02/23 17:32	1

Client Sample ID: BES23-21 0.5'

Date Collected: 10/30/23 10:15
Date Received: 11/01/23 13:14

Lab Sample ID: 880-35156-4

Matrix: Solid

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		11/02/23 08:57	11/02/23 16:32	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/02/23 08:57	11/02/23 16:32	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/02/23 08:57	11/02/23 16:32	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/02/23 08:57	11/02/23 16:32	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/02/23 08:57	11/02/23 16:32	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/02/23 08:57	11/02/23 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*11/02/23 08:57*	*11/02/23 16:32*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*11/02/23 08:57*	*11/02/23 16:32*	*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			11/02/23 16:32	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			11/02/23 05:01	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	<49.9	U	49.9		mg/Kg		11/01/23 14:52	11/02/23 05:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/01/23 14:52	11/02/23 05:01	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/01/23 14:52	11/02/23 05:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*147*	*S1+*	*70 - 130*	*11/01/23 14:52*	*11/02/23 05:01*	*1*
o-Terphenyl	*170*	*S1+*	*70 - 130*	*11/01/23 14:52*	*11/02/23 05:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**222**		5.03		mg/Kg			11/02/23 17:37	1

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

Client Sample ID: BES23-22 0.5'

Date Collected: 10/30/23 10:20
Date Received: 11/01/23 13:14

Lab Sample ID: 880-35156-5

Matrix: Solid

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		11/02/23 08:57	11/02/23 16:53	1
Toluene	<0.00202	U	0.00202		mg/Kg		11/02/23 08:57	11/02/23 16:53	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		11/02/23 08:57	11/02/23 16:53	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		11/02/23 08:57	11/02/23 16:53	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		11/02/23 08:57	11/02/23 16:53	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		11/02/23 08:57	11/02/23 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*11/02/23 08:57*	*11/02/23 16:53*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*11/02/23 08:57*	*11/02/23 16:53*	*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			11/02/23 16:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**97.7**		49.6		mg/Kg			11/02/23 05:22	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	<49.6	U	49.6		mg/Kg		11/01/23 14:52	11/02/23 05:22	1
Diesel Range Organics (Over C10-C28)	**97.7**		49.6		mg/Kg		11/01/23 14:52	11/02/23 05:22	1
OII Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		11/01/23 14:52	11/02/23 05:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*139*	*S1+*	*70 - 130*	*11/01/23 14:52*	*11/02/23 05:22*	*1*
o-Terphenyl	*162*	*S1+*	*70 - 130*	*11/01/23 14:52*	*11/02/23 05:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**		5.01		mg/Kg			11/02/23 17:42	1

Client Sample ID: BES23-23 0.5'

Date Collected: 10/30/23 10:25
Date Received: 11/01/23 13:14

Lab Sample ID: 880-35156-6

Matrix: Solid

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		11/02/23 08:57	11/02/23 17:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:57	11/02/23 17:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:57	11/02/23 17:13	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/02/23 08:57	11/02/23 17:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:57	11/02/23 17:13	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/02/23 08:57	11/02/23 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*11/02/23 08:57*	*11/02/23 17:13*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*11/02/23 08:57*	*11/02/23 17:13*	*1*

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

Client Sample ID: BES23-23 0.5'

Date Collected: 10/30/23 10:25
Date Received: 11/01/23 13:14

Lab Sample ID: 880-35156-6
Matrix: Solid

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			11/02/23 17:13	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**987**		50.2		mg/Kg			11/02/23 13:16	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	<50.2	U	50.2		mg/Kg		11/02/23 11:05	11/02/23 13:16	1
Diesel Range Organics (Over C10-C28)	**907**	**F1**	50.2		mg/Kg		11/02/23 11:05	11/02/23 13:16	1
Oil Range Organics (Over C28-C36)	**80.4**		50.2		mg/Kg		11/02/23 11:05	11/02/23 13:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*11/02/23 11:05*	*11/02/23 13:16*	*1*
o-Terphenyl	*136*	*S1+*	*70 - 130*	*11/02/23 11:05*	*11/02/23 13:16*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**535**		4.99		mg/Kg			11/02/23 17:58	1

Client Sample ID: BES23-24 0.5'

Date Collected: 10/30/23 10:30
Date Received: 11/01/23 13:14

Lab Sample ID: 880-35156-7
Matrix: Solid

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		11/02/23 08:57	11/02/23 17:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:57	11/02/23 17:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:57	11/02/23 17:34	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/02/23 08:57	11/02/23 17:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:57	11/02/23 17:34	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/02/23 08:57	11/02/23 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*11/02/23 08:57*	*11/02/23 17:34*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*11/02/23 08:57*	*11/02/23 17:34*	*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			11/02/23 17:34	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**149**		50.3		mg/Kg			11/02/23 14:21	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		11/02/23 11:05	11/02/23 14:21	1

