Incident Number: nAPP2311343030



Release Assessment and Closure

Corral Fly SWD

Section 06, Township 25 South, Range 30 East

API: 30-015-44626

County: Eddy

Vertex File Number: 23E-02502

Prepared for:

Solaris Water Midstream Company

Prepared by:

Vertex Resource Services Inc.

Date:

March 2024

Release Assessment and Closure March 2024

Release Assessment and Closure Corral Fly SWD Section 06, Township 25 South, Range 30 East API: 30-015-44626

County: Eddy

Prepared for:

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5/21/2024

PROJECT MANAGER, REPORT REVIEW

Release Assessment and Closure March 2024

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Release Assessment and Closure March 2024

1.0 Introduction

Solaris Midstream Water Company (Solaris) retained Vertex Resource Services Inc. (Vertex) to conduct a Release Assessment and Closure for a produced water release discovered on April 21, 2023, at Corral Fly SWD API 30-015-44626 (hereafter referred to as the "site"). Solaris submitted an initial C-141 Release Notification (Appendix A) to New Mexico Oil Conservation Division (NMOCD) District 2 on April 25, 2023. Incident ID number nAPP2311343030 was assigned to this incident.

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

2.0 Incident Description

The release was discovered on April 21, 2023, due to a failure of a section of inlet pipe. The incident was reported on April 25, 2023, and involved the release of approximately 300 barrels (bbl.) of produced water on the pad site. Approximately 80 bbl. of free fluid was recovered during 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 7.37 miles southeast of Malaga, New Mexico (Google Inc., 2023). The legal location for the site is Section 06, Township 25 South and Range 30 East in Eddy County, New Mexico. The release area is located on State property. An aerial photograph and site schematic are presented on Figure 1.

The location is typical of saltwater disposal facilities and is currently being used for produced water disposal and storage. The following sections specifically describe the release area on 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 – Eolian and piedmont deposits: interlayered eolian sands and piedmont-slope deposits. The predominant soil type on the site is the Kermit-Berino fine sands with 0 to 3 percent slopes (United States Department of Agriculture, Natural Resources Conservation Service, 2023). Additional soil characteristics include an excessively drained drainage class with a negligible runoff class. The karst geology potential for the site is low (United States Department of the Interior, Bureau of Land Management, 2018).

The surrounding landscape is associated with dunes, Parna dunes, and terraces with elevations ranging between 2,842 and 4,500 feet. The climate is semiarid with average annual precipitation ranging between 8 and 13 inches. Using information from the United States Department of Agriculture, the dominant vegetation was determined to be a grassland/shrub mix, dominated by grasses, but with shrubs common throughout the site. Dropseed grasses, bluestem

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and threeawn grasses with sand sagebrush and honey mesquite 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) exploratory well located approximately 0.59 miles southwest of the site (New Mexico Office of the State Engineer, 2023a, 2023b and 2023c). Data from 2023 depicts the NMOSE borehole was determined to be a dry hole at 55 feet below ground surface (bgs). Another monitoring well from the United States Geological Survey (USGS) is located approximately 0.36 miles southeast of the site. Data from 2023 indicate the last recorded groundwater level for this well was 264 feet bgs (United States Geological Survey, 2023). Information pertaining to the depth to groundwater (DTGW) 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 Wood Draw (National Wetlands Inventory) located approximately 0.37 miles north of the site (United States Fish and Wildlife Service, 2023).

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

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	riteria Worksheet		
	e: Corral Fly SWD	Lv. coopp	V 255000
	rdinates: 32.15396, -103.92917 Closure Criteria Determination	X: 600979	Y: 3558003
	ific Conditions	Value	Unit
Site Spec	The Conditions	value	Onit
1			
	Depth to Groundwater	>55	feet
2	Within 300 feet of any continuously flowing	1,954	feet
	watercourse or any other significant watercourse	1,55 !	1000
3	Within 200 feet of any lakebed, sinkhole or playa lake	28,934	feet
	(measured from the ordinary high-water mark)	,	
Within 300 feet from an occupied residence, school,		20,275	feet
	hospital, institution or church	==,=:	
	i) Within 500 feet of a spring or a private, domestic		
fresh water well used by less than five households for		3,091	feet
	domestic or stock watering purposes, or		
	ii) Within 1000 feet of any fresh water well or spring		feet
	Within incorporated municipal boundaries or within a		
	defined municipal fresh water field covered under a		
6	municipal ordinance adopted pursuant to Section 3-27-	No	(Y/N)
	3 NMSA 1978 as amended, unless the municipality		
	specifically approves		
7	Within 300 feet of a wetland	2,904	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
			Critical
9	Within an unstable area (Karst Map)	Low	High
,	(Naise Map)	2011	Medium
			Low
10	Within a 100-year Floodplain	500	year
10	Within a 100 year (100apian)	300	year
		Kermit-Berino fine	
11	Soil Type	sands, 0 to 3 percent	
		slopes	
		Deep Sand	
12	Ecological Classification	(R070BD005NM)	
13	Geology	Qep: Eolian and	
_	J.,	Piedmont deposits	
			<50'
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	51-100'	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					
	Chloride	10,000 mg/kg					
	TPH (GRO+DRO+MRO)	2,500 mg/kg					
51 feet - 100 feet	GRO+DRO	1,000 mg/kg					
	BTEX	50 mg/kg					
	Benzene	10 mg/kg					

TDS - total dissolved solids

5.0 Remedial Actions Taken

An initial site inspection of the release area was completed on May 22, 2023, which identified the area of the release specified in the initial C-141 Report. The approximate release area and other affected areas are presented on Figure 1. Site characterization activities at the site were conducted by Vertex between May 25 and July 3, 2023. 14 sample points (boreholes) were established to obtain full delineation. A total of 34 samples were collected and submitted to Eurofins Xenco for chemical analysis. Initial characterization sample locations are presented in Figure 1 and laboratory results are presented in Table 3. The Daily Field Report (DFR) associated with the initial site inspection is included in Appendix C

Remediation efforts began on July 6, 2023, and were finalized on August 7, 2023. Vertex personnel supervised the excavation of impacted soils. Field screening was completed on a total of 75 sample points and consisted of analysis using a Photo Ionization Detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons), and Silver Nitrate titrations (chlorides). Field screening results were used to identify areas requiring further remediation. Soils were removed to depths ranging between 0.5 feet and 1 foot bgs. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility. The final DFR with photographs of the remediated site prior to backfill is included in Appendix C.

Remedial activities and confirmation sampling were still taking place when the remediation was due to NMOCD. On July 20, 2023, Solaris submitted an extension request for remediation to NMOCD and is included in Appendix D.

Notifications that confirmatory samples were being collected were provided to the NMOCD before every sampling event and are included in Appendix D. Confirmatory composite samples were collected from the base and walls of the excavation in 200-square-foot increments. A total of 64 base samples and six wall samples were collected for laboratory

TPH - total petroleum hydrocarbons, GRO - gas range organics, DRO - diesel range organics, MRO - motor oil range organics

BTEX - benzene, toluene, ethylbenzene and xylenes

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analysis following NMOCD soil sampling procedures (Figure 2). Samples were submitted to Eurofins Environmental Testing under chain-of-custody protocols and analyzed for BTEX (EPA Method 8021B), total petroleum hydrocarbons (GRO, DRO, MRO – EPA Method 8015D), and total chlorides (EPA Method 300.0). Laboratory results are presented in Table 4, and the laboratory data reports are included in Appendix E. All confirmatory samples collected and analyzed were below the closure criteria for the site.

6.0 Closure Request and Denial

Vertex recommends no additional remedial action at the site until it is reclaimed to the appropriate standards of 19.15.29.13 NMAC. Laboratory analyses of confirmation samples collected at the site show final confirmatory values below NMOCD closure criteria for areas where DTGW is between 51 to 100 feet, as presented in Table 2. There are no anticipated risks to human, ecological, or hydrological receptors at this site. The excavation was backfilled with non-waste-containing, uncontaminated, earthen material, sourced locally, and placed to meet the site's existing grade to prevent water ponding and erosion. The reclamation requirements of 19.15.29.13 NMAC will be completed when the site is decommissioned, and all water-transferring activities are terminated.

Vertex would like to request a variance for the closure criteria of the site. The most recent DTGW data for the site are NMOSE's point of diversion well (C 04608), which is located 0.59 miles from the site, outside of NMOCD's required 0.5 miles. It was recorded as a dry hole at 55 feet bgs in 2022. There is also a USGS monitoring well (320857103553301) that can be used as another reference for this location. In 1998, just outside of NMOCD's 25-year requirement, the DTGW level was recorded at 264 feet bgs. The proposed variance seeks to assume NMOCD's 51 to 100-foot on-pad closure criteria per 19.15.29.12 NMAC due to the average DTGW data from the mentioned groundwater references. Vertex and Solaris do not believe that there are any risks to groundwater associated with the site.

The closure request for remediation was denied by NMOCD on February 9, 2024, due to horizontal delineation of the excavation not being properly met at sample points WS23-01, WS23-03, and WS23-04. In response, Vertex collected samples on February 21, 2024, and March 6, 2024, to complete the horizontal delineation to meet NMOCD's most stringent closure criteria for these sample points at BH24-15 through BH24-18. Lab analyses of the further horizontal delineation are found in Table 3. Sample locations for the most recently established sample points are found in Figure 1.

Vertex respectfully re-requests that this incident (nAPP2311343030) be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. Solaris certifies that all information in this report and the appendices are correct and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NMOCD requirements to obtain closure on the site.

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

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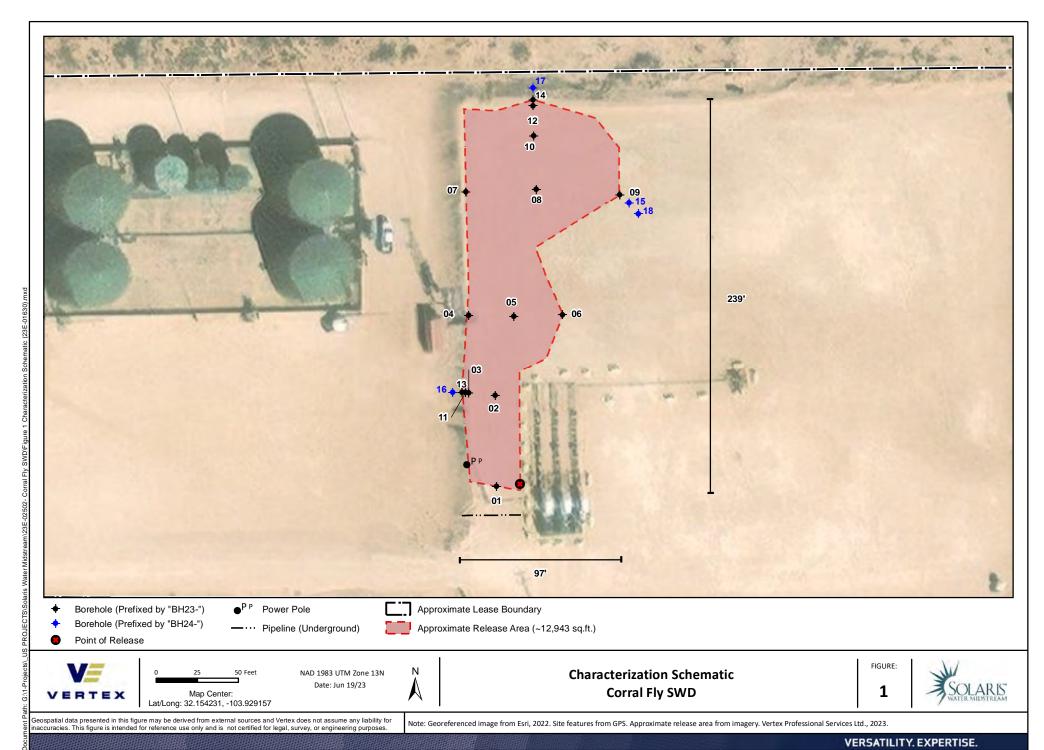
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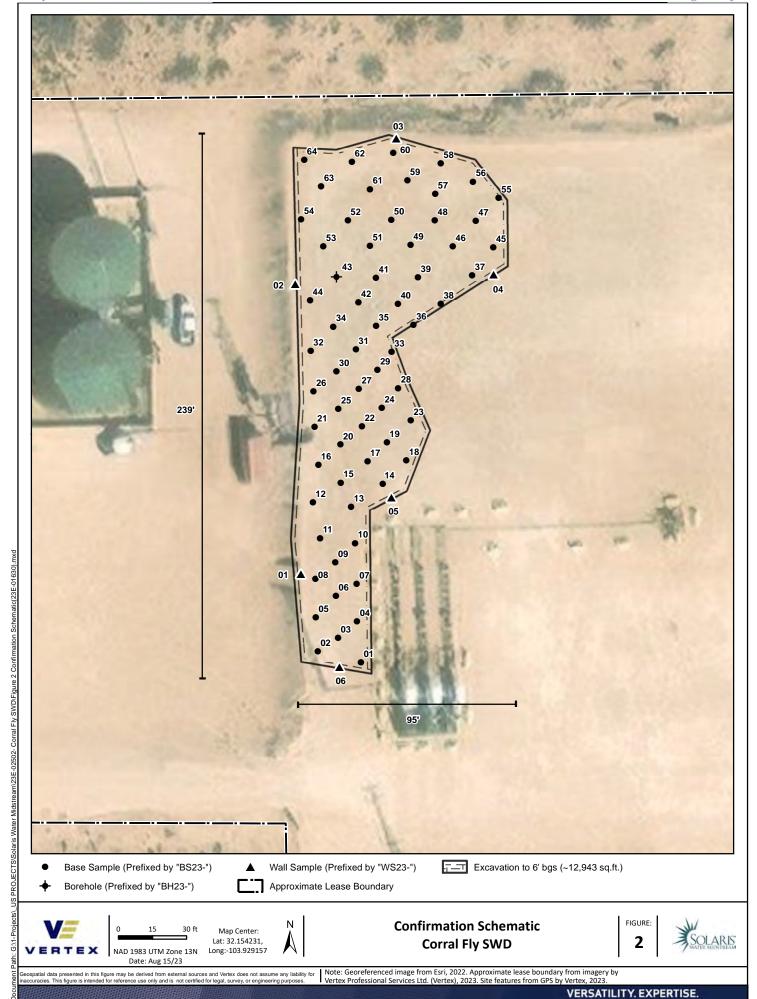
8.0 Limitations

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

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

FIGURES





TABLES

Table 3. Initial Characterization Laboratory Results - Depth to Groundwater 51-100 feet bgs

Solaris Water Midstream, LLC

Corral Fly SWD

NM OCD Tracking #: nAPP2311343030

Project #: 23E-02502

Lab Report: 890-4746-1, 890-4751-1, 890-4754-1, 890-4786-1,

	Sample Description					Pe	etroleum H	lydrocarbo	ns				Inorganic
Sample ID	Depth (ft)	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
0.111.	NMOCD - NMAC <5		10	-	-	-	50	-	-	-	1 000	100	600
Criteria	NMOCD - NMAC 51-1	. ,	10	-	-	-	50	-	-	-	1,000	2,500	10,000
Excavation	NMOCD - NMAC >10	00 10 19.15.29 (2018)	10	-	-	-	50	-	-	-	1,000	2,500	20,000
BH23-01	0	5/25/2023	ND	ND	ND	ND	ND	ND	65.5	ND	65.5	65.5	564
BH23-01	2	5/25/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	380
BH23-01	4	5/25/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	160
BH23-02	0	5/25/2023	ND	ND	ND	ND	ND	ND	93.4	ND	93.4	93.4	970
BH23-02	2	5/25/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2960
BH23-02	4	5/25/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1430
BH23-02	6	7/3/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	38.6
BH23-03	0	5/25/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	804
BH23-03	2	5/25/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4170
BH23-03	4	5/25/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1720
BH23-03	6	7/3/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	43.7
BH23-04	0	5/26/2023	ND	ND	ND	ND	ND	ND	72.6	ND	72.6	72.6	219
BH23-04	2	5/26/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	179
BH23-05	0	5/26/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	749
BH23-05	2	5/26/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1060
BH23-05	4	5/26/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	359
BH23-06	0	5/26/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	183
BH23-06	2	5/26/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	176
BH23-07	0	5/30/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	123
BH23-07	2	5/30/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	141
BH23-08	0	5/30/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2070
BH23-08	2	6/6/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	268
BH23-08	4	6/6/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	284
BH23-09	0	5/30/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	163
BH23-09	2	5/30/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	165
BH23-10	0	5/30/2023	ND	ND	ND	ND	ND	ND	178	ND	178	178	2860
BH23-11	0	6/6/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2430
BH23-11	2	6/6/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1780
BH23-12	0	6/6/2023	ND	ND	ND	ND	ND	ND	607	ND	607	607	9230
BH23-12	2	6/6/2023	ND	ND	ND	ND	ND	ND	729	ND	729	729	9770
BH23-13	0	6/12/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	123
BH23-13	2	6/12/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	43.2
BH23-14	0	6/12/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	71.6
BH23-14	2	6/12/2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50.6
BH24-15	0.5	2/21/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1750
BH24-15	2	2/21/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	623
BH24-16	0	2/21/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	151
BH24-16	2	2/21/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	84
BH24-17	0	2/21/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	68
BH24-17	2	2/21/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	200
BH24-18	0	3/6/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND ND	ND ND	77
BH24-18	2	3/6/2024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	59

NMAC - New Mexico Administrative Code (Title 19, Chapter 15, Part 29; 2018)

ND - Not Detected at the Reporting Limit



⁻ Denotes no standard/not analyzed

Table 4. Confirmatory Laboratory Results - Depth to Groundwater 51-100 feet bgs Solaris Midstream Water Company Corral Fly SWD NMOCD Tracking #: nAPP2311343030

Project #: 23E-02502

Lab Report: 890-4917, 890-4786, 890-4814, 890-4902, 890-4746, 890-4751, 890-4754, 890-5046

	Sample Description					Pe	etroleum H	lydrocarbo	ns				Inorganic
Sample ID	Depth (ft)	Date	Benzene Wag/kg)	oluene Toluene (mg/kg)	Ethylbenzene (8)	(%) Total Xylenes	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	ම් මී Chloride Concentration මී
Criteria	NMOCD - NMAC <5 NMOCD - NMAC 51-1		10 10	-	-	1	50 50	-	1	-	1000	100 2500	600 10000
	NMOCD - NMAC >10	00 ft 19.15.29 (2018)	10	-	-	-	50	-	-	-	1000	2500	20000
2023 Boreholes													
BS23-01	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	145	ND	145	145	7870
BS23-02	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	71	ND	71	71	1450
BS23-03	0.5	July 7, 2023	NB	ND	ND	ND	ND	ND	120	ND	120	120	2180
BS23-04	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	87	ND	87	87	8020
BS23-05	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	66	ND	66	66	2210
BS23-06	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	170	ND	170	170	8940
BS23-07	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	77 ND	ND	77 ND	77 ND	2160
BS23-08	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	ND 166	ND	ND 166	ND 166	8280
BS23-09	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	166	ND	166	166	9680
BS23-10	0.5 0	July 7, 2023	ND ND	ND ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND -	8100 2430
BS23-11 BS23-11	0.5	June 6, 2023 July 7, 2023	ND ND	ND	ND ND	ND	ND	ND	ND	ND	ND	- ND	9660
BS23-11	2	June 6, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND -	1780
BS23-11	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	181	ND	181	181	8590
BS23-12	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	65	ND	65	65	9500
BS23-14	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	62	ND	62	62	1040
BS23-15	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10200
BS23-15	1	August 7, 2023	ND	ND	ND	ND	ND	ND	52	ND	52	52	1380
BS23-16	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	59	ND	59	59	1730
BS23-17	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	166	ND	166	166	4250
BS23-18	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	78	ND	78	78	2160
BS23-19	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	58	ND	58	58	10300
BS23-19	1	August 7, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	352
BS23-20	0.5	July 7, 2023	ND	ND	ND	ND	ND	ND	94	ND	94	94	7320
BS23-21	0.5	July 11, 2023	ND	ND	ND	ND	ND	ND	92	ND	92	92	456
BS23-22	0.5	July 11, 2023	ND	ND	ND	ND	ND	ND	147	ND	147	147	165
BS23-23	0.5	July 11, 2023	ND	ND	ND	ND	ND	ND	82	ND	82	82	810
BS23-24	0.5	July 11, 2023	ND	ND	ND	ND	ND	ND	62	ND	62	62	203
BS23-25	0.5	July 11, 2023	ND	ND	ND	ND	ND	ND	60	ND	60	60	771
BS23-26	0.5	July 11, 2023	ND	ND	ND	ND	ND	ND	57	ND	57	57	291
BS23-27	0.5	July 11, 2023	ND	ND	ND	ND	ND	ND	56	ND	56	56	76
BS23-28	0.5	July 11, 2023	ND	ND	ND	ND	ND	ND	95	ND	95	95	207
BS23-29	0.5	July 11, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	414
BS23-30	0.5	July 12, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2940
BS23-31	0.5	July 12, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND 4330	ND 4330	223
BS23-32	0.5 1	July 12, 2023	ND	ND ND	ND	ND ND	ND ND	ND ND	1220 ND	ND	1220 ND	1220 ND	3320 3250
BS23-32 BS23-33	0.5	August 7, 2023 July 12, 2023	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	120	ND ND	120	120	767
BS23-33 BS23-34	0.5	July 12, 2023 July 12, 2023	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND	ND ND	ND	ND	10800
BS23-34 BS23-34	0.5	August 7, 2023	ND ND	ND ND	ND ND	ND	ND ND	ND ND	ND	ND	ND	ND ND	3660
BS23-35	0.5	July 12, 2023	ND ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9780
BS23-36	0.5	July 12, 2023 July 12, 2023	ND	ND	ND	ND	ND	ND	96	ND	96	96	2360
BS23-37	0.5	July 12, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	355
BS23-37	0.5	July 12, 2023 July 12, 2023	ND	ND	ND	ND	ND	ND	796	ND	796	796	12300
BS23-38	1	August 7, 2023	ND	ND	ND	ND	ND	ND	272	ND	272	272	4640
BS23-39	0.5	July 12, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1080
BS23-40	0.5	July 12, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2740
5525 40	5.5	70., 12, 2023		.,,,,	.,,,,	.,,,		.,,,,,	.,,,,	.,,,,	.10	.10	_, =0



Sample Description				Petroleum Hydrocarbons									
Sample ID	Depth (ft)	Date	Benzene Remontalene	onene Toluene (mg/kg)	Ethylbenzene (89/8a)	(g) Total Xylenes	(ga/gal)	මු මුද් මිරි මිරි	ন্ত্ৰ জু Diesel Range Organics (DRO)	স্ত্রী Motor Oil Range Organics (MRO)	(GRO + DRO)	্ৰ বিহাৰ Petroleum Hydrocarbons (TPH)	(%) Chloride Concentration
	NMOCD - NMAC <5	0 ft 19.15.29 (2018)	10	-	-	-	50	-	-	-	-	100	600
Criteria	NMOCD - NMAC 51-1	100 ft 19.15.29 (2018)	10	-	-	-	50	-	-	-	1000	2500	10000
	NMOCD - NMAC >10	00 ft 19.15.29 (2018)	10	-	-	-	50	-	-	-	1000	2500	20000
2023 Boreholes													
BS23-41	0.5	July 13, 2023	ND	ND	ND	ND	ND	ND	52	ND	52	52	1470
BS23-42	0.5	July 13, 2023	ND	ND	ND	ND	ND	ND	111	ND	111	111	6100
BS23-43	0.5	July 13, 2023	ND	ND	ND	ND	ND	ND	57	ND	57	57	2800
BS23-44	0.5	July 13, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2990
BS23-45	0.5	July 13, 2023	ND	ND	ND	ND	ND	ND	107	ND	107	107	2220
BS23-46	0.5	July 13, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1500
BS23-47	0.5	July 13, 2023	ND	ND	ND	ND	ND	ND	77	ND	77	77	2750
BS23-48	0.5	July 13, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2470
BS23-49	0.5	July 13, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	626
BS23-50	0.5	July 13, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	499
BS23-51	0.5	July 13, 2023	ND	ND	ND	ND	ND	ND	52	ND	52	52	141
BS23-52	0.5	July 13, 2023	ND	ND	ND	ND	ND	ND	66	ND	66	66	348
BS23-53	0.5	July 13, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	261
BS23-54	0.5	July 13, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	78
BS23-55	0.5	July 13, 2023	ND	ND	ND	ND	ND	ND	60	ND	60	60	4480
BS23-56	0.5	July 14, 2023	ND	ND	ND	ND	ND	ND	87	ND	87	87	986
BS23-57	0.5	July 14, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	544
BS23-58	0.5	July 14, 2023	ND	ND	ND	ND	ND	ND	61	ND	61	61	2900
BS23-59	0.5	July 14, 2023	ND	ND	ND	ND	ND	ND	73	ND	73	73	3040
BS23-60	0.5	July 14, 2023	ND	ND	ND	ND	ND	ND	182	ND	182	182	583
BS23-61	0.5	July 14, 2023	ND	ND	ND	ND	ND	ND	341	ND	341	341	1540
BS23-62	0.5	July 14, 2023	ND	ND	ND	ND	ND	ND	111	ND	111	111	1480
BS23-63	0.5	July 14, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	355
BS23-64	0.5	July 14, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	188
WS23-01	0.5	July 14, 2023	ND	ND	ND	ND	ND	ND	118	ND	118	118	5240
WS23-02	0.5	July 14, 2023	ND	ND	ND	ND	ND	ND	71	ND	71	71	170
WS23-03	0.5	July 14, 2023	ND	ND	ND	ND	ND	ND	255	ND	255	255	1520
WS23-04	0.5	July 14, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4240
WS23-05	0.5	July 14, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	140
WS23-06	0.5	July 14, 2023	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	351

NMAC - New Mexico Administrative Code (Title 19, Chapter 15, Part 29; 2022)

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



 $[\]ensuremath{\mathsf{ND}}$ - $\ensuremath{\mathsf{Not}}$ Detected at the Reporting Limit

⁻ Denotes no standard/not analyzed

APPENDIX A - NMOCD C-141 Report

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

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	nAPP2311343030
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

			res	ponsibi	c I al cj			
Responsible	Party Solar	ris Water, LLC		(OGRID 3	71643		
Contact Nan	^{ne} Rob Kir	k		(Contact Te	elephone O 57	5- 300-5155 C	469-978-5620
Contact ema	Contact email rob.kirk@ariswater.com					(assigned by OCD)		
		3305 Boyd Dr		d, NM 88	3220			
		•	Location			ource		
Latitude 32.	.15396			I a	ongitude •	-103.92917		
Latitude			(NAD 83 in de	ecimal degre	es to 5 decim	nal places)		
Site Name Corral Fly SWD					ite Type S	Salt Water Dis	sposal	
Date Release	Discovered	04/21/2023				licable) 30-015		
	r	_	Ţ	1			7	
Unit Letter	Section	Township	Range		Coun	ty	_	
L7	06	25S	30E	Eddy				
Surface Owne	er: 🔽 State	Federal T	ribal 🗌 Private ((Name:)
			Nature and	d Volu	me of F	Release		
	Materia	ıl(s) Released (Select a	ll that apply and attacl	h calculation	s or specific	justification for the	volumes provided below	w)
Crude Oi	1	Volume Release	ed (bbls)			Volume Reco	overed (bbls)	
✓ Produced	Water	Volume Release	ed (bbls) 300 BB	BLs		Volume Reco	overed (bbls) 80 BE	BLs
		Is the concentral produced water	tion of dissolved o >10,000 mg/l?	chloride in	the	☑ Yes □ N	lo	
Condensa	ate	Volume Release	ed (bbls)			Volume Reco	overed (bbls)	
Natural C	Gas	Volume Release	ed (Mcf)			Volume Reco	overed (Mcf)	
Other (de	Other (describe) Volume/Weight Released (provide un			de units)		Volume/Weig	ght Recovered (prov	vide units)
Cause of Rel	^{lease} A sec The S	tion of inlet pi SWD was shu	pe failed durii down stoppi	ng oper ng the r	ation res	sulting in the	e release of Pred pipe section	oduced Water. was replaced.

Page 21 of 536

[New Mexico | Page 21 of 536]

Incident ID	nAPP2311343030
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>55 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes 🗓 No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes X No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes X No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes X No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	Yes X No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes X No
Are the lateral extents of the release within 300 feet of a wetland?	Yes X No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes X No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes 🏻 No
Are the lateral extents of the release within a 100-year floodplain?	Yes X No
Did the release impact areas not on an exploration, development, production, or storage site?	Yes X No
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil
Characterization Report Checklist: Each of the following items must be included in the report.	
 ∑ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wel ∑ Field data ∑ Data table of soil contaminant concentration data ∑ Depth to water determination ∑ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release 	ls.
X Boring or excavation logs	

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

X Photographs including date and GIS information

X Laboratory data including chain of custody

Topographic/Aerial maps

Received by OCD: 8/1/2024 2:06:03 PM Form C-141 State of New Mexico Page 4 Oil Conservation Division

	Page 22 of 5	36
Incident ID	nAPP2311343030	
District RP		
Facility ID		
Application ID		

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: _Rob Kirk ______ Title: _VP & GM, HSE & Compliance ______

Signature: ______ Date: ______

email: _rob.kirk@ariswater.com ______ Telephone: _469-978-5620 _______

DCD Only

Received by: ______ Date: _______

State of New Mexico Incident ID nAP

	Page 23 of 53	36
Incident ID	nAPP2311343030	
District RP		
Facility ID		
Application ID		

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following item	ns must be included in the closure report.
X A scaled site and sampling diagram as described in 19.15.29.11	NMAC
Photographs of the remediated site prior to backfill or photos of must be notified 2 days prior to liner inspection)	the liner integrity if applicable (Note: appropriate OCD District office
X Laboratory analyses of final sampling (Note: appropriate ODC D	District office must be notified 2 days prior to final sampling)
X Description of remediation activities	
I hereby certify that the information given above is true and complete to and regulations all operators are required to report and/or file certain remay endanger public health or the environment. The acceptance of a G should their operations have failed to adequately investigate and remechuman health or the environment. In addition, OCD acceptance of a G compliance with any other federal, state, or local laws and/or regulation restore, reclaim, and re-vegetate the impacted surface area to the conditaccordance with 19.15.29.13 NMAC including notification to the OCI Printed Name: Rob Kirk Signature:	C-141 report by the OCD does not relieve the operator of liability diate contamination that pose a threat to groundwater, surface water, C-141 report does not relieve the operator of responsibility for ns. The responsible party acknowledges they must substantially itions that existed prior to the release or their final land use in D when reclamation and re-vegetation are complete.
email: <u>rob.kirk@ariswater.com</u>	Telephone: 469-978-5620
OCD Only	
Received by:	Date:
	liability should their operations have failed to adequately investigate and ter, human health, or the environment nor does not relieve the responsible regulations.
Closure Approved by:	Date:
Printed Name:	Title:

APPENDIX B – Closure Criteria Research Documentation



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

(NAD83 UTM in meters)

(A CLW#### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is

closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(In feet)

	POD Sub-		Q	Q (Q						Depth	Depth Water
POD Number	Code basin	County	64	16	4 Se	: Tws	Rng	X	Υ	Distance	Well	Water Column
C 04608 POD1	CUB	ED	1	1	2 12	25S	29E	600080	3557719 🌍	942	55	
C 04604 POD1	CUB	ED	1	1	3 01	25S	29E	599401	3558388 🌍	1624	102	
C 04529 POD1	CUB	ED	1	3	1 18	25S	30E	601077	3555733 🌍	2271		
C 02459	С	ED	4	4	1 02	25S	29E	598422	3558663* 🌍	2640	150	
C 04525 POD1	CUB	ED	3	1	2 10	25S	29E	596976	3557505 🌕	4034		

Average Depth to Water:

Minimum Depth:

Maximum Depth:

Record Count: 5

UTMNAD83 Radius Search (in meters):

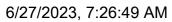
Easting (X): 600979 Northing (Y): 3558003 Radius: 5000

*UTM location was derived from PLSS - see Help

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

C-04608 POD1 0.59 Miles



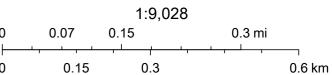


Override 1 OSE District Boundary NHD Flowlines

GIS WATERS PODs New Mexico State Trust Lands —— Stream River

Active
 Both Estates
 SiteBoundaries

Plugged



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



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** Q64 Q16 Q4 Sec Tws Rng NA C 04608 POD1 12

600080

3557719

Driller License: 1249 **Driller Company:** ATKINS ENGINEERING ASSOC. INC.

Driller Name: ATKINS, JACKIE D.UELENER

Drill Start Date: 04/19/2022 **Drill Finish Date:**

Plug Date: 04/19/2022

04/26/2022

Log File Date:

05/09/2022 **PCW Rcv Date:** Source:

Pump Type:

Pipe Discharge Size:

Estimated Yield: 0 GPM

Casing Size: Depth Well: 55 feet

Depth Water:

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

6/27/23 7:41 AM

POINT OF DIVERSION SUMMARY



USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS Water Resources	Data Category:	Geographic Area:			
5545 Water Resources	Groundwater ~	United States	•	GO	

Click to hideNews Bulletins

- Explore the NEW <u>USGS National Water Dashboard</u> interactive map to access realtime water data from over 13,500 stations nationwide.
- Full News

Groundwater levels for the Nation

Important: <u>Next Generation Monitoring Location Page</u>

Search Results -- 1 sites found

site_no list =

• 320857103553301

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

The depth of the well is 385 feet below land surface.

USGS 320857103553301 25S.30E.07.112331

Available data for this site Groundwater: Field measurements GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°08'57", Longitude 103°55'33" NAD27

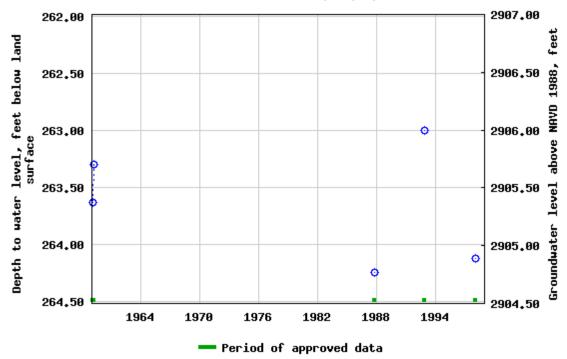
Land-surface elevation 3,169 feet above NAVD88

This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Table of data Tab-separated data Graph of data Reselect period





Breaks in the plot represent a gap of at least one year between field measurements. <u>Download a presentation-quality graph</u>

Questions or Comments
Automated retrievals
Help
Data Tips
Explanation of terms
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U.S. Department of the Interior | U.S. Geological Survey

Title: Groundwater for USA: Water Levels

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: <u>USGS Water Data Support Team</u>

Page Last Modified: 2023-06-27 12:37:53 EDT

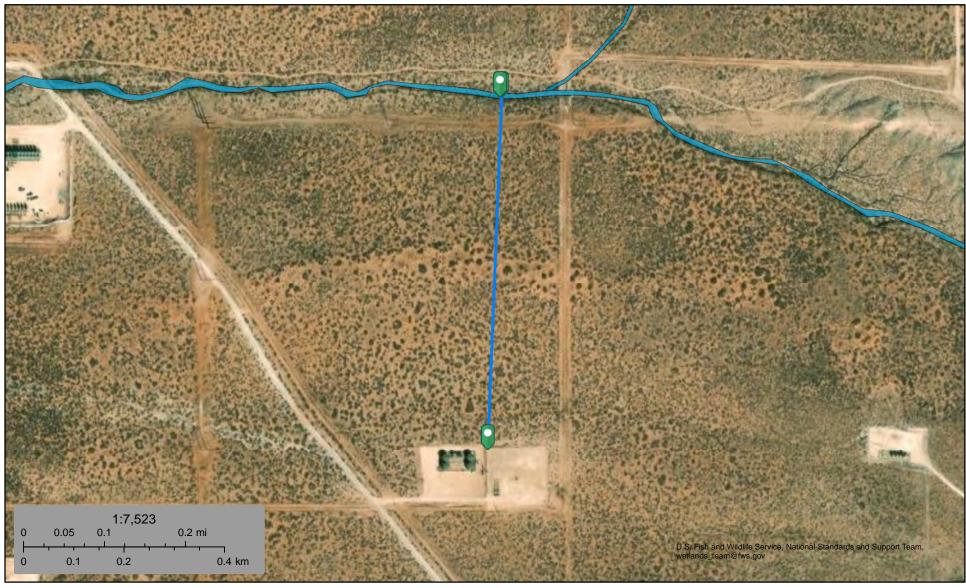
0.58 0.5 nadww02







Corral Fly Watercourse 0.37mi



June 21, 2023

Wetlands_Alaska

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Lake

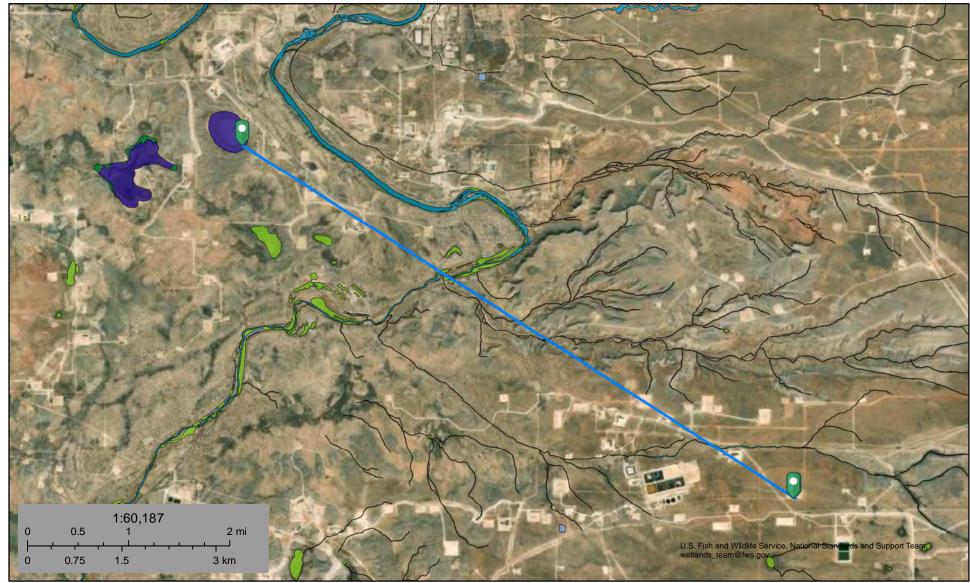
Other

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.



Corral Fly Lake 5.48 mi



June 21, 2023

Wetlands_Alaska

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Pond

____ L

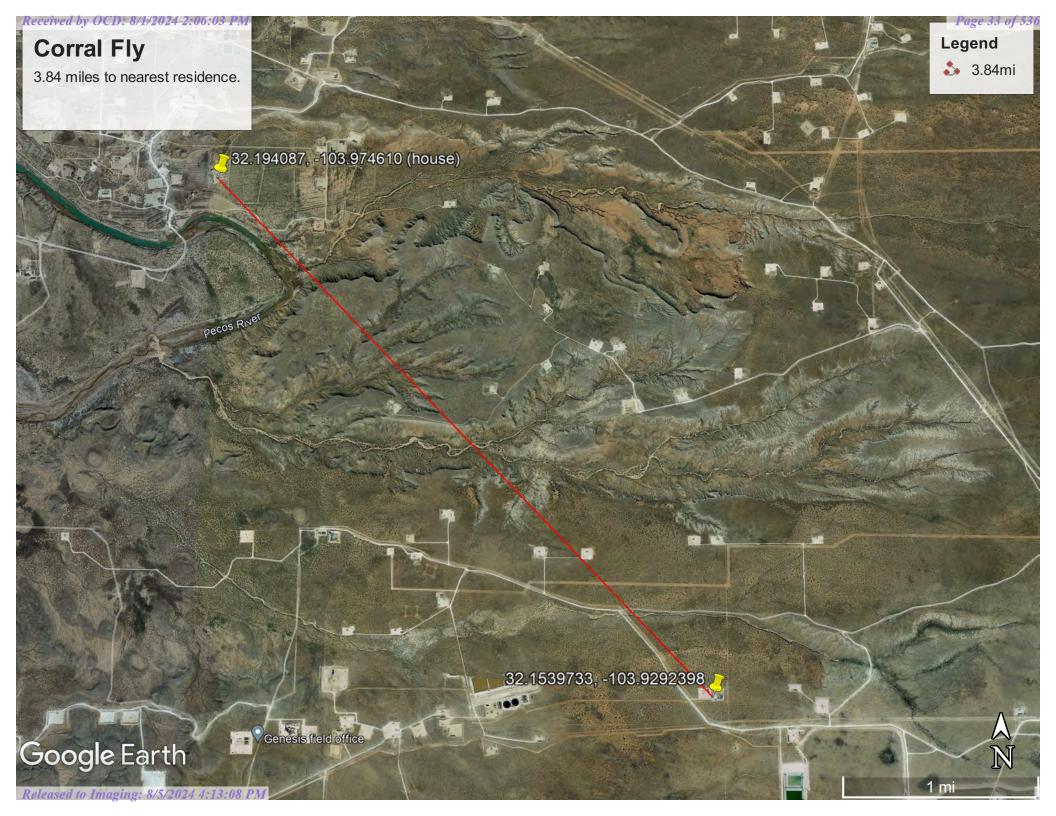
Lake

Freshwater Forested/Shrub Wetland

Other

Riverine

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



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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced

and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)

C=the file is closed) (quarters are s

(quarters are smallest to largest) (NAD83 UTM in meters)

	Sub			Well		qqq			
WR File Nbr	basin Use Dive	ersion Owner	County POD Number	Tag	Code Grant	Source 6416 4 Sec Tws Rng	Х	Υ	Distance
C 04608	CUB EXP	0 LUCID ENERGY DELAWARE I	LC ED <u>C 04608 POD1</u>	NA		1 1 2 12 25S 29E	600080	3557719 🎒	942

Record Count: 1

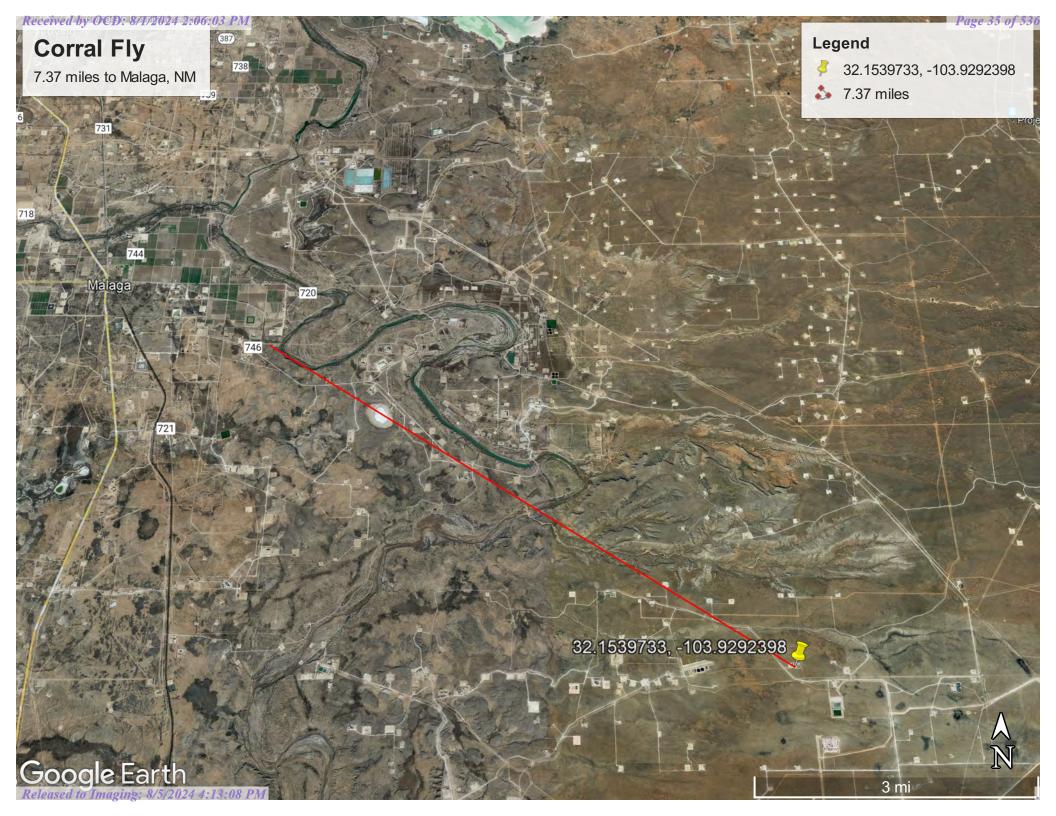
UTMNAD83 Radius Search (in meters):

(acre ft per annum)

Easting (X): 600979 **Northing (Y):** 3558003 **Radius:** 1610

Sorted by: Distance

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





Corral Fly Wetland 0.55 Miles



June 21, 2023

Wetlands_Alaska

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

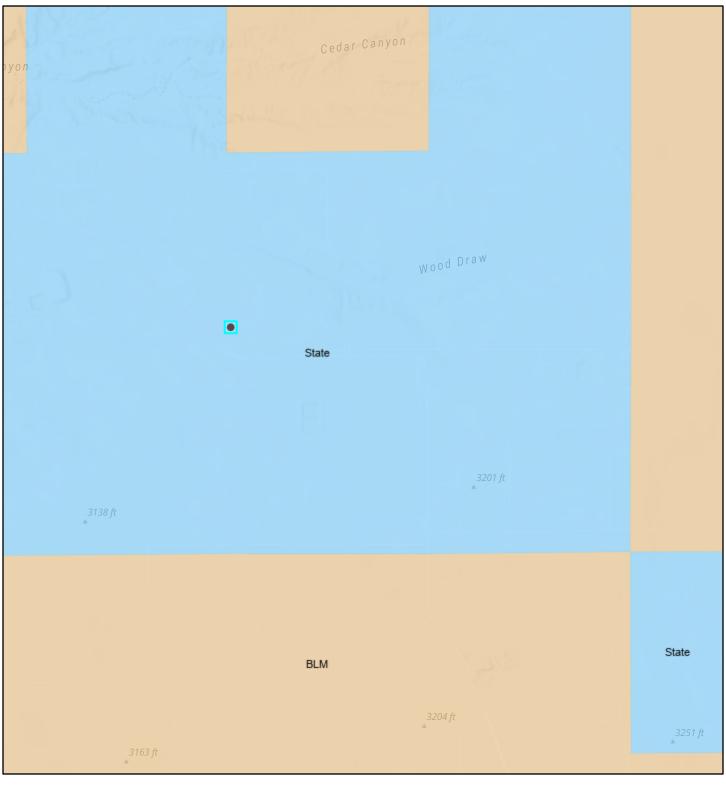
Lake

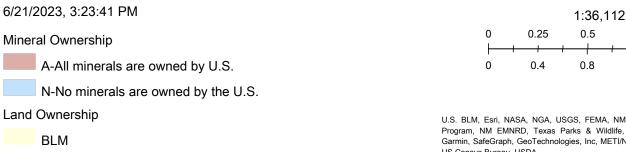
Other

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.

Corral Fly Mines



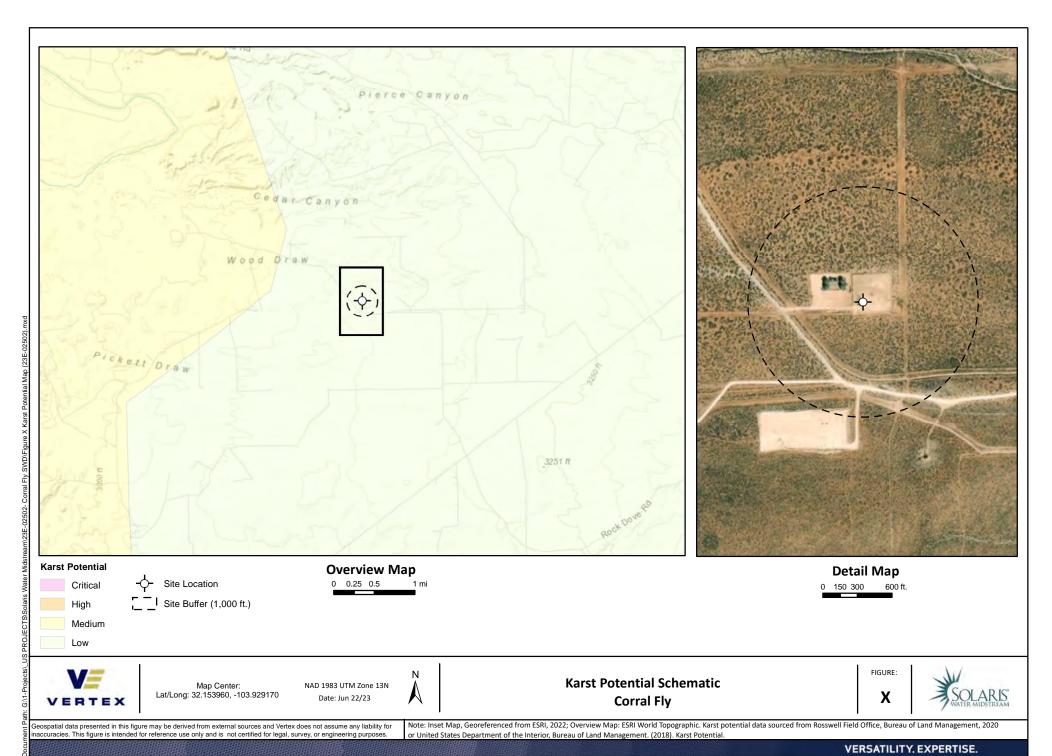


U.S. BLM, Esri, NASA, NGA, USGS, FEMA, NM Coal Mine Reclamation Program, NM EMNRD, Texas Parks & Wildlife, CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

1 mi

1.6 km

Received by OCD: 8/1/2024 2:06:03 PM

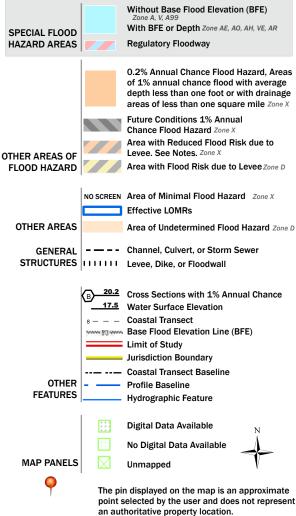


National Flood Hazard Layer FIRMette





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



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

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VRCS

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Eddy Area, New Mexico



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2 053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

-

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

ဖ

Blowout

 \boxtimes

Borrow Pit

Ж

Clay Spot

 \Diamond

Closed Depression

Gravel Pit

Gravelly Spot

Ø

Landfill

٨.

Lava Flow

عله

Marsh or swamp

Mine or Quarry

Miscellaneous Water

0

Rock Outcrop

Perennial Water

+

Saline Spot

Sandy Spot

Severely Eroded Spot

_

Sinkhole

20

Sodic Spot

Slide or Slip

83

Spoil Area

٥

Stony Spot Very Stony Spot

Ø

Wet Spot Other

Δ

Special Line Features

Water Features

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Streams and Canals

Transportation

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Rails

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Interstate Highways

US Routes

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Major Roads Local Roads

Background

The same

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eddy Area, New Mexico Survey Area Data: Version 18, Sep 8, 2022

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol Map Unit Name		Acres in AOI	Percent of AOI	
КМ	Kermit-Berino fine sands, 0 to 3 percent slopes	12.0	100.0%	
Totals for Area of Interest		12.0	100.0%	

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Eddy Area, New Mexico

KM—Kermit-Berino fine sands, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w4q Elevation: 3,100 to 4,200 feet

Mean annual precipitation: 10 to 14 inches
Mean annual air temperature: 60 to 64 degrees F

Frost-free period: 190 to 230 days

Farmland classification: Not prime farmland

Map Unit Composition

Kermit and similar soils: 50 percent Berino and similar soils: 35 percent Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kermit

Setting

Landform: Plains, alluvial fans

Landform position (three-dimensional): Talf, rise

Down-slope shape: Convex, linear

Across-slope shape: Linear

Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 7 inches: fine sand H2 - 7 to 60 inches: fine sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Excessively drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Low (about 3.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: A

Ecological site: R070BD005NM - Deep Sand

Hydric soil rating: No

Description of Berino

Setting

Landform: Plains, fan piedmonts

Landform position (three-dimensional): Riser

Down-slope shape: Convex Across-slope shape: Linear

Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 17 inches: fine sand

H2 - 17 to 50 inches: fine sandy loam H3 - 50 to 58 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high

(0.60 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum content: 40 percent

Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Moderate (about 7.2 inches)

Interpretive groups

Land capability classification (irrigated): 4e Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: B

Ecological site: R070BD003NM - Loamy Sand

Hydric soil rating: No

Minor Components

Active dune land

Percent of map unit: 15 percent

Hydric soil rating: No

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Ecological site R070BD005NM Deep Sand

Accessed: 06/21/2023

General information

Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

Figure 1. Mapped extent

Areas shown in blue indicate the maximum mapped extent of this ecological site. Other ecological sites likely occur within the highlighted areas. It is also possible for this ecological site to occur outside of highlighted areas if detailed soil survey has not been completed or recently updated.

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site occurs on terraces, Piedmonts, dunes fields, or upland plains. Parent material consists of eolian deposits and alluvium derived from sandstone. Slopes range from 0 to 15 percent, usually less than 5 percent. Low, stabilized hummocks or dunes frequently occur. Elevations range from 2,842 to 4,500 feet.

Table 2. Representative physiographic features

Landforms	(1) Dune(2) Parna dune(3) Terrace
Flooding frequency	None
Ponding frequency	None
Elevation	2,842–4,500 ft
Slope	0–15%
Aspect	Aspect is not a significant factor

Climatic features

The average annual precipitation ranges from 8 to 13 inches. Variations of 5 inches, more or less, are common. Over 80 percent of the precipitation falls from April through October. Most of the summer precipitation comes in the form of high intensity – short duration thunderstorms.

Temperatures are characterized by distinct seasonal changes and large annual and diurnal temperature changes. The average annual temperature is 61 degrees with extremes of 25 degrees below zero in the winter to 112 degrees in the summer.

The average frost-free season is 207 to 220 days. The last killing frost is in late March or early April, and the first killing frost is in late October or early November.

Both temperature and moisture favor warm season perennial plant growth. During years of abundant winter and early spring moisture, cool season growth and annual forbs, make up an important component of this site. Strong winds blow from the west from January through June, which accelerates soil drying during a critical period for cool

season plant growth.

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

Table 3. Representative climatic features

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

Influencing water features

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

Soil features

Soils are deep or very deep. Surface textures are sand loam, fine sand or loamy fine sand, Underlying material textures are loamy fine sand, fine sand, sand or fine sandy loam. Because of the coarse textures and rapid drying of the surface, the soil, if unprotected by plant cover and organic residue, becomes windblown and low hummocks or dunes are formed around shrubs.

Characteristic soils are:

Anthony

Aguena

Kermit

Likes

Pintura

Bluepoint

Table 4. Representative soil features

Surface texture	(1) Sand(2) Fine sand(3) Loamy fine sand		
Family particle size	(1) Sandy		
Drainage class	Well drained to excessively drained		
Permeability class	Moderate to very rapid		
Soil depth	60–72 in		
Surface fragment cover <=3"	0–5%		
Surface fragment cover >3"	0%		
Available water capacity (0-40in)	3–5 in		
Calcium carbonate equivalent (0-40in)	5–15%		
Electrical conductivity (0-40in)	0–4 mmhos/cm		
Sodium adsorption ratio (0-40in)	0–2		
Soil reaction (1:1 water) (0-40in)	6.6–7.8		

Subsurface fragment volume <=3" (Depth not specified)	5–10%
Subsurface fragment volume >3" (Depth not specified)	0%

Ecological dynamics

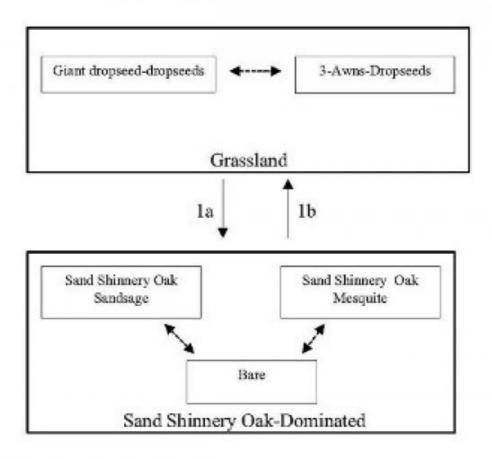
Overview

The Deep Sand site occurs adjacent to and/or intergraded with the Sandhills and Sandy sites (SD-3). The Deep Sand site can be distinguished by slopes less than eight percent (approximately five percent) and textural changes at depths greater than 40 inches. The Deep Sand site has well drained soils with a surface texture of sand or loamy fine sand. The Sandhills site has slopes greater than eight percent and textural depths greater than 60 inches. Conversely, the Sandy site has slopes less than five percent and depths to textural change commonly around 20 inches. The historic plant community of the Deep Sand site is dominated primarily by giant dropseed (*Sporobolus giganteus*) and other dropseeds (*S. flexuosus*, *S. contractus*, *S. cryptandrus*), with scattered shinnery oak (*Quercus havardii*) and soapweed yucca (*Yucca glauca*). Other herbaceous species include threeawns (Aristida spp.), bluestems (*Schizachyrium scoparium* and *Andropogon hallii*), and annual and perennial forbs distributed relative to precipitation occurrences. Bare ground and litter compose a significant proportion of ground cover while grasses are the remainder. Shinnery oak will increase with an associated decrease in dropseed and bluestem abundance possibly due to climatic change, fire suppression, interspecific competition, and excessive grazing. Continued grass cover loss may result in a transition to a shinnery oak dominated state with increases in sand sage (*Artemisia filifolia*) and honey mesquite (*Prosopis glandulosa*). However, brush management may restore the grassland component and reverse the shinnery oak state back toward the historic plant community.

State and transition model

Plant Communities and Transitional Pathways (diagram)

MLRA-42, SD-3, Deep Sand



 a Climate, fire suppression, competition, over grazing

1.b Brush control, Prescribed grazing

State 1 Historic Climax Plant Community

Community 1.1 Historic Climax Plant Community

State Containing Historic Plant Community Grassland: The historic plant community is dominated by giant dropseed, other dropseeds, threeawns, and bluestems. Dominant woody plants include shinnery oak and soapweed yucca. Forb abundance and distribution varies and is dependent on annual rainfall. The Deep Sand site typically exists in sandy plains and dunes (Sosebee 1983). Grass dominance stabilizes the potentially erosive sandy soils. Historical fire suppression, however, may have contributed to increased woody plant abundance, which has reduced grass species. Further, drought conditions compounded with excessive grazing likely has driven most grass species out of competition with shrubs which has resulted in a shinnery oak dominated state with sand sage and mesquite (Young et al. 1948). Diagnosis: Grassland dominated by dropseeds, threeawns, and bluestems. Small shrubs, such as shinnery oak and soapweed yucca, and subshrubs are dispersed throughout the grassland. Other grasses that could appear on this site would include: flatsedge, almejita signalgrass, big bluestem, Indiangrass, fall witchgrass, hairy grama and red lovegrass Other shrubs include: fourwing saltbush, mesquite, ephedra and broom snakeweed. Other forbs include: wooly and scarlet gaura, wooly dalea, phlox heliotrope, scorpionweed, deerstongue, fleabane, nama, hoffmanseggia, lemon beebalm and stickleaf.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	
Grass/Grasslike	396	858	1320
Shrub/Vine	108	234	360
Forb	96	208	320
Total	600	1300	2000

Table 6. Ground cover

Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	15-20%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	35-40%
Surface fragments >0.25" and <=3"	0%
Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	35-40%

Figure 5. Plant community growth curve (percent production by month). NM2805, HCPC. SD-3 Deep Sand - Warm season plant community.

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

State 2 Shinnery Oak Dominated

Community 2.1 Shinnery Oak Dominated



Shinnery Oak Dominated: This state is dominated by shinnery oak with subdominants of sand sage or mesquite. Bare ground is a significant component in this state as well. shinnery oak is characterized by dense stands in sandy soils; however, as clay percentage increases, shinnery oak decreases. Shinnery oak abundance and distribution increase with disturbances, such as excessive grazing and fire, due to an aggressive rhizome system. As shinnery oak abundance increases, an associated increase of mesquite, sand sage, and soapweed yucca also occurs. Shinnery oak's extensive root system allows the oak to competitively exclude grasses and forbs. Sand sage, however, stabilizes light sandy soils from wind erosion and can co-exist with herbaceous species by protecting them in heavily grazed conditions (Davis and Bonham 1979). Shinnery oak has been found primarily in very deep, excessively drained, and rapidly permeable soils. Shinnery oak is associated with landforms which are gently undulating to rolling uplands, very gently sloping to moderately steep slopes, and upland plains, alluvial fans and valley sideslopes. Shinnery oak and sand sage can be controlled with herbicide if applied in the spring with a subsequent rest from grazing (Herbel et al. 1979, Pettit 1986). In addition, repetitive seasons of goat browsing can also reduce shinnery oak abundance. Patches should be maintained during brush control, however, to prevent erosion and to provide wildlife cover and forage. Further, as shinnery oak and other shrubs increase, bare patches and erosion will increase due to a lack of herbaceous ground cover. Diagnosis: Shinnery oak dominated with subdominant sand sage, honey mesquite, and soapweed yucca with increasing frequency and size of bare patches. Transition to Shinnery oak dominated state (1a): The historic plant community begins to shift toward the shinnery oak dominated state as drivers such as climate change, fire suppression, interspecific competition, and excessive grazing contribute to alterations in soil properties and herbaceous cover. Cover loss and surface soil erosion are initial indicators of transition followed by an increase of shrub species abundance and bare patch expansion. Key indicators of approach to transition: • Loss of grass and forb cover • Surface soil erosion • Bare patch expansion • Increased shrub species abundance and composition Transition to Historic Plant Community (1b): The shinnery oak dominated state may transition back toward the historic plant community as new drivers are introduced such as prescribed grazing, brush control, and discontinued drought conditions.

Additional community tables

Table 7. Community 1.1 plant community composition

				Annual Production	Foliar Cover	1
Group	Common Name	Symbol	Scientific Name	(Lb/Acre)	(%)	

1	Warm Season			450–585	
-	spike dropseed	SPCO4	Sporobolus contractus	450–585	
	sand dropseed	SPCR	Sporobolus cryptandrus	450–585	
	mesa dropseed	SPFL2	Sporobolus flexuosus	450–585	
	giant dropseed	SPGI	Sporobolus giganteus	450–585	
2	Warm Season	101 01	Oporobolus giganicus	65–104	
	sand bluestem	ANHA	Andropogon hallii	65–104	
	little bluestem	SCSC	Schizachyrium scoparium	65–104	
3	Warm Season	3030	Schizachynum Scopanum	39–91	
<u> </u>		ARIST	Aristida	39–91	
4	threeawn	ARIST	Aristida		
4	Warm Season	DA 055		13–39	
	thin paspalum	PASE5	Paspalum setaceum	13–39	
5	Warm Season		1	13–39	
	black grama	BOER4	Bouteloua eriopoda	13–39	
6	Warm Season		1	13–39	
	mat sandbur	CELO3	Cenchrus longispinus	13–39	
7	Warm Season			13–39	
	Havard's panicgrass	PAHA2	Panicum havardii	13–39	
8	Warm Season			13–65	
	plains bristlegrass	SEVU2	Setaria vulpiseta	13–65	
9	Other Annual Grasses			13–65	
	Grass, annual	2GA	Grass, annual	13–65	
Shru	ıb/Vine	-			
10	Shrub			65–130	
	Havard oak	QUHA3	Quercus havardii	65–130	
11	Shrub	_		13–39	
	sand sagebrush	ARFI2	Artemisia filifolia	13–39	
12	Shrub	•		65–130	
	yucca	YUCCA	Yucca	65–130	
13	Shrub	<u> </u>		13–39	
	rabbitbrush	CHRYS9	Chrysothamnus	13–39	
14	Other Shrubs	<u> </u>	!	13–39	
	Shrub (>.5m)	2SHRUB	Shrub (>.5m)	13–39	
Forb	1 '		/	<u> </u>	
15	Forb			39–91	
	croton	CROTO	Croton	39–91	
	Indian blanket	GAPU	Gaillardia pulchella	39–91	
16	Forb	1	, <i>p</i>	39–91	
	aster	ASTER	Aster	39–91	
	whitest evening primrose	OEAL	Oenothera albicaulis	39–91	
	beardtongue	PENST	Penstemon	39–91	
17		FEINOI	I GHSIGHIOH		
17	Forb			39–91	

			p		
	buckwheat ERIOG		Eriogonum	39–91	-
	sunflower	HELIA3	Helianthus	39–91	-
	spiny false fiddleleaf	HYSP	Hydrolea spinosa	39–91	-
	threadleaf ragwort	SEFLF	Senecio flaccidus var. flaccidus	39–91	_
18	Other Forbs			13–65	
	Forb (herbaceous, not grass nor grass-like)	2FORB	Forb (herbaceous, not grass nor grass-like)	13–65	-

Animal community

This site provides habitat which supports a resident animal population characterized by pronghorn, antelope, black-tailed jackrabbit, spotted ground squirrel, Ord's kangaroo rat, northern grasshopper mouse, southern plains woodrat, badger, meadowlark, roadrunner, white-necked raven, cactus wren, lesser prairie chicken, morning dove, scaled quail, Harris hawk, side blotched lizard, marbled whiptail, Texas horned lizard, western diamondback rattlesnake and ornate box turtle. In the area called Mescalero Sands, there are white-tailed and mule deer.

Hydrological functions

The runoff curve numbers are determined by field investigations using hydraulic cover conditions and hydrologic soil groups.

Hydrologic Interpretations

Soil Series Hydrologic Group

Anthony B

Bluepoint A

Kermit A

Aguena A

Likes A

Pintura A

Recreational uses

This site offers limited recreation potential for hiking, horseback riding, nature observation and photography; game bird, predator, antelope, and deer hunting.

Wood products

This site has no potential for wood products.

Other products

This site is suitable for grazing by all kinds and classes of livestock during all seasons of the year. Shinnery oak is toxic in the late bud or early leaf stage. Shinnery oak will increase, as will sand sagebrush following drought. Changes in the fire return interval have also favored an increase in shrub cover. The dropseeds and bluestem will decrease. This site responds very well to brush manangement and deferment. This site is well suited to a grazing system that rotates the season of use. Nesting habitat for lesser prairie chicken can be improved by providing residual cover that is at least 14 inches high.

Other information

Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month

Similarity Index Ac/AUM 100 - 76 2.0 - 3.8 75 - 51 3.0 - 6.0 50 – 26 5.0 – 10.0 25 – 0 10.1 +

Inventory data references

Other References:

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

Other references

Literature Cited

Davis, Joseph H., III and Bonham, Charles D. 1979. Interference of sand sagebrush canopy with needleandthread. Journal of Range Management 32(5):384-386.

Herbel, C. H, Steger, R, Gould, W. L. 1974. Managing semidesert ranges of the Southwest. Circular 456. Las Cruces, NM: New Mexico State University, Cooperative Extension Service. 48 p.

Pettit, Russell D. 1986. Sand shinnery oak: control and management. Management Note 8. Lubbock, TX: Texas Tech University, College of Agricultural Sciences, Department of Range and Wildlife Management. 5 p.

Sosebee, Ronald E. 1983. Physiological, phenological, and environmental considerations in brush and weed control. In: McDaniel, Kirk C., ed. Proceedings--brush management symposium; 1983 February 16; Albuquerque, NM. Denver, CO: Society for Range Management: 27-43.

Young, Vernon A., Anderwald, Frank R., McCully, Wayne G. 1948. Brush problems on Texas ranges. Miscellaneous Publication 21. College Station, TX: Texas Agricultural Experiment Station. 19 p.

Contributors

Don Sylvester Quinn Hodgson

Rangeland health reference sheet

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

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

Indicators

1. Number and extent of rills:

Released to Imaging: 8/5/2024 4:13:08 PM

2.	Presence of water flow patterns:
3.	Number and height of erosional pedestals or terracettes:
4.	Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):
5.	Number of gullies and erosion associated with gullies:
6.	Extent of wind scoured, blowouts and/or depositional areas:
7.	Amount of litter movement (describe size and distance expected to travel):
8.	Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):
9.	Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):
10.	Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:
11.	Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):
12.	Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):
	Dominant:
	Sub-dominant:
	Other:
	Additional:

13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or

ecei	Page 66 of
	decadence):
14.	Average percent litter cover (%) and depth (in):
15.	Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):
16.	Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:
17.	Perennial plant reproductive capability:

	Criteria Worksheet		
	e: Corral Fly SWD rdinates: 32.15396, -103.92917	X: 600979	Y: 3558003
	Closure Criteria Determination	Λ. 600373	1. 5550005
	ific Conditions	Value	Unit
1	Depth to Groundwater	55	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	1,954	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	28,934	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	20,275	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	3,091	feet
	ii) Within 1000 feet of any fresh water well or spring		feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	2,904	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
10	Within a 100-year Floodplain	500	year
11	Soil Type	Kermit-Berino fine sands, 0 to 3 percent slopes	
12	Ecological Classification	Deep Sand (R070BD005NM)	
13	Geology	Qep: Eolian and Piedmont deposits	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	51-100'	<50' 51-100' >100'

APPENDIX C – Daily Field Reports

Daily Site Visit Report



Client:	Solaris Water Midstream	Inspection Date:	5/22/2023		
Site Location Name:	Corral Fly SWD	Report Run Date:	5/22/2023 7:50 PM		
Client Contact Name:	Fernando Carrasco	API#:			
Client Contact Phone #:	432-924-9416				
Unique Project ID		Project Owner:			
Project Reference #		Project Manager:			
Summary of Times					
Arrived at Site	5/22/2023 9:30 AM				
Departed Site	5/22/2023 11:19 AM				

Daily Site Visit Report



Field Notes

- 10:48 Arrived on site and filled out safety paperwork.
- 10:48 Mapped release area.
- 10:48 Marked point of release.
- 11:18 Noted extensive rain water pools on pad over spill area.
- 11:03 Spill coordinates are here (32.1539733, -103.9292398).
- 11:03 Placed makings and flags for one call.

Next Steps & Recommendations

1

Daily Site Visit Report



Site Photos





Release area in northern point of spill.

Viewing Direction: North



Southern portion of spill area with rainwater pools.

Viewing Direction: Southwest



Release area from northern point of spill.

Viewing Direction: Southwest



Ground staining in middle of release area.





Release area in southern portion of spill.



Mud cracks from release.



Point of release in southern portion of spill.



Point of release with soil staining in southern portion of spill.





Spill area in southern portion of release.



Containment berm for pad was successful at holding back the release from spilling onto the other pad.



Daily Site Visit Signature

Inspector: Hunter Klein

Signature:

Run on 5/22/2023 7:50 PM UTC Powered by www.krinkleldar.com Page 7 of 7



Client:	Solaris Water Midstream	Inspection Date:	8/7/2023							
Site Location Name:	Corral Fly SWD	Report Run Date:	8/7/2023 11:41 PM							
Client Contact Name:	Fernando Carrasco	API #:								
Client Contact Phone #:	432-924-9416									
Unique Project ID		Project Owner:								
Project Reference #		Project Manager:								
Summary of Times										
Arrived at Site	8/7/2023 8:00 AM									
Departed Site										
Field Notes										
		FIEIG NOI								

- 9:36 Arrived at location and filled out safety paperwork and Solaris excavation safety checklist. Met with M&J Services, held safety meeting, and discussed the work plan for the day. Will excavate BS23-15, 19, 32, 34, and 38 to an additional 6in. Will recollect from these areas and test for chlorides and TPH.
- 12:53 Collected BS23-15, 19, 32, 34, and 38 @ 1ft bgs. Field screened soil samples for chlorides and TPH. All tested under NMAC 51-100 ft 19.15.29 criteria. Placed samples into glass jars and will send in for laboratory analysis. Updated sample points on Field Maps and DSS.
- 13:17 Dump trucks have continued to haul off materials to a designated disposal facility. Same dump trucks have brought in clean soil materials to prepare for backfill.