Eurofins Midland

Client Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

Client Sample ID: BES23-24 0.5'

Lab Sample ID: 880-35156-7
Matrix: Solid
Date Collected: 10/30/23 10:30
Date Received: 11/01/23 13:14

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	**149**		50.3		mg/Kg		11/02/23 11:05	11/02/23 14:21	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		11/02/23 11:05	11/02/23 14:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*11/02/23 11:05*	*11/02/23 14:21*	*1*
o-Terphenyl	*136*	*S1+*	*70 - 130*	*11/02/23 11:05*	*11/02/23 14:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**76.0**		4.98		mg/Kg			11/02/23 18:13	1

Client Sample ID: BES23-25 0.5'

Lab Sample ID: 880-35156-8
Matrix: Solid
Date Collected: 10/30/23 10:35
Date Received: 11/01/23 13:14

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		11/02/23 08:57	11/02/23 17:54	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/02/23 08:57	11/02/23 17:54	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/02/23 08:57	11/02/23 17:54	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/02/23 08:57	11/02/23 17:54	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/02/23 08:57	11/02/23 17:54	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/02/23 08:57	11/02/23 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*11/02/23 08:57*	*11/02/23 17:54*	*1*
1,4-Difluorobenzene (Surr)	*49*	*S1-*	*70 - 130*	*11/02/23 08:57*	*11/02/23 17:54*	*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			11/02/23 17:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**116**		50.4		mg/Kg			11/02/23 14:43	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	<50.4	U	50.4		mg/Kg		11/02/23 11:05	11/02/23 14:43	1
Diesel Range Organics (Over C10-C28)	**116**		50.4		mg/Kg		11/02/23 11:05	11/02/23 14:43	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		11/02/23 11:05	11/02/23 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*11/02/23 11:05*	*11/02/23 14:43*	*1*
o-Terphenyl	*129*		*70 - 130*	*11/02/23 11:05*	*11/02/23 14:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**750**		4.99		mg/Kg			11/02/23 18:03	1

Surrogate Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-35135-A-11-C MS	Matrix Spike	100	108
880-35135-A-11-D MSD	Matrix Spike Duplicate	92	118
880-35156-1	WES23-05 0'	99	111
880-35156-2	WES23-06 0'	88	86
880-35156-3	WES23-07 0'	89	81
880-35156-4	WES23-21 0'	94	78
880-35156-5	WES23-22 0'	79	96
880-35156-6	WES23-23 0'	87	81
880-35156-7	WES23-24 0'	87	78
880-35156-8	WES23-25 0'	91	49 S1-
880-35178-A-1-B MS	Matrix Spike	113	120
880-35178-A-1-C MSD	Matrix Spike Duplicate	114	115
LCS 880-66036/1-A	Lab Control Sample	115	116
LCS 880-66069/1-A	Lab Control Sample	94	104
LCSD 880-66036/2-A	Lab Control Sample Dup	105	120
LCSD 880-66069/2-A	Lab Control Sample Dup	99	111
MB 880-66035/5-A	Method Blank	110	144 S1+
MB 880-66036/5-A	Method Blank	70	101
MB 880-66069/5-A	Method Blank	103	145 S1+

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 (70-130)	OTPH1 (70-130)
880-35139-A-28-C MS	Matrix Spike	125	128
880-35139-A-28-D MSD	Matrix Spike Duplicate	146 S1+	146 S1+
880-35156-1	WES23-05 0'	142 S1+	161 S1+
880-35156-2	WES23-06 0'	146 S1+	170 S1+
880-35156-3	WES23-07 0'	122	142 S1+
880-35156-4	WES23-21 0'	147 S1+	170 S1+
880-35156-5	WES23-22 0'	139 S1+	162 S1+
880-35156-6	WES23-23 0'	127	136 S1+
880-35156-6 MS	WES23-23 0'	143 S1+	131 S1+
880-35156-6 MSD	WES23-23 0'	138 S1+	130
880-35156-7	WES23-24 0'	121	136 S1+
880-35156-8	WES23-25 0'	116	129
LCS 880-65999/2-A	Lab Control Sample	77	95
LCS 880-66046/2-A	Lab Control Sample	79	96
LCSD 880-65999/3-A	Lab Control Sample Dup	73	89
LCSD 880-66046/3-A	Lab Control Sample Dup	73	89
MB 880-65999/1-A	Method Blank	249 S1+	291 S1+
MB 880-66046/1-A	Method Blank	188 S1+	219 S1+