Next Steps & Recommendations

1



Site Photos



Overview of excavation



Viewing Direction: South



Overview of excavation



Overview of excavation









Overview of excavation



Daily Site Visit Signature

Inspector: Fernando Rodriguez

Signature: Signature

APPENDIX D – Notifications



Dhugal Hanton <vertexresourcegroupusa@gmail.com>

48-Hour Notification - Corral Fly SWD

2 messages

 Wed, Jun 28, 2023 at 7:48 AM

Cc: rob.kirk@ariswater.com Bcc: HKlein@vertex.ca

ΑII,

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

nAPP2311343030

On Monday, July 3, 2023, at approximately 8:00 a.m., Vertex will be on-site to conduct confirmation sampling. The sampling will continue through Friday, July 7, 2023. If you have any questions regarding this notification, please call me at 575-988-1472.

Thank you,

Chance Dixon B.Sc.

Project Manager

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

C 575.988.1472

Enviro, OCD, EMNRD < OCD. Enviro@emnrd.nm.gov>

Wed, Jun 28, 2023 at 3:02 PM

To: Dhugal Hanton <vertexresourcegroupusa@gmail.com>

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

<Robert.Hamlet@emnrd.nm.gov>

Chance,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JH

Jocelyn Harimon • Environmental Specialist

Environmental Bureau

EMNRD - Oil Conservation Division

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

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

http://www.emnrd.nm.gov



From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>

Sent: Wednesday, June 28, 2023 7:48 AM

To: Enviro, OCD, EMNRD < OCD. Enviro@emnrd.nm.gov>

Cc: rob.kirk@ariswater.com

Subject: [EXTERNAL] 48-Hour Notification - Corral Fly SWD

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

[Quoted text hidden]



Dhugal Hanton <vertexresourcegroupusa@gmail.com>

RE: [EXTERNAL]

1 message

Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>
To: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Cc: "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>, "Hamlet, Robert, EMNRD" <Robert.Hamlet@emnrd.nm.gov>

Thu, Jul 6, 2023 at 4:28 PM

Chance,

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

JH

Jocelyn Harimon • Environmental Specialist

Environmental Bureau

EMNRD - Oil Conservation Division

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

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

http://www.emnrd.nm.gov



From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>

Sent: Thursday, July 6, 2023 4:17 PM

To: Enviro, OCD, EMNRD < OCD. Enviro@emnrd.nm.gov>

Cc: rob.kirk@ariswater.com Subject: [EXTERNAL]

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All,

Gmail - RE: [EXTERNAL]

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

nAPP2311343030

On Tuesday, July 11, 2023, at approximately 8:00 a.m., Vertex will be on-site to conduct confirmation sampling. The sampling will continue through Friday, July 14, 2023. If you have any questions regarding this notification, please call me at 575-988-1472.

Thank you,

Chance Dixon B.Sc.

Project Manager

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

C 575.988.1472



Dhugal Hanton <vertexresourcegroupusa@gmail.com>

48-Hour Notification - Corral Fly SWD

2 messages

Dhugal Hanton <vertexresourcegroupusa@gmail.com>
To: "Enviro, OCD, EMNRD" <OCD.Enviro@emnrd.nm.gov>
Cc: rob.kirk@ariswater.com

Wed, Jul 12, 2023 at 3:11 PM

All,

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

nAPP2311343030

On Monday, July 17, 2023, at approximately 8:00 a.m., Vertex will be on-site to conduct confirmation sampling. The sampling will continue through Friday, July 21, 2023. If you have any questions regarding this notification, please call me at 575-988-1472.

Thank you,

Chance Dixon B.Sc.

Project Manager

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

C 575,988,1472

Enviro, OCD, EMNRD < OCD. Enviro@emnrd.nm.gov>

Thu, Jul 13, 2023 at 8:02 AM

To: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Cc: "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>, "Hamlet, Robert, EMNRD" <Robert.Hamlet@emnrd.nm.gov>

Chance,

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

JΗ

Jocelyn Harimon • Environmental Specialist

Environmental Bureau

EMNRD - Oil Conservation Division

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

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

http://www.emnrd.nm.gov



From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>

Sent: Wednesday, July 12, 2023 3:11 PM

To: Enviro, OCD, EMNRD < OCD. Enviro@emnrd.nm.gov>

Cc: rob.kirk@ariswater.com

Subject: [EXTERNAL] 48-Hour Notification - Corral Fly SWD

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Dhugal Hanton <vertexresourcegroupusa@gmail.com>

48-Hour Notification - Corral Fly SWD

2 messages

Dhugal Hanton <vertexresourcegroupusa@gmail.com> To: "Enviro, OCD, EMNRD" < OCD. Enviro@emnrd.nm.gov> Cc: rob.kirk@ariswater.com

Wed, Aug 2, 2023 at 9:05 AM

All,

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

nAPP2311343030

Bcc: FRodriguez@vertex.ca

On Monday, August 7, 2023, at approximately 8:00 a.m., Vertex will be on-site to conduct confirmation sampling. The sampling will continue through Friday, August 11, 2023. If you have any questions regarding this notification, please call me at 575-988-1472.

Thank you,

Chance Dixon B.Sc.

Project Manager

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

C 575.988.1472

Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov> To: Dhugal Hanton <vertexresourcegroupusa@gmail.com> Cc: "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>, "Hamlet, Robert, EMNRD" <Robert.Hamlet@emnrd.nm.gov>

Wed, Aug 2, 2023 at 9:17 AM

Good morning Chance,

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

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced

Administrative Permitting Program

EMNRD-Oil Conservation Division

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

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

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

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>

Sent: Wednesday, August 2, 2023 9:06 AM

To: Enviro, OCD, EMNRD < OCD. Enviro@emnrd.nm.gov>

Cc: rob.kirk@ariswater.com

Subject: [EXTERNAL] 48-Hour Notification - Corral Fly SWD

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[Quoted text hidden]

From: Rob Kirk

To: OCDOnline@state.nm.us

Cc: eco@slo.state.nm.us; Chance Dixon

Subject: Corral Fly SWD release, nAPP2311343030

Date: July 20, 2023 9:35:55 AM

Attachments: <u>image001.png</u>

Hello OCD, SLO,

Please accept this email as notification that Aris Water will need additional time to address this release per NMAC 19.15.29.

The project work is almost complete delayed by workload and weather.

nAPP2311343030

Please let me know if you have any questions.

Regards

Rob Kirk VP & GM, HSE and Compliance Aris Water Solutions C: (469) 978-5620

Rob Kirk VP, Environmental Compliance Aris Water 469-978-5620



Disclaimer

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APPENDIX E – Laboratory Data Reports and Chain of Custody Forms

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 6/5/2023 2:30:53 PM

JOB DESCRIPTION

Corral Fly SDG NUMBER 23E-02502

JOB NUMBER

890-4746-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

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

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

Authorization

Generated 6/5/2023 2:30:53 PM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

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1 /

Client: Vertex Laboratory Job ID: 890-4746-1 Project/Site: Corral Fly SDG: 23E-02502

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Definitions/Glossary

Client: Vertex Job ID: 890-4746-1 Project/Site: Corral Fly

SDG: 23E-02502

Qualifiers

GC VOA

Qualifier **Qualifier Description** LCS and/or LCSD is outside acceptance limits, high biased. S1-Surrogate recovery exceeds control limits, low biased. Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier

*1 LCS/LCSD RPD exceeds control limits. F1 MS and/or MSD recovery exceeds control limits. F2 MS/MSD RPD exceeds control limits

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**

Indicates the analyte was analyzed for but not detected.

Glossary

EDL

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**

Detection Limit (DoD/DOE) DL

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)

Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE) EPA recommended "Maximum Contaminant Level" MCL

Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry) Method Detection Limit

MDL MI 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 Practical Quantitation Limit **PQL**

PRES Presumptive **Quality Control** QC

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

Eurofins Carlsbad

Case Narrative

 Client: Vertex
 Job ID: 890-4746-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Job ID: 890-4746-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4746-1

Receipt

The samples were received on 5/26/2023 8:15 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BH23-01 0' (890-4746-1), BH23-01 2' (890-4746-2), BH23-01 4' (890-4746-3), BH23-02 0' (890-4746-4), BH23-02 2' (890-4746-5), BH23-02 4' (890-4746-6), BH23-03 0' (890-4746-7), BH23-03 2' (890-4746-8) and BH23-03 4' (890-4746-9).

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): BH23-03 4' (890-4746-9) per client added to job for all methods

GC VOA

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-54618 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 880-54618/2), (CCV 880-54618/20), (CCV 880-54618/51) and (CCV 880-54618/64).

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-54500 and 880-54501 and analytical batch 880-54618 was outside the control limits.

Method 8021B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 880-54501 and analytical batch 880-54618 recovered outside control limits for the following analytes: Benzene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-54340 and analytical batch 880-54334 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-54334/20), (CCV 880-54334/31), (CCV 880-54334/47), (CCV 880-54334/5), (CCV 880-54334/58), (LCS 880-54340/2-A) and (LCSD 880-54340/3-A). Evidence of matrix interferences is not obvious

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH23-01 0' (890-4746-1), BH23-01 2' (890-4746-2), BH23-01 4' (890-4746-3), BH23-02 0' (890-4746-4), BH23-02 2' (890-4746-5), BH23-02 4' (890-4746-6), BH23-03 0' (890-4746-7), BH23-03 2' (890-4746-8), (890-4746-A-1-B MS) and (890-4746-A-1-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-54340 and analytical batch 880-54334 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.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-54340 and analytical batch 880-54334 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-54430 and analytical batch 880-54330 was outside the upper control limits.

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Case Narrative

Client: Vertex Job ID: 890-4746-1 Project/Site: Corral Fly

SDG: 23E-02502

Job ID: 890-4746-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

Method 8015MOD NM: Surrogate recovery for the following sample was outside control limits: (890-4744-A-1-C). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-54430 and analytical batch 880-54330 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

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

Lab Sample ID: 890-4746-1

Client Sample Results

Client: Vertex Job ID: 890-4746-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-01 0'

Date Collected: 05/25/23 10:00 Date Received: 05/26/23 08:15

Sample Depth: 0'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199		mg/Kg		05/31/23 13:35	06/03/23 05:40	1
Ethylbenzene	< 0.00199	U	0.00199		mg/Kg		05/31/23 13:35	06/03/23 05:40	1
Toluene	< 0.00199	U	0.00199		mg/Kg		05/31/23 13:35	06/03/23 05:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/31/23 13:35	06/03/23 05:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/31/23 13:35	06/03/23 05:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/31/23 13:35	06/03/23 05:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130				05/31/23 13:35	06/03/23 05:40	1
1,4-Difluorobenzene (Surr)	94		70 - 130				05/31/23 13:35	06/03/23 05:40	1
Method: TAL SOP Total BTEX - 1	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/05/23 12:45	1
Method: SW846 8015 NM - Diese Analyte		ics (DRO) (Qualifier	GC) RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	65.5		50.0		mg/Kg			05/31/23 09:22	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 F2	50.0		mg/Kg		05/30/23 08:50	05/30/23 11:39	1
Diesel Range Organics (Over C10-C28)	65.5	F1 F2 *1	50.0		mg/Kg		05/30/23 08:50	05/30/23 11:39	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/30/23 08:50	05/30/23 11:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	298	S1+	70 - 130				05/30/23 08:50	05/30/23 11:39	1
o-Terphenyl	272	S1+	70 - 130				05/30/23 08:50	05/30/23 11:39	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte	Result 564	Qualifier	RL	MDL	Unit mg/Kg	D	Prepared	Analyzed 05/31/23 17:38	Dil Fac

Client Sample ID: BH23-01 2'

Date Collected: 05/25/23 10:05

Date Received: 05/26/23 08:15

Sample Depth: 2'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *+	0.00198		mg/Kg		05/31/23 13:35	06/03/23 06:07	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/31/23 13:35	06/03/23 06:07	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/31/23 13:35	06/03/23 06:07	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/31/23 13:35	06/03/23 06:07	1
m-Xylene & p-Xylene	< 0.00396	U	0.00396		mg/Kg		05/31/23 13:35	06/03/23 06:07	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/31/23 13:35	06/03/23 06:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130				05/31/23 13:35	06/03/23 06:07	1

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Lab Sample ID: 890-4746-2

Matrix: Solid

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Lab Sample ID: 890-4746-2

Lab Sample ID: 890-4746-3

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-4746-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-01 2'

Date Collected: 05/25/23 10:05 Date Received: 05/26/23 08:15

Sample Depth: 2'

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

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	98	70 - 130	05/31/23 13:35	06/03/23 06:07	1

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396 U	0.00396	ma/Ka			06/05/23 12:45	1

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			05/31/23 09:22	1

Method: SW846 8015B NM - Diesel Range Organics	(DRO)	(GC)	١
motified. Offerto College Ithin Biodol Rungo Organico	(5.10)	, , , , ,	,

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/30/23 08:50	05/30/23 12:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		05/30/23 08:50	05/30/23 12:53	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/30/23 08:50	05/30/23 12:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	276	S1+	70 - 130	05/30/23 08:50	05/30/23 12:53	1
o-Terphenyl	238	S1+	70 - 130	05/30/23 08:50	05/30/23 12:53	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	380	4.99	mg/Kg		_	05/31/23 17:54	1

Client Sample ID: BH23-01 4'

Date Collected: 05/25/23 10:10

Date Received: 05/26/23 08:15

Sample Depth: 4'

Markland, CIMO 40 00	21B - Volatile Organic	O
IVIATOON' SVVXAN XII	21B - Volatile Circanic	L.Omnollings (Lat.)

			,						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199		mg/Kg		05/31/23 13:35	06/03/23 06:34	1
Ethylbenzene	< 0.00199	U	0.00199		mg/Kg		05/31/23 13:35	06/03/23 06:34	1
Toluene	< 0.00199	U	0.00199		mg/Kg		05/31/23 13:35	06/03/23 06:34	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/31/23 13:35	06/03/23 06:34	1
m-Xylene & p-Xylene	< 0.00398	U	0.00398		mg/Kg		05/31/23 13:35	06/03/23 06:34	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/31/23 13:35	06/03/23 06:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130				05/31/23 13:35	06/03/23 06:34	1
1 4 Diffusionahan-ana (Cum)	05		70 120				05/24/22 42:25	06/03/33 06:34	1

Surrogate	%Recovery	Quaimer	Limits	Prepared	Analyzea	DII Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	05/31/23 13:35	06/03/23 06:34	1
1,4-Difluorobenzene (Surr)	95		70 - 130	05/31/23 13:35	06/03/23 06:34	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	r	mg/Kg			06/05/23 12:45	1

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			05/31/23 09:22	1

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Matrix: Solid

Lab Sample ID: 890-4746-3

Client Sample Results

Client: Vertex Job ID: 890-4746-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-01 4'

Date Collected: 05/25/23 10:10 Date Received: 05/26/23 08:15

Date Received, 05/26/25 06.15							
Sample Depth: 4'							
Method: SW846 8015B NM -	Diesel Range Organics (DRO) (G	C)					
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		05/30/23 08:50	05/30/23 13:15	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.9	U *1	49.9		mg/Kg		05/30/23 08:50	05/30/23 13:15	1
C10-C28)									
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/30/23 08:50	05/30/23 13:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	294	S1+	70 - 130				05/30/23 08:50	05/30/23 13:15	1
o-Terphenyl	256	S1+	70 - 130				05/30/23 08:50	05/30/23 13:15	1
Method: EPA 300.0 - Anions, Ion	Chromatogran	hy - Solubl	e						
Analyte	• .	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Chloride 05/31/23 18:00 160 5.01 mg/Kg Client Sample ID: BH23-02 0' Lab Sample ID: 890-4746-4

Date Collected: 05/25/23 10:15 Date Received: 05/26/23 08:15

Sample Depth: 0'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		05/31/23 13:35	06/03/23 08:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:35	06/03/23 08:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:35	06/03/23 08:23	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/31/23 13:35	06/03/23 08:23	1
m-Xylene & p-Xylene	< 0.00399	U	0.00399		mg/Kg		05/31/23 13:35	06/03/23 08:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:35	06/03/23 08:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130				05/31/23 13:35	06/03/23 08:23	1
1,4-Difluorobenzene (Surr)	91		70 - 130				05/31/23 13:35	06/03/23 08:23	1
		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Analyte Total BTEX Method: SW846 8015 NM - Diese Analyte	<0.00399	U	0.00399		mg/Kg	— — D	Prepared	06/05/23 12:45 Analyzed	1 Dil Fac
Total BTEX Method: SW846 8015 NM - Diese	<0.00399	ics (DRO) (0.00399 GC)			<u>D</u>		06/05/23 12:45	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte	<0.00399 Range Organ Result 93.4 sel Range Orga	ics (DRO) ((Qualifier	0.00399 GC) RL 49.8	MDL	Unit			06/05/23 12:45 Analyzed	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese	<0.00399 Range Organ Result 93.4 sel Range Orga	ics (DRO) (Qualifier	0.00399 GC) RL 49.8 (GC)	MDL	Unit mg/Kg		Prepared	06/05/23 12:45 Analyzed 05/31/23 09:22	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics	<0.00399 Il Range Organ Result 93.4 sel Range Orga Result	ics (DRO) (Qualifier nics (DRO) Qualifier U	0.00399 GC) RL 49.8 (GC) RL	MDL	Unit mg/Kg		Prepared Prepared	06/05/23 12:45 Analyzed 05/31/23 09:22 Analyzed	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<0.00399 el Range Organ Result 93.4 sel Range Orga Result <49.8	U ics (DRO) (Qualifier nics (DRO) Qualifier U	0.00399 RL 49.8 (GC) RL 49.8	MDL	Unit mg/Kg Unit mg/Kg		Prepared Prepared 05/30/23 08:50	Analyzed 05/31/23 09:22 Analyzed 05/30/23 13:36	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<0.00399 el Range Organ Result 93.4 sel Range Orga Result <49.8 93.4	ics (DRO) (Qualifier nics (DRO) Qualifier U *1	0.00399 RL 49.8 (GC) RL 49.8 49.8	MDL	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared Prepared 05/30/23 08:50 05/30/23 08:50	Analyzed 05/31/23 09:22 Analyzed 05/30/23 13:36 05/30/23 13:36	Dil Fac Dil Fac 1 1 1
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<0.00399 el Range Organ Result 93.4 sel Range Orga Result <49.8 93.4 <49.8	ics (DRO) (Qualifier nics (DRO) Qualifier U *1	0.00399 RL 49.8 (GC) RL 49.8 49.8 49.8	MDL	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 05/30/23 08:50 05/30/23 08:50 05/30/23 08:50	Analyzed 05/31/23 13:36 05/30/23 13:36 05/30/23 13:36	Dil Fac

Eurofins Carlsbad

6/5/2023

Project/Site: Corral Fly

Client: Vertex Job ID: 890-4746-1 SDG: 23E-02502

Lab Sample ID: 890-4746-4

Client Sample ID: BH23-02 0' Date Collected: 05/25/23 10:15 Date Received: 05/26/23 08:15

Matrix: Solid

Sample Depth: 0'

Method: EPA 300.0 - Anions, Ion Chi	romatography -	- Soluble						
Analyte	Result Qua	alifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	970	24.8		mg/Kg			05/31/23 18:05	5

Client Sample ID: BH23-02 2' Lab Sample ID: 890-4746-5

Matrix: Solid

Date Collected: 05/25/23 10:20 Date Received: 05/26/23 08:15

Sample Depth: 2'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *+	0.00201		mg/Kg		05/31/23 13:35	06/03/23 08:50	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/31/23 13:35	06/03/23 08:50	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/31/23 13:35	06/03/23 08:50	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/31/23 13:35	06/03/23 08:50	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/31/23 13:35	06/03/23 08:50	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/31/23 13:35	06/03/23 08:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130				05/31/23 13:35	06/03/23 08:50	1
1.4-Difluorobenzene (Surr)	92		70 - 130				05/31/23 13:35	06/03/23 08:50	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			06/05/23 12:45	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Total TPH	<49.9	U	49.9		mg/Kg			05/31/23 09:22	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/30/23 08:50	05/30/23 13:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		05/30/23 08:50	05/30/23 13:57	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/30/23 08:50	05/30/23 13:57	,
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	284	S1+	70 - 130				05/30/23 08:50	05/30/23 13:57	1
o-Terphenyl	252	S1+	70 - 130				05/30/23 08:50	05/30/23 13:57	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	2960		24.9		mg/Kg			05/31/23 18:11	5

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Lab Sample ID: 890-4746-6

Client Sample Results

Client: Vertex Job ID: 890-4746-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-02 4'

Date Collected: 05/25/23 10:25 Date Received: 05/26/23 08:15

Sample Depth: 4'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		05/31/23 13:35	06/03/23 09:17	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:35	06/03/23 09:17	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:35	06/03/23 09:17	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/31/23 13:35	06/03/23 09:17	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/31/23 13:35	06/03/23 09:17	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:35	06/03/23 09:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130				05/31/23 13:35	06/03/23 09:17	1
1,4-Difluorobenzene (Surr)	93		70 - 130				05/31/23 13:35	06/03/23 09:17	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			06/05/23 12:45	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (0	GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/31/23 09:22	1
- Method: SW846 8015B NM - Die	sel Range Orga	nics (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		05/30/23 08:50	05/30/23 14:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		05/30/23 08:50	05/30/23 14:19	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/30/23 08:50	05/30/23 14:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	278	S1+	70 - 130				05/30/23 08:50	05/30/23 14:19	1
o-Terphenyl	245	S1+	70 - 130				05/30/23 08:50	05/30/23 14:19	1
Method: EPA 300.0 - Anions, Ior	Chromatograp	hy - Soluble	9						

Client Sample ID: BH23-03 0'

Date Collected: 05/25/23 10:30

Date Received: 05/26/23 08:15

Sample Depth: 0'

Chloride

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199		mg/Kg		05/31/23 13:35	06/03/23 09:44	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/31/23 13:35	06/03/23 09:44	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/31/23 13:35	06/03/23 09:44	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/31/23 13:35	06/03/23 09:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/31/23 13:35	06/03/23 09:44	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/31/23 13:35	06/03/23 09:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130				05/31/23 13:35	06/03/23 09:44	1

25.0

mg/Kg

05/31/23 18:27

Lab Sample ID: 890-4746-7

Matrix: Solid

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Lab Sample ID: 890-4746-7

Lab Sample ID: 890-4746-8

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-4746-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-03 0'

Date Collected: 05/25/23 10:30 Date Received: 05/26/23 08:15

Sample Depth: 0'

Method: SW846 8021B	- Volatile Orga	nic Compounds	(GC)	(Continued)
Metrica. Strott duz 1D	- Volatile Olya	inc compounds		Continueu

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1.4-Difluorobenzene (Surr)	97	70 - 130	05/31/23 13:35	06/03/23 09:44	

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit)	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/05/23 12:45	1

Analyte	Result Quali	fier RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9 U	49.9	mg/Kg			05/31/23 09:22	1

Method: SW846 8015B NM - Diesel Range Organics	(DRO)	(GC)	١
motified. Offerto College Ithin Biodol Rungo Organico	(5.10)	, , , , ,	,

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/30/23 08:50	05/30/23 14:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		05/30/23 08:50	05/30/23 14:40	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/30/23 08:50	05/30/23 14:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctane	292	S1+	70 - 130	05/30/23 08:5	05/30/23 14:40	1
Į	o-Terphenyl	254	S1+	70 - 130	05/30/23 08:5	05/30/23 14:40	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte		ualifier RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	804	24.9	mg/Kg			05/31/23 18:32	5

Client Sample ID: BH23-03 2'

Date Collected: 05/25/23 10:35

Date Received: 05/26/23 08:15

Sample Depth: 2'

 Mathad.	CIMO 4C	0024D	Valatila Ossania	Compounds (GC)
viernoa:	SVVA4n	AUZID .	· voiatile Organic	: Compounds (GC)

organio comp	ounus (CC)	,						
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00199	U *+	0.00199		mg/Kg		05/31/23 13:35	06/03/23 10:10	1
<0.00199	U	0.00199		mg/Kg		05/31/23 13:35	06/03/23 10:10	1
<0.00199	U	0.00199		mg/Kg		05/31/23 13:35	06/03/23 10:10	1
<0.00398	U	0.00398		mg/Kg		05/31/23 13:35	06/03/23 10:10	1
<0.00398	U	0.00398		mg/Kg		05/31/23 13:35	06/03/23 10:10	1
<0.00199	U	0.00199		mg/Kg		05/31/23 13:35	06/03/23 10:10	1
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
105		70 - 130				05/31/23 13:35	06/03/23 10:10	1
	Result <0.00199 <0.00199 <0.00199 <0.00398 <0.00398 <0.00199 < %Recovery	Result Qualifier	<0.00199 U *+ 0.00199 <0.00199 U 0.00199 <0.00199 U 0.00199 <0.00398 U 0.00398 <0.00398 U 0.00398 <0.00199 U 0.00199 %Recovery Qualifier Limits	Result Qualifier RL MDL <0.00199	Result Qualifier RL MDL Unit <0.00199	Result Qualifier RL MDL Unit D <0.00199	Result Qualifier RL MDL Unit D Prepared <0.00199	Result Qualifier RL MDL Unit D Prepared Analyzed <0.00199

4-Bromofluorobenzene (Surr)	105	70 - 130	05/31/23 13:35	06/03/23 10:10	1
1,4-Difluorobenzene (Surr)	98	70 - 130	05/31/23 13:35	06/03/23 10:10	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			06/05/23 12:45	1

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

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			05/31/23 09:22	1

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Matrix: Solid

Lab Sample ID: 890-4746-8

Client Sample Results

Client: Vertex Job ID: 890-4746-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-03 2'

Date Collected: 05/25/23 10:35 Date Received: 05/26/23 08:15

Sample Depth: 2'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		05/30/23 08:50	05/30/23 15:01	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.9	U *1	49.9		mg/Kg		05/30/23 08:50	05/30/23 15:01	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/30/23 08:50	05/30/23 15:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	269	S1+	70 - 130				05/30/23 08:50	05/30/23 15:01	1
o-Terphenyl	232	S1+	70 - 130				05/30/23 08:50	05/30/23 15:01	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: BH23-03 4' Lab Sample ID: 890-4746-9 Date Collected: 05/25/23 10:40

Date Received: 05/26/23 08:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		05/31/23 13:35	06/03/23 10:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:35	06/03/23 10:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:35	06/03/23 10:37	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/31/23 13:35	06/03/23 10:37	1
m-Xylene & p-Xylene	< 0.00399	U	0.00399		mg/Kg		05/31/23 13:35	06/03/23 10:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:35	06/03/23 10:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130				05/31/23 13:35	06/03/23 10:37	1
1,4-Difluorobenzene (Surr)	99		70 - 130				05/31/23 13:35	06/03/23 10:37	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			06/05/23 12:45	1
Mothed: CW04C 004E NM Diese	al Banna Ornan	: (DDO) (00)						
Method: SW846 8015 NM - Diese	•		•			_			D.11 E
Analyte	Result	Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
	•	Qualifier	•	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 05/31/23 13:03	Dil Fac
Analyte	Result <49.9	Qualifier U	RL 49.9	MDL		<u>D</u>	Prepared		
Analyte Total TPH	Result <49.9	Qualifier U	RL 49.9			<u>D</u>	Prepared Prepared		
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte	Result <49.9	Qualifier Unics (DRO) Qualifier	RL 49.9 (GC)		mg/Kg		<u> </u>	05/31/23 13:03	1 Dil Fac
Analyte Total TPH . Method: SW846 8015B NM - Die	Result <49.9 sel Range Orga Result	Qualifier Unics (DRO) Qualifier	(GC)		mg/Kg		Prepared	05/31/23 13:03 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <49.9 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U	(GC)		mg/Kg		Prepared	05/31/23 13:03 Analyzed	1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.9 sel Range Orga Result <49.9	Qualifier U nics (DRO) Qualifier U	(GC) RL 49.9		mg/Kg Unit mg/Kg		Prepared 05/30/23 16:10	05/31/23 13:03 Analyzed 05/30/23 20:53	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	Result <49.9 sel Range Orga Result <49.9	Qualifier U nics (DRO) Qualifier U	(GC) RL 49.9		mg/Kg Unit mg/Kg		Prepared 05/30/23 16:10	05/31/23 13:03 Analyzed 05/30/23 20:53	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U nics (DRO) Qualifier U U	RL 49.9 (GC) RL 49.9 49.9		mg/Kg Unit mg/Kg mg/Kg		Prepared 05/30/23 16:10 05/30/23 16:10	05/31/23 13:03 Analyzed 05/30/23 20:53 05/30/23 20:53	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result	Qualifier U nics (DRO) Qualifier U U	RL 49.9 (GC) RL 49.9 49.9 49.9		mg/Kg Unit mg/Kg mg/Kg		Prepared 05/30/23 16:10 05/30/23 16:10 05/30/23 16:10	05/31/23 13:03 Analyzed 05/30/23 20:53 05/30/23 20:53	1 Dil Fac

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Client Sample Results

Client: Vertex Job ID: 890-4746-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-03 4'

Lab Sample ID: 890-4746-9

Date Collected: 05/25/23 10:40

Matrix: Solid

Date Received: 05/26/23 08:15

Method: EPA 300.0 - Anions, Ion Chromatography - SolubleAnalyteResultQualifierRLMDLUnitDPreparedAnalyzedDil FacChloride172024.9mg/Kg05/31/23 18:435

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Surrogate Summary

Client: Vertex Job ID: 890-4746-1
Project/Site: Corral Fly SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limit
		BFB1	DFBZ1	
_ab Sample ID	Client Sample ID	(70-130)	(70-130)	
90-4740-A-21-D MS	Matrix Spike	98	107	
90-4740-A-21-E MSD	Matrix Spike Duplicate	103	93	
90-4746-1	BH23-01 0'	101	94	
90-4746-2	BH23-01 2'	108	98	
90-4746-3	BH23-01 4'	107	95	
90-4746-4	BH23-02 0'	104	91	
90-4746-5	BH23-02 2'	111	92	
90-4746-6	BH23-02 4'	110	93	
90-4746-7	BH23-03 0'	109	97	
90-4746-8	BH23-03 2'	105	98	
90-4746-9	BH23-03 4'	109	99	
CS 880-54501/1-A	Lab Control Sample	86	91	
CSD 880-54501/2-A	Lab Control Sample Dup	86	106	
IB 880-54500/5-A	Method Blank	67 S1-	93	
MB 880-54501/5-A	Method Blank	65 S1-	87	
Surrogate Legend				
BFB = 4-Bromofluorober	zene (Surr)			
DFBZ = 1,4-Difluorobenz	ene (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)	
890-4744-A-1-D MS	Matrix Spike	115	114	
890-4744-A-1-E MSD	Matrix Spike Duplicate	118	118	
890-4746-1	BH23-01 0'	298 S1+	272 S1+	
890-4746-1 MS	BH23-01 0'	339 S1+	258 S1+	
890-4746-1 MSD	BH23-01 0'	271 S1+	206 S1+	
890-4746-2	BH23-01 2'	276 S1+	238 S1+	
890-4746-3	BH23-01 4'	294 S1+	256 S1+	
890-4746-4	BH23-02 0'	336 S1+	308 S1+	
890-4746-5	BH23-02 2'	284 S1+	252 S1+	
890-4746-6	BH23-02 4'	278 S1+	245 S1+	
890-4746-7	BH23-03 0'	292 S1+	254 S1+	
890-4746-8	BH23-03 2'	269 S1+	232 S1+	
890-4746-9	BH23-03 4'	102	113	
LCS 880-54340/2-A	Lab Control Sample	194 S1+	182 S1+	
LCS 880-54430/2-A	Lab Control Sample	74	83	
LCSD 880-54340/3-A	Lab Control Sample Dup	154 S1+	142 S1+	
LCSD 880-54430/3-A	Lab Control Sample Dup	80	90	
MB 880-54340/1-A	Method Blank	285 S1+	256 S1+	
VID 000-34340/ 1-A	Method Blank	118	132 S1+	

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OTPH = o-Terphenyl

Client: Vertex Job ID: 890-4746-1 Project/Site: Corral Fly SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-54500/5-A

Matrix: Solid

Analysis Batch: 54618

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 54500

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:23	06/02/23 12:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:23	06/02/23 12:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:23	06/02/23 12:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/31/23 13:23	06/02/23 12:21	1
m-Xylene & p-Xylene	< 0.00400	U	0.00400		mg/Kg		05/31/23 13:23	06/02/23 12:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:23	06/02/23 12:21	1

MB MB

MR MR

Result Qualifier

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	67	S1-	70 - 130	05/31/23 13:23	06/02/23 12:21	1
1,4-Difluorobenzene (Surr)	93		70 - 130	05/31/23 13:23	06/02/23 12:21	1

Lab Sample ID: MB 880-54501/5-A

Matrix: Solid

Analyte

Benzene

Analysis Batch: 54618

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

Analyzed

06/03/23 02:06

Prepared

Prep Batch: 54501

Dil Fac

<0.00200 U 0.00200 mg/Kg 05/31/23 13:35 0.00200 mg/Kg

MDL Unit

Ethylbenzene <0.00200 U 05/31/23 13:35 06/03/23 02:06 Toluene <0.00200 U 0.00200 mg/Kg 05/31/23 13:35 06/03/23 02:06 06/03/23 02:06 Xylenes, Total <0.00400 U 0.00400 mg/Kg 05/31/23 13:35 <0.00400 U 06/03/23 02:06 m-Xylene & p-Xylene 0.00400 mg/Kg 05/31/23 13:35 05/31/23 13:35 o-Xylene <0.00200 U 0.00200 mg/Kg 06/03/23 02:06

RL

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	65	S1-	70 - 130	05/31/23 13:35	06/03/23 02:06	1
1,4-Difluorobenzene (Surr)	87		70 - 130	05/31/23 13:35	06/03/23 02:06	1

Lab Sample ID: LCS 880-54501/1-A

Matrix: Solid

Analysis Batch: 54618

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 54501

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1236		mg/Kg		124	70 - 130	
Ethylbenzene	0.100	0.09867		mg/Kg		99	70 - 130	
Toluene	0.100	0.1049		mg/Kg		105	70 - 130	
m-Xylene & p-Xylene	0.200	0.1913		mg/Kg		96	70 - 130	
o-Xylene	0.100	0.09239		mg/Kg		92	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	86	70 _ 130
1.4-Difluorobenzene (Surr)	91	70 - 130

Lab Sample ID: LCSD 880-54501/2-A

Matrix: Solid

Analysis Batch: 54618

Client Sample ID:	: Lab Control Sample Dup)
	Dean Time, Tetal/N/	

Prep Type: Total/NA

Prep Batch: 54501

	Spike	LCSD LCSD				%Rec		RPD	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1425 *+	mg/Kg		142	70 - 130	14	35	

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QC Sample Results

Client: Vertex Job ID: 890-4746-1 Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: LCSD 880-54501/2-A

Matrix: Solid Analysis Batch: 54618 Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 54501

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Ethylbenzene	0.100	0.1125		mg/Kg		113	70 - 130	13	35
Toluene	0.100	0.1167		mg/Kg		117	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.2190		mg/Kg		109	70 - 130	13	35
o-Xylene	0.100	0.1079		mg/Kg		108	70 - 130	15	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	86		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 890-4740-A-21-D MS Client Sample ID: Matrix Spike

Analysis Batch: 54618

Matrix: Solid Prep Type: Total/NA

Prep Batch: 54501

MS MS %Rec Spike Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits 0.0998 Benzene <0.00200 U *+ 0.1168 mg/Kg 117 70 - 130 Ethylbenzene <0.00200 U 0.0998 0.08918 70 - 130 mg/Kg 89 0.0998 0.09584 70 - 130 Toluene <0.00200 U mg/Kg 96 <0.00399 U 0.200 0.1714 86 70 - 130 m-Xylene & p-Xylene mg/Kg 70 - 130 o-Xylene <0.00200 U 0.0998 0.08463 mg/Kg 85

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 890-4740-A-21-E MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 54618

Prep Type: Total/NA Prep Batch: 54501

Sample Sample MSD MSD %Rec RPD Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Benzene <0.00200 U *+ 0.101 0.1261 mg/Kg 125 70 - 130 8 35 Ethylbenzene <0.00200 0.101 0.1006 mg/Kg 100 70 - 130 12 35 Toluene <0.00200 U 0.101 0.1051 mg/Kg 104 70 - 130 35 96 <0.00399 U 0.202 70 - 130 m-Xylene & p-Xylene 0.1944 mg/Kg 13 35 o-Xylene <0.00200 U 0.101 0.09651 mg/Kg 96 70 - 130 13 35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

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

Lab Sample ID: MB 880-54340/1-A

Analysis Batch: 54334

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

Prep Batch: 54340

MB MB Analyte Result Qualifier RL MDL Unit Prepared <50.0 U 50.0 05/30/23 07:50 05/30/23 08:14 Gasoline Range Organics mg/Kg

(GRO)-C6-C10

Matrix: Solid

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Job ID: 890-4746-1 Client: Vertex Project/Site: Corral Fly

SDG: 23E-02502

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

Lab Sample ID: MB 880-54340/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 54334 Prep Batch: 54340

	MB	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/30/23 07:50	05/30/23 08:14	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/30/23 07:50	05/30/23 08:14	1
	МВ	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	285	S1+	70 - 130				05/30/23 07:50	05/30/23 08:14	1
o-Terphenyl	256	S1+	70 - 130				05/30/23 07:50	05/30/23 08:14	1

Lab Sample ID: LCS 880-54340/2-A **Client Sample ID: Lab Control Sample Matrix: Solid** Prep Type: Total/NA Analysis Batch: 54334 Prep Batch: 54340 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 1102 110 70 - 130 mg/Kg (GRO)-C6-C10 1000 740.7 Diesel Range Organics (Over mg/Kg 74 70 - 130 C10-C28) LCS LCS %Recovery Qualifier Limits Surrogate 1-Chlorooctane 194 S1+ 70 - 130

o-Terphenyl 182 S1+ 70 - 130 Lab Sample ID: LCSD 880-54340/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 54334 Prep Batch: 54340 Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier %Rec Limits RPD Limit Unit D Gasoline Range Organics 1000 1295 mg/Kg 129 70 - 130 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 977.7 *1 mg/Kg 98 70 - 130 28 20

	LCSD	LCSD)			
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	154	S1+	70 - 130			
o-Terphenyl	142	S1+	70 - 130			

Lab Sample ID: 890-4746-1 MS Client Sample ID: BH23-01 0' **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 54334 Prep Batch: 54340

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 F2	998	2252	F1	mg/Kg		223	70 - 130		-
Diesel Range Organics (Over C10-C28)	65.5	F1 F2 *1	998	3131	F1	mg/Kg		307	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	339	S1+	70 - 130								

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70 - 130

258 S1+

C10-C28)

o-Terphenyl

QC Sample Results

Client: Vertex Job ID: 890-4746-1 Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: 890-4746-1 MSD

Matrix: Solid Analysis Batch: 54334 Client Sample ID: BH23-01 0' Prep Type: Total/NA

Prep Batch: 54340

Sample Sample Spike MSD MSD RPD Result Qualifier Limit Analyte babbA Result Qualifier Unit %Rec Limits RPD Gasoline Range Organics <50.0 U F1 F2 999 1769 F1 F2 mg/Kg 175 70 - 130 24 20 (GRO)-C6-C10 Diesel Range Organics (Over 65.5 F1 F2 *1 999 2400 F1 F2 70 - 130mg/Kg 234 26 20

C10-C28)

MSD MSD

%Recovery Qualifier Limits Surrogate 70 - 130 1-Chlorooctane S1+ 271 o-Terphenyl 206 S1+ 70 - 130

Lab Sample ID: MB 880-54430/1-A Client Sample ID: Method Blank

Matrix: Solid

Analysis Batch: 54330

Prep Type: Total/NA Prep Batch: 54430

мв мв

MDL Unit Analyte Result Qualifier RL D Prepared Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 mg/Kg 05/30/23 16:10 05/30/23 17:37 (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 05/30/23 16:10 05/30/23 17:37 mg/Kg OII Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 05/30/23 16:10 05/30/23 17:37

MB MB

%Recovery Qualifier Limits Dil Fac Surrogate Prepared Analyzed 1-Chlorooctane 118 70 - 130 05/30/23 16:10 05/30/23 17:37 o-Terphenyl 132 S1+ 70 - 130 05/30/23 16:10 05/30/23 17:37

Lab Sample ID: LCS 880-54430/2-A

Matrix: Solid

Analysis Batch: 54330

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 54430

LCS LCS Spike %Rec Added Result Qualifier Analyte Unit D %Rec Limits Gasoline Range Organics 1000 871.3 mg/Kg 87 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 1000 764.2 mg/Kg 76 70 - 130

C10-C28)

LCS LCS

%Recovery Qualifier Limits Surrogate 70 - 130 1-Chlorooctane 74 83 70 - 130 o-Terphenyl

Lab Sample ID: LCSD 880-54430/3-A

Matrix: Solid

Analysis Batch: 54330

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 54430

	Spike	LCSD LCSD				%Rec		RPD
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	971.6	mg/Kg		97	70 - 130	11	20
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	840.7	mg/Kg		84	70 - 130	10	20
C10-C28)								

Client: Vertex Job ID: 890-4746-1 Project/Site: Corral Fly SDG: 23E-02502

Limits

70 - 130

70 - 130

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

LCSD LCSD

%Recovery Qualifier

80

Lab Sample ID: LCSD 880-54430/3-A

Lab Sample ID: 890-4744-A-1-D MS

Matrix: Solid

Surrogate

1-Chlorooctane

Analysis Batch: 54330

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 54430

o-Terphenyl 90

Matrix: Solid

Analysis Batch: 54330

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 54430

%Rec

Sample Sample Spike MS MS Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits <49.9 U 998 1117 108 70 - 130Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 998 1081 F1 500 F1 mg/Kg 58 70 - 130C10-C28)

MS MS %Recovery Surrogate Qualifier Limits 70 - 130 1-Chlorooctane 115 114 70 - 130 o-Terphenyl

Lab Sample ID: 890-4744-A-1-E MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 54330

Prep Type: Total/NA

Prep Batch: 54430

MSD MSD Sample Sample Spike RPD Result Qualifier Analyte Result Qualifier hahhA Unit %Rec I imits RPD Limit D Gasoline Range Organics <49.9 U 999 1153 mg/Kg 112 70 - 130 3 20 (GRO)-C6-C10 Diesel Range Organics (Over 500 F1 999 1101 F1 mg/Kg 60 70 - 130 2 20 C10-C28)

MSD MSD %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 118 70 - 130 o-Terphenyl 118

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-54418/1-A Client Sample ID: Method Blank **Matrix: Solid**

Analysis Batch: 54489

Prep Type: Soluble

MDL Unit Dil Fac Analyte Result Qualifier RL D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 05/31/23 17:22

Lab Sample ID: LCS 880-54418/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 54489

Spike LCS LCS %Rec Analyte Added Result Qualifier Limits Unit Chloride 250 263.7 mg/Kg 105 90 - 110

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QC Sample Results

Client: Vertex Job ID: 890-4746-1 Project/Site: Corral Fly SDG: 23E-02502

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-54418/3-A **Client Sample ID: Lab Control Sample Dup Matrix: Solid Prep Type: Soluble**

Analysis Batch: 54489

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	257.0		mg/Kg		103	90 - 110	3	20	

Lab Sample ID: 890-4746-1 MS Client Sample ID: BH23-01 0' **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 54489

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	564		1260	1926		ma/Ka		108	90 - 110	

Lab Sample ID: 890-4746-1 MSD Client Sample ID: BH23-01 0'

Matrix: Solid **Prep Type: Soluble**

Analysis Batch: 54489

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	564		1260	1893		mg/Kg		106	90 - 110	2	20

QC Association Summary

Client: Vertex Job ID: 890-4746-1
Project/Site: Corral Fly SDG: 23E-02502

GC VOA

Prep Batch: 54500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-54500/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 54501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4746-1	BH23-01 0'	Total/NA	Solid	5035	
890-4746-2	BH23-01 2'	Total/NA	Solid	5035	
890-4746-3	BH23-01 4'	Total/NA	Solid	5035	
890-4746-4	BH23-02 0'	Total/NA	Solid	5035	
890-4746-5	BH23-02 2'	Total/NA	Solid	5035	
890-4746-6	BH23-02 4'	Total/NA	Solid	5035	
890-4746-7	BH23-03 0'	Total/NA	Solid	5035	
890-4746-8	BH23-03 2'	Total/NA	Solid	5035	
890-4746-9	BH23-03 4'	Total/NA	Solid	5035	
MB 880-54501/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-54501/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-54501/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4740-A-21-D MS	Matrix Spike	Total/NA	Solid	5035	
890-4740-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 54618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4746-1	BH23-01 0'	Total/NA	Solid	8021B	54501
890-4746-2	BH23-01 2'	Total/NA	Solid	8021B	54501
890-4746-3	BH23-01 4'	Total/NA	Solid	8021B	54501
890-4746-4	BH23-02 0'	Total/NA	Solid	8021B	54501
890-4746-5	BH23-02 2'	Total/NA	Solid	8021B	54501
890-4746-6	BH23-02 4'	Total/NA	Solid	8021B	54501
890-4746-7	BH23-03 0'	Total/NA	Solid	8021B	54501
890-4746-8	BH23-03 2'	Total/NA	Solid	8021B	54501
890-4746-9	BH23-03 4'	Total/NA	Solid	8021B	54501
MB 880-54500/5-A	Method Blank	Total/NA	Solid	8021B	54500
MB 880-54501/5-A	Method Blank	Total/NA	Solid	8021B	54501
LCS 880-54501/1-A	Lab Control Sample	Total/NA	Solid	8021B	54501
LCSD 880-54501/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	54501
890-4740-A-21-D MS	Matrix Spike	Total/NA	Solid	8021B	54501
890-4740-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	54501

Analysis Batch: 54758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4746-1	BH23-01 0'	Total/NA	Solid	Total BTEX	
890-4746-2	BH23-01 2'	Total/NA	Solid	Total BTEX	
890-4746-3	BH23-01 4'	Total/NA	Solid	Total BTEX	
890-4746-4	BH23-02 0'	Total/NA	Solid	Total BTEX	
890-4746-5	BH23-02 2'	Total/NA	Solid	Total BTEX	
890-4746-6	BH23-02 4'	Total/NA	Solid	Total BTEX	
890-4746-7	BH23-03 0'	Total/NA	Solid	Total BTEX	
890-4746-8	BH23-03 2'	Total/NA	Solid	Total BTEX	
890-4746-9	BH23-03 4'	Total/NA	Solid	Total BTEX	

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QC Association Summary

Client: Vertex Job ID: 890-4746-1 Project/Site: Corral Fly SDG: 23E-02502

GC Semi VOA

Analysis Batch: 54330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4746-9	BH23-03 4'	Total/NA	Solid	8015B NM	54430
MB 880-54430/1-A	Method Blank	Total/NA	Solid	8015B NM	54430
LCS 880-54430/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	54430
LCSD 880-54430/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	54430
890-4744-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	54430
890-4744-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	54430

Analysis Batch: 54334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4746-1	BH23-01 0'	Total/NA	Solid	8015B NM	54340
890-4746-2	BH23-01 2'	Total/NA	Solid	8015B NM	54340
890-4746-3	BH23-01 4'	Total/NA	Solid	8015B NM	54340
890-4746-4	BH23-02 0'	Total/NA	Solid	8015B NM	54340
890-4746-5	BH23-02 2'	Total/NA	Solid	8015B NM	54340
890-4746-6	BH23-02 4'	Total/NA	Solid	8015B NM	54340
890-4746-7	BH23-03 0'	Total/NA	Solid	8015B NM	54340
890-4746-8	BH23-03 2'	Total/NA	Solid	8015B NM	54340
MB 880-54340/1-A	Method Blank	Total/NA	Solid	8015B NM	54340
LCS 880-54340/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	54340
LCSD 880-54340/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	54340
890-4746-1 MS	BH23-01 0'	Total/NA	Solid	8015B NM	54340
890-4746-1 MSD	BH23-01 0'	Total/NA	Solid	8015B NM	54340

Prep Batch: 54340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4746-1	BH23-01 0'	Total/NA	Solid	8015NM Prep	
890-4746-2	BH23-01 2'	Total/NA	Solid	8015NM Prep	
890-4746-3	BH23-01 4'	Total/NA	Solid	8015NM Prep	
890-4746-4	BH23-02 0'	Total/NA	Solid	8015NM Prep	
890-4746-5	BH23-02 2'	Total/NA	Solid	8015NM Prep	
890-4746-6	BH23-02 4'	Total/NA	Solid	8015NM Prep	
890-4746-7	BH23-03 0'	Total/NA	Solid	8015NM Prep	
890-4746-8	BH23-03 2'	Total/NA	Solid	8015NM Prep	
MB 880-54340/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-54340/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-54340/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4746-1 MS	BH23-01 0'	Total/NA	Solid	8015NM Prep	
890-4746-1 MSD	BH23-01 0'	Total/NA	Solid	8015NM Prep	

Prep Batch: 54430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4746-9	BH23-03 4'	Total/NA	Solid	8015NM Prep	
MB 880-54430/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-54430/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-54430/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4744-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4744-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 54455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4746-1	BH23-01 0'	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Vertex Job ID: 890-4746-1
Project/Site: Corral Fly SDG: 23E-02502

GC Semi VOA (Continued)

Analysis Batch: 54455 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4746-2	BH23-01 2'	Total/NA	Solid	8015 NM	
890-4746-3	BH23-01 4'	Total/NA	Solid	8015 NM	
890-4746-4	BH23-02 0'	Total/NA	Solid	8015 NM	
890-4746-5	BH23-02 2'	Total/NA	Solid	8015 NM	
890-4746-6	BH23-02 4'	Total/NA	Solid	8015 NM	
890-4746-7	BH23-03 0'	Total/NA	Solid	8015 NM	
890-4746-8	BH23-03 2'	Total/NA	Solid	8015 NM	
890-4746-9	BH23-03 4'	Total/NA	Solid	8015 NM	

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Leach Batch: 54418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4746-1	BH23-01 0'	Soluble	Solid	DI Leach	
890-4746-2	BH23-01 2'	Soluble	Solid	DI Leach	
890-4746-3	BH23-01 4'	Soluble	Solid	DI Leach	
890-4746-4	BH23-02 0'	Soluble	Solid	DI Leach	
890-4746-5	BH23-02 2'	Soluble	Solid	DI Leach	
890-4746-6	BH23-02 4'	Soluble	Solid	DI Leach	
890-4746-7	BH23-03 0'	Soluble	Solid	DI Leach	
890-4746-8	BH23-03 2'	Soluble	Solid	DI Leach	
890-4746-9	BH23-03 4'	Soluble	Solid	DI Leach	
MB 880-54418/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-54418/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-54418/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4746-1 MS	BH23-01 0'	Soluble	Solid	DI Leach	
890-4746-1 MSD	BH23-01 0'	Soluble	Solid	DI Leach	

Analysis Batch: 54489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4746-1	BH23-01 0'	Soluble	Solid	300.0	54418
890-4746-2	BH23-01 2'	Soluble	Solid	300.0	54418
890-4746-3	BH23-01 4'	Soluble	Solid	300.0	54418
890-4746-4	BH23-02 0'	Soluble	Solid	300.0	54418
890-4746-5	BH23-02 2'	Soluble	Solid	300.0	54418
890-4746-6	BH23-02 4'	Soluble	Solid	300.0	54418
890-4746-7	BH23-03 0'	Soluble	Solid	300.0	54418
890-4746-8	BH23-03 2'	Soluble	Solid	300.0	54418
890-4746-9	BH23-03 4'	Soluble	Solid	300.0	54418
MB 880-54418/1-A	Method Blank	Soluble	Solid	300.0	54418
LCS 880-54418/2-A	Lab Control Sample	Soluble	Solid	300.0	54418
LCSD 880-54418/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	54418
890-4746-1 MS	BH23-01 0'	Soluble	Solid	300.0	54418
890-4746-1 MSD	BH23-01 0'	Soluble	Solid	300.0	54418

SDG: 23E-02502

Client Sample ID: BH23-01 0'

Client: Vertex

Project/Site: Corral Fly

Lab Sample ID: 890-4746-1

Date Collected: 05/25/23 10:00 Date Received: 05/26/23 08:15

Matrix: Solid

Lab

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	54501	05/31/23 13:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54618	06/03/23 05:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54758	06/05/23 12:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			54455	05/31/23 09:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	54340	05/30/23 08:50	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54334	05/30/23 11:39	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	54418	05/30/23 14:31	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	54489	05/31/23 17:38	CH	EET MID

Client Sample ID: BH23-01 2' Lab Sample ID: 890-4746-2

Date Collected: 05/25/23 10:05 Matrix: Solid Date Received: 05/26/23 08:15

Batch Dil Initial Final Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Prep 5035 Total/NA 5.05 g 5 mL 54501 05/31/23 13:35 Total/NA 8021B 06/03/23 06:07 Analysis 1 5 mL 5 mL 54618 Total/NA 54758 SM 1

MNR EET MID **EET MID** MNR Total BTEX 06/05/23 12:45 Analysis **EET MID** Total/NA Analysis 8015 NM 54455 05/31/23 09:22 SM **EET MID** Total/NA 54340 Prep 8015NM Prep 10.01 g 10 mL 05/30/23 08:50 AM EET MID Total/NA Analysis 8015B NM 1 uL 1 uL 54334 05/30/23 12:53 SM **EET MID** Soluble KS Leach DI Leach 5.01 g 50 mL 54418 05/30/23 14:31 EET MID Soluble Analysis 300.0 50 mL 50 mL 54489 05/31/23 17:54 СН **EET MID**

Client Sample ID: BH23-01 4' Lab Sample ID: 890-4746-3 Date Collected: 05/25/23 10:10 **Matrix: Solid**

Date Received: 05/26/23 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	54501	05/31/23 13:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54618	06/03/23 06:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54758	06/05/23 12:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			54455	05/31/23 09:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	54340	05/30/23 08:50	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54334	05/30/23 13:15	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	54418	05/30/23 14:31	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	54489	05/31/23 18:00	CH	EET MID

Lab Sample ID: 890-4746-4 Client Sample ID: BH23-02 0' Matrix: Solid Date Collected: 05/25/23 10:15

Date Received: 05/26/23 08:15

Г										
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	54501	05/31/23 13:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54618	06/03/23 08:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54758	06/05/23 12:45	SM	EET MID

Project/Site: Corral Fly

SDG: 23E-02502

Client Sample ID: BH23-02 0'

Lab Sample ID: 890-4746-4 Date Collected: 05/25/23 10:15

Matrix: Solid

Date Received: 05/26/23 08:15

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			54455	05/31/23 09:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	54340	05/30/23 08:50	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54334	05/30/23 13:36	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	54418	05/30/23 14:31	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	54489	05/31/23 18:05	CH	EET MID

Client Sample ID: BH23-02 2' Lab Sample ID: 890-4746-5

Date Collected: 05/25/23 10:20 Date Received: 05/26/23 08:15

Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared Prep Type Method Amount Amount Number or Analyzed Type Run Factor Analyst Lab Total/NA 5035 Prep 4.97 g 5 mL 54501 05/31/23 13:35 MNR **EET MID** Total/NA Analysis 8021B 5 mL 5 mL 54618 06/03/23 08:50 MNR **EET MID** 1 Total/NA Total BTEX Analysis 1 54758 06/05/23 12:45 SM **EET MID** Total/NA Analysis 8015 NM 54455 05/31/23 09:22 SM **EET MID** Total/NA Prep 8015NM Prep 10.03 g 10 mL 54340 05/30/23 08:50 AM **EET MID** Total/NA Analysis 8015B NM 1 uL 54334 05/30/23 13:57 SM **EET MID** 1 uL

Client Sample ID: BH23-02 4' Lab Sample ID: 890-4746-6

5

5.02 g

50 mL

50 mL

50 mL

54418

54489

05/30/23 14:31

05/31/23 18:11

KS

СН

Date Collected: 05/25/23 10:25 Date Received: 05/26/23 08:15

Leach

Analysis

DI Leach

300.0

Soluble

Soluble

Matrix: Solid

EET MID EET MID

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	54501	05/31/23 13:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54618	06/03/23 09:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54758	06/05/23 12:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			54455	05/31/23 09:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	54340	05/30/23 08:50	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54334	05/30/23 14:19	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	54418	05/30/23 14:31	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	54489	05/31/23 18:27	CH	EET MID

Client Sample ID: BH23-03 0' Lab Sample ID: 890-4746-7

Date Collected: 05/25/23 10:30 Date Received: 05/26/23 08:15

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	54501	05/31/23 13:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54618	06/03/23 09:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54758	06/05/23 12:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			54455	05/31/23 09:22	SM	EET MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.02 g 1 uL	10 mL 1 uL	54340 54334	05/30/23 08:50 05/30/23 14:40	AM SM	EET MID EET MID

Eurofins Carlsbad

Matrix: Solid

Client: Vertex

Job ID: 890-4746-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-03 0'

Date Collected: 05/25/23 10:30 Date Received: 05/26/23 08:15 Lab Sample ID: 890-4746-7

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	54418	05/30/23 14:31	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	54489	05/31/23 18:32	CH	EET MID

Client Sample ID: BH23-03 2' Lab Sample ID: 890-4746-8

Date Collected: 05/25/23 10:35 Date Received: 05/26/23 08:15 **Matrix: Solid**

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	54501	05/31/23 13:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54618	06/03/23 10:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54758	06/05/23 12:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			54455	05/31/23 09:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	54340	05/30/23 08:50	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54334	05/30/23 15:01	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	54418	05/30/23 14:31	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	54489	05/31/23 18:38	CH	EET MID

Client Sample ID: BH23-03 4' Lab Sample ID: 890-4746-9

Date Collected: 05/25/23 10:40

Date Received: 05/26/23 08:15

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	54501	05/31/23 13:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54618	06/03/23 10:37	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54758	06/05/23 12:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			54455	05/31/23 13:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	54430	05/30/23 16:10	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54330	05/30/23 20:53	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	54418	05/30/23 14:31	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	54489	05/31/23 18:43	CH	EET MID

Laboratory References:

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

Eurofins Carlsbad

6/5/2023

Accreditation/Certification Summary

 Client: Vertex
 Job ID: 890-4746-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Laboratory: Eurofins Midland

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

Authority		ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-25	06-30-23
The following analytes	are included in this report by	it the laboratory is not cortifi	ed by the governing authority. This list ma	av include analytes for
the agency does not of	• •	it the laboratory is not certifi	ed by the governing authority. This list his	ay include arialytes for
,	• •	Matrix	Analyte	ay include analytes for
the agency does not of	fer certification.	•	, , ,	ay include analytes for

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Method Summary

Client: Vertex Job ID: 890-4746-1
Project/Site: Corral Fly SDG: 23E-02502

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

Eurofins Carlsbad

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Sample Summary

Client: Vertex

Project/Site: Corral Fly

Job ID: 890-4746-1

SDG: 23E-02502

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4746-1	BH23-01 0'	Solid	05/25/23 10:00	05/26/23 08:15	0'
890-4746-2	BH23-01 2'	Solid	05/25/23 10:05	05/26/23 08:15	2'
890-4746-3	BH23-01 4'	Solid	05/25/23 10:10	05/26/23 08:15	4'
890-4746-4	BH23-02 0'	Solid	05/25/23 10:15	05/26/23 08:15	0'
890-4746-5	BH23-02 2'	Solid	05/25/23 10:20	05/26/23 08:15	2'
890-4746-6	BH23-02 4'	Solid	05/25/23 10:25	05/26/23 08:15	4'
890-4746-7	BH23-03 0'	Solid	05/25/23 10:30	05/26/23 08:15	0'
890-4746-8	BH23-03 2'	Solid	05/25/23 10:35	05/26/23 08:15	2'
890-4746-9	BH23-03 4'	Solid	05/25/23 10:40	05/26/23 08:15	

eurofins Environment Testing		Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	Work Order No:	Vo:
Xenco	EL Paso, TX I	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199		
			www.xenco.com	com Page of
Project Manager: Change Dixon	Bill to: (if different)	R& Kirk	Work Ord	ğ
Vertex	Company Name:	Solaris	Program: UST/PST PRP	Brownfields RRC Superfund
	Address:		State of Project:	
City, State ZIP:	City, State ZIP:		Reporting: Level II Level III] PST/UST TRRP Level IV
Phone:	Email: CdixON®	cdixon@vertex.ca analytica	Deliverables: EDD	ADaPT Other:
Project Name: Corral Elv	Turn Around	ANALYSI	S REQUEST CA	Preservative Codes
25E	X Routine □ Rush Pres.			None: NO DI Water: H ₂ O
	Due Date:			Cool: Cool MeOH: Me
Hunter Klein	TAT starts the day received by			
)	the lab, if received by 4:30pm			H ₂ SO ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT Temp Blank: Yes No	Wet ice: Yes No			H ₃ PO ₄ : HP
Samples Received Intact: Yes No Thermometer ID:	MW BOLL			NaHSO 4: NABIS
Cooler Custody Seals: Yes No N/A Correction Factor:	6			Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals: Yes No N/A Temperature Reading:	Reading: (890-4746	6 Chain of Custody	Zn Acetate+NaOH: Zn
Total Containers: Corrected Temperature:	nperature: (1). 8	01		NaOH+Ascorbic Acid: SAPC
Sample Identification Matrix Sampled	Time Depth Grab # of Cont	THE		Sample Comments
5H23-01 0' Sil 5135/13	ď	* * *		
	10.05	ナメナ		
3H23-D1 47	20:20	* *		
1 20 - 5C HZ	10:15	1 X X +		
, で での なけり	08.00	XXX		
14 60-26H3	26:01	イイイ		
H25-03	10:30	××××		
5H29-03 2' VI V	10:35	* *		
Total 200.7 / 6010 200.8 / 6020: 8RCRA Circle Method(s) and Metal(s) to be analyzed To	CRA 13PPM Texas 11 AI SI TCLP / SPLP 6010 : 8RCRA	13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg ITCLP / SPLP 6010:8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se	Mn Mo Ni K Se Ag Tl U	Ag SiO ₂ Na Sr Tl Sn U V Zn Hg: 1631 / 245.1 / 7470 / 7471
Notter. 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 Funding Arenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Euroffins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	id purchase order from client company to Eur sume any responsibility for any losses or expe	rofins Xenco, its affiliates and subcontractors. It assigns standar nness incurred by the client if such losses are due to circumstann Eurofins Xenco, but not analyzed. These terms will be enforced	rd terms and conditions ices beyond the control dulless previously negotiated.	
Relinquished by: (Signature) A Received by: (Signature)	: (Signature)	Date/Time Relinquished by: (Signature)	gnature) Received by: (Signature)	iture) Date/Time
Muster Min Close Cal	5	- de 23819		
		6		
		The second secon		Revised Date: 03/25/2020 Rev. 2020 2

Login Sample Receipt Checklist

 Client: Vertex
 Job Number: 890-4746-1

 SDG Number: 23E-02502

Login Number: 4746 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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	
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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Login Sample Receipt Checklist

Client: Vertex Job Number: 890-4746-1 SDG Number: 23E-02502

Login Number: 4746 **List Source: Eurofins Midland** List Number: 2 List Creation: 05/30/23 08:27 AM

Creator: Rodriguez, Leticia

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	N/A	

<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 6/5/2023 2:33:35 PM

JOB DESCRIPTION

Corral Fly SDG NUMBER 23E-02502

JOB NUMBER

890-4751-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

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

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

Authorization

Generated 6/5/2023 2:33:35 PM

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

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Client: Vertex Laboratory Job ID: 890-4751-1
Project/Site: Corral Fly SDG: 23E-02502

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Definitions/Glossary

Client: Vertex Job ID: 890-4751-1 Project/Site: Corral Fly SDG: 23E-02502

Qualifiers

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u		v	u	м.
	_	•	_	•

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low 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.

Glossarv

Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	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" Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

Method Detection Limit MDL 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 Positive / Present POS **PQL** Practical Quantitation Limit

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RLReporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points **RPD**

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Case Narrative

 Client: Vertex
 Job ID: 890-4751-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Job ID: 890-4751-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4751-1

Receipt

The samples were received on 5/26/2023 4:20 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 7.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BH23-04 0' (890-4751-1), BH23-04 2' (890-4751-2), BH23-05 0' (890-4751-3), BH23-05 2' (890-4751-4), BH23-05 4' (890-4751-5), BH23-06 0' (890-4751-6) and BH23-06 2' (890-4751-7).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-54490/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-54490 and analytical batch 880-54541 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-54541 recovered below the control limits for m-Xylene & p-Xylene and o-Xylene. An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-54541/20).

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-54491/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (MB 880-54495/5-A). Evidence of matrix interferences is not obvious.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-54492 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-54492/51).

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-54495 and analytical batch 880-54492 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-54618 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 880-54618/2) and (CCV 880-54618/20).

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-54500 and analytical batch 880-54618 was outside the control limits.

Method 8021B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 880-54500 and analytical batch 880-54618 recovered outside control limits for the following analytes: Benzene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: The matrix spike (MS) recovery for preparation batch 880-54500 and analytical batch 880-54618 was outside control limits for the following analyte(s): Benzene. Samples are non detect therefore the data has been qualified and reported.

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

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Case Narrative

Client: Vertex Job ID: 890-4751-1
Project/Site: Corral Fly SDG: 23E-02502

Job ID: 890-4751-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-54453 and analytical batch 880-54532 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH23-04 0' (890-4751-1), (880-28880-A-9-A), (880-28880-A-9-B MS) and (880-28880-A-9-C 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 samples were outside control limits: BH23-04 2' (890-4751-2), BH23-05 0' (890-4751-3), BH23-05 2' (890-4751-4), BH23-05 4' (890-4751-5), BH23-06 0' (890-4751-6) and BH23-06 2' (890-4751-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-54461 and analytical batch 880-54527 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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Lab Sample ID: 890-4751-1

Client Sample Results

Client: Vertex Job ID: 890-4751-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-04 0'

Date Collected: 05/26/23 10:00 Date Received: 05/26/23 16:20

Sample Depth: 0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/31/23 12:00	06/01/23 19:42	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/31/23 12:00	06/01/23 19:42	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/31/23 12:00	06/01/23 19:42	1
Xylenes, Total	< 0.00397	U	0.00397		mg/Kg		05/31/23 12:00	06/01/23 19:42	1
m-Xylene & p-Xylene	< 0.00397	U	0.00397		mg/Kg		05/31/23 12:00	06/01/23 19:42	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/31/23 12:00	06/01/23 19:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		70 - 130				05/31/23 12:00	06/01/23 19:42	1
1,4-Difluorobenzene (Surr)	95		70 - 130				05/31/23 12:00	06/01/23 19:42	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			06/02/23 17:30	1
A L .4 -									
Analyte Total TPH	Result 72.6	Qualifier	RL 49.9	MDL	Unit mg/Kg	D	Prepared	Analyzed 06/02/23 09:38	Dil Fac
Total TPH	72.6	<u> </u>	49.9	MDL		<u>D</u>	Prepared		
Total TPH Method: SW846 8015B NM - Die	72.6 sel Range Orga	nics (DRO)	49.9 (GC)		mg/Kg	-		06/02/23 09:38	1
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics	72.6 sel Range Orga	nics (DRO) Qualifier	49.9			<u>D</u>	Prepared 05/31/23 09:15		1
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	72.6 sel Range Orga Result	nics (DRO) Qualifier	49.9 (GC) RL		mg/Kg	-	Prepared	06/02/23 09:38 Analyzed	Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10	72.6 sel Range Orga Result <49.9	nics (DRO) Qualifier U	(GC) RL 49.9		mg/Kg Unit mg/Kg	-	Prepared 05/31/23 09:15	06/02/23 09:38 Analyzed 06/01/23 15:19	Dil Fac
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	72.6 sel Range Orga Result <49.9 72.6	nics (DRO) Qualifier U	(GC) RL 49.9 49.9		mg/Kg Unit mg/Kg mg/Kg	-	Prepared 05/31/23 09:15 05/31/23 09:15	06/02/23 09:38 Analyzed 06/01/23 15:19 06/01/23 15:19	1 Dil Fac
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	72.6 sel Range Orga Result <49.9 72.6 <49.9	Qualifier U Qualifier	49.9 (GC) RL 49.9 49.9 49.9		mg/Kg Unit mg/Kg mg/Kg	-	Prepared 05/31/23 09:15 05/31/23 09:15 05/31/23 09:15	06/02/23 09:38 Analyzed 06/01/23 15:19 06/01/23 15:19	Dil Fac 1 1 Dil Fac
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	72.6 sel Range Orga Result <49.9 72.6 <49.9 %Recovery	Qualifier U Qualifier	49.9 (GC) RL 49.9 49.9 49.9 Limits		mg/Kg Unit mg/Kg mg/Kg	-	Prepared 05/31/23 09:15 05/31/23 09:15 05/31/23 09:15 Prepared	06/02/23 09:38 Analyzed 06/01/23 15:19 06/01/23 15:19 06/01/23 15:19 Analyzed	Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	72.6 sel Range Orga Result <49.9 72.6 <49.9 %Recovery 150 116	U Qualifier U Qualifier S1+	49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130		mg/Kg Unit mg/Kg mg/Kg	-	Prepared 05/31/23 09:15 05/31/23 09:15 05/31/23 09:15 Prepared 05/31/23 09:15	06/02/23 09:38 Analyzed 06/01/23 15:19 06/01/23 15:19 Analyzed 06/01/23 15:19	1 Dil Fac 1 1
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	72.6 sel Range Orga Result <49.9 72.6 49.9 %Recovery 150 116 1 Chromatograp	U Qualifier U Qualifier S1+	49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130	MDL	mg/Kg Unit mg/Kg mg/Kg	-	Prepared 05/31/23 09:15 05/31/23 09:15 05/31/23 09:15 Prepared 05/31/23 09:15	06/02/23 09:38 Analyzed 06/01/23 15:19 06/01/23 15:19 Analyzed 06/01/23 15:19	Dil Fac 1 1 1 Dil Fac 1

Client Sample ID: BH23-04 2'

Date Collected: 05/26/23 10:05

Date Received: 05/26/23 16:20

Sample Depth: 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/31/23 12:00	06/01/23 20:02	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/31/23 12:00	06/01/23 20:02	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/31/23 12:00	06/01/23 20:02	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/31/23 12:00	06/01/23 20:02	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/31/23 12:00	06/01/23 20:02	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/31/23 12:00	06/01/23 20:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130				05/31/23 12:00	06/01/23 20:02	1

Eurofins Carlsbad

Lab Sample ID: 890-4751-2

Matrix: Solid

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Lab Sample ID: 890-4751-2

Lab Sample ID: 890-4751-3

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-4751-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-04 2'

Date Collected: 05/26/23 10:05 Date Received: 05/26/23 16:20

Sample Depth: 2

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

Surrogate	%Recovery Qu	ualifier Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	93	70 _ 130	05/31/23 12:00	06/01/23 20:02	1

Method: TAI	SOP Total BTEX	- Total BTFX	Calculation
Mictilou. IAL	. OOI IOLAI DIEA	- IOIGI DIEX	Odiculation

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			06/02/23 17:30	1

Analyte	Result C	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8 L	J	49.8	mg/Kg			06/02/23 09:38	1

Method: SW846 8015B NM - Diesel Range Or	ganics (DRO)	(GC)
Michiga Offoro Colod Min - Dieser Range Of	garries (Dito)	(00)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/31/23 09:15	06/01/23 16:27	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/31/23 09:15	06/01/23 16:27	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/31/23 09:15	06/01/23 16:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	154	S1+	70 - 130	05/31/23 09:	06/01/23 16:27	1
o-Terphenyl	120		70 - 130	05/31/23 09:	15 06/01/23 16:27	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	179		4.98		mg/Kg			05/31/23 22:15	1