Surrogate Legend

1CO = 1-Chlorooctane

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-66035/5-A
Matrix: Solid
Analysis Batch: 66027

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 66035

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:43	11/02/23 11:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:43	11/02/23 11:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:43	11/02/23 11:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/02/23 08:43	11/02/23 11:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:43	11/02/23 11:29	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/02/23 08:43	11/02/23 11:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*11/02/23 08:43*	*11/02/23 11:29*	*1*
1,4-Difluorobenzene (Surr)	*144*	*S1+*	*70 - 130*	*11/02/23 08:43*	*11/02/23 11:29*	*1*

Lab Sample ID: MB 880-66036/5-A
Matrix: Solid
Analysis Batch: 66026

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 66036

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:57	11/02/23 11:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:57	11/02/23 11:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:57	11/02/23 11:02	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/02/23 08:57	11/02/23 11:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/23 08:57	11/02/23 11:02	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/02/23 08:57	11/02/23 11:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*70*		*70 - 130*	*11/02/23 08:57*	*11/02/23 11:02*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*11/02/23 08:57*	*11/02/23 11:02*	*1*

Lab Sample ID: LCS 880-66036/1-A
Matrix: Solid
Analysis Batch: 66026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 66036

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09718		mg/Kg		97	70 - 130		
Toluene			0.100	0.09307		mg/Kg		93	70 - 130		
Ethylbenzene			0.100	0.09350		mg/Kg		94	70 - 130		
m-Xylene & p-Xylene			0.200	0.2030		mg/Kg		102	70 - 130		
o-Xylene			0.100	0.09739		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

Lab Sample ID: LCSD 880-66036/2-A
Matrix: Solid
Analysis Batch: 66026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 66036

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1036		mg/Kg		104	70 - 130	6	35

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

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

Lab Sample ID: LCSD 880-66036/2-A
Matrix: Solid
Analysis Batch: 66026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 66036

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.09558		mg/Kg		96	70 - 130	3	35
Ethylbenzene			0.100	0.09462		mg/Kg		95	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2011		mg/Kg		101	70 - 130	1	35
o-Xylene			0.100	0.09676		mg/Kg		97	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*

Lab Sample ID: 880-35178-A-1-B MS
Matrix: Solid
Analysis Batch: 66026

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 66036

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0996	0.09563		mg/Kg		96	70 - 130
Toluene	<0.00199	U	0.0996	0.09414		mg/Kg		95	70 - 130
Ethylbenzene	<0.00199	U	0.0996	0.09436		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1965		mg/Kg		99	70 - 130
o-Xylene	<0.00199	U	0.0996	0.09416		mg/Kg		95	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*

Lab Sample ID: 880-35178-A-1-C MSD
Matrix: Solid
Analysis Batch: 66026

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 66036

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	0.1002		mg/Kg		100	70 - 130	5	35
Toluene	<0.00199	U	0.100	0.1005		mg/Kg		100	70 - 130	7	35
Ethylbenzene	<0.00199	U	0.100	0.09938		mg/Kg		99	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2110		mg/Kg		105	70 - 130	7	35
o-Xylene	<0.00199	U	0.100	0.1012		mg/Kg		101	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*

Lab Sample ID: MB 880-66069/5-A
Matrix: Solid
Analysis Batch: 66027

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 66069

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/02/23 12:07	11/02/23 23:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/02/23 12:07	11/02/23 23:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/02/23 12:07	11/02/23 23:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/02/23 12:07	11/02/23 23:05	1

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

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

Lab Sample ID: MB 880-66069/5-A
Matrix: Solid
Analysis Batch: 66027

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 66069

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/02/23 12:07	11/02/23 23:05	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/02/23 12:07	11/02/23 23:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*11/02/23 12:07*	*11/02/23 23:05*	*1*
1,4-Difluorobenzene (Surr)	*145*	*S1+*	*70 - 130*	*11/02/23 12:07*	*11/02/23 23:05*	*1*

Lab Sample ID: LCS 880-66069/1-A
Matrix: Solid
Analysis Batch: 66027

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 66069

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1000		mg/Kg		100	70 - 130		
Toluene			0.100	0.08715		mg/Kg		87	70 - 130		
Ethylbenzene			0.100	0.08222		mg/Kg		82	70 - 130		
m-Xylene & p-Xylene			0.200	0.1907		mg/Kg		95	70 - 130		
o-Xylene			0.100	0.09449		mg/Kg		94	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-66069/2-A
Matrix: Solid
Analysis Batch: 66027

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 66069

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1074		mg/Kg		107	70 - 130	7	35
Toluene			0.100	0.08546		mg/Kg		85	70 - 130	2	35
Ethylbenzene			0.100	0.08468		mg/Kg		85	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1912		mg/Kg		96	70 - 130	0	35
o-Xylene			0.100	0.09184		mg/Kg		92	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: 880-35135-A-11-C MS
Matrix: Solid
Analysis Batch: 66027

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 66069

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.0996	0.09092		mg/Kg		91	70 - 130		
Toluene	<0.00199	U F1	0.0996	0.07117		mg/Kg		71	70 - 130		
Ethylbenzene	<0.00199	U F1	0.0996	0.06999		mg/Kg		70	70 - 130		
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1630		mg/Kg		82	70 - 130		
o-Xylene	<0.00199	U	0.0996	0.08458		mg/Kg		85	70 - 130		

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

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

Lab Sample ID: 880-35135-A-11-C MS
Matrix: Solid
Analysis Batch: 66027

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 66069

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: 880-35135-A-11-D MSD
Matrix: Solid
Analysis Batch: 66027

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 66069

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	0.09510		mg/Kg		95	70 - 130	4	35
Toluene	<0.00199	U F1	0.100	0.06640	F1	mg/Kg		66	70 - 130	7	35
Ethylbenzene	<0.00199	U F1	0.100	0.06146	F1	mg/Kg		61	70 - 130	13	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1441		mg/Kg		72	70 - 130	12	35
o-Xylene	<0.00199	U	0.100	0.07276		mg/Kg		72	70 - 130	15	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	118		70 - 130

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

Lab Sample ID: MB 880-65999/1-A
Matrix: Solid
Analysis Batch: 65947

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 65999

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		11/01/23 14:52	11/01/23 20:24	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/01/23 14:52	11/01/23 20:24	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/01/23 14:52	11/01/23 20:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	249	S1+	70 - 130	11/01/23 14:52	11/01/23 20:24	1
o-Terphenyl	291	S1+	70 - 130	11/01/23 14:52	11/01/23 20:24	1

Lab Sample ID: LCS 880-65999/2-A
Matrix: Solid
Analysis Batch: 65947

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 65999

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	861.0		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	912.7		mg/Kg		91	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	77		70 - 130
o-Terphenyl	95		70 - 130

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

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

Lab Sample ID: LCSD 880-65999/3-A
Matrix: Solid
Analysis Batch: 65947

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 65999

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	839.4		mg/Kg		84	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	813.3		mg/Kg		81	70 - 130	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*73*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Lab Sample ID: 880-35139-A-28-C MS
Matrix: Solid
Analysis Batch: 65947

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 65999

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	1010	818.7		mg/Kg		77	70 - 130
Diesel Range Organics (Over C10-C28)	<49.6	U	1010	1028		mg/Kg		99	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*125*		*70 - 130*
o-Terphenyl	*128*		*70 - 130*

Lab Sample ID: 880-35139-A-28-D MSD
Matrix: Solid
Analysis Batch: 65947

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 65999

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	1010	993.2		mg/Kg		95	70 - 130	19	20
Diesel Range Organics (Over C10-C28)	<49.6	U	1010	1239		mg/Kg		120	70 - 130	19	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*146*	*S1+*	*70 - 130*
o-Terphenyl	*146*	*S1+*	*70 - 130*

Lab Sample ID: MB 880-66046/1-A
Matrix: Solid
Analysis Batch: 66022

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 66046

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		11/02/23 08:05	11/02/23 09:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/02/23 08:05	11/02/23 09:17	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/02/23 08:05	11/02/23 09:17	1

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

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

Lab Sample ID: MB 880-66046/1-A
Matrix: Solid
Analysis Batch: 66022

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 66046

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	188	S1+	70 - 130	11/02/23 08:05	11/02/23 09:17	1
o-Terphenyl	219	S1+	70 - 130	11/02/23 08:05	11/02/23 09:17	1

Lab Sample ID: LCS 880-66046/2-A
Matrix: Solid
Analysis Batch: 66022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 66046

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1080		mg/Kg		108	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	882.8		mg/Kg		88	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	79		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: LCSD 880-66046/3-A
Matrix: Solid
Analysis Batch: 66022

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 66046

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	889.5		mg/Kg		89	70 - 130	19	20
Diesel Range Organics (Over C10-C28)			1000	806.1		mg/Kg		81	70 - 130	9	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	73		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: 880-35156-6 MS
Matrix: Solid
Analysis Batch: 66022

Client Sample ID: WES23-23 0'
Prep Type: Total/NA
Prep Batch: 66046

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	990	1126		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)	907	F1	990	1560	F1	mg/Kg		66	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	143	S1+	70 - 130
o-Terphenyl	131	S1+	70 - 130