Client Sample ID: BH23-05 0'

Date Collected: 05/26/23 10:10

Date Received: 05/26/23 16:20

Sample Depth: 0

 Mathad.	CIMO 4C	0024D	Valatila Ossania	Compounds (GC)
viernoa:	SVVA4n	AUZID .	· voiatile Organic	: Compounds (GC)

			,						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/31/23 12:00	06/01/23 20:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/31/23 12:00	06/01/23 20:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/31/23 12:00	06/01/23 20:22	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/31/23 12:00	06/01/23 20:22	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/31/23 12:00	06/01/23 20:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/31/23 12:00	06/01/23 20:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		70 - 130				05/31/23 12:00	06/01/23 20:22	1

Surrogate	%Recovery	Qualitier	Limits	Prepared	Anaiyzea	DII Fac
4-Bromofluorobenzene (Surr)	72		70 - 130	05/31/23 12:00	06/01/23 20:22	1
1,4-Difluorobenzene (Surr)	94		70 - 130	05/31/23 12:00	06/01/23 20:22	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/l	Κg		06/02/23 17:30	1

Analyte	Result	Qualifier	RL	MDL Uni	t	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/	Kg			06/02/23 09:38	1

Lab Sample ID: 890-4751-3

Client Sample Results

Client: Vertex Job ID: 890-4751-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-05 0'

Date Collected: 05/26/23 10:10	Matrix: Solid
Date Received: 05/26/23 16:20	
Sample Depth: 0	
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Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0		mg/Kg		05/31/23 09:15	06/01/23 17:15	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U	50.0		mg/Kg		05/31/23 09:15	06/01/23 17:15	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/31/23 09:15	06/01/23 17:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	141	S1+	70 - 130				05/31/23 09:15	06/01/23 17:15	1
o-Terphenyl	111		70 - 130				05/31/23 09:15	06/01/23 17:15	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
			4.95		mg/Kg			05/31/23 22:31	

Client Sample ID: BH23-05 2' Lab Sample ID: 890-4751-4 Date Collected: 05/26/23 10:15 Matrix: Solid

Date Received: 05/26/23 16:20

Sample Depth: 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/31/23 12:00	06/01/23 20:43	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/31/23 12:00	06/01/23 20:43	1
Toluene	< 0.00199	U	0.00199		mg/Kg		05/31/23 12:00	06/01/23 20:43	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/31/23 12:00	06/01/23 20:43	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/31/23 12:00	06/01/23 20:43	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/31/23 12:00	06/01/23 20:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130				05/31/23 12:00	06/01/23 20:43	1
1,4-Difluorobenzene (Surr)	97		70 - 130				05/31/23 12:00	06/01/23 20:43	1
Total BTEX	<0.00398	U	0.00398		ma/Ka			06/02/23 17:30	
Total BTEX Method: SW846 8015 NM - Diese Analyte		ics (DRO) (0	•	MDL	mg/Kg	— — D	Prepared	06/02/23 17:30	1 Dil Fac
- -	l Range Organ	ics (DRO) (C		MDL	mg/Kg Unit mg/Kg	<u>D</u>	Prepared	06/02/23 17:30 Analyzed 06/02/23 09:38	·
Method: SW846 8015 NM - Diese Analyte	el Range Organ Result <49.8 sel Range Organ	ics (DRO) (0 Qualifier	RL 49.8		Unit	<u>D</u>	Prepared Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	el Range Organ Result <49.8 sel Range Organ	ics (DRO) ((Qualifier U)	RL 49.8 (GC)		Unit mg/Kg			Analyzed 06/02/23 09:38	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics	Range Organ Result <49.8 sel Range Organ Result	ics (DRO) (O Qualifier U	RL 49.8 (GC)		Unit mg/Kg		Prepared	Analyzed 06/02/23 09:38 Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 49.8 Seel Range Organ Result Result 49.8 49.8 49.8	ics (DRO) (Control of the control of	GC) RL 49.8 (GC) RL 49.8		Unit mg/Kg Unit mg/Kg		Prepared 05/31/23 09:15	Analyzed 06/02/23 09:38 Analyzed 06/01/23 17:36	Dil Fac Dil Fac 1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 49.8 Seel Range Organ Result 49.8 49.8 49.8	ics (DRO) (Control of the control of	GC) RL 49.8 (GC) RL 49.8 49.8		Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 05/31/23 09:15 05/31/23 09:15	Analyzed 06/02/23 09:38 Analyzed 06/01/23 17:36 06/01/23 17:36	Dil Fac Dil Fac 1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	sel Range Organ Result <49.8 sel Range Orga Result <49.8 <49.8 <49.8	ics (DRO) (CONTINUE OF CONTINUE OF CONTI	GC) RL 49.8 (GC) RL 49.8 49.8 49.8		Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 05/31/23 09:15 05/31/23 09:15 05/31/23 09:15	Analyzed 06/02/23 09:38 Analyzed 06/01/23 17:36 06/01/23 17:36	Dil Fac Dil Fac 1 1 1

Eurofins Carlsbad

6/5/2023

Client: Vertex Job ID: 890-4751-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-05 2'

Lab Sample ID: 890-4751-4 Date Collected: 05/26/23 10:15 Matrix: Solid Date Received: 05/26/23 16:20

Sample Depth: 2

Method: EPA 300.0 - Anions, Ion Ch	hromatograp	hy - Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1060		4.97		mg/Kg			05/31/23 22:37	1

Client Sample ID: BH23-05 4' Lab Sample ID: 890-4751-5

Date Collected: 05/26/23 10:20 Date Received: 05/26/23 16:20

Sample Depth: 4

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U	0.00199		mg/Kg		05/31/23 12:00	06/01/23 21:03	
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/31/23 12:00	06/01/23 21:03	
Toluene	<0.00199	U	0.00199		mg/Kg		05/31/23 12:00	06/01/23 21:03	
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/31/23 12:00	06/01/23 21:03	
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/31/23 12:00	06/01/23 21:03	
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/31/23 12:00	06/01/23 21:03	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	95		70 - 130				05/31/23 12:00	06/01/23 21:03	
1,4-Difluorobenzene (Surr)	83		70 - 130				05/31/23 12:00	06/01/23 21:03	
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/02/23 17:30	
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<49.8	U	49.8		mg/Kg			06/02/23 09:38	
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	<49.8	U	49.8		mg/Kg		05/31/23 09:15	06/01/23 17:58	
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.8	U	49.8		mg/Kg		05/31/23 09:15	06/01/23 17:58	
C10-C28)									
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/31/23 09:15	06/01/23 17:58	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Surrogate 1-Chlorooctane	%Recovery 147		70 - 130				Prepared 05/31/23 09:15	Analyzed 06/01/23 17:58	Dil Fa

Eurofins Carlsbad

Analyzed 05/31/23 22:42

RL

5.04

MDL Unit

mg/Kg

D

Prepared

Dil Fac

Analyte

Chloride

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Result Qualifier

Lab Sample ID: 890-4751-6

Client Sample Results

Client: Vertex Job ID: 890-4751-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-06 0'

Date Collected: 05/26/23 10:25 Date Received: 05/26/23 16:20

Sample Depth: 0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199		mg/Kg		05/31/23 13:23	06/02/23 22:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/31/23 13:23	06/02/23 22:31	1
Toluene	< 0.00199	U	0.00199		mg/Kg		05/31/23 13:23	06/02/23 22:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/31/23 13:23	06/02/23 22:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/31/23 13:23	06/02/23 22:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/31/23 13:23	06/02/23 22:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130				05/31/23 13:23	06/02/23 22:31	1
1,4-Difluorobenzene (Surr)	100		70 - 130				05/31/23 13:23	06/02/23 22:31	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/05/23 12:45	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte Total TPH	Result <50.0			MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 06/02/23 09:38	
	<50.0	U	50.0	MDL		<u> </u>	Prepared		
Total TPH	<50.0	U	50.0			<u>D</u>	Prepared Prepared		1
Total TPH Method: SW846 8015B NM - Dies	<50.0	nics (DRO) Qualifier	50.0 (GC)		mg/Kg	<u> </u>	<u> </u>	06/02/23 09:38	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	<50.0 sel Range Orga Result	nics (DRO) Qualifier	50.0 (GC)		mg/Kg	<u> </u>	Prepared	06/02/23 09:38 Analyzed	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<50.0 sel Range Orga Result <50.0	nics (DRO) Qualifier U	50.0 (GC) RL 50.0		mg/Kg Unit mg/Kg	<u> </u>	Prepared 05/31/23 09:15	06/02/23 09:38 Analyzed 06/01/23 18:20	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<50.0 sel Range Orga Result <50.0 <50.0	Dics (DRO) Qualifier U U	50.0 (GC) RL 50.0 50.0		mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 05/31/23 09:15 05/31/23 09:15	06/02/23 09:38 Analyzed 06/01/23 18:20 06/01/23 18:20	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<50.0 sel Range Orga Result <50.0 <50.0	Dics (DRO) Qualifier U U	50.0 (GC) RL 50.0 50.0 50.0		mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 05/31/23 09:15 05/31/23 09:15 05/31/23 09:15	06/02/23 09:38 Analyzed 06/01/23 18:20 06/01/23 18:20	Dil Face
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<50.0 sel Range Orga Result <50.0 <50.0 <50.0 %Recovery	Oualifier U Qualifier U Qualifier	50.0 (GC) RL 50.0 50.0 50.0 Limits		mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 05/31/23 09:15 05/31/23 09:15 05/31/23 09:15 Prepared	06/02/23 09:38 Analyzed 06/01/23 18:20 06/01/23 18:20 06/01/23 18:20 Analyzed	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<50.0 sel Range Orga Result <50.0 <50.0 <50.0 %Recovery 143 112	Oualifier U U Qualifier U U Qualifier S1+	50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130		mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 05/31/23 09:15 05/31/23 09:15 05/31/23 09:15 Prepared 05/31/23 09:15	06/02/23 09:38 Analyzed 06/01/23 18:20 06/01/23 18:20 Analyzed 06/01/23 18:20	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	<50.0 sel Range Orga Result <50.0 <50.0 <50.0 <50.0 <143 112 Chromatograp	Oualifier U U Qualifier U U Qualifier S1+	50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	MDL	mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 05/31/23 09:15 05/31/23 09:15 05/31/23 09:15 Prepared 05/31/23 09:15	06/02/23 09:38 Analyzed 06/01/23 18:20 06/01/23 18:20 Analyzed 06/01/23 18:20	Dil Fac

Client Sample ID: BH23-06 2'

Date Collected: 05/26/23 10:30

Date Received: 05/26/23 16:20

Sample Depth: 2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *+	0.00201		mg/Kg		05/31/23 12:12	06/02/23 05:47	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/31/23 12:12	06/02/23 05:47	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/31/23 12:12	06/02/23 05:47	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/31/23 12:12	06/02/23 05:47	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/31/23 12:12	06/02/23 05:47	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/31/23 12:12	06/02/23 05:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130				05/31/23 12:12	06/02/23 05:47	1

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Lab Sample ID: 890-4751-7

Matrix: Solid

Lab Sample ID: 890-4751-7

05/31/23 09:15

05/31/23 09:15

06/01/23 18:41

06/01/23 18:41

Client Sample Results

Client: Vertex Job ID: 890-4751-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-06 2'

Date Collected: 05/26/23 10:30 Date Received: 05/26/23 16:20

1-Chlorooctane

o-Terphenyl

Sample Depth: 2									
Method: SW846 8021B - Volatile	Organic Comp	ounds (GC) (Continued)						
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	101		70 - 130				05/31/23 12:12	06/02/23 05:47	1
- Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			06/02/23 17:49	1
- Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			06/02/23 09:38	1
- Method: SW846 8015B NM - Dies	el Range Orga	nics (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		05/31/23 09:15	06/01/23 18:41	1
Diesel Range Organics (Over	<49.9	U	49.9		mg/Kg		05/31/23 09:15	06/01/23 18:41	1
C10-C28)	<49.9	11	49.9		malka		05/31/23 09:15	06/01/23 18:41	1
Oll Range Organics (Over C28-C36)	\49.9	U	49.9		mg/Kg		00/31/23 09:15	00/01/23 10:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Method: EPA 300.0 - Anions, ion C	nromatograpr	ny - Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	176		4.99		mg/Kg			05/31/23 22:53	1

70 - 130

70 - 130

145 S1+

113

Surrogate Summary

 Client: Vertex
 Job ID: 890-4751-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Recovery (Acceptar
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
80-28831-A-21-G MS	Matrix Spike	89	106	· —— —— —— ——
80-28831-A-21-H MSD	Matrix Spike Duplicate	101	104	
30-28928-A-2-D MS	Matrix Spike	88	117	
30-28928-A-2-E MSD	Matrix Spike Duplicate	90	113	
90-4737-A-4-D MS	Matrix Spike	98	106	
90-4737-A-4-E MSD	Matrix Spike Duplicate	97	105	
90-4751-1	BH23-04 0'	72	95	
90-4751-2	BH23-04 2'	71	93	
90-4751-3	BH23-05 0'	72	94	
0-4751-4	BH23-05 2'	75	97	
0-4751-5	BH23-05 4'	95	83	
0-4751-6	BH23-06 0'	114	100	
90-4751-7	BH23-06 2'	116	101	
CS 880-54490/1-A	Lab Control Sample	114	110	
CS 880-54495/1-A	Lab Control Sample	102	96	
CS 880-54500/1-A	Lab Control Sample	95	103	
CSD 880-54490/2-A	Lab Control Sample Dup	112	111	
CSD 880-54495/2-A	Lab Control Sample Dup	90	107	
CSD 880-54500/2-A	Lab Control Sample Dup	97	110	
B 880-54490/5-A	Method Blank	67 S1-	87	
B 880-54491/5-A	Method Blank	60 S1-	95	
B 880-54495/5-A	Method Blank	60 S1-	92	
B 880-54500/5-A	Method Blank	67 S1-	93	

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)	
880-28880-A-9-B MS	Matrix Spike	146 S1+	105	
880-28880-A-9-C MSD	Matrix Spike Duplicate	146 S1+	105	
890-4751-1	BH23-04 0'	150 S1+	116	
890-4751-2	BH23-04 2'	154 S1+	120	
890-4751-3	BH23-05 0'	141 S1+	111	
890-4751-4	BH23-05 2'	142 S1+	111	
890-4751-5	BH23-05 4'	147 S1+	114	
890-4751-6	BH23-06 0'	143 S1+	112	
890-4751-7	BH23-06 2'	145 S1+	113	
LCS 880-54453/2-A	Lab Control Sample	107	84	
LCSD 880-54453/3-A	Lab Control Sample Dup	122	93	
	Method Blank	170 S1+	133 S1+	

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OTPH = o-Terphenyl

2

4

6

8

10

12

Client: Vertex Job ID: 890-4751-1 Project/Site: Corral Fly SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-54490/5-A

Matrix: Solid

Analysis Batch: 54541

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 54490

ı		MB	MB							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Benzene	<0.00200	U	0.00200		mg/Kg		05/31/23 11:15	06/01/23 11:05	1
	Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/31/23 11:15	06/01/23 11:05	1
	Toluene	<0.00200	U	0.00200		mg/Kg		05/31/23 11:15	06/01/23 11:05	1
I	Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/31/23 11:15	06/01/23 11:05	1
	m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/31/23 11:15	06/01/23 11:05	1
	o-Xylene	<0.00200	U	0.00200		mg/Kg		05/31/23 11:15	06/01/23 11:05	1
ı										

MB MB

MD MD

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed
4-Bromofluorobenzene (Surr)	67	S1-	70 - 130	05/31/23 11:15	06/01/23 11:05
1,4-Difluorobenzene (Surr)	87		70 - 130	05/31/23 11:15	06/01/23 11:05

Lab Sample ID: LCS 880-54490/1-A

Matrix: Solid

Analysis Batch: 54541

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 54490

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1292		mg/Kg		129	70 - 130	
Ethylbenzene	0.100	0.1163		mg/Kg		116	70 - 130	
Toluene	0.100	0.1121		mg/Kg		112	70 - 130	
m-Xylene & p-Xylene	0.200	0.2433		mg/Kg		122	70 - 130	
o-Xylene	0.100	0.1220		mg/Kg		122	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	114	70 - 130
1,4-Difluorobenzene (Surr)	110	70 - 130

Lab Sample ID: LCSD 880-54490/2-A

Matrix: Solid

Analysis Batch: 54541

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 54490

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1265		mg/Kg		126	70 - 130	2	35	
Ethylbenzene	0.100	0.1130		mg/Kg		113	70 - 130	3	35	
Toluene	0.100	0.1145		mg/Kg		114	70 - 130	2	35	
m-Xylene & p-Xylene	0.200	0.2347		mg/Kg		117	70 - 130	4	35	
o-Xylene	0.100	0.1166		mg/Kg		117	70 - 130	5	35	

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	112	70 - 130
1,4-Difluorobenzene (Surr)	111	70 - 130

Lab Sample ID: 880-28928-A-2-D MS

Matrix: Solid

Analysis Batch: 54541

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 54490

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits <0.00200 U 0.0998 Benzene 0.1054 mg/Kg 106 70 - 130 Ethylbenzene <0.00200 UF1 0.0998 0.06403 F1 mg/Kg 64 70 - 130

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Released to Imaging: 8/5/2024 4:13:08 PM

Dil Fac

QC Sample Results

Client: Vertex Job ID: 890-4751-1 Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: 880-28928-A-2-D MS

Lab Sample ID: 880-28928-A-2-E MSD

Matrix: Solid

Analysis Batch: 54541

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

Prep Batch: 54490

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Toluene <0.00200 U 0.0998 0.07364 74 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00399 UF1 0.200 0.1220 F1 mg/Kg 61 70 - 130 0.0998 o-Xylene <0.00200 UF1 0.06080 F1 61 70 - 130 mg/Kg

MS MS Surrogate %Recovery Qualifier Limits 70 - 130 4-Bromofluorobenzene (Surr) 88 70 - 130 1,4-Difluorobenzene (Surr) 117

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 54490

Matrix: Solid Analysis Batch: 54541

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00200	U	0.100	0.1029		mg/Kg		103	70 - 130	2	35
Ethylbenzene	<0.00200	U F1	0.100	0.06396	F1	mg/Kg		64	70 - 130	0	35
Toluene	<0.00200	U	0.100	0.07325		mg/Kg		73	70 - 130	1	35
m-Xylene & p-Xylene	<0.00399	U F1	0.200	0.1224	F1	mg/Kg		61	70 - 130	0	35
o-Xylene	<0.00200	U F1	0.100	0.06148	F1	mg/Kg		61	70 - 130	1	35

MSD MSD Surrogate Qualifier Limits %Recovery 90 70 - 130 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) 70 - 130 113

Lab Sample ID: MB 880-54491/5-A

Matrix: Solid

Analysis Batch: 54492

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

Prep Batch: 54491

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/31/23 11:44	06/01/23 05:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/31/23 11:44	06/01/23 05:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/31/23 11:44	06/01/23 05:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/31/23 11:44	06/01/23 05:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/31/23 11:44	06/01/23 05:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/31/23 11:44	06/01/23 05:39	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	60	S1-	70 - 130	05/31/23 11:44	06/01/23 05:39	1
1,4-Difluorobenzene (Surr)	95		70 - 130	05/31/23 11:44	06/01/23 05:39	1

Lab Sample ID: MB 880-54495/5-A

Matrix: Solid

Analysis Batch: 54492

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 54495

	IVID	IVID							
Analyte	Result	Qualifier	RL	MDL Ur	nit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	m _i	g/Kg	_	05/31/23 12:12	06/01/23 19:36	1
Ethylbenzene	<0.00200	U	0.00200	m	g/Kg		05/31/23 12:12	06/01/23 19:36	1
Toluene	<0.00200	U	0.00200	m	g/Kg		05/31/23 12:12	06/01/23 19:36	1
Xylenes, Total	<0.00400	U	0.00400	m	g/Kg		05/31/23 12:12	06/01/23 19:36	1

QC Sample Results

Client: Vertex Job ID: 890-4751-1 Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: MB 880-54495/5-A

Matrix: Solid

Analysis Batch: 54492

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 54495

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/31/23 12:12	06/01/23 19:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/31/23 12:12	06/01/23 19:36	1

MR MR

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	60	S1-	70 - 130	05/31/23 12:12	06/01/23 19:36	1
1,4-Difluorobenzene (Surr)	92		70 - 130	05/31/23 12:12	06/01/23 19:36	1

Lab Sample ID: LCS 880-54495/1-A Client Sample ID: Lab Control Sample

Ma

Analysis Batch: 54492

latrix: Solid	Prep Type: Total/NA
nalysis Ratch: 54492	Prop Ratch: 5/495

LCS LCS Spike %Rec Added Result Qualifier Unit %Rec Limits 0.1453 *+ Benzene 0.100 mg/Kg 145 70 - 130 0.100 Ethylbenzene 0.1263 mg/Kg 126 70 - 130 0.100 0.1295 129 70 - 130 Toluene mg/Kg m-Xylene & p-Xylene 0.200 0.2462 mg/Kg 123 70 - 130 o-Xylene 0.100 0.1188 mg/Kg 119 70 - 130

LCS LCS

Surrogate	%Recovery Qเ	ıalifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1.4-Difluorobenzene (Surr)	96		70 ₋ 130

Lab Sample ID: LCSD 880-54495/2-A

Matrix: Solid

Analysis Batch: 54492

Prep Type: Total/NA

Prep Batch: 54495

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1314	*+	mg/Kg		131	70 - 130	10	35
Ethylbenzene	0.100	0.1123		mg/Kg		112	70 - 130	12	35
Toluene	0.100	0.1179		mg/Kg		118	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.2203		mg/Kg		110	70 - 130	11	35
o-Xylene	0.100	0.1053		mg/Kg		105	70 - 130	12	35
I and the second se									

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	90	70 - 130
1.4-Difluorobenzene (Surr)	107	70 - 130

Lab Sample ID: 880-28831-A-21-G MS

Matrix: Solid

Analysis Batch: 54492

Client	Sample	ID: Matrix Spik	е
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Prep Type: Total/NA

Prep Batch: 54495

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U *+	0.100	0.1164		mg/Kg		116	70 - 130	
Ethylbenzene	<0.00199	U	0.100	0.09649		mg/Kg		96	70 - 130	
Toluene	<0.00199	U	0.100	0.1029		mg/Kg		102	70 - 130	
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1882		mg/Kg		94	70 - 130	
o-Xylene	<0.00199	U	0.100	0.09197		mg/Kg		92	70 - 130	

Client: Vertex Job ID: 890-4751-1 SDG: 23E-02502 Project/Site: Corral Fly

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

Lab Sample ID: 880-28831-A-21-G MS

Matrix: Solid

Analysis Batch: 54492

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 54495

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	89		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: 880-28831-A-21-H MSD **Client Sample ID: Matrix Spike Duplicate**

Matrix: Solid

Analysis Batch: 54492

Prep Type: Total/NA

Prep Batch: 54495

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U *+	0.0990	0.1178		mg/Kg		119	70 - 130	1	35
Ethylbenzene	<0.00199	U	0.0990	0.09586		mg/Kg		97	70 - 130	1	35
Toluene	<0.00199	U	0.0990	0.1012		mg/Kg		102	70 - 130	2	35
m-Xylene & p-Xylene	<0.00398	U	0.198	0.1852		mg/Kg		94	70 - 130	2	35
o-Xylene	<0.00199	U	0.0990	0.09073		mg/Kg		92	70 - 130	1	35

MSD MSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	101	70 - 130
1,4-Difluorobenzene (Surr)	104	70 - 130

Lab Sample ID: MB 880-54500/5-A Client Sample ID: Method Blank

Matrix: Solid

Analysis Batch: 54618

Prep Type: Total/NA Prep Batch: 54500 MR MR

	IND	MID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:23	06/02/23 12:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:23	06/02/23 12:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:23	06/02/23 12:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/31/23 13:23	06/02/23 12:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/31/23 13:23	06/02/23 12:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:23	06/02/23 12:21	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	67	S1-	70 - 130	05/31/23 13:23	06/02/23 12:21	1
1,4-Difluorobenzene (Surr)	93		70 - 130	05/31/23 13:23	06/02/23 12:21	1

Lab Sample ID: LCS 880-54500/1-A

Matrix: Solid Analysis Batch: 54618 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Prep Batch: 54500

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1493	*+	mg/Kg		149	70 - 130	
Ethylbenzene	0.100	0.1114		mg/Kg		111	70 - 130	
Toluene	0.100	0.1264		mg/Kg		126	70 - 130	
m-Xylene & p-Xylene	0.200	0.2259		mg/Kg		113	70 - 130	
o-Xylene	0.100	0.1135		mg/Kg		113	70 - 130	

LCS LCS

Surrogate	%Recovery Qua	lifier Limits
4-Bromofluorobenzene (Surr)	95	70 - 130

Client: Vertex Job ID: 890-4751-1 SDG: 23E-02502 Project/Site: Corral Fly

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

Lab Sample ID: LCS 880-54500/1-A

Matrix: Solid

Analysis Batch: 54618

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 54500

LCS LCS

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

Client Sample ID: Lab Control Sample Dup Lab Sample ID: LCSD 880-54500/2-A

Matrix: Solid

Analysis Batch: 54618

Prep Type: Total/NA

Prep Batch: 54500

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1559	*+	mg/Kg		156	70 - 130	4	35
Ethylbenzene	0.100	0.1233		mg/Kg		123	70 - 130	10	35
Toluene	0.100	0.1270		mg/Kg		127	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.2419		mg/Kg		121	70 - 130	7	35
o-Xylene	0.100	0.1164		mg/Kg		116	70 - 130	3	35

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	97	70 - 130
1,4-Difluorobenzene (Surr)	110	70 - 130

Lab Sample ID: 890-4737-A-4-D MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 54618

Prep Type: Total/NA

Prep Batch: 54500

Sample Sample		Spike M	IS MS			%Rec
Result Qualifier	Analyte	Added Res	ılt Qualifier	Unit D	%Rec	Limits
<0.00202 U *+ F1	Benzene	0.100 0.13	B6 F1	mg/Kg	138	70 - 130
<0.00202 U	Ethylbenzene	0.100 0.098	74	mg/Kg	98	70 - 130
<0.00202 U	Toluene	0.100 0.10	91	mg/Kg	109	70 - 130
<0.00403 U	m-Xylene & p-Xylene	0.201 0.18	91	mg/Kg	94	70 - 130
<0.00202 U	o-Xylene	0.100 0.090	94	mg/Kg	91	70 - 130
	• • •					

MS MS

Surrogate	%Recovery Qua	alifier Limits
4-Bromofluorobenzene (Surr)	98	70 - 130
1.4-Difluorobenzene (Surr)	106	70 - 130

Lab Sample ID: 890-4737-A-4-E MSD

Matrix: Solid

Analysis Batch: 54618

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 54500

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U *+ F1	0.0996	0.1232		mg/Kg		124	70 - 130	12	35
Ethylbenzene	<0.00202	U	0.0996	0.08721		mg/Kg		88	70 - 130	12	35
Toluene	<0.00202	U	0.0996	0.1004		mg/Kg		101	70 - 130	8	35
m-Xylene & p-Xylene	<0.00403	U	0.199	0.1683		mg/Kg		84	70 - 130	12	35
o-Xylene	<0.00202	U	0.0996	0.08470		mg/Kg		85	70 - 130	7	35

MSD MSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	97	70 - 130
1,4-Difluorobenzene (Surr)	105	70 - 130

Client: Vertex Job ID: 890-4751-1 Project/Site: Corral Fly SDG: 23E-02502

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

MD MD

170 S1+

133 S1+

Lab Sample ID: MB 880-54453/1-A

Matrix: Solid Analysis Batch: 54532 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 54453

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/31/23 09:15	06/01/23 08:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/31/23 09:15	06/01/23 08:40	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/31/23 09:15	06/01/23 08:40	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

70 - 130

70 - 130

Lab Sample ID: LCS 880-54453/2-A

Matrix: Solid Analysis Batch: 54532

1-Chlorooctane

o-Terphenyl

Client Sample ID: Lab Control Sample

06/01/23 08:40

06/01/23 08:40

05/31/23 09:15

05/31/23 09:15

Prep Type: Total/NA Prep Batch: 54453

LCS LCS Spike Analyte Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics 1000 913.7 91 70 - 130 mg/Kg (GRO)-C6-C10 1000 Diesel Range Organics (Over 946.1 mg/Kg 95 70 - 130C10-C28)

LCS LCS Qualifier Limits Surrogate %Recovery 1-Chlorooctane 107 70 - 130 70 - 130 o-Terphenyl 84

Lab Sample ID: LCSD 880-54453/3-A

Matrix: Solid

Analysis Batch: 54532

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

Prep Batch: 54453

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	1008		mg/Kg		101	70 - 130	10	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1013		mg/Kg		101	70 - 130	7	20
C10-C28)									

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
1-Chlorooctane	122	70 - 130
o-Terphenyl	93	70 - 130

Lab Sample ID: 880-28880-A-9-B MS

Matrix: Solid

C10-C28)

Analysis Batch: 54532

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 54453

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier Analyte Unit %Rec Limits Gasoline Range Organics <50.0 U 999 1201 mg/Kg 120 70 - 130 (GRO)-C6-C10 <50.0 U 999 1124 70 - 130 Diesel Range Organics (Over mg/Kg 113

Client: Vertex Job ID: 890-4751-1 Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: 880-28880-A-9-B MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA Analysis Batch: 54532 Prep Batch: 54453

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	146	S1+	70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: 880-28880-A-9-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA Analysis Batch: 54532 Prep Batch: 54453

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1191		mg/Kg		119	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	997	1120		mg/Kg		112	70 - 130	0	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								

1-Chlorooctane 146 S1+ 70 - 130 105 70 - 130 o-Terphenyl

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-54461/1-A Client Sample ID: Method Blank **Matrix: Solid**

Prep Type: Soluble

Analysis Batch: 54527

Analyte Result Qualifier RL MDL Unit D Dil Fac Prepared Analyzed Chloride 5.00 <5.00 U mg/Kg 05/31/23 21:27

мв мв

Lab Sample ID: LCS 880-54461/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 54527

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit %Rec Limits Chloride 250 255.4 mg/Kg 102 90 - 110

Lab Sample ID: LCSD 880-54461/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 54527

Spike LCSD LCSD %Rec RPD Result Qualifier Added Analyte Unit D %Rec Limits RPD Limit Chloride 250 255.1 102 90 - 110 20 mg/Kg

Lab Sample ID: 880-28880-A-15-C MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Soluble

Analysis Batch: 54527

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 1570 F1 1250 F1 2680 mg/Kg 90 - 110

QC Sample Results

Client: Vertex Job ID: 890-4751-1 Project/Site: Corral Fly SDG: 23E-02502

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-28880-A-15-D MSD **Client Sample ID: Matrix Spike Duplicate Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 54527

•	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	1570	F1	1250	2682	F1	mg/Kg		89	90 - 110	0	20

 Client: Vertex
 Job ID: 890-4751-1

 Project/Site: Corral Fly
 SDG: 23E-02502

GC VOA

Prep Batch: 54490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4751-1	BH23-04 0'	Total/NA	Solid	5035	
890-4751-2	BH23-04 2'	Total/NA	Solid	5035	
890-4751-3	BH23-05 0'	Total/NA	Solid	5035	
890-4751-4	BH23-05 2'	Total/NA	Solid	5035	
890-4751-5	BH23-05 4'	Total/NA	Solid	5035	
MB 880-54490/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-54490/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-54490/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-28928-A-2-D MS	Matrix Spike	Total/NA	Solid	5035	
880-28928-A-2-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 54491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-54491/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 54492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4751-7	BH23-06 2'	Total/NA	Solid	8021B	54495
MB 880-54491/5-A	Method Blank	Total/NA	Solid	8021B	54491
MB 880-54495/5-A	Method Blank	Total/NA	Solid	8021B	54495
LCS 880-54495/1-A	Lab Control Sample	Total/NA	Solid	8021B	54495
LCSD 880-54495/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	54495
880-28831-A-21-G MS	Matrix Spike	Total/NA	Solid	8021B	54495
880-28831-A-21-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	54495

Prep Batch: 54495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4751-7	BH23-06 2'	Total/NA	Solid	5035	
MB 880-54495/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-54495/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-54495/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-28831-A-21-G MS	Matrix Spike	Total/NA	Solid	5035	
880-28831-A-21-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 54500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4751-6	BH23-06 0'	Total/NA	Solid	5035	
MB 880-54500/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-54500/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-54500/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4737-A-4-D MS	Matrix Spike	Total/NA	Solid	5035	
890-4737-A-4-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 54541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4751-1	BH23-04 0'	Total/NA	Solid	8021B	54490
890-4751-2	BH23-04 2'	Total/NA	Solid	8021B	54490
890-4751-3	BH23-05 0'	Total/NA	Solid	8021B	54490
890-4751-4	BH23-05 2'	Total/NA	Solid	8021B	54490
890-4751-5	BH23-05 4'	Total/NA	Solid	8021B	54490
MB 880-54490/5-A	Method Blank	Total/NA	Solid	8021B	54490

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Client: Vertex Job ID: 890-4751-1
Project/Site: Corral Fly SDG: 23E-02502

GC VOA (Continued)

Analysis Batch: 54541 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-54490/1-A	Lab Control Sample	Total/NA	Solid	8021B	54490
LCSD 880-54490/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	54490
880-28928-A-2-D MS	Matrix Spike	Total/NA	Solid	8021B	54490
880-28928-A-2-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	54490

Analysis Batch: 54618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4751-6	BH23-06 0'	Total/NA	Solid	8021B	54500
MB 880-54500/5-A	Method Blank	Total/NA	Solid	8021B	54500
LCS 880-54500/1-A	Lab Control Sample	Total/NA	Solid	8021B	54500
LCSD 880-54500/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	54500
890-4737-A-4-D MS	Matrix Spike	Total/NA	Solid	8021B	54500
890-4737-A-4-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	54500

Analysis Batch: 54680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4751-1	BH23-04 0'	Total/NA	Solid	Total BTEX	
890-4751-2	BH23-04 2'	Total/NA	Solid	Total BTEX	
890-4751-3	BH23-05 0'	Total/NA	Solid	Total BTEX	
890-4751-4	BH23-05 2'	Total/NA	Solid	Total BTEX	
890-4751-5	BH23-05 4'	Total/NA	Solid	Total BTEX	
890-4751-6	BH23-06 0'	Total/NA	Solid	Total BTEX	
890-4751-7	BH23-06 2'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 54453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4751-1	BH23-04 0'	Total/NA	Solid	8015NM Prep	
890-4751-2	BH23-04 2'	Total/NA	Solid	8015NM Prep	
890-4751-3	BH23-05 0'	Total/NA	Solid	8015NM Prep	
890-4751-4	BH23-05 2'	Total/NA	Solid	8015NM Prep	
890-4751-5	BH23-05 4'	Total/NA	Solid	8015NM Prep	
890-4751-6	BH23-06 0'	Total/NA	Solid	8015NM Prep	
890-4751-7	BH23-06 2'	Total/NA	Solid	8015NM Prep	
MB 880-54453/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-54453/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-54453/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-28880-A-9-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-28880-A-9-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 54532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4751-1	BH23-04 0'	Total/NA	Solid	8015B NM	54453
890-4751-2	BH23-04 2'	Total/NA	Solid	8015B NM	54453
890-4751-3	BH23-05 0'	Total/NA	Solid	8015B NM	54453
890-4751-4	BH23-05 2'	Total/NA	Solid	8015B NM	54453
890-4751-5	BH23-05 4'	Total/NA	Solid	8015B NM	54453
890-4751-6	BH23-06 0'	Total/NA	Solid	8015B NM	54453
890-4751-7	BH23-06 2'	Total/NA	Solid	8015B NM	54453
MB 880-54453/1-A	Method Blank	Total/NA	Solid	8015B NM	54453

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Client: Vertex Job ID: 890-4751-1 Project/Site: Corral Fly SDG: 23E-02502