QC Sample Results

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

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

Lab Sample ID: 880-35156-6 MSD — **Client Sample ID: WES23-23 0'**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 66022 — **Prep Batch: 66046**

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	<50.2	U	990	1071		mg/Kg		104	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	907	F1	990	1598		mg/Kg		70	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*138*	*S1+*	*70 - 130*
o-Terphenyl	*130*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-65989/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 66082

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/02/23 16:55	1

Lab Sample ID: LCS 880-65989/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 66082

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	255.1		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-65989/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 66082

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	257.0		mg/Kg		103	90 - 110	1	20

Lab Sample ID: 880-35156-1 MS — **Client Sample ID: WES23-05 0'**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 66082

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	57.8		250	289.5		mg/Kg		93	90 - 110		

Lab Sample ID: 880-35156-1 MSD — **Client Sample ID: WES23-05 0'**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 66082

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	57.8		250	288.8		mg/Kg		92	90 - 110	0	20

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

GC VOA

Analysis Batch: 66026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35156-2	WES23-06 0'	Total/NA	Solid	8021B	66036
880-35156-3	WES23-07 0'	Total/NA	Solid	8021B	66036
880-35156-4	WES23-21 0'	Total/NA	Solid	8021B	66036
880-35156-5	WES23-22 0'	Total/NA	Solid	8021B	66036
880-35156-6	WES23-23 0'	Total/NA	Solid	8021B	66036
880-35156-7	WES23-24 0'	Total/NA	Solid	8021B	66036
880-35156-8	WES23-25 0'	Total/NA	Solid	8021B	66036
MB 880-66036/5-A	Method Blank	Total/NA	Solid	8021B	66036
LCS 880-66036/1-A	Lab Control Sample	Total/NA	Solid	8021B	66036
LCSD 880-66036/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	66036
880-35178-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	66036
880-35178-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	66036

Analysis Batch: 66027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35156-1	WES23-05 0'	Total/NA	Solid	8021B	66069
MB 880-66035/5-A	Method Blank	Total/NA	Solid	8021B	66035
MB 880-66069/5-A	Method Blank	Total/NA	Solid	8021B	66069
LCS 880-66069/1-A	Lab Control Sample	Total/NA	Solid	8021B	66069
LCSD 880-66069/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	66069
880-35135-A-11-C MS	Matrix Spike	Total/NA	Solid	8021B	66069
880-35135-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	66069

Prep Batch: 66035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-66035/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 66036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35156-2	WES23-06 0'	Total/NA	Solid	5035	
880-35156-3	WES23-07 0'	Total/NA	Solid	5035	
880-35156-4	WES23-21 0'	Total/NA	Solid	5035	
880-35156-5	WES23-22 0'	Total/NA	Solid	5035	
880-35156-6	WES23-23 0'	Total/NA	Solid	5035	
880-35156-7	WES23-24 0'	Total/NA	Solid	5035	
880-35156-8	WES23-25 0'	Total/NA	Solid	5035	
MB 880-66036/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-66036/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-66036/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-35178-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-35178-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 66069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35156-1	WES23-05 0'	Total/NA	Solid	5035	
MB 880-66069/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-66069/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-66069/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-35135-A-11-C MS	Matrix Spike	Total/NA	Solid	5035	
880-35135-A-11-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

GC VOA

Analysis Batch: 66194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35156-1	WES23-05 0'	Total/NA	Solid	Total BTEX	
880-35156-2	WES23-06 0'	Total/NA	Solid	Total BTEX	
880-35156-3	WES23-07 0'	Total/NA	Solid	Total BTEX	
880-35156-4	WES23-21 0'	Total/NA	Solid	Total BTEX	
880-35156-5	WES23-22 0'	Total/NA	Solid	Total BTEX	
880-35156-6	WES23-23 0'	Total/NA	Solid	Total BTEX	
880-35156-7	WES23-24 0'	Total/NA	Solid	Total BTEX	
880-35156-8	WES23-25 0'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 65947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35156-1	WES23-05 0'	Total/NA	Solid	8015B NM	65999
880-35156-2	WES23-06 0'	Total/NA	Solid	8015B NM	65999
880-35156-3	WES23-07 0'	Total/NA	Solid	8015B NM	65999
880-35156-4	WES23-21 0'	Total/NA	Solid	8015B NM	65999
880-35156-5	WES23-22 0'	Total/NA	Solid	8015B NM	65999
MB 880-65999/1-A	Method Blank	Total/NA	Solid	8015B NM	65999
LCS 880-65999/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	65999
LCSD 880-65999/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	65999
880-35139-A-28-C MS	Matrix Spike	Total/NA	Solid	8015B NM	65999
880-35139-A-28-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	65999