GC Semi VOA (Continued)

Analysis Batch: 54532 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-54453/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	54453
LCSD 880-54453/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	54453
880-28880-A-9-B MS	Matrix Spike	Total/NA	Solid	8015B NM	54453
880-28880-A-9-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	54453

Analysis Batch: 54628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4751-1	BH23-04 0'	Total/NA	Solid	8015 NM	_
890-4751-2	BH23-04 2'	Total/NA	Solid	8015 NM	
890-4751-3	BH23-05 0'	Total/NA	Solid	8015 NM	
890-4751-4	BH23-05 2'	Total/NA	Solid	8015 NM	
890-4751-5	BH23-05 4'	Total/NA	Solid	8015 NM	
890-4751-6	BH23-06 0'	Total/NA	Solid	8015 NM	
890-4751-7	BH23-06 2'	Total/NA	Solid	8015 NM	

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Leach Batch: 54461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4751-1	BH23-04 0'	Soluble	Solid	DI Leach	_
890-4751-2	BH23-04 2'	Soluble	Solid	DI Leach	
890-4751-3	BH23-05 0'	Soluble	Solid	DI Leach	
890-4751-4	BH23-05 2'	Soluble	Solid	DI Leach	
890-4751-5	BH23-05 4'	Soluble	Solid	DI Leach	
890-4751-6	BH23-06 0'	Soluble	Solid	DI Leach	
890-4751-7	BH23-06 2'	Soluble	Solid	DI Leach	
MB 880-54461/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-54461/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-54461/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-28880-A-15-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-28880-A-15-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 54527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4751-1	BH23-04 0'	Soluble	Solid	300.0	54461
890-4751-2	BH23-04 2'	Soluble	Solid	300.0	54461
890-4751-3	BH23-05 0'	Soluble	Solid	300.0	54461
890-4751-4	BH23-05 2'	Soluble	Solid	300.0	54461
890-4751-5	BH23-05 4'	Soluble	Solid	300.0	54461
890-4751-6	BH23-06 0'	Soluble	Solid	300.0	54461
890-4751-7	BH23-06 2'	Soluble	Solid	300.0	54461
MB 880-54461/1-A	Method Blank	Soluble	Solid	300.0	54461
LCS 880-54461/2-A	Lab Control Sample	Soluble	Solid	300.0	54461
LCSD 880-54461/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	54461
880-28880-A-15-C MS	Matrix Spike	Soluble	Solid	300.0	54461
880-28880-A-15-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	54461

Project/Site: Corral Fly

Client Sample ID: BH23-04 0'

Date Collected: 05/26/23 10:00 Date Received: 05/26/23 16:20

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	54490	05/31/23 12:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54541	06/01/23 19:42	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54680	06/02/23 17:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			54628	06/02/23 09:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	54453	05/31/23 09:15	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54532	06/01/23 15:19	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	54461	05/31/23 16:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	54527	05/31/23 22:10	CH	EET MID

Lab Sample ID: 890-4751-2 Client Sample ID: BH23-04 2'

Date Collected: 05/26/23 10:05

Date Received: 05/26/23 16:20

Matrix: Solid

Batch Dil Initial Final Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 Total/NA 4.97 g 5 mL 54490 05/31/23 12:00 MNR EET MID Total/NA 8021B 5 mL 06/01/23 20:02 **EET MID** Analysis 1 5 mL 54541 MNR Total/NA Total BTEX 54680 06/02/23 17:30 Analysis SM **EET MID** 1 Total/NA Analysis 8015 NM 54628 06/02/23 09:38 SM **EET MID** Total/NA 54453 Prep 8015NM Prep 10.05 g 10 mL 05/31/23 09:15 AM EET MID Total/NA Analysis 8015B NM 1 uL 1 uL 54532 06/01/23 16:27 SM **EET MID**

5.02 g

50 mL

50 mL

50 mL

54461

54527

Client Sample ID: BH23-05 0'

Leach

Analysis

DI Leach

300.0

Date Collected: 05/26/23 10:10

Soluble

Soluble

Date Received: 05/26/23 16:20

Lab Sample ID: 890-4751-3

KS

СН

05/31/23 16:00

05/31/23 22:15

Matrix: Solid

EET MID

EET MID

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	54490	05/31/23 12:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54541	06/01/23 20:22	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54680	06/02/23 17:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			54628	06/02/23 09:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	54453	05/31/23 09:15	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54532	06/01/23 17:15	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	54461	05/31/23 16:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	54527	05/31/23 22:31	CH	EET MID

Client Sample ID: BH23-05 2'

Date Collected: 05/26/23 10:15

Date Received: 05/26/23 16:20

Lab	Sample	ID:	890-4751-4

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	54490	05/31/23 12:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54541	06/01/23 20:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54680	06/02/23 17:30	SM	EET MID

Client: Vertex

Job ID: 890-4751-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-05 2' Lab Sample ID: 890-4751-4

Date Collected: 05/26/23 10:15 Matrix: Solid Date Received: 05/26/23 16:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			54628	06/02/23 09:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	54453	05/31/23 09:15	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54532	06/01/23 17:36	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	54461	05/31/23 16:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	54527	05/31/23 22:37	CH	EET MID

Client Sample ID: BH23-05 4' Lab Sample ID: 890-4751-5

Date Collected: 05/26/23 10:20 **Matrix: Solid**

Date Received: 05/26/23 16:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	54490	05/31/23 12:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54541	06/01/23 21:03	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54680	06/02/23 17:30	SM	EET MIC
Total/NA	Analysis	8015 NM		1			54628	06/02/23 09:38	SM	EET MIC
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	54453	05/31/23 09:15	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54532	06/01/23 17:58	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	54461	05/31/23 16:00	KS	EET MIC
Soluble	Analysis	300.0		1	50 mL	50 mL	54527	05/31/23 22:42	CH	EET MID

Client Sample ID: BH23-06 0' Lab Sample ID: 890-4751-6 Date Collected: 05/26/23 10:25 **Matrix: Solid**

Date Received: 05/26/23 16:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	54500	05/31/23 13:23	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54618	06/02/23 22:31	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54680	06/05/23 12:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			54628	06/02/23 09:38	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	54453	05/31/23 09:15	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54532	06/01/23 18:20	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	54461	05/31/23 16:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	54527	05/31/23 22:47	CH	EET MID

Client Sample ID: BH23-06 2' Lab Sample ID: 890-4751-7

Date Collected: 05/26/23 10:30 Date Received: 05/26/23 16:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	54495	05/31/23 12:12	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54492	06/02/23 05:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54680	06/02/23 17:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			54628	06/02/23 09:38	SM	EET MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.03 g 1 uL	10 mL 1 uL	54453 54532	05/31/23 09:15 06/01/23 18:41	AM SM	EET MID EET MID

Eurofins Carlsbad

Matrix: Solid

Lab Chronicle

Client: Vertex Job ID: 890-4751-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-06 2'

Lab Sample ID: 890-4751-7 Date Collected: 05/26/23 10:30 Matrix: Solid

Date Received: 05/26/23 16:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	54461	05/31/23 16:00	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	54527	05/31/23 22:53	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
 Job ID: 890-4751-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-25	06-30-23
The following analytes are included in this report,		It the laboratory is not certifi	ed by the governing authority. This list ma	av include analytes for
the agency does not of	fer certification.	•	, , ,	.,
the agency does not of Analysis Method	fer certification . Prep Method	Matrix	Analyte	-,
0 ,		Matrix Solid	Analyte Total TPH	

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Method Summary

Client: Vertex Job ID: 890-4751-1 Project/Site: Corral Fly

SDG: 23E-02502

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: Corral Fly

Job ID: 890-4751-1

SDG: 23E-02502

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4751-1	BH23-04 0'	Solid	05/26/23 10:00	05/26/23 16:20	0
890-4751-2	BH23-04 2'	Solid	05/26/23 10:05	05/26/23 16:20	2
890-4751-3	BH23-05 0'	Solid	05/26/23 10:10	05/26/23 16:20	0
890-4751-4	BH23-05 2'	Solid	05/26/23 10:15	05/26/23 16:20	2
890-4751-5	BH23-05 4'	Solid	05/26/23 10:20	05/26/23 16:20	4
890-4751-6	BH23-06 0'	Solid	05/26/23 10:25	05/26/23 16:20	0
890-4751-7	BH23-06 2'	Solid	05/26/23 10:30	05/26/23 16:20	2

Chain of Custody

	Xenco	EL Paso, TX (EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296		_
				www.xenco.com	com Page of
Project Manager:	hance Dixon	Bill to: (if different)	Rob Kirk	Work Ord	omn
Company Name:		Company Name:	Solaris	Program: UST/PST PRP Brownfields	Brownfields ☐ RRC ☐ Superfund ☐
Address:		Address:		State of Project:	
City, State ZIP:		City, State ZIP:		Reporting: Level III Level III PST/UST TRRP	PST/UST TRRP Level IV
Phone:		Email: Colixon@ lertex.ca	extex.ca analytical@vedex.co	Deliverables: EDD	ADaPT Other:
Project Name:	form Flu	Turn Around	ANALYSIS REQUEST	QUEST	Preservative Codes
Project Number:	23E-02502	Routine Rush Code			None: NO DI Water: H ₂ O
Project Location:		Due Date:			Cool: Cool MeOH: Me
	Hunter Klein	TAT starts the day received by			HCL: HC HNO 3: HN
		_		_	H ₂ SO ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank: Yes No	Wet Ice: Yes No eters			H ₃ PO ₄ : HP
Samples Received Intact:	-	LOOM WILL			NaHSO 4: NABIS
Cooler Custody Seals:	Yes No N/A	30,0			Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	Yes No N/A Temperature Reading:	7	A 890-4751 Chain o	Tain of Custody	Zn Acetate+NaOH: Zn
Total Containers:	Corrected Temperature:	mperature: 1. C	P		NACCIFICACION ACIDISATE
Sample Identification	ation Matrix Date	Time Depth Comp Cont	T BT		Sample Comments
H23-04	0' Sail 5/26/23	00.0t	\ \ \ \ \ \ \		
BH23-04	2/	10:05	<i>+ + +</i>		
3H23-05	Ø′	20.10	ナナト		
30-5 EPH8	8.	10:15			
3423-05	4'	10:20	7++		
BH23- DC	0	10:25	+++		
BH23-06	2.	20:30	+++++++++++++++++++++++++++++++++++++++		
Total 200.7 / 6010	Total 200.7 / 6010 200.8 / 6020: 8R Circle Method(s) and Metal(s) to be analyzed	8RCRA 13PPM Texas 11 AI Sb TCLP/SPLP6010: 8RCRA SI	As Ba Be B Cd Ca Cr Co Cu Fe Pb b As Ba Be Cd Cr Co Cu Pb Mn Mo	Mn Mo Ni K Se Ag Tl U	Ag SiO ₂ Na Sr Tl Sn U V Zn Hg: 1631/245.1/7470/7471
ce: Signature of this docume rvice. Eurofins Xenco will be rrofins Xenco. A minimum ch	nt and relinquishment of samples constitutes a va e ilable only for the cost of samples and shall not a harge of \$85,00 will be applied to each project an	alid purchase order from client company to Eurossume any responsibility for any losses or expend a charge of \$5 for each sample submitted to	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 nego	I terms and conditions es beyond the control unless previously negotiated.	
Relinquished by: (Signature)	ignature) Received b	Received by: (Signature)	Date/Time Relinquished by: (Ṣignature)	nature) Received by: (Signature)	ature) Date∕Time
Mant 2	Min ()(4) (1)	57	5.23.23 1620		

6/5/2023

Login Sample Receipt Checklist

 Client: Vertex
 Job Number: 890-4751-1

 SDG Number: 23E-02502

Login Number: 4751 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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	

, c 200 oj 000

Login Sample Receipt Checklist

Client: Vertex Job Number: 890-4751-1 SDG Number: 23E-02502

Login Number: 4751 **List Source: Eurofins Midland** List Number: 2 List Creation: 05/31/23 11:20 AM

Creator: Rodriguez, Leticia

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

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 6/5/2023 4:15:48 PM

JOB DESCRIPTION

Corral Fly SDG NUMBER 23E-02502

JOB NUMBER

890-4754-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

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

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

Authorization

Generated 6/5/2023 4:15:48 PM

6/5/2023

Authorized for release by Jessica Kramer, Project Manager <u>Jessica.Kramer@et.eurofinsus.com</u> (432)704-5440 Client: Vertex Laboratory Job ID: 890-4754-1
Project/Site: Corral Fly SDG: 23E-02502

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Definitions/Glossary

Client: Vertex Job ID: 890-4754-1 Project/Site: Corral Fly SDG: 23E-02502

Qualifiers

GC VOA

Qualifier **Qualifier Description**

S1-Surrogate recovery exceeds control limits, low 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**

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

Percent Recovery %R 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" Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit Minimum Level (Dioxin) ML MPN Most Probable Number Method Quantitation Limit MQL

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)

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Case Narrative

 Client: Vertex
 Job ID: 890-4754-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Job ID: 890-4754-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4754-1

Receipt

The samples were received on 5/30/2023 4:07 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 12.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BH23-07 0' (890-4754-1), BH23-07 2' (890-4754-2), BH23-08 0' (890-4754-3), BH23-09 0' (890-4754-4), BH23-09 2' (890-4754-5) and BH23-10 0' (890-4754-6).

GC VOA

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-54618 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 880-54618/51), (CCV 880-54618/64), (CCV 880-54618/82) and (CCV 880-54618/95).

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-54501 and 880-54507 and analytical batch 880-54618 was outside the control limits.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-54640 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The samples with a detection are being re-analyzed for confirmation. The associated samples are impacted: (CCV 880-54640/33), (CCV 880-54640/61), (CCV 880-54640/62) and (CCV 880-54640/95).

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 880-54621 and analytical batch 880-54612 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH23-07 0' (890-4754-1), BH23-07 2' (890-4754-2), BH23-08 0' (890-4754-3), BH23-09 0' (890-4754-4), BH23-09 2' (890-4754-5), BH23-10 0' (890-4754-6), (890-4753-A-1-I MS) and (890-4753-A-1-J MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

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

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Job ID: 890-4754-1

SDG: 23E-02502

Client Sample ID: BH23-07 0'

Date Collected: 05/30/23 10:00 Date Received: 05/30/23 16:07

Client: Vertex

Project/Site: Corral Fly

Lab Sample ID: 890-4754-1

Matrix: Solid

Method: SW846 8021B - Volatile	Organic Comp	ounds (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/31/23 13:45	06/03/23 22:32	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/31/23 13:45	06/03/23 22:32	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/31/23 13:45	06/03/23 22:32	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/31/23 13:45	06/03/23 22:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/31/23 13:45	06/03/23 22:32	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/31/23 13:45	06/03/23 22:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130				05/31/23 13:45	06/03/23 22:32	1
1,4-Difluorobenzene (Surr)	95		70 - 130				05/31/23 13:45	06/03/23 22:32	1
- Method: TAL SOP Total BTEX - 1	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/05/23 16:54	1
Method: SW846 8015 NM - Diese Analyte	Result	Qualifier	RL	MDL		<u>D</u>	Prepared	Analyzed	Dil Fac
Total TPH	<49.8		49.8		mg/Kg			06/05/23 11:22	1
- Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/02/23 09:01	06/02/23 13:22	1
Diesel Range Organics (Over	<49.8	U	49.8		mg/Kg		06/02/23 09:01	06/02/23 13:22	1
C10-C28) OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/02/23 09:01	06/02/23 13:22	1
Surrogate	- %Recovery		Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	148	S1+	70 - 130				06/02/23 09:01	06/02/23 13:22	1
o-Terphenyl	117		70 - 130				06/02/23 09:01	06/02/23 13:22	1
o-Terphenyl Method: EPA 300.0 - Anions, Ion Analyte	Chromatograp	ohy - Solubl Qualifier					06/02/23 09:01 Prepared	06/02/23 13:22 Analyzed	1 Dil Fac

Client Sample ID: BH23-07 2'

Date Collected: 05/30/23 10:05

Matrix: Solid

123

4.98

mg/Kg

Date Received: 05/30/23 16:07

Chloride

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:45	06/03/23 22:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:45	06/03/23 22:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:45	06/03/23 22:53	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/31/23 13:45	06/03/23 22:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/31/23 13:45	06/03/23 22:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:45	06/03/23 22:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130				05/31/23 13:45	06/03/23 22:53	1
1,4-Difluorobenzene (Surr)	98		70 - 130				05/31/23 13:45	06/03/23 22:53	1

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06/02/23 11:04

Client Sample Results

Client: Vertex Job ID: 890-4754-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-07 2'

Date Collected: 05/30/23 10:05 Date Received: 05/30/23 16:07

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Result Qualifier

141

Lab Sample ID: 890-4754-2

Matrix: Solid

Method: TAL SOP Total BTEX - 1	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			06/05/23 16:54	1
- Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			06/05/23 11:22	1
Method: SW846 8015B NM - Dies Analyte	Result	Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
		Qualifier	` '	MDL	Unit mg/Kg	<u>D</u>	Prepared 06/02/23 09:01	Analyzed 06/02/23 13:44	Dil Fac
(GRO)-C6-C10									•
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/02/23 09:01	06/02/23 13:44	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/02/23 09:01	06/02/23 13:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	158	S1+	70 - 130				06/02/23 09:01	06/02/23 13:44	1
o-Terphenyl	125		70 - 130				06/02/23 09:01	06/02/23 13:44	1

Client Sample ID: BH23-08 0' Lab Sample ID: 890-4754-3 Date Collected: 05/30/23 10:10 **Matrix: Solid**

RL

4.99

MDL Unit

mg/Kg

D

Prepared

Date Received: 05/30/23 16:07

Analyte

Chloride

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:45	06/03/23 23:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:45	06/03/23 23:13	•
Toluene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:45	06/03/23 23:13	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/31/23 13:45	06/03/23 23:13	1
m-Xylene & p-Xylene	< 0.00401	U	0.00401		mg/Kg		05/31/23 13:45	06/03/23 23:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:45	06/03/23 23:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130				05/31/23 13:45	06/03/23 23:13	1
			70 - 130				05/31/23 13:45	06/03/23 23:13	
Method: TAL SOP Total BTEX - Analyte	· Total BTEX Cald	Qualifier	RL	MDL	Unit ma/Ka	<u>D</u>	05/31/23 13:45 Prepared	Analyzed	
Method: TAL SOP Total BTEX - Analyte Total BTEX	- Total BTEX Calc Result <	Qualifier U	RL 0.00401	MDL	Unit mg/Kg	<u>D</u>			
Method: TAL SOP Total BTEX - Analyte Total BTEX Method: SW846 8015 NM - Dies	Total BTEX Calc Result <0.00401 sel Range Organ	Qualifier U	RL 0.00401		mg/Kg	=	Prepared	Analyzed 06/05/23 16:54	Dil Fac
Method: TAL SOP Total BTEX - Analyte	Total BTEX Calc Result <0.00401 sel Range Organ	Qualifier U ics (DRO) (Qualifier	RL 0.00401			<u>D</u>		Analyzed	Dil Fac
Method: TAL SOP Total BTEX - Analyte Total BTEX Method: SW846 8015 NM - Dies Analyte	rotal BTEX Calc Result <0.00401 sel Range Organ Result <49.9	Qualifier U ics (DRO) (Qualifier U	RL 0.00401 ——————————————————————————————————		mg/Kg	=	Prepared	Analyzed 06/05/23 16:54 Analyzed	Dil Fac
Method: TAL SOP Total BTEX - Analyte Total BTEX Method: SW846 8015 NM - Dies Analyte Total TPH Method: SW846 8015B NM - Dies	Total BTEX Calc Result <0.00401 sel Range Organ Result <49.9 esel Range Orga	Qualifier U ics (DRO) (Qualifier U	RL 0.00401 ——————————————————————————————————	MDL	mg/Kg	=	Prepared	Analyzed 06/05/23 16:54 Analyzed	Dil Fac
Method: TAL SOP Total BTEX - Analyte Total BTEX Method: SW846 8015 NM - Dies Analyte Total TPH	Total BTEX Calc Result <0.00401 sel Range Organ Result <49.9 esel Range Orga	Qualifier U ics (DRO) (Qualifier U nics (DRO) Qualifier	RL 0.00401 GC) RL 49.9	MDL	mg/Kg Unit mg/Kg	<u></u>	Prepared Prepared	Analyzed 06/05/23 16:54 Analyzed 06/05/23 11:22	Dil Fac

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Dil Fac

Analyzed

06/02/23 11:20

Job ID: 890-4754-1

SDG: 23E-02502

Client Sample ID: BH23-08 0'

Date Collected: 05/30/23 10:10 Date Received: 05/30/23 16:07

Client: Vertex

Project/Site: Corral Fly

Lab Sample ID: 890-4754-3

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/02/23 09:01	06/02/23 14:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	156	S1+	70 - 130				06/02/23 09:01	06/02/23 14:06	1
o-Terphenyl	122		70 - 130				06/02/23 09:01	06/02/23 14:06	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Chloride 2070 49.9 06/02/23 11:25 10 mg/Kg

Client Sample ID: BH23-09 0'

Date Collected: 05/30/23 10:15 Date Received: 05/30/23 16:07

Lab Sample ID: 890-4754-4

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:43	06/04/23 01:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:43	06/04/23 01:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:43	06/04/23 01:21	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/31/23 13:43	06/04/23 01:21	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/31/23 13:43	06/04/23 01:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:43	06/04/23 01:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130				05/31/23 13:43	06/04/23 01:21	1
1,4-Difluorobenzene (Surr)	97		70 - 130				05/31/23 13:43	06/04/23 01:21	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			06/05/23 12:45	1

Method: SW846 8015 NM - Diesel Ra	nge Organ	ics (DRO) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			06/05/23 11:22	1
Method: SW846 8015B NM - Diesel R	ango Orga	nice (DBO) (GC	•						
Wethou. 30040 00136 NW - Dieser K	ange Orga	ilics (DKO) (GC	•1						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Method. 544040 00 13D 14M - Dies	bei italige Orga	illies (Dito)	(00)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0		mg/Kg		06/02/23 09:01	06/02/23 14:29	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U	50.0		mg/Kg		06/02/23 09:01	06/02/23 14:29	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/02/23 09:01	06/02/23 14:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	142	S1+	70 - 130				06/02/23 09:01	06/02/23 14:29	1
o-Terphenyl	111		70 - 130				06/02/23 09:01	06/02/23 14:29	1

Method: EPA 300.0 - Anions, Ion Chr	omatography - Soluble						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	163	5.00	mg/Kg			06/02/23 11:31	1

Job ID: 890-4754-1

Client: Vertex Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-09 2'

Date Collected: 05/30/23 10:20 Date Received: 05/30/23 16:07

Lab Sample ID: 890-4754-5

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:43	06/04/23 01:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:43	06/04/23 01:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:43	06/04/23 01:47	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/31/23 13:43	06/04/23 01:47	
m-Xylene & p-Xylene	< 0.00401	U	0.00401		mg/Kg		05/31/23 13:43	06/04/23 01:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:43	06/04/23 01:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130				05/31/23 13:43	06/04/23 01:47	1
1,4-Difluorobenzene (Surr)	90		70 - 130				05/31/23 13:43	06/04/23 01:47	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			06/05/23 12:45	1
: Method: SW846 8015 NM - Diese			•	MDI	Unit	n	Propared	Analyzed	Dil Fa
• •		ics (DRO) (GC)	MDL	Unit	D	Prepared	Analyzed	Dil Fac
: Method: SW846 8015 NM - Diese		Qualifier	•	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 06/05/23 11:22	
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Die	Result <49.9 sel Range Orga	Qualifier Unics (DRO)	RL 49.9 (GC)		mg/Kg			06/05/23 11:22	1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Die Analyte	Result <49.9 sel Range Orga Result	Qualifier Unics (DRO) Qualifier	(GC)	MDL	mg/Kg	<u>D</u>	Prepared Prepared	06/05/23 11:22 Analyzed	1
Method: SW846 8015 NM - Dieso Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics	Result <49.9 sel Range Orga	Qualifier Unics (DRO) Qualifier	RL 49.9 (GC)		mg/Kg			06/05/23 11:22	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Die Analyte	Result <49.9 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U	(GC)		mg/Kg		Prepared	06/05/23 11:22 Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10	Result <49.9 Sel Range Orga Result <49.9	Qualifier U nics (DRO) Qualifier U	(GC) RL 49.9 49.9		mg/Kg Unit mg/Kg		Prepared 06/02/23 09:01	06/05/23 11:22 Analyzed 06/02/23 14:51	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.9 Sel Range Orga Result <49.9	Qualifier U nics (DRO) Qualifier U	(GC) RL 49.9 49.9		mg/Kg Unit mg/Kg		Prepared 06/02/23 09:01	06/05/23 11:22 Analyzed 06/02/23 14:51	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result	Qualifier U nics (DRO) Qualifier U U Qualifier	RL 49.9 (GC) RL 49.9 49.9		mg/Kg Unit mg/Kg mg/Kg		Prepared 06/02/23 09:01 06/02/23 09:01	06/05/23 11:22 Analyzed 06/02/23 14:51 06/02/23 14:51	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U nics (DRO) Qualifier U U	RL 49.9 (GC) RL 49.9 49.9 49.9		mg/Kg Unit mg/Kg mg/Kg		Prepared 06/02/23 09:01 06/02/23 09:01	Analyzed 06/02/23 14:51 06/02/23 14:51	Dil Face 1 1 1 Dil Face
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier U nics (DRO) Qualifier U U Qualifier	RL 49.9 (GC) RL 49.9 49.9 49.9 Limits		mg/Kg Unit mg/Kg mg/Kg		Prepared 06/02/23 09:01 06/02/23 09:01 06/02/23 09:01 Prepared	Analyzed 06/02/23 14:51 06/02/23 14:51 06/02/23 14:51 Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result	Qualifier U nics (DRO) Qualifier U U Qualifier S1+	RL 49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130		mg/Kg Unit mg/Kg mg/Kg		Prepared 06/02/23 09:01 06/02/23 09:01 06/02/23 09:01 Prepared 06/02/23 09:01	Analyzed 06/02/23 14:51 06/02/23 14:51 Analyzed 06/02/23 14:51	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U nics (DRO) Qualifier U U Qualifier S1+	RL 49.9 (GC) RL 49.9 49.9 49.9 Limits 70 - 130 70 - 130		mg/Kg Unit mg/Kg mg/Kg mg/Kg		Prepared 06/02/23 09:01 06/02/23 09:01 06/02/23 09:01 Prepared 06/02/23 09:01	Analyzed 06/02/23 14:51 06/02/23 14:51 Analyzed 06/02/23 14:51	Dil Fac Dil Fac 1 Dil Fac 1 Dil Fac 1 Dil Fac Dil Fac

Client Sample ID: BH23-10 0' Lab Sample ID: 890-4754-6 Date Collected: 05/30/23 10:25 **Matrix: Solid**

Date Received: 05/30/23 16:07

Method: SW846 8021B - Volati	•	•				_			
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/31/23 13:43	06/04/23 02:13	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/31/23 13:43	06/04/23 02:13	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/31/23 13:43	06/04/23 02:13	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/31/23 13:43	06/04/23 02:13	1
m-Xylene & p-Xylene	< 0.00396	U	0.00396		mg/Kg		05/31/23 13:43	06/04/23 02:13	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/31/23 13:43	06/04/23 02:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130				05/31/23 13:43	06/04/23 02:13	1
1,4-Difluorobenzene (Surr)	92		70 - 130				05/31/23 13:43	06/04/23 02:13	1

Client Sample Results

Client: Vertex Job ID: 890-4754-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-10 0'

Lab Sample ID: 890-4754-6 Date Collected: 05/30/23 10:25

Matrix: Solid

Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00396	U	0.00396		mg/Kg			06/05/23 12:45	
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	178		49.8		mg/Kg			06/05/23 11:22	
Method: SW846 8015B NM - Dies	ol Bango Orga	nice (DPO)	(GC)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	<49.8	U	49.8		mg/Kg		06/02/23 09:01	06/02/23 15:13	-
(GRO)-C6-C10									
Diesel Range Organics (Over	178		49.8		mg/Kg		06/02/23 09:01	06/02/23 15:13	
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/02/23 09:01	06/02/23 15:13	•
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1-Chlorooctane	141	S1+	70 - 130				06/02/23 09:01	06/02/23 15:13	
o-Terphenyl	108		70 - 130				06/02/23 09:01	06/02/23 15:13	
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte	• •	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	2860		50.4		mg/Kg			06/02/23 11:41	10

Surrogate Summary

Client: Vertex Job ID: 890-4754-1 Project/Site: Corral Fly SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Recovery (Acceptance Limits)
l ah Camula ID	Client Comple ID	(70-130)	(70-130)	
Lab Sample ID	Client Sample ID		<u> </u>	
880-28879-A-1-C MS	Matrix Spike	100	108	
880-28879-A-1-D MSD	Matrix Spike Duplicate	111	110	
880-28880-A-1-C MS	Matrix Spike	100	96	
880-28880-A-1-D MSD	Matrix Spike Duplicate	104	92	
890-4754-1	BH23-07 0'	92	95	
890-4754-2	BH23-07 2'	91	98	
890-4754-3	BH23-08 0'	90	99	
890-4754-4	BH23-09 0'	124	97	
890-4754-5	BH23-09 2'	110	90	
890-4754-6	BH23-10 0'	121	92	
LCS 880-54507/1-A	Lab Control Sample	102	104	
LCS 880-54508/1-A	Lab Control Sample	95	111	
LCSD 880-54507/2-A	Lab Control Sample Dup	110	104	
LCSD 880-54508/2-A	Lab Control Sample Dup	98	96	
MB 880-54501/5-A	Method Blank	65 S1-	87	
MB 880-54507/5-A	Method Blank	68 S1-	91	
MB 880-54508/5-A	Method Blank	85	104	
MB 880-54587/5-A	Method Blank	86	109	
0				
Surrogate Legend BFB = 4-Bromofluorober				

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

latrix: Solid				Prep Type: Total/N
				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-4753-A-1-I MS	Matrix Spike	137 S1+	96	
890-4753-A-1-J MSD	Matrix Spike Duplicate	138 S1+	97	
890-4754-1	BH23-07 0'	148 S1+	117	
890-4754-2	BH23-07 2'	158 S1+	125	
890-4754-3	BH23-08 0'	156 S1+	122	
890-4754-4	BH23-09 0'	142 S1+	111	
890-4754-5	BH23-09 2'	143 S1+	112	
890-4754-6	BH23-10 0'	141 S1+	108	
LCS 880-54621/2-A	Lab Control Sample	111	86	
LCSD 880-54621/3-A	Lab Control Sample Dup	121	93	
MB 880-54621/1-A	Method Blank	158 S1+	125	
Surrogate Legend				
1CO = 1-Chlorooctane				
OTPH = o-Terphenyl				

QC Sample Results

Job ID: 890-4754-1 Client: Vertex Project/Site: Corral Fly SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-54501/5-A

Analysis Batch: 54618

Matrix: Solid

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 54501

1

ı		MB	MR							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
	Benzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:35	06/03/23 02:06	
I	Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:35	06/03/23 02:06	
	Toluene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:35	06/03/23 02:06	
I	Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/31/23 13:35	06/03/23 02:06	
	m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/31/23 13:35	06/03/23 02:06	
	o-Xylene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:35	06/03/23 02:06	
ı										

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	65	S1-	70 - 130	05/31/23 13:35	06/03/23 02:06	1
1,4-Difluorobenzene (Surr)	87		70 - 130	05/31/23 13:35	06/03/23 02:06	1

Lab Sample ID: MB 880-54507/5-A

Matrix: Solid

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

Prep Batch: 54507

Analysis Batch: 54618

MR MR Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Benzene <0.00200 U 0.00200 mg/Kg 05/31/23 13:43 06/03/23 16:03 Ethylbenzene <0.00200 U 0.00200 mg/Kg 05/31/23 13:43 06/03/23 16:03 Toluene <0.00200 U 0.00200 mg/Kg 05/31/23 13:43 06/03/23 16:03 06/03/23 16:03 Xylenes, Total <0.00400 U 0.00400 mg/Kg 05/31/23 13:43 <0.00400 U 06/03/23 16:03 m-Xylene & p-Xylene 0.00400 mg/Kg 05/31/23 13:43 05/31/23 13:43 o-Xylene <0.00200 U 0.00200 06/03/23 16:03 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	68	S1-	70 - 130	05/31/23 13:43	06/03/23 16:03	1
1,4-Difluorobenzene (Surr)	91		70 - 130	05/31/23 13:43	06/03/23 16:03	1

Lab Sample ID: LCS 880-54507/1-A

Matrix: Solid

Analysis Batch: 54618

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 54507

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1003		mg/Kg		100	70 - 130	
Ethylbenzene	0.100	0.08512		mg/Kg		85	70 - 130	
Toluene	0.100	0.08999		mg/Kg		90	70 - 130	
m-Xylene & p-Xylene	0.200	0.1645		mg/Kg		82	70 - 130	
o-Xylene	0.100	0.08431		mg/Kg		84	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	102	70 _ 130
1.4-Difluorobenzene (Surr)	104	70 - 130

Lab Sample ID: LCSD 880-54507/2-A

Matrix: Solid

Analysis Batch: 54618

Analyte

Benzene

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 54507 RPD

%Rec %Rec Limits **RPD** Limit 128 70 - 130 24

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Spike

Added

0.100

LCSD LCSD

0.1280

Result Qualifier

Unit

mg/Kg

Client: Vertex Job ID: 890-4754-1 Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: LCSD 880-54507/2-A

Matrix: Solid

Analysis Batch: 54618

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 54507

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Ethylbenzene	0.100	0.1051		mg/Kg		105	70 - 130	21	35
Toluene	0.100	0.1101		mg/Kg		110	70 - 130	20	35
m-Xylene & p-Xylene	0.200	0.2038		mg/Kg		102	70 - 130	21	35
o-Xylene	0.100	0.1036		mg/Kg		104	70 - 130	21	35

LCSD LCSD

Surrogate	%Recovery C	Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 880-28879-A-1-C MS Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Total/NA **Analysis Batch: 54618** Prep Batch: 54507 MS MS %Rec Sample Sample Spike

Result Qualifier Analyte Added Result Qualifier Unit %Rec Limits Benzene <0.00198 U 0.0998 0.1154 116 70 - 130 mg/Kg Ethylbenzene <0.00198 U 0.0998 0.08692 mg/Kg 87 70 - 130 <0.00198 U 0.0998 0.09997 mg/Kg 100 70 - 130 Toluene 0.200 m-Xylene & p-Xylene <0.00396 U 0.1679 70 - 130 mg/Kg 84 o-Xylene <0.00198 U 0.0998 0.08417 mg/Kg 70 - 130

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	100	70 - 130
1,4-Difluorobenzene (Surr)	108	70 - 130

Lab Sample ID: 880-28879-A-1-D MSD

Analysis Batch: 54618

Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA

Prep Batch: 54507

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	<0.00198	U	0.100	0.1069		mg/Kg	<u></u>	106	70 - 130	8	35	
Ethylbenzene	<0.00198	U	0.100	0.08264		mg/Kg		82	70 - 130	5	35	
Toluene	<0.00198	U	0.100	0.09328		mg/Kg		93	70 - 130	7	35	
m-Xylene & p-Xylene	<0.00396	U	0.201	0.1617		mg/Kg		81	70 - 130	4	35	
o-Xylene	<0.00198	U	0.100	0.08443		mg/Kg		84	70 - 130	0	35	

MSD MSD

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Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	111	70 - 130
1,4-Difluorobenzene (Surr)	110	70 - 130

Lab Sample ID: MB 880-54508/5-A

Matrix: Solid

Analysis Batch: 54640

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 54508

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:45	06/03/23 14:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:45	06/03/23 14:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/31/23 13:45	06/03/23 14:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/31/23 13:45	06/03/23 14:45	1

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QC Sample Results

Job ID: 890-4754-1 Client: Vertex Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: MB 880-54508/5-A

Matrix: Solid

Analysis Batch: 54640

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 54508

Prep Batch: 54508

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac m-Xylene & p-Xylene <0.00400 U 0.00400 05/31/23 13:45 06/03/23 14:45 mg/Kg o-Xylene <0.00200 U 0.00200 mg/Kg 05/31/23 13:45 06/03/23 14:45

MB MB

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85	70 - 130	05/31/23 13:45	06/03/23 14:45	1
1,4-Difluorobenzene (Surr)	104	70 - 130	05/31/23 13:45	06/03/23 14:45	1

Lab Sample ID: LCS 880-54508/1-A **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 54640

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1234		mg/Kg		123	70 - 130	
Ethylbenzene	0.100	0.09410		mg/Kg		94	70 - 130	
Toluene	0.100	0.1152		mg/Kg		115	70 - 130	
m-Xylene & p-Xylene	0.200	0.1704		mg/Kg		85	70 - 130	
o-Xylene	0.100	0.08628		mg/Kg		86	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifi	ier Limits
4-Bromofluorobenzene (Surr)	95	70 - 130
1.4-Difluorobenzene (Surr)	111	70 - 130

Lab Sample ID: LCSD 880-54508/2-A

Matrix: Solid

Analysis Batch: 54640

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

Prep Batch: 54508

LCSD LCSD Spike %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit 122 Benzene 0.100 0.1217 mg/Kg 70 - 130 35 1 Ethylbenzene 0.100 0.09601 mg/Kg 96 70 - 130 2 35 Toluene 0.100 0.1031 mg/Kg 103 70 - 130 11 35 m-Xylene & p-Xylene 0.200 0.1759 mg/Kg 88 70 - 130 3 35 o-Xylene 0.100 0.08910 mg/Kg 70 - 130

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	98	70 - 130
1.4-Difluorobenzene (Surr)	96	70 - 130

Lab Sample ID: 880-28880-A-1-C MS

Matrix: Solid

Analysis Batch: 54640

Prep Type: Total/NA

Prep Batch: 54508

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0998	0.1105		mg/Kg		111	70 - 130	
Ethylbenzene	<0.00200	U	0.0998	0.09553		mg/Kg		96	70 - 130	
Toluene	<0.00200	U	0.0998	0.09914		mg/Kg		99	70 - 130	
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1696		mg/Kg		85	70 - 130	
o-Xylene	<0.00200	U	0.0998	0.08182		mg/Kg		82	70 - 130	

Client: Vertex

Job ID: 890-4754-1

SDG: 23E-02502

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

Lab Sample ID: 880-28880-A-1-C MS **Matrix: Solid**

Project/Site: Corral Fly

Analysis Batch: 54640

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 54508

MS MS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 100 70 - 130 1,4-Difluorobenzene (Surr) 96 70 - 130

Lab Sample ID: 880-28880-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 54640

Prep Type: Total/NA

Prep Batch: 54508

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits **RPD** Limit <0.00200 U 0.0990 0.1185 120 70 - 130 7 35 Benzene mg/Kg Ethylbenzene <0.00200 U 0.0990 0.1059 mg/Kg 107 70 - 130 10 35 Toluene <0.00200 U 0.0990 0.1064 mg/Kg 107 70 - 130 7 35 m-Xylene & p-Xylene <0.00399 U 0.198 0.1882 mg/Kg 95 70 - 130 10 35 o-Xylene <0.00200 U 0.0990 0.08712 mg/Kg 70 - 130 6 35

MSD MSD

Qualifier Limits Surrogate %Recovery 4-Bromofluorobenzene (Surr) 104 70 - 130 1,4-Difluorobenzene (Surr) 92 70 - 130

Lab Sample ID: MB 880-54587/5-A Client Sample ID: Method Blank

Analysis Batch: 54640

Matrix: Solid

Prep Type: Total/NA

Prep Batch: 54587

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/01/23 13:10	06/03/23 02:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/01/23 13:10	06/03/23 02:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/01/23 13:10	06/03/23 02:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/01/23 13:10	06/03/23 02:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/01/23 13:10	06/03/23 02:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/01/23 13:10	06/03/23 02:51	1

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Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130	06/01/23 13:10	06/03/23 02:51	1
1,4-Difluorobenzene (Surr)	109		70 - 130	06/01/23 13:10	06/03/23 02:51	1

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

Lab Sample ID: MB 880-54621/1-A

Matrix: Solid

Analysis Batch: 54612

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 54621

	MB	MB							
Analyte	Result	Qualifier	RL	MDL Un	nit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg	g/Kg		06/02/23 08:00	06/02/23 08:29	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U	50.0	mg	g/Kg		06/02/23 08:00	06/02/23 08:29	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg	g/Kg		06/02/23 08:00	06/02/23 08:29	1

Client: Vertex Job ID: 890-4754-1
Project/Site: Corral Fly SDG: 23E-02502

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

MB MB

%Recovery Qualifier

158

125

Lab Sample ID: MB 880-54621/1-A

Matrix: Solid

Surrogate

o-Terphenyl

1-Chlorooctane

Analysis Batch: 54612

Client Sample ID: Method Blank

Analyzed

Prepared

Prep Type: Total/NA

Prep Batch: 54621

Dil Fac

S1+ 70 - 130 06/02/23 08:00 06/02/23 08:29 70 - 130 06/02/23 08:00 06/02/23 08:29

Lab Sample ID: LCS 880-54621/2-A Client Sample ID: Lab Control Sample

Limits

Matrix: Solid Client Sample ID: Lab Control S

Analysis Batch: 54612 Prep Batch: 54621

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits 1000 924.6 92 70 - 130Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 938.7 94 mg/Kg 70 - 130C10-C28)

LCS LCS

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 111
 70 - 130

 o-Terphenyl
 86
 70 - 130

Lab Sample ID: LCSD 880-54621/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 54612 Prep Batch: 54621

LCSD LCSD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit D Gasoline Range Organics 1000 987.6 mg/Kg 99 70 - 130 20 (GRO)-C6-C10

Diesel Range Organics (Over 1000 1030 mg/Kg 103 70 - 130 9 20 C10-C28)

LCSD LCSD

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 121
 70 - 130

 o-Terphenyl
 93
 70 - 130

Lab Sample ID: 890-4753-A-1-I MS

Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 54612 Prep Batch: 54621

Sample Sample Spike MS MS %Rec

Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits <50.0 U 997 1236 122 Gasoline Range Organics 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 104 997 991.8 mg/Kg 89 70 - 130

C10-C28)

MS MS

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 137
 S1+
 70 - 130

 o-Terphenyl
 96
 70 - 130

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QC Sample Results

Job ID: 890-4754-1 Client: Vertex Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: 890-4753-A-1-J MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Total/NA Analysis Batch: 54612 Prep Batch: 54621

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	<50.0	U	997	1167		mg/Kg		115	70 - 130	6	20	
(GRO)-C6-C10												
Diesel Range Organics (Over	104		997	994.9		mg/Kg		89	70 - 130	0	20	
C10 C28)												

C10-C28)

MSD MSD %Recovery Qualifier Limits Surrogate 1-Chlorooctane 138 S1+ 70 - 130 o-Terphenyl 97 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-54520/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 54607

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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/02/23 10:16	1

Lab Sample ID: LCS 880-54520/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 54607

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	238.7		mg/Kg		95	90 - 110	

Lab Sample ID: LCSD 880-54520/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 54607

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	230.8		ma/Ka		96	90 110		20	

Lab Sample ID: 890-4753-A-1-F MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 54607

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	144		248	390.7		ma/Ka	_	100	90 110	

Lab Sample ID: 890-4753-A-1-G MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 54607

-	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	144		248	391.5		mg/Kg		100	90 - 110	0	20

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Prep Type: Soluble

Client: Vertex Job ID: 890-4754-1 Project/Site: Corral Fly SDG: 23E-02502

GC VOA

Prep Batch: 54501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-54501/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 54507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4754-4	BH23-09 0'	Total/NA	Solid	5035	
890-4754-5	BH23-09 2'	Total/NA	Solid	5035	
890-4754-6	BH23-10 0'	Total/NA	Solid	5035	
MB 880-54507/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-54507/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-54507/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-28879-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-28879-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 54508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4754-1	BH23-07 0'	Total/NA	Solid	5035	
890-4754-2	BH23-07 2'	Total/NA	Solid	5035	
890-4754-3	BH23-08 0'	Total/NA	Solid	5035	
MB 880-54508/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-54508/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-54508/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-28880-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-28880-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 54587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-54587/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 54618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4754-4	BH23-09 0'	Total/NA	Solid	8021B	54507
890-4754-5	BH23-09 2'	Total/NA	Solid	8021B	54507
890-4754-6	BH23-10 0'	Total/NA	Solid	8021B	54507
MB 880-54501/5-A	Method Blank	Total/NA	Solid	8021B	54501
MB 880-54507/5-A	Method Blank	Total/NA	Solid	8021B	54507
LCS 880-54507/1-A	Lab Control Sample	Total/NA	Solid	8021B	54507
LCSD 880-54507/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	54507
880-28879-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	54507
880-28879-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	54507

Analysis Batch: 54640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4754-1	BH23-07 0'	Total/NA	Solid	8021B	54508
890-4754-2	BH23-07 2'	Total/NA	Solid	8021B	54508
890-4754-3	BH23-08 0'	Total/NA	Solid	8021B	54508
MB 880-54508/5-A	Method Blank	Total/NA	Solid	8021B	54508
MB 880-54587/5-A	Method Blank	Total/NA	Solid	8021B	54587
LCS 880-54508/1-A	Lab Control Sample	Total/NA	Solid	8021B	54508
LCSD 880-54508/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	54508
880-28880-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	54508
880-28880-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	54508

 Client: Vertex
 Job ID: 890-4754-1

 Project/Site: Corral Fly
 SDG: 23E-02502

GC VOA

Analysis Batch: 54761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4754-1	BH23-07 0'	Total/NA	Solid	Total BTEX	
890-4754-2	BH23-07 2'	Total/NA	Solid	Total BTEX	
890-4754-3	BH23-08 0'	Total/NA	Solid	Total BTEX	
890-4754-4	BH23-09 0'	Total/NA	Solid	Total BTEX	
890-4754-5	BH23-09 2'	Total/NA	Solid	Total BTEX	
890-4754-6	BH23-10 0'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 54612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4754-1	BH23-07 0'	Total/NA	Solid	8015B NM	54621
890-4754-2	BH23-07 2'	Total/NA	Solid	8015B NM	54621
890-4754-3	BH23-08 0'	Total/NA	Solid	8015B NM	54621
890-4754-4	BH23-09 0'	Total/NA	Solid	8015B NM	54621
890-4754-5	BH23-09 2'	Total/NA	Solid	8015B NM	54621
890-4754-6	BH23-10 0'	Total/NA	Solid	8015B NM	54621
MB 880-54621/1-A	Method Blank	Total/NA	Solid	8015B NM	54621
LCS 880-54621/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	54621
LCSD 880-54621/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	54621
890-4753-A-1-I MS	Matrix Spike	Total/NA	Solid	8015B NM	54621
890-4753-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	54621

Prep Batch: 54621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4754-1	BH23-07 0'	Total/NA	Solid	8015NM Prep	
890-4754-2	BH23-07 2'	Total/NA	Solid	8015NM Prep	
890-4754-3	BH23-08 0'	Total/NA	Solid	8015NM Prep	
890-4754-4	BH23-09 0'	Total/NA	Solid	8015NM Prep	
890-4754-5	BH23-09 2'	Total/NA	Solid	8015NM Prep	
890-4754-6	BH23-10 0'	Total/NA	Solid	8015NM Prep	
MB 880-54621/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-54621/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-54621/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4753-A-1-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4753-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 54742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4754-1	BH23-07 0'	Total/NA	Solid	8015 NM	
890-4754-2	BH23-07 2'	Total/NA	Solid	8015 NM	
890-4754-3	BH23-08 0'	Total/NA	Solid	8015 NM	
890-4754-4	BH23-09 0'	Total/NA	Solid	8015 NM	
890-4754-5	BH23-09 2'	Total/NA	Solid	8015 NM	
890-4754-6	BH23-10 0'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 54520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4754-1	BH23-07 0'	Soluble	Solid	DI Leach	
890-4754-2	BH23-07 2'	Soluble	Solid	DI Leach	

Eurofins Carlsbad

Page 19 of 29

 Client: Vertex
 Job ID: 890-4754-1

 Project/Site: Corral Fly
 SDG: 23E-02502

HPLC/IC (Continued)

Leach Batch: 54520 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4754-3	BH23-08 0'	Soluble	Solid	DI Leach	
890-4754-4	BH23-09 0'	Soluble	Solid	DI Leach	
890-4754-5	BH23-09 2'	Soluble	Solid	DI Leach	
890-4754-6	BH23-10 0'	Soluble	Solid	DI Leach	
MB 880-54520/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-54520/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-54520/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4753-A-1-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4753-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 54607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4754-1	BH23-07 0'	Soluble	Solid	300.0	54520
890-4754-2	BH23-07 2'	Soluble	Solid	300.0	54520
890-4754-3	BH23-08 0'	Soluble	Solid	300.0	54520
890-4754-4	BH23-09 0'	Soluble	Solid	300.0	54520
890-4754-5	BH23-09 2'	Soluble	Solid	300.0	54520
890-4754-6	BH23-10 0'	Soluble	Solid	300.0	54520
MB 880-54520/1-A	Method Blank	Soluble	Solid	300.0	54520
LCS 880-54520/2-A	Lab Control Sample	Soluble	Solid	300.0	54520
LCSD 880-54520/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	54520
890-4753-A-1-F MS	Matrix Spike	Soluble	Solid	300.0	54520
890-4753-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	54520

Client: Vertex Project/Site: Corral Fly

Job ID: 890-4754-1

SDG: 23E-02502

Client Sample ID: BH23-07 0'

Date Collected: 05/30/23 10:00 Date Received: 05/30/23 16:07 Lab Sample ID: 890-4754-1

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	54508	05/31/23 13:45	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54640	06/03/23 22:32	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54761	06/05/23 16:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			54742	06/05/23 11:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	54621	06/02/23 09:01	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54612	06/02/23 13:22	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	54520	05/31/23 15:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	54607	06/02/23 11:04	CH	EET MID

Client Sample ID: BH23-07 2' Lab Sample ID: 890-4754-2

Date Collected: 05/30/23 10:05

Matrix: Solid

Date Received: 05/30/23 16:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	54508	05/31/23 13:45	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54640	06/03/23 22:53	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54761	06/05/23 16:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			54742	06/05/23 11:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	54621	06/02/23 09:01	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54612	06/02/23 13:44	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	54520	05/31/23 15:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	54607	06/02/23 11:20	CH	EET MID

Client Sample ID: BH23-08 0' Lab Sample ID: 890-4754-3

Matrix: Solid

Date Collected: 05/30/23 10:10 Date Received: 05/30/23 16:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	54508	05/31/23 13:45	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54640	06/03/23 23:13	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54761	06/05/23 16:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			54742	06/05/23 11:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	54621	06/02/23 09:01	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54612	06/02/23 14:06	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	54520	05/31/23 15:16	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	54607	06/02/23 11:25	CH	EET MID

Client Sample ID: BH23-09 0'

Lab Sample ID: 890-4754-4

Date Collected: 05/30/23 10:15

Matrix: Solid

Date Received: 05/30/23 16:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	54507	05/31/23 13:43	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54618	06/04/23 01:21	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54761	06/05/23 12:45	SM	EET MID

Lab Chronicle

Client: Vertex Job ID: 890-4754-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-09 0'

Date Collected: 05/30/23 10:15 Date Received: 05/30/23 16:07 Lab Sample ID: 890-4754-4

Matrix: Solid

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			54742	06/05/23 11:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	54621	06/02/23 09:01	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54612	06/02/23 14:29	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	54520	05/31/23 15:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	54607	06/02/23 11:31	СН	EET MID

Client Sample ID: BH23-09 2' Lab Sample ID: 890-4754-5

Date Collected: 05/30/23 10:20 Date Received: 05/30/23 16:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	54507	05/31/23 13:43	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54618	06/04/23 01:47	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54761	06/05/23 12:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			54742	06/05/23 11:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	54621	06/02/23 09:01	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54612	06/02/23 14:51	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	54520	05/31/23 15:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	54607	06/02/23 11:36	CH	EET MID

Client Sample ID: BH23-10 0'

Date Collected: 05/30/23 10:25

Lab Sample ID: 890-4754-6

Matrix: Solid

Date Received: 05/30/23 16:07

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	54507	05/31/23 13:43	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54618	06/04/23 02:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			54761	06/05/23 12:45	SM	EET MID
Total/NA	Analysis	8015 NM		1			54742	06/05/23 11:22	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	54621	06/02/23 09:01	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54612	06/02/23 15:13	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	54520	05/31/23 15:16	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	54607	06/02/23 11:41	CH	EET MID

Laboratory References:

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

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Accreditation/Certification Summary

 Client: Vertex
 Job ID: 890-4754-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Laboratory: Eurofins Midland

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

Authority Fexas		ogram	Identification Number	Expiration Date 06-30-23	
		ELAP	T104704400-22-25		
The following analytes	are included in this report by	it the laboratory is not cortifi	ed by the governing authority. This list ma	avianduda analutaa far	
the agency does not of	• •	it the laboratory is not certifi	ed by the governing authority. This list his	ay include arialytes for	
0 ,	• •	Matrix	Analyte	ay include analytes for	
the agency does not of	fer certification.	•	, , ,	ay include analytes for	

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Method Summary

Client: Vertex Job ID: 890-4754-1
Project/Site: Corral Fly SDG: 23E-02502

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

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Sample Summary

Client: Vertex Job ID: 890-4754-1 Project/Site: Corral Fly SDG: 23E-02502

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-4754-1	BH23-07 0'	Solid	05/30/23 10:00	05/30/23 16:07
890-4754-2	BH23-07 2'	Solid	05/30/23 10:05	05/30/23 16:07
890-4754-3	BH23-08 0'	Solid	05/30/23 10:10	05/30/23 16:07
890-4754-4	BH23-09 0'	Solid	05/30/23 10:15	05/30/23 16:07
890-4754-5	BH23-09 2'	Solid	05/30/23 10:20	05/30/23 16:07
890-4754-6	BH23-10 0'	Solid	05/30/23 10:25	05/30/23 16:07

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Relinquished by:

Circle Method(s)

Total 200.7 / 601

otice: Signature of this doci

service. Eurofins Xenco wl

eurofins

Environment Testing

Address:

ompany Name: roject Manager:

City, State ZIP:

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Chain of Custody

Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Work Order No:

_	Dill to: (if different)	Ran Kink	Work Order Comments	nents
CHANCO DIXON	Distro. (ii dilicicint)		I CT /DCT	Charles Cimerains
VCX+CX	Company Name:	Jolavis	Program: USI/PSI PAP DIOWIIIICIUS	
の。 た。ん	Address:]]
	City, State ZIP:		Reporting: Level II Level III PST/US	PST/UST TRRP Level V
Email:	cdixon@vertex.ca	analyt	Deliverables: EDD ADaPT	Other:
Turn	Turn Around	ANALYSIS REQUES		Preservative Codes
Datoa Mout	□Rush Pres.		None: NO	:: NO DI Water: H ₂ O
			Cool: Cool	
Hunter Hein TAT starts the	TAT starts the day received by		HCL: HC	HC HNO 3: HN
			H ₂ SO ₄ : H ₂	4: H ₂ NaOH: Na
Temp Blank: Yes No Wet Ice:	⊗ ⊗ eter:		H ₃ PO ₄ :HP	‡: HP
Thermometer II			NaHS	NaHSO 4: NABIS
Yes No N/A Correction Factor:	4		Na ₂ S	Na ₂ S ₂ O ₃ : NaSO ₃
No N/A	0.41	X	Zn Ac	Zn Acetate+NaOH: Zn
	(J.O	890-4754 Chain of Custody		NaOH+Ascorbic Acid: SAPC
fication Matrix Sampled Sampled	Depth Grab/ # of	TP C		Sample Comments
60		* * *		
_		× × ×		
0,10		× ×		
9. 48.45		* × ×		
10.50 10.50		***		
0' 1 1 20:25		**		
0 200.8 / 6020: 8RCRA 13PPM	M Texas 11 Al Sb	As Ba Be B Cd Ca Cr Co Cu Fe Pb	Vi K Se Ag SiO ₂ Na Sr Hg: 1631 / 245.1	TI Sn U V Zn /7470 /7471
ment 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 in the control of the control o	er from client company to Euro	ins Xenco, its affiliates and subcontractors. It assigns standard ter	ms and conditions	
m 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	for each sample submitted to E	urofins Xenco, but not analyzed. These terms will be enforced unk	ss previously negotiated.	
(Signature) Received by: (Signature)	5	Date/Time Relinquished by: (Signature)	ure) Received by: (Signature)	Date/Time
Chan him alon	Xtra S	-5/30/23 1607		

BH23-07

Total Containers:

Sample Identi

SAMPLE RECEIPT

Cooler Custody Seals Sample Custody Seal

amples Received Inta

Project Number:

roject Name:

roject Location:

ampler's Name:

SH23-09

BH23-08

Revised Date: 08/25/2020 Rev. 2020.2

Carlsbad NM 88220

1089 N Canal St

Eurofins Carlsbad

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Chain of Custody Record

🐫 eurofins

Environment Testing

Project Name Corral Fly State Zip BH23-10 0' (890-4754-6) BH23-07 0' (890-4754-1) 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 aboratory 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. BH23-09 0' (890-4754-4) BH23-07 2' (890-4754-2) BH23-09 2' (890-4754-5) BH23-08 0' (890-4754-3) Midland Phone. 575-988-3199 Fax: 575-988-3199 Relinquished by Empty Kit Relinquished by Deliverable Requested | II III IV Other (specify) Possible Hazard Identification Sample Identification - Client ID (Lab ID) Eurofins Environment Testing South Centr Shipping/Receiving Client Information (Sub Contract Lab elinquished by 32-704-5440(Tel) 211 W Florida Ave rconfirmed linquished by S Custody Seal No Project #: 89000162 Primary Deliverable Rank ₩0₩ PO# Due Date Requested 6/5/2023 Phone: Date/Time Date/Time TAT Requested (days) Sample Date 5/30/23 5/30/23 5/30/23 5/30/23 5/30/23 5/30/23 Mountain 10 25 Mountain 10 20 Mountain 10 05 Date Mountain 10 15 Mountain 10 10 Sample 1000 (C=Comp, G=grab) Type Sample Preservation Code: Company Company Company Matrix Solid Solid Solid Solid Solid Solid E-Mail Jessica Kramer@et.eurofinsus com Kramer Jessica NELAP - Texas Ime Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Perform MS/MSD (Yes or No) Special Instructions/QC Requirements Received by 8015MOD_NM/8015NM_S_Prep (MOD) Full TPH × × × × × Cooler Temperature(s) °C and Other Remarks Return To Client 300_ORGFM_28D/DI_LEACH Chloride × × × × × × \times \times 8021B/6035FP_Calc BTEX - LL × × × × × × × × × Total_BTEX_GCV Analysis Requested × 8015MOD_Calo × × × × × Disposal By Lab State of Origin.
New Mexico ier Tracking No(s) nod of Shipment Date/Time Date/Time Date/Time Archive For $\neg X$ Total Number of containers , (1 200000 A HCL
B NAOH
C Zn Acetate
D Nitric Acid
E NAHSO4
F MeOH
G Amchlor
H Ascorbic Acid COC No 890-1305 1 Page 1 of 1 Preservation Codes 890-4754-1 DI Water C EDTA EDA Special Instructions/Note M Hexane
N-None
O AsNaO2
P Na2O4S
Q Na2SO3
R Na2S2O3
S H2SO4 U Acetone
V-MCAA
W pH 4-5
Y Trizma
Z other (spe Company Company Ver: 06/08/2021 Months other (specify) TSP Dodecahydrate

Login Sample Receipt Checklist

 Client: Vertex
 Job Number: 890-4754-1

 SDG Number: 23E-02502

Login Number: 4754 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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	

: 104 UJ 330

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Login Sample Receipt Checklist

Client: Vertex Job Number: 890-4754-1 SDG Number: 23E-02502

Login Number: 4754 **List Source: Eurofins Midland** List Number: 2 List Creation: 06/01/23 11:50 AM

Creator: Teel, Brianna

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

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 6/14/2023 3:20:29 PM

JOB DESCRIPTION

Corral Fly SDG NUMBER 23E-02502

JOB NUMBER

890-4786-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

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

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

Authorization

Generated 6/14/2023 3:20:29 PM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

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Client: Vertex Laboratory Job ID: 890-4786-1 Project/Site: Corral Fly SDG: 23E-02502

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Definitions/Glossary

Client: Vertex Job ID: 890-4786-1 Project/Site: Corral Fly SDG: 23E-02502

Qualifiers

GC VOA

Qualifier **Qualifier Description** LCS and/or LCSD is outside acceptance limits, high biased. F1 MS and/or MSD recovery exceeds control limits.

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description** S1-Surrogate recovery exceeds control limits, low biased. S1+ Surrogate recovery exceeds control limits, high biased. 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 Contains No Free Liquid **CNF**

Duplicate Error Ratio (normalized absolute difference) DER

Dil Fac **Dilution Factor**

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) Limit of Quantitation (DoD/DOE) LOQ

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 MOI 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 **Practical Quantitation Limit PQL**

PRES Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) **TEQ**

TNTC Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 890-4786-1
Project/Site: Corral Fly SDG: 23E-02502

Job ID: 890-4786-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4786-1

Receipt

The samples were received on 6/6/2023 2:29 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 10.4°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BH23-08 2' (890-4786-1), BH23-08 4' (890-4786-2), BH23-11 0' (890-4786-3), BH23-11 2' (890-4786-4), BH23-12 0' (890-4786-5) and BH23-12 2' (890-4786-6).

GC VOA

Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-55037 and analytical batch 880-55385 recovered outside control limits for the following analytes: Benzene and Toluene. These analytes were biased high in the LCSD however, they were acceptable in the LCS and only one is required by method; therefore, the data have been reported.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: BH23-08 2' (890-4786-1), BH23-08 4' (890-4786-2), BH23-11 2' (890-4786-4), BH23-12 0' (890-4786-5), BH23-12 2' (890-4786-6), (MB 880-55013/1-A), (880-29220-A-1-B), (880-29220-A-1-C MS) and (880-29220-A-1-D MSD). 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.

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Client Sample Results

Client: Vertex Job ID: 890-4786-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-08 2'

Lab Sample ID: 890-4786-1 Date Collected: 06/06/23 09:00 Matrix: Solid

Date Received: 06/06/23 14:29

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *+	0.00198		mg/Kg		06/08/23 13:04	06/13/23 19:49	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/08/23 13:04	06/13/23 19:49	1
Toluene	<0.00198	U *+	0.00198		mg/Kg		06/08/23 13:04	06/13/23 19:49	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		06/08/23 13:04	06/13/23 19:49	1
m-Xylene & p-Xylene	< 0.00396	U	0.00396		mg/Kg		06/08/23 13:04	06/13/23 19:49	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/08/23 13:04	06/13/23 19:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130				06/08/23 13:04	06/13/23 19:49	1
1,4-Difluorobenzene (Surr)	102		70 - 130				06/08/23 13:04	06/13/23 19:49	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Dies	el Range Organ	ics (DRO) (GC)						
Analyte		Qualifier	RL.	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH									Diriac
-	<49.8	U	49.8		mg/Kg		<u>.</u>	06/12/23 14:13	1
- -					mg/Kg				
- -	esel Range Orga			MDL		— — D	Prepared		1
	esel Range Orga	nics (DRO) Qualifier	(GC)	MDL		<u>D</u>		06/12/23 14:13	1 Dil Fac
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	esel Range Orga Result	nics (DRO) Qualifier	(GC)	MDL	Unit	<u>D</u>	Prepared	06/12/23 14:13 Analyzed	Dil Fac
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10	esel Range Orga Result <49.8	nics (DRO) Qualifier U	(GC) RL 49.8	MDL	Unit mg/Kg	<u>D</u>	Prepared 06/08/23 09:14	06/12/23 14:13 Analyzed 06/10/23 03:49	Dil Fac
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	esel Range Orga Result <49.8	nics (DRO) Qualifier U	(GC) RL 49.8	MDL	Unit mg/Kg mg/Kg	<u>D</u>	Prepared 06/08/23 09:14 06/08/23 09:14	06/12/23 14:13 Analyzed 06/10/23 03:49 06/10/23 03:49	1 Dil Fac
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Name	nics (DRO) Qualifier U U	(GC) RL 49.8 49.8 49.8	MDL	Unit mg/Kg mg/Kg	<u>D</u>	Prepared 06/08/23 09:14 06/08/23 09:14	06/12/23 14:13 Analyzed 06/10/23 03:49 06/10/23 03:49	Dil Face 1 1 1 Dil Face
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result Capability Capabil	U Qualifier U Qualifier	(GC) RL 49.8 49.8 49.8 Limits	MDL	Unit mg/Kg mg/Kg	<u>D</u>	Prepared 06/08/23 09:14 06/08/23 09:14 06/08/23 09:14 Prepared	06/12/23 14:13 Analyzed 06/10/23 03:49 06/10/23 03:49 06/10/23 03:49 Analyzed	Dil Fac
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result Capability Capabil	Qualifier U U Qualifier S1+	(GC) RL 49.8 49.8 49.8 Limits 70 - 130 70 - 130	MDL	Unit mg/Kg mg/Kg	<u>D</u>	Prepared 06/08/23 09:14 06/08/23 09:14 06/08/23 09:14 Prepared 06/08/23 09:14	06/12/23 14:13 Analyzed 06/10/23 03:49 06/10/23 03:49 Analyzed 06/10/23 03:49	Dil Fac
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result 49.8 49.8 49.8 49.8 149.8 16 16 17 17 18 16 17 18 16 17 18 17 18 18 18 18 16 17 18 18 18 18 18 19 10 10 11 <td>Qualifier U U Qualifier S1+</td> <td>(GC) RL 49.8 49.8 49.8 Limits 70 - 130 70 - 130</td> <td>MDL</td> <td>Unit mg/Kg mg/Kg mg/Kg</td> <td> <u>D</u></td> <td>Prepared 06/08/23 09:14 06/08/23 09:14 06/08/23 09:14 Prepared 06/08/23 09:14</td> <td>06/12/23 14:13 Analyzed 06/10/23 03:49 06/10/23 03:49 Analyzed 06/10/23 03:49</td> <td>Dil Fac</td>	Qualifier U U Qualifier S1+	(GC) RL 49.8 49.8 49.8 Limits 70 - 130 70 - 130	MDL	Unit mg/Kg mg/Kg mg/Kg	<u>D</u>	Prepared 06/08/23 09:14 06/08/23 09:14 06/08/23 09:14 Prepared 06/08/23 09:14	06/12/23 14:13 Analyzed 06/10/23 03:49 06/10/23 03:49 Analyzed 06/10/23 03:49	Dil Fac

Client Sample ID: BH23-08 4' Lab Sample ID: 890-4786-2

Date Collected: 06/06/23 09:05 **Matrix: Solid** Date Received: 06/06/23 14:29

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199		mg/Kg		06/08/23 13:04	06/13/23 20:09	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/08/23 13:04	06/13/23 20:09	1
Toluene	<0.00199	U *+	0.00199		mg/Kg		06/08/23 13:04	06/13/23 20:09	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/08/23 13:04	06/13/23 20:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/08/23 13:04	06/13/23 20:09	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/08/23 13:04	06/13/23 20:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130				06/08/23 13:04	06/13/23 20:09	1
1,4-Difluorobenzene (Surr)	102		70 - 130				06/08/23 13:04	06/13/23 20:09	1

Client Sample Results

Client: Vertex Job ID: 890-4786-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-08 4'

Date Collected: 06/06/23 09:05 Date Received: 06/06/23 14:29

Lab Sample ID: 890-4786-2

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			06/14/23 09:58	1
_ Method: SW846 8015 NM - Die	sel Range Organ	ics (DRO) (0	GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			06/12/23 14:13	1
- Method: SW846 8015B NM - D	iesel Range Orga	nics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		06/08/23 09:14	06/10/23 04:11	1
()									

(GRO)-C6-C10 49.9 06/08/23 09:14 Diesel Range Organics (Over <49.9 U mg/Kg 06/10/23 04:11 C10-C28) OII Range Organics (Over C28-C36) <49.9 U 49.9 mg/Kg 06/08/23 09:14 06/10/23 04:11 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 70 - 130 06/08/23 09:14 1-Chlorooctane 131 S1+ 06/10/23 04:11 o-Terphenyl 103 70 - 130 06/08/23 09:14 06/10/23 04:11

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Chloride 284 4.98 mg/Kg 06/09/23 12:10

Client Sample ID: BH23-11 0' Lab Sample ID: 890-4786-3 Date Collected: 06/06/23 09:10 **Matrix: Solid**

Date Received: 06/06/23 14:29

Released to Imaging: 8/5/2024 4:13:08 PM

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00198	U *+	0.00198		mg/Kg		06/08/23 13:04	06/13/23 20:29	
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/08/23 13:04	06/13/23 20:29	•
Toluene	<0.00198	U *+	0.00198		mg/Kg		06/08/23 13:04	06/13/23 20:29	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		06/08/23 13:04	06/13/23 20:29	1
m-Xylene & p-Xylene	< 0.00396	U	0.00396		mg/Kg		06/08/23 13:04	06/13/23 20:29	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/08/23 13:04	06/13/23 20:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130				06/08/23 13:04	06/13/23 20:29	1
			70 - 130				06/08/23 13:04	06/13/23 20:29	
Method: TAL SOP Total BTEX - Analyte	· Total BTEX Cald	Qualifier	70 - 130 RL 0.00396	MDL	Unit mg/Kg	<u>D</u>	06/08/23 13:04 Prepared	06/13/23 20:29 Analyzed 06/14/23 09:58	Dil Fac
Method: TAL SOP Total BTEX - Analyte Total BTEX Method: SW846 8015 NM - Dies	Total BTEX Calc Result <0.00396 sel Range Organ	Qualifier U	RL 0.00396		mg/Kg	=	Prepared	Analyzed 06/14/23 09:58	Dil Fac
Method: TAL SOP Total BTEX - Analyte Total BTEX Method: SW846 8015 NM - Dies Analyte	Total BTEX Calc Result < 0.00396 sel Range Organ Result	Qualifier U ics (DRO) (Qualifier	RL 0.00396			<u>D</u>		Analyzed	Dil Fac
Method: TAL SOP Total BTEX - Analyte	Total BTEX Calc Result <0.00396 sel Range Organ	Qualifier U ics (DRO) (Qualifier	RL 0.00396		mg/Kg	=	Prepared	Analyzed 06/14/23 09:58	Dil Fac
Method: TAL SOP Total BTEX - Analyte Total BTEX Method: SW846 8015 NM - Dies Analyte Total TPH	rotal BTEX Calc Result <0.00396 sel Range Organ Result <49.9	Qualifier U ics (DRO) (Qualifier U	RL 0.00396 GC) RL 49.9		mg/Kg	=	Prepared	Analyzed 06/14/23 09:58 Analyzed	Dil Fac
Method: TAL SOP Total BTEX - Analyte Total BTEX Method: SW846 8015 NM - Dies Analyte Total TPH Method: SW846 8015B NM - Dies	Total BTEX Calc Result <0.00396 sel Range Organ Result <49.9 esel Range Orga	Qualifier U ics (DRO) (Qualifier U	RL 0.00396 GC) RL 49.9	MDL	mg/Kg	=	Prepared	Analyzed 06/14/23 09:58 Analyzed	
Method: TAL SOP Total BTEX - Analyte Total BTEX Method: SW846 8015 NM - Dies Analyte	Total BTEX Calc Result <0.00396 sel Range Organ Result <49.9 esel Range Orga	Qualifier U ics (DRO) (Qualifier U nics (DRO) Qualifier	RL 0.00396 GC) RL 49.9	MDL	mg/Kg Unit mg/Kg	<u></u>	Prepared Prepared	Analyzed 06/14/23 09:58 Analyzed 06/12/23 14:13	Dil Fac

Job ID: 890-4786-1

SDG: 23E-02502

Client Sample ID: BH23-11 0'