Prep Batch: 65999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35156-1	WES23-05 0'	Total/NA	Solid	8015NM Prep	
880-35156-2	WES23-06 0'	Total/NA	Solid	8015NM Prep	
880-35156-3	WES23-07 0'	Total/NA	Solid	8015NM Prep	
880-35156-4	WES23-21 0'	Total/NA	Solid	8015NM Prep	
880-35156-5	WES23-22 0'	Total/NA	Solid	8015NM Prep	
MB 880-65999/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-65999/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-65999/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-35139-A-28-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-35139-A-28-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 66022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35156-6	WES23-23 0'	Total/NA	Solid	8015B NM	66046
880-35156-7	WES23-24 0'	Total/NA	Solid	8015B NM	66046
880-35156-8	WES23-25 0'	Total/NA	Solid	8015B NM	66046
MB 880-66046/1-A	Method Blank	Total/NA	Solid	8015B NM	66046
LCS 880-66046/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	66046
LCSD 880-66046/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	66046
880-35156-6 MS	WES23-23 0'	Total/NA	Solid	8015B NM	66046
880-35156-6 MSD	WES23-23 0'	Total/NA	Solid	8015B NM	66046

Prep Batch: 66046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35156-6	WES23-23 0'	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

GC Semi VOA (Continued)

Prep Batch: 66046 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35156-7	WES23-24 0'	Total/NA	Solid	8015NM Prep	
880-35156-8	WES23-25 0'	Total/NA	Solid	8015NM Prep	
MB 880-66046/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-66046/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-66046/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-35156-6 MS	WES23-23 0'	Total/NA	Solid	8015NM Prep	
880-35156-6 MSD	WES23-23 0'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 66071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35156-1	WES23-05 0'	Total/NA	Solid	8015 NM	
880-35156-2	WES23-06 0'	Total/NA	Solid	8015 NM	
880-35156-3	WES23-07 0'	Total/NA	Solid	8015 NM	
880-35156-4	WES23-21 0'	Total/NA	Solid	8015 NM	
880-35156-5	WES23-22 0'	Total/NA	Solid	8015 NM	
880-35156-6	WES23-23 0'	Total/NA	Solid	8015 NM	
880-35156-7	WES23-24 0'	Total/NA	Solid	8015 NM	
880-35156-8	WES23-25 0'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 65989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35156-1	WES23-05 0'	Soluble	Solid	DI Leach	
880-35156-2	WES23-06 0'	Soluble	Solid	DI Leach	
880-35156-3	WES23-07 0'	Soluble	Solid	DI Leach	
880-35156-4	WES23-21 0'	Soluble	Solid	DI Leach	
880-35156-5	WES23-22 0'	Soluble	Solid	DI Leach	
880-35156-6	WES23-23 0'	Soluble	Solid	DI Leach	
880-35156-7	WES23-24 0'	Soluble	Solid	DI Leach	
880-35156-8	WES23-25 0'	Soluble	Solid	DI Leach	
MB 880-65989/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-65989/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-65989/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-35156-1 MS	WES23-05 0'	Soluble	Solid	DI Leach	
880-35156-1 MSD	WES23-05 0'	Soluble	Solid	DI Leach	

Analysis Batch: 66082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35156-1	WES23-05 0'	Soluble	Solid	300.0	65989
880-35156-2	WES23-06 0'	Soluble	Solid	300.0	65989
880-35156-3	WES23-07 0'	Soluble	Solid	300.0	65989
880-35156-4	WES23-21 0'	Soluble	Solid	300.0	65989
880-35156-5	WES23-22 0'	Soluble	Solid	300.0	65989
880-35156-6	WES23-23 0'	Soluble	Solid	300.0	65989
880-35156-7	WES23-24 0'	Soluble	Solid	300.0	65989
880-35156-8	WES23-25 0'	Soluble	Solid	300.0	65989
MB 880-65989/1-A	Method Blank	Soluble	Solid	300.0	65989
LCS 880-65989/2-A	Lab Control Sample	Soluble	Solid	300.0	65989
LCSD 880-65989/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	65989
880-35156-1 MS	WES23-05 0'	Soluble	Solid	300.0	65989

QC Association Summary

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

HPLC/IC (Continued)

Analysis Batch: 66082 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-35156-1 MSD	WES23-05 0'	Soluble	Solid	300.0	65989

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

Client Sample ID: WES23-05 0'

Lab Sample ID: 880-35156-1
Matrix: Solid
Date Collected: 10/30/23 10:00
Date Received: 11/01/23 13:14

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	66069	11/02/23 12:07	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66027	11/03/23 02:38	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			66194	11/03/23 02:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			66071	11/02/23 03:57	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	65999	11/01/23 14:52	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65947	11/02/23 03:57	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	65989	11/01/23 14:21	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	66082	11/02/23 17:11	CH	EET MID

Client Sample ID: WES23-06 0'

Lab Sample ID: 880-35156-2
Matrix: Solid
Date Collected: 10/30/23 10:05
Date Received: 11/01/23 13:14

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	66036	11/02/23 08:57	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66026	11/02/23 15:51	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66194	11/02/23 15:51	SM	EET MID
Total/NA	Analysis	8015 NM		1			66071	11/02/23 04:18	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	65999	11/01/23 14:52	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65947	11/02/23 04:18	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	65989	11/01/23 14:21	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	66082	11/02/23 17:26	CH	EET MID

Client Sample ID: WES23-07 0'

Lab Sample ID: 880-35156-3
Matrix: Solid
Date Collected: 10/30/23 10:10
Date Received: 11/01/23 13:14

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	66036	11/02/23 08:57	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66026	11/02/23 16:12	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66194	11/02/23 16:12	SM	EET MID
Total/NA	Analysis	8015 NM		1			66071	11/02/23 04:40	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	65999	11/01/23 14:52	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65947	11/02/23 04:40	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	65989	11/01/23 14:21	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	66082	11/02/23 17:32	CH	EET MID

Client Sample ID: WES23-21 0'

Lab Sample ID: 880-35156-4
Matrix: Solid
Date Collected: 10/30/23 10:15
Date Received: 11/01/23 13:14

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	66036	11/02/23 08:57	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66026	11/02/23 16:32	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66194	11/02/23 16:32	SM	EET MID

Eurofins Midland

Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

Client Sample ID: WES23-21 0'
Lab Sample ID: 880-35156-4
Date Collected: 10/30/23 10:15
Matrix: Solid
Date Received: 11/01/23 13:14

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			66071	11/02/23 05:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	65999	11/01/23 14:52	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65947	11/02/23 05:01	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	65989	11/01/23 14:21	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	66082	11/02/23 17:37	CH	EET MID

Client Sample ID: WES23-22 0'
Lab Sample ID: 880-35156-5
Date Collected: 10/30/23 10:20
Matrix: Solid
Date Received: 11/01/23 13:14

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	66036	11/02/23 08:57	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66026	11/02/23 16:53	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66194	11/02/23 16:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			66071	11/02/23 05:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	65999	11/01/23 14:52	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	65947	11/02/23 05:22	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	65989	11/01/23 14:21	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	66082	11/02/23 17:42	CH	EET MID

Client Sample ID: WES23-23 0'
Lab Sample ID: 880-35156-6
Date Collected: 10/30/23 10:25
Matrix: Solid
Date Received: 11/01/23 13:14

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	66036	11/02/23 08:57	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66026	11/02/23 17:13	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66194	11/02/23 17:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			66071	11/02/23 13:16	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	66046	11/02/23 11:05	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66022	11/02/23 13:16	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	65989	11/01/23 14:21	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	66082	11/02/23 17:58	CH	EET MID

Client Sample ID: WES23-24 0'
Lab Sample ID: 880-35156-7
Date Collected: 10/30/23 10:30
Matrix: Solid
Date Received: 11/01/23 13:14

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	66036	11/02/23 08:57	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66026	11/02/23 17:34	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66194	11/02/23 17:34	SM	EET MID
Total/NA	Analysis	8015 NM		1			66071	11/02/23 14:21	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	66046	11/02/23 11:05	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66022	11/02/23 14:21	SM	EET MID

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Lab Chronicle

Client: Vertex
Project/Site: Mis Amigos

Job ID: 880-35156-1
SDG: 23-E05219

Client Sample ID: WES23-24 0'

Lab Sample ID: 880-35156-7
Matrix: Solid
Date Collected: 10/30/23 10:30
Date Received: 11/01/23 13:14

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	65989	11/01/23 14:21	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	66082	11/02/23 18:13	CH	EET MID

Client Sample ID: WES23-25 0'

Lab Sample ID: 880-35156-8
Matrix: Solid
Date Collected: 10/30/23 10:35
Date Received: 11/01/23 13:14

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	66036	11/02/23 08:57	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	66026	11/02/23 17:54	SM	EET MID
Total/NA	Analysis	Total BTEX		1			66194	11/02/23 17:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			66071	11/02/23 14:43	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	66046	11/02/23 11:05	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	66022	11/02/23 14:43	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	65989	11/01/23 14:21	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	66082	11/02/23 18:03	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: 880-35156-1
SDG: 23-E05219

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: 880-35156-1
SDG: 23-E05219

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: 880-35156-1
SDG: 23-E05219

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-35156-1	WES23-05 0'	Solid	10/30/23 10:00	11/01/23 13:14
880-35156-2	WES23-06 0'	Solid	10/30/23 10:05	11/01/23 13:14
880-35156-3	WES23-07 0'	Solid	10/30/23 10:10	11/01/23 13:14
880-35156-4	WES23-21 0'	Solid	10/30/23 10:15	11/01/23 13:14
880-35156-5	WES23-22 0'	Solid	10/30/23 10:20	11/01/23 13:14
880-35156-6	WES23-23 0'	Solid	10/30/23 10:25	11/01/23 13:14
880-35156-7	WES23-24 0'	Solid	10/30/23 10:30	11/01/23 13:14
880-35156-8	WES23-25 0'	Solid	10/30/23 10:35	11/01/23 13:14

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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

Wor

880-35156 Chain of Custody

Project Manager:	Chance Dixon	Bill to: (if different)	Garret Green
Company Name:	Vertex	Company Name:	XTO
Address		Address:	
City, State ZIP:		City, State ZIP:	
Phone	Email:	cdixon@vertex.ca	

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:

Project Name:	Mis Amigos	Turn Around	
Project Number:	23E-05219	☐ Routine ☒ Rush 48hr	Pres. Code
Project Location.		Due Date:	
Sampler's Name:	Hunter Klein	TAT starts the day received by the lab, if received by 4:30pm	
PO #			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	Yes No
Samples Received Intact:	(Yes) No	Thermometer ID:	TWN007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.0
Total Containers.		Corrected Temperature:	4.8

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: TPH	BTEX	Cl	Sample Comments
WES23-05 0'	Soil	10/30/23	10:00		C		X	X	X	
WES23-06 0'			10:05							
WES23-07 0'			10:10							
BES23-21 0'			10:15							
BES23-22 0'			10:20							
BES23-23 0'			10:25							
BES23-24 0'			10:30							5.0/4.8
BES23-25 0'			10:35							

NM NM NM

Preservative Codes

None NO	DI Water H_2O
Cool Cool	MeOH Me
HCL. HC	HNO_3 HN
H_2SO_4 H_2	NaOH Na
H_3PO_4 HP	
$NaHSO_4$ NABIS	
$Na_2S_2O_3$ $NaSO_3$	
Zn Acetate+NaOH Zn	
NaOH+Ascorbic Acid SAPC	

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 Tl 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 Tl 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	Hunter Klein		10/30	2		11/1/23 1314
3				4		
5				6		

Revised Date: 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Vertex

Job Number: 880-35156-1
SDG Number: 23-E05219

Login Number: 35156
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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	

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

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

QUESTIONS

Action 294910

QUESTIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 294910
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2329851014**
Incident Name	**NAPP2329851014 MIS AMIGOS CTB @ 0**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Closure Report Received**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	MIS AMIGOS CTB
Date Release Discovered	10/12/2023
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: Equipment Failure | Pump | Produced Water | Released: 16 BBL | Recovered: 15 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 (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 294910
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**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: Garrett Green Title: SHE Coordinator Email: garrett.green@exxonmobil.com Date: 12/14/2023

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 294910
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Attached Document
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 500 and 1000 (ft.)
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)	11600
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	297
GRO+DRO (EPA SW-846 Method 8015M)	297
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	10/23/2023
On what date will (or did) the final sampling or liner inspection occur	10/23/2023
On what date will (or was) the remediation complete(d)	11/16/2023
What is the estimated surface area (in square feet) that will be reclaimed	5376
What is the estimated volume (in cubic yards) that will be reclaimed	160
What is the estimated surface area (in square feet) that will be remediated	5376
What is the estimated volume (in cubic yards) that will be remediated	160
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 294910
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Garrett Green Title: SHE Coordinator Email: garrett.green@exxonmobil.com Date: 12/14/2023
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 294910
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 294910
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**294899**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**10/27/2023**
What was the (estimated) number of samples that were to be gathered	**32**
What was the sampling surface area in square feet	**5376**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	5376
What was the total volume (cubic yards) remediated	160
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	5376
What was the total volume (in cubic yards) reclaimed	160
Summarize any additional remediation activities not included by answers (above)	None

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: Garrett Green Title: SHE Coordinator Email: garrett.green@exxonmobil.com Date: 12/14/2023

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QUESTIONS (continued)

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	Action Number: 294910
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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CONDITIONS

Action 294910

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	5380
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CONDITIONS

Created By	Condition	Condition Date
nvelez	None	3/15/2024