Date Collected: 06/06/23 09:10 Date Received: 06/06/23 14:29

Client: Vertex

Project/Site: Corral Fly

Lab Sample ID: 890-4786-3

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/08/23 09:14	06/10/23 04:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130				06/08/23 09:14	06/10/23 04:33	1
o-Terphenyl	100		70 ₋ 130				06/08/23 09:14	06/10/23 04:33	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble Result Qualifier RL MDL Dil Fac Analyte Unit D Prepared Analyzed 25.0 06/09/23 12:27 2430 5 Chloride mg/Kg

Client Sample ID: BH23-11 2'

Date Collected: 06/06/23 09:15 Date Received: 06/06/23 14:29

Lab Sample ID: 890-4786-4

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC) Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac Benzene <0.00201 U *+ 0.00201 06/08/23 13:04 06/13/23 20:50 mg/Kg Ethylbenzene <0.00201 U 0.00201 06/08/23 13:04 06/13/23 20:50 mg/Kg <0.00201 0.00201 06/08/23 13:04 06/13/23 20:50 Toluene mg/Kg Xylenes, Total 06/08/23 13:04 06/13/23 20:50 <0.00402 U 0.00402 mg/Kg m-Xylene & p-Xylene <0.00402 U 0.00402 mg/Kg 06/08/23 13:04 06/13/23 20:50 o-Xylene <0.00201 U 0.00201 mg/Kg 06/08/23 13:04 06/13/23 20:50 %Recovery Limits Dil Fac Surrogate Qualifier Prepared Analyzed 89 70 - 130 06/08/23 13:04 06/13/23 20:50 4-Bromofluorobenzene (Surr) 1,4-Difluorobenzene (Surr) 104 70 - 130 06/08/23 13:04 06/13/23 20:50

Method: TAL SOP Total BTEX - Total BTEX Calculation Analyte Result Qualifier RL MDL Unit D Dil Fac Prepared Analyzed Total BTEX <0.00402 U 0.00402 mg/Kg 06/14/23 09:58

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier MDL Dil Fac RL Unit D Prepared Analyzed Total TPH <50.0 Ū 50.0 06/12/23 14:13 mg/Kg

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Result Qualifier Analyte RL MDL Unit Prepared Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 06/08/23 09:14 06/10/23 04:55 mg/Kg (GRO)-C6-C10 50.0 06/08/23 09:14 06/10/23 04:55 Diesel Range Organics (Over <50.0 U mg/Kg OII Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 06/08/23 09:14 06/10/23 04:55 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 137 S1+ 70 - 130 06/08/23 09:14 06/10/23 04:55 70 - 130 06/08/23 09:14 06/10/23 04:55 o-Terphenyl 105

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier MDL Unit Dil Fac RL Prepared Analyzed Chloride 1780 24.8 mg/Kg 06/09/23 12:32

Client Sample Results

Client: Vertex Job ID: 890-4786-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-12 0'

Lab Sample ID: 890-4786-5 Date Collected: 06/06/23 09:20 Matrix: Solid

Date Received: 06/06/23 14:29

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00202	U *+	0.00202		mg/Kg		06/08/23 13:04	06/13/23 21:10	
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/08/23 13:04	06/13/23 21:10	
Toluene	<0.00202	U *+	0.00202		mg/Kg		06/08/23 13:04	06/13/23 21:10	
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		06/08/23 13:04	06/13/23 21:10	
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		06/08/23 13:04	06/13/23 21:10	
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/08/23 13:04	06/13/23 21:10	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	87		70 - 130				06/08/23 13:04	06/13/23 21:10	
1,4-Difluorobenzene (Surr)	98		70 - 130				06/08/23 13:04	06/13/23 21:10	
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00404	U	0.00404		mg/Kg			06/14/23 09:58	-
Method: SW846 8015 NM - Diese Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total TDU									Dilla
IOIAI IPH	607		50.0		mg/Kg			06/12/23 14:13	Dilla
. •		ınics (DRO)			mg/Kg				
Method: SW846 8015B NM - Dies	sel Range Orga	inics (DRO) Qualifier		MDL	mg/Kg Unit		Prepared		
Method: SW846 8015B NM - Dies Analyte	sel Range Orga	Qualifier	(GC)	MDL		D	Prepared 06/08/23 09:14	06/12/23 14:13	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	sel Range Orga Result	Qualifier	(GC)	MDL	Unit	<u>D</u>	<u>·</u>	06/12/23 14:13 Analyzed	
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	sel Range Orga Result	Qualifier	(GC)	MDL	Unit	<u>D</u>	<u>·</u>	06/12/23 14:13 Analyzed	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	sel Range Orga Result <50.0	Qualifier U	(GC) RL 50.0	MDL	Unit mg/Kg mg/Kg	<u>D</u>	06/08/23 09:14 06/08/23 09:14	06/12/23 14:13 Analyzed 06/10/23 05:17 06/10/23 05:17	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	sel Range Orga Result <50.0	Qualifier U	(GC) RL 50.0	MDL	Unit mg/Kg	<u>D</u>	06/08/23 09:14	06/12/23 14:13 Analyzed 06/10/23 05:17	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	sel Range Orga Result <50.0 607 <50.0 %Recovery	Qualifier U U Qualifier	(GC) RL 50.0	MDL	Unit mg/Kg mg/Kg	<u>D</u>	06/08/23 09:14 06/08/23 09:14	06/12/23 14:13 Analyzed 06/10/23 05:17 06/10/23 05:17	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	sel Range Orga Result <50.0 607 <50.0 %Recovery	Qualifier U	(GC) RL 50.0 50.0 50.0	MDL	Unit mg/Kg mg/Kg	<u>D</u>	06/08/23 09:14 06/08/23 09:14 06/08/23 09:14	06/12/23 14:13 Analyzed 06/10/23 05:17 06/10/23 05:17	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	sel Range Orga Result <50.0 607 <50.0 %Recovery	Qualifier U U Qualifier	(GC) RL 50.0 50.0 50.0 Limits	MDL	Unit mg/Kg mg/Kg	<u>D</u>	06/08/23 09:14 06/08/23 09:14 06/08/23 09:14 Prepared	06/12/23 14:13 Analyzed 06/10/23 05:17 06/10/23 05:17 06/10/23 05:17 Analyzed	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: EPA 300.0 - Anions, Ion	Result	Qualifier U Qualifier S1+	(GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	MDL	Unit mg/Kg mg/Kg	<u>D</u>	06/08/23 09:14 06/08/23 09:14 06/08/23 09:14 Prepared 06/08/23 09:14	06/12/23 14:13 Analyzed 06/10/23 05:17 06/10/23 05:17 Analyzed 06/10/23 05:17	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Sel Range Orga Result	Qualifier U Qualifier S1+	(GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130		Unit mg/Kg mg/Kg	<u>D</u>	06/08/23 09:14 06/08/23 09:14 06/08/23 09:14 Prepared 06/08/23 09:14	06/12/23 14:13 Analyzed 06/10/23 05:17 06/10/23 05:17 Analyzed 06/10/23 05:17	Dil Fa

Client Sample ID: BH23-12 2' Lab Sample ID: 890-4786-6 Matrix: Solid Date Collected: 06/06/23 09:25

Date Received: 06/06/23 14:29

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		06/08/23 13:04	06/13/23 21:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/08/23 13:04	06/13/23 21:31	1
Toluene	<0.00200	U *+	0.00200		mg/Kg		06/08/23 13:04	06/13/23 21:31	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/08/23 13:04	06/13/23 21:31	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/08/23 13:04	06/13/23 21:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/08/23 13:04	06/13/23 21:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130				06/08/23 13:04	06/13/23 21:31	1
1,4-Difluorobenzene (Surr)	102		70 - 130				06/08/23 13:04	06/13/23 21:31	1

Client Sample Results

Client: Vertex Job ID: 890-4786-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-12 2'

Lab Sample ID: 890-4786-6 Date Collected: 06/06/23 09:25

Matrix: Solid

Method: TAL SOP Total BTEX - T		Qualifier	RL	MDL	I I mid	_	Duamanad	Analysis	Dil Fac
Analyte				MDL		D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			06/14/23 09:58	1
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (0	GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	729		49.9		mg/Kg			06/12/23 14:13	1
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		06/08/23 09:14	06/10/23 05:38	1
(GRO)-C6-C10									
Diesel Range Organics (Over	729		49.9		mg/Kg		06/08/23 09:14	06/10/23 05:38	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/08/23 09:14	06/10/23 05:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	147	S1+	70 - 130				06/08/23 09:14	06/10/23 05:38	1
o-Terphenyl	113		70 - 130				06/08/23 09:14	06/10/23 05:38	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hv - Solubl	e						
Analyte	• •	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9770		99.0		mg/Kg			06/09/23 12:55	20

Surrogate Summary

Client: Vertex Job ID: 890-4786-1
Project/Site: Corral Fly SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-4781-A-1-F MS	Matrix Spike	93	92	
890-4781-A-1-G MSD	Matrix Spike Duplicate	108	102	
890-4786-1	BH23-08 2'	79	102	
390-4786-2	BH23-08 4'	89	102	
390-4786-3	BH23-11 0'	93	100	
390-4786-4	BH23-11 2'	89	104	
390-4786-5	BH23-12 0'	87	98	
390-4786-6	BH23-12 2'	87	102	
_CS 880-55037/1-A	Lab Control Sample	97	105	
CSD 880-55037/2-A	Lab Control Sample Dup	96	102	
MB 880-55037/5-A	Method Blank	90	111	
Surrogate Legend				

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

ab Sample ID	Client Comple ID	1001	OTPH1	
· · · · · · · · · · · · · · · · · · ·	Client Comple ID			
00 00000 A 4 C MC	Client Sample ID	(70-130)	(70-130)	
30-29220-A-1-C MS	Matrix Spike	159 S1+	116	
80-29220-A-1-D MSD	Matrix Spike Duplicate	149 S1+	109	
90-4786-1	BH23-08 2'	149 S1+	116	
90-4786-2	BH23-08 4'	131 S1+	103	
90-4786-3	BH23-11 0'	130	100	
90-4786-4	BH23-11 2'	137 S1+	105	
90-4786-5	BH23-12 0'	138 S1+	106	
90-4786-6	BH23-12 2'	147 S1+	113	
CS 880-55013/2-A	Lab Control Sample	125	97	
CSD 880-55013/3-A	Lab Control Sample Dup	121	93	
MB 880-55013/1-A	Method Blank	0.02 S1-	0.008 S1-	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Vertex Job ID: 890-4786-1 Project/Site: Corral Fly SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-55037/5-A

Matrix: Solid Analysis Batch: 55385 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 55037

ı		MB	MB							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Benzene	<0.00200	U	0.00200		mg/Kg		06/08/23 13:04	06/13/23 14:24	1
	Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/08/23 13:04	06/13/23 14:24	1
	Toluene	<0.00200	U	0.00200		mg/Kg		06/08/23 13:04	06/13/23 14:24	1
I	Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/08/23 13:04	06/13/23 14:24	1
	m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/08/23 13:04	06/13/23 14:24	1
	o-Xylene	<0.00200	U	0.00200		mg/Kg		06/08/23 13:04	06/13/23 14:24	1
ı										

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	06	6/08/23 13:04	06/13/23 14:24	1
1,4-Difluorobenzene (Surr)	111		70 - 130	06	6/08/23 13:04	06/13/23 14:24	1

Lab Sample ID: LCS 880-55037/1-A

Matrix: Solid

Analysis Batch: 55385

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 55037

ı		Spike	LCS	LCS				%Rec	
	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
	Benzene	0.100	0.1164	-	mg/Kg		116	70 - 130	
	Ethylbenzene	0.100	0.1040		mg/Kg		104	70 - 130	
	Toluene	0.100	0.1157		mg/Kg		116	70 - 130	
İ	m-Xylene & p-Xylene	0.200	0.1933		mg/Kg		97	70 - 130	
	o-Xylene	0.100	0.09140		mg/Kg		91	70 - 130	
ı									

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	97	70 - 130
1,4-Difluorobenzene (Surr)	105	70 - 130

Lab Sample ID: LCSD 880-55037/2-A

Matrix: Solid

Analysis Batch: 55385

	Client Sam	ple ID: Lab	Control Sam	ple Dup
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Prep Type: Total/NA

Prep Batch: 55037

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1440	*+	mg/Kg		144	70 - 130	21	35
Ethylbenzene	0.100	0.1158		mg/Kg		116	70 - 130	11	35
Toluene	0.100	0.1378	*+	mg/Kg		138	70 - 130	17	35
m-Xylene & p-Xylene	0.200	0.2210		mg/Kg		111	70 - 130	13	35
o-Xylene	0.100	0.1050		mg/Kg		105	70 - 130	14	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1.4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 890-4781-A-1-F MS

Matrix: Solid

Analysis Batch: 55385

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

Prep Batch: 55037

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U *+	0.101	0.1061		mg/Kg		105	70 - 130	
Ethylbenzene	< 0.00199	U	0.101	0.07489		mg/Kg		74	70 - 130	

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QC Sample Results

Client: Vertex Job ID: 890-4786-1 Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: 890-4781-A-1-F MS

Matrix: Solid

Analysis Batch: 55385

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Toluene	<0.00199	U *+	0.101	0.1028		mg/Kg		102	70 - 130	
m-Xylene & p-Xylene	<0.00398	U F1	0.202	0.1372	F1	mg/Kg		68	70 - 130	
o-Xylene	<0.00199	U F1	0.101	0.06696	F1	mg/Kg		66	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	93	70 - 130
1,4-Difluorobenzene (Surr)	92	70 - 130

Lab Sample ID: 890-4781-A-1-G MSD

Matrix: Solid

Analysis Batch: 55385

Client Sample ID: Matrix Spike Duplicate

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 55037

Prep Type: Total/NA

Prep Batch: 55037

Sample Sample Spike MSD MSD RPD Result Qualifier Added Result Qualifier RPD Limit Analyte Unit %Rec Limits 0.100 Benzene <0.00199 U*+ 0.1063 mg/Kg 106 70 - 130 0 35 0.08181 Ethylbenzene <0.00199 U 0.100 mg/Kg 82 70 - 130 9 35 Toluene <0.00199 U*+ 0.100 0.1059 106 70 - 130 3 35 mg/Kg 0.200 35 m-Xylene & p-Xylene <0.00398 UF1 0.1631 mg/Kg 81 70 - 130 17 <0.00199 U F1 0.100 0.07958 79 70 - 130 o-Xylene mg/Kg 17

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

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

Lab Sample ID: MB 880-55013/1-A

Matrix: Solid

Analysis Batch: 55082

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 55013

MB MB Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Analyte 50.0 06/08/23 09:14 06/09/23 19:43 <50.0 U Gasoline Range Organics mg/Kg (GRO)-C6-C10 06/08/23 09:14 06/09/23 19:43 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 06/08/23 09:14 06/09/23 19:43 mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	0.02	S1-	70 - 130	06/08/23 09:14	06/09/23 19:43	1
o-Terphenyl	0.008	S1-	70 - 130	06/08/23 09:14	06/09/23 19:43	1

Lab Sample ID: LCS 880-55013/2-A

Matrix: Solid

Analysis Batch: 55082

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 55013

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	845.9	-	mg/Kg		85	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	868.2		mg/Kg		87	70 - 130	
C10-C28)								

Client: Vertex

o-Terphenyl

Job ID: 890-4786-1 Project/Site: Corral Fly

SDG: 23E-02502

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

Lab Sample ID: LCS 880-55013/2-A **Client Sample ID: Lab Control Sample**

Matrix: Solid Prep Type: Total/NA Analysis Batch: 55082 Prep Batch: 55013

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	125		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: LCSD 880-55013/3-A Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA **Matrix: Solid** Analysis Batch: 55082 Prep Batch: 55013

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	946.4		mg/Kg		95	70 - 130	11	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	931.0		mg/Kg		93	70 - 130	7	20
C10-C28)									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 880-29220-A-1-C MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA Analysis Batch: 55082 Prep Batch: 55013

Sample Sample Spike MS MS Result Qualifier Result Qualifier Analyte Added Unit %Rec Limits Gasoline Range Organics <49.9 U 996 1249 mg/Kg 123 70 - 130

(GRO)-C6-C10 Diesel Range Organics (Over <49.9 U 996 1044 mg/Kg 103 70 - 130 C10-C28)

70 - 130

MS MS %Recovery Qualifier Limits Surrogate 1-Chlorooctane 159 S1+ 70 - 130

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Lab Sample ID: 880-29220-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA Analysis Batch: 55082 Prep Batch: 55013

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	1199		mg/Kg		118	70 - 130	4	20	
Diesel Range Organics (Over	<49.9	U	996	972.7		mg/Kg		96	70 - 130	7	20	
C10-C28)												

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	149	S1+	70 - 130
o-Terphenyl	109		70 - 130

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Client Sample ID: BH23-08 4'

Client Sample ID: BH23-08 4'

QC Sample Results

Client: Vertex Job ID: 890-4786-1
Project/Site: Corral Fly SDG: 23E-02502

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-55022/1-A

Matrix: Solid

Analysis Batch: 55120

MB MB

 Analyte
 Result Chloride
 Qualifier
 RL Unit
 MDL mg/Kg
 Unit
 D mg/Kg
 Prepared Manalyzed 06/09/23 10:37
 Dil Fac 06/09/23 10:37

Lab Sample ID: LCS 880-55022/2-A

Matrix: Solid

Analysis Batch: 55120

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 248.0 mg/Kg 99 90 - 110

Lab Sample ID: LCSD 880-55022/3-A

Matrix: Solid

Analysis Batch: 55120

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 250.6 90 - 110 mg/Kg 100

Lab Sample ID: 890-4786-2 MS

Matrix: Solid

Analysis Batch: 55120

MS MS Sample Sample Spike %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 284 249 538.7 102 90 - 110 mg/Kg

Lab Sample ID: 890-4786-2 MSD

Matrix: Solid

Analysis Batch: 55120

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 249 284 535.5 mg/Kg 101 90 - 110 20

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QC Association Summary

Client: Vertex Job ID: 890-4786-1 Project/Site: Corral Fly SDG: 23E-02502

GC VOA

Prep Batch: 55037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4786-1	BH23-08 2'	Total/NA	Solid	5035	_
890-4786-2	BH23-08 4'	Total/NA	Solid	5035	
890-4786-3	BH23-11 0'	Total/NA	Solid	5035	
890-4786-4	BH23-11 2'	Total/NA	Solid	5035	
890-4786-5	BH23-12 0'	Total/NA	Solid	5035	
890-4786-6	BH23-12 2'	Total/NA	Solid	5035	
MB 880-55037/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-55037/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-55037/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4781-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
890-4781-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 55385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4786-1	BH23-08 2'	Total/NA	Solid	8021B	55037
890-4786-2	BH23-08 4'	Total/NA	Solid	8021B	55037
890-4786-3	BH23-11 0'	Total/NA	Solid	8021B	55037
890-4786-4	BH23-11 2'	Total/NA	Solid	8021B	55037
890-4786-5	BH23-12 0'	Total/NA	Solid	8021B	55037
890-4786-6	BH23-12 2'	Total/NA	Solid	8021B	55037
MB 880-55037/5-A	Method Blank	Total/NA	Solid	8021B	55037
LCS 880-55037/1-A	Lab Control Sample	Total/NA	Solid	8021B	55037
LCSD 880-55037/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	55037
890-4781-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	55037
890-4781-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	55037

Analysis Batch: 55493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4786-1	BH23-08 2'	Total/NA	Solid	Total BTEX	- <u> </u>
890-4786-2	BH23-08 4'	Total/NA	Solid	Total BTEX	
890-4786-3	BH23-11 0'	Total/NA	Solid	Total BTEX	
890-4786-4	BH23-11 2'	Total/NA	Solid	Total BTEX	
890-4786-5	BH23-12 0'	Total/NA	Solid	Total BTEX	
890-4786-6	BH23-12 2'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 55013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4786-1	BH23-08 2'	Total/NA	Solid	8015NM Prep	
890-4786-2	BH23-08 4'	Total/NA	Solid	8015NM Prep	
890-4786-3	BH23-11 0'	Total/NA	Solid	8015NM Prep	
890-4786-4	BH23-11 2'	Total/NA	Solid	8015NM Prep	
890-4786-5	BH23-12 0'	Total/NA	Solid	8015NM Prep	
890-4786-6	BH23-12 2'	Total/NA	Solid	8015NM Prep	
MB 880-55013/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-55013/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-55013/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-29220-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-29220-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Vertex Job ID: 890-4786-1 Project/Site: Corral Fly SDG: 23E-02502

GC Semi VOA

Analysis Batch: 55082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4786-1	BH23-08 2'	Total/NA	Solid	8015B NM	55013
890-4786-2	BH23-08 4'	Total/NA	Solid	8015B NM	55013
890-4786-3	BH23-11 0'	Total/NA	Solid	8015B NM	55013
890-4786-4	BH23-11 2'	Total/NA	Solid	8015B NM	55013
890-4786-5	BH23-12 0'	Total/NA	Solid	8015B NM	55013
890-4786-6	BH23-12 2'	Total/NA	Solid	8015B NM	55013
MB 880-55013/1-A	Method Blank	Total/NA	Solid	8015B NM	55013
LCS 880-55013/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	55013
LCSD 880-55013/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	55013
880-29220-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	55013
880-29220-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	55013

Analysis Batch: 55333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4786-1	BH23-08 2'	Total/NA	Solid	8015 NM	_
890-4786-2	BH23-08 4'	Total/NA	Solid	8015 NM	
890-4786-3	BH23-11 0'	Total/NA	Solid	8015 NM	
890-4786-4	BH23-11 2'	Total/NA	Solid	8015 NM	
890-4786-5	BH23-12 0'	Total/NA	Solid	8015 NM	
890-4786-6	BH23-12 2'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 55022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4786-1	BH23-08 2'	Soluble	Solid	DI Leach	
890-4786-2	BH23-08 4'	Soluble	Solid	DI Leach	
890-4786-3	BH23-11 0'	Soluble	Solid	DI Leach	
890-4786-4	BH23-11 2'	Soluble	Solid	DI Leach	
890-4786-5	BH23-12 0'	Soluble	Solid	DI Leach	
890-4786-6	BH23-12 2'	Soluble	Solid	DI Leach	
MB 880-55022/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-55022/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-55022/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4786-2 MS	BH23-08 4'	Soluble	Solid	DI Leach	
890-4786-2 MSD	BH23-08 4'	Soluble	Solid	DI Leach	

Analysis Batch: 55120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4786-1	BH23-08 2'	Soluble	Solid	300.0	55022
890-4786-2	BH23-08 4'	Soluble	Solid	300.0	55022
890-4786-3	BH23-11 0'	Soluble	Solid	300.0	55022
890-4786-4	BH23-11 2'	Soluble	Solid	300.0	55022
890-4786-5	BH23-12 0'	Soluble	Solid	300.0	55022
890-4786-6	BH23-12 2'	Soluble	Solid	300.0	55022
MB 880-55022/1-A	Method Blank	Soluble	Solid	300.0	55022
LCS 880-55022/2-A	Lab Control Sample	Soluble	Solid	300.0	55022
LCSD 880-55022/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	55022
890-4786-2 MS	BH23-08 4'	Soluble	Solid	300.0	55022
890-4786-2 MSD	BH23-08 4'	Soluble	Solid	300.0	55022

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Job ID: 890-4786-1 SDG: 23E-02502

Client Sample ID: BH23-08 2'

Date Collected: 06/06/23 09:00 Date Received: 06/06/23 14:29

Lab Sample ID: 890-4786-1

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	55037	06/08/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55385	06/13/23 19:49	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55493	06/14/23 09:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55333	06/12/23 14:13	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	55013	06/08/23 09:14	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55082	06/10/23 03:49	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	55022	06/08/23 09:45	KS	EET MID
Soluble	Analysis	300.0		1			55120	06/09/23 12:05	CH	EET MID

Client Sample ID: BH23-08 4'

Date Collected: 06/06/23 09:05

Date Received: 06/06/23 14:29

Lab Sample ID: 890-4786-2

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	55037	06/08/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55385	06/13/23 20:09	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55493	06/14/23 09:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55333	06/12/23 14:13	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	55013	06/08/23 09:14	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55082	06/10/23 04:11	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	55022	06/08/23 09:45	KS	EET MID
Soluble	Analysis	300.0		1			55120	06/09/23 12:10	CH	EET MID

Client Sample ID: BH23-11 0'

Date Collected: 06/06/23 09:10

Date Received: 06/06/23 14:29

Lab Sample ID: 890-4786-3

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	55037	06/08/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55385	06/13/23 20:29	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55493	06/14/23 09:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55333	06/12/23 14:13	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	55013	06/08/23 09:14	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55082	06/10/23 04:33	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	55022	06/08/23 09:45	KS	EET MID
Soluble	Analysis	300.0		5			55120	06/09/23 12:27	CH	EET MID

Client Sample ID: BH23-11 2'

Date Collected: 06/06/23 09:15

Date Received: 06/06/23 14:29

Lab Sample I	D: 890-4786-4
	Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	55037	06/08/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55385	06/13/23 20:50	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55493	06/14/23 09:58	AJ	EET MID

Client: Vertex Project/Site: Corral Fly Job ID: 890-4786-1

SDG: 23E-02502

Client Sample ID: BH23-11 2'

Date Collected: 06/06/23 09:15 Date Received: 06/06/23 14:29 Lab Sample ID: 890-4786-4

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			55333	06/12/23 14:13	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	55013	06/08/23 09:14	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55082	06/10/23 04:55	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	55022	06/08/23 09:45	KS	EET MID
Soluble	Analysis	300.0		5			55120	06/09/23 12:32	CH	EET MID

Client Sample ID: BH23-12 0' Lab Sample ID: 890-4786-5

Date Collected: 06/06/23 09:20 Date Received: 06/06/23 14:29

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	55037	06/08/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55385	06/13/23 21:10	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55493	06/14/23 09:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55333	06/12/23 14:13	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	55013	06/08/23 09:14	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55082	06/10/23 05:17	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	55022	06/08/23 09:45	KS	EET MID
Soluble	Analysis	300.0		20			55120	06/09/23 12:49	CH	EET MID

Client Sample ID: BH23-12 2' Lab Sample ID: 890-4786-6

Date Collected: 06/06/23 09:25 Date Received: 06/06/23 14:29

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	55037	06/08/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55385	06/13/23 21:31	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			55493	06/14/23 09:58	AJ	EET MID
Total/NA	Analysis	8015 NM		1			55333	06/12/23 14:13	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	55013	06/08/23 09:14	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55082	06/10/23 05:38	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	55022	06/08/23 09:45	KS	EET MID
Soluble	Analysis	300.0		20			55120	06/09/23 12:55	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

 Client: Vertex
 Job ID: 890-4786-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Laboratory: Eurofins Midland

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

Authority		ogram	Identification Number	Expiration Date
Texas		ELAP	06-30-23	
The following analytes	and the almost and the Alaba management has		and the state of the second control of the s	
the agency does not of	• '	it the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes for
,	• '	Matrix	ed by the governing authority. This list ma	ay include analytes for
the agency does not of	fer certification.	•	, , ,	ay include analytes for

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Method Summary

Client: Vertex Job ID: 890-4786-1 Project/Site: Corral Fly SDG: 23E-02502

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 Job ID: 890-4786-1 Project/Site: Corral Fly SDG: 23E-02502

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-4786-1	BH23-08 2'	Solid	06/06/23 09:00	06/06/23 14:29
890-4786-2	BH23-08 4'	Solid	06/06/23 09:05	06/06/23 14:29
890-4786-3	BH23-11 0'	Solid	06/06/23 09:10	06/06/23 14:29
890-4786-4	BH23-11 2'	Solid	06/06/23 09:15	06/06/23 14:29
890-4786-5	BH23-12 0'	Solid	06/06/23 09:20	06/06/23 14:29
890-4786-6	BH23-12 2'	Solid	06/06/23 09:25	06/06/23 14:29

Circle Method(s) and Metal(s) to be analyzed

Total 200.7 / 6010

200.8 / 6020:

8RCRA 13PPM Texa

f service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for a

Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sam otice: Signature of this document and relinquishment of samples constitutes a valid purchase order from clien

Relinquished by: (Signature)

Sar

10/10/23

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

ed Date: 08/25/2020 Rev. 2020 2

Received by: (Signature

SH23-12

Ø

4.6 9.10 4.05

9:20

3H23-12

010

SAMPLE RECEIPT

Temp Blank:

(Yes) No

No

Correction Factor: Thermometer iD:

Corrected Temperature: Temperature Reading: ampler's Name:

Hunter Klein

oject Location:

Cooler Custody Seals:

mple Custody Seals:

Yes No Yes No mples Received Intact:

otal Containers:

Sample Identification

Matrix

Sampled

Date

Project Number:

236-03503

roject Name:

Address:

ompany Name:

Dixon

City, State ZIP:

13 14

eurofins Xenco **Environment Testing**

Chain of Custody

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 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

	- 1	
Bill to: (if different)	KOB TIVE	WORKOID
company Name:	DIANIS	
Address:		
City, State ZIP:		Reporting: Level III PST/UST TRRP Level IV
Email: cdixon@vertex.ca	viex.ca analytically	Deliverables: EDD ADaPT Other:
Turn Around	ANALYSIS REQUEST	UEST Preservative Codes
Routine Rush Pres.		None: NO DI Water: H ₂ O
		Cool: Cool MeOH: Me HCL: HC HNO 3: HN
TAT starts the day received by the lab, if received by 4:30pm		2
Wet ice: Yes No eters		H₃PO.; HP
E		NaHSO 4: NABIS
36.	X	Zn Acetate+NaOH: Zn
mperature: 0.4	890-4786 Chain of Custody	
Time Depth Grab # of	BIC	Sample Comments
9.00	*	
30.05	X	
9.10	×	
15	XXX	
9:20	~ ~ ×	
25	X X	
CRA 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 Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471
rchase order from client company to Eurof	lid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions	
any responsibility for any losses or expensarge of \$5 for each sample submitted to Eu	ssume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control d a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously megotiated.	beyond the control ess previously negotiated.

Work Order No:

Login Sample Receipt Checklist

Client: Vertex Job Number: 890-4786-1 SDG Number: 23E-02502

Login Number: 4786 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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	

Euronns Carisbau

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Login Sample Receipt Checklist

Client: Vertex Job Number: 890-4786-1 SDG Number: 23E-02502

Login Number: 4786 **List Source: Eurofins Midland** List Number: 2 List Creation: 06/08/23 10:12 AM

Creator: Rodriguez, Leticia

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

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 6/19/2023 3:25:42 PM

JOB DESCRIPTION

Corral Fly SDG NUMBER 23E-02502

JOB NUMBER

890-4814-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

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

Authorization

Generated 6/19/2023 3:25:42 PM

Authorized for release by Jessica Kramer, Project Manager <u>Jessica.Kramer@et.eurofinsus.com</u> (432)704-5440 Client: Vertex Laboratory Job ID: 890-4814-1
Project/Site: Corral Fly SDG: 23E-02502

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Definitions/Glossary

Client: Vertex Job ID: 890-4814-1
Project/Site: Corral Fly SDG: 23E-02502

02502

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, low 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.

Eisted under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CFL Contains Free Liquid
CFU Colony Forming Unit
CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent
POS Positive / Present
PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Case Narrative

 Client: Vertex
 Job ID: 890-4814-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Job ID: 890-4814-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4814-1

Receipt

The samples were received on 6/12/2023 3:19 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 2.1°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BH23-13 0' (890-4814-1), BH23-13 2' (890-4814-2), BH23-14 0' (890-4814-3) and BH23-14 2' (890-4814-4).

GC VOA

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-55677 and 880-55680 and analytical batch 880-55652 was outside the control limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCS 880-55677/1-A). Evidence of matrix interferences is not obvious.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-55652 recovered below the lower control limit for Benzene, Ethylbenzene, Toluene, m-Xylene & p-Xylene and o-Xylene. An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported. The associated sample is impacted: (CCV 880-55652/95).

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

GC Semi VOA

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.

9

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12

Client Sample Results

Client: Vertex Job ID: 890-4814-1 Project/Site: Corral Fly SDG: 23E-02502

RL

0.00200

0.00200

0.00200

0.00401

0.00401

0.00200

Limits

70 - 130

70 - 130

MDL Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg mg/Kg D

Client Sample ID: BH23-13 0'

Analyte

Benzene

Toluene

o-Xylene

Surrogate

o-Terphenyl

Ethylbenzene

Xylenes, Total

m-Xylene & p-Xylene

4-Bromofluorobenzene (Surr)

1,4-Difluorobenzene (Surr)

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

Date Collected: 06/12/23 10:00 Date Received: 06/12/23 15:19

Result Qualifier

<0.00200 U

<0.00200 U

<0.00200 U

<0.00401 U

<0.00401 U

<0.00200 U

%Recovery Qualifier

82

94

92

Lab Sample ID: 890-4814-1

Matrix: Solid

	Prepared	Analyzed	Dil Fac
•	06/16/23 10:43	06/17/23 14:39	1
	06/16/23 10:43	06/17/23 14:39	1
	06/16/23 10:43	06/17/23 14:39	1
	06/16/23 10:43	06/17/23 14:39	1
	06/16/23 10:43	06/17/23 14:39	1

06/17/23 14:39

Prepared Analyzed Dil Fac 06/16/23 10:43 06/17/23 14:39

06/16/23 10:43

06/14/23 11:36

06/14/23 18:40

06/16/23 10:43 06/17/23 14:39

Method: TAL SOP Total BTEX - Total BTEX Calculation MDL Unit Analyte Result Qualifier RL D Prepared Analyzed Dil Fac Total BTEX <0.00401 0.00401 mg/Kg 06/19/23 15:52

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 06/15/23 12:35 mg/Kg

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		06/14/23 11:36	06/14/23 18:40	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.9	U	49.9		mg/Kg		06/14/23 11:36	06/14/23 18:40	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/14/23 11:36	06/14/23 18:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane			70 - 130				06/14/23 11:36	06/14/23 18:40	1

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Soluble)						
Analyte	Result	Qualifier	RL	MDL	Unit)	Prepared	Analyzed	Dil Fac
Chloride	123		5.05		mg/Kg			06/14/23 13:41	1

70 - 130

Client Sample ID: BH23-13 2' Lab Sample ID: 890-4814-2 Date Collected: 06/12/23 10:05 **Matrix: Solid**

Date Received: 06/12/23 15:19

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/16/23 10:43	06/17/23 15:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/16/23 10:43	06/17/23 15:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/16/23 10:43	06/17/23 15:00	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/16/23 10:43	06/17/23 15:00	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/16/23 10:43	06/17/23 15:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/16/23 10:43	06/17/23 15:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130				06/16/23 10:43	06/17/23 15:00	1
1,4-Difluorobenzene (Surr)	80		70 - 130				06/16/23 10:43	06/17/23 15:00	1

Client Sample Results

Client: Vertex Job ID: 890-4814-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-13 2'

Date Collected: 06/12/23 10:05 Date Received: 06/12/23 15:19

Lab Sample ID: 890-4814-2

06/14/23 19:02

Lab Sample ID: 890-4814-3

Matrix: Solid

06/14/23 11:36

Matrix: Solid

Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			06/19/23 15:52	1
– Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			06/15/23 12:35	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)						
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		06/14/23 11:36	06/14/23 19:02	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.9	U	49.9		mg/Kg		06/14/23 11:36	06/14/23 19:02	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/14/23 11:36	06/14/23 19:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130				06/14/23 11:36	06/14/23 19:02	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier Dil Fac RL MDL Unit D Prepared Analyzed 06/14/23 13:46 Chloride 43.2 4.98 mg/Kg

70 - 130

Client Sample ID: BH23-14 0'

Date Collected: 06/12/23 10:10 Date Received: 06/12/23 15:19

o-Terphenyl

103

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/16/23 10:43	06/17/23 15:21	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/16/23 10:43	06/17/23 15:21	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/16/23 10:43	06/17/23 15:21	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		06/16/23 10:43	06/17/23 15:21	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		06/16/23 10:43	06/17/23 15:21	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/16/23 10:43	06/17/23 15:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130				06/16/23 10:43	06/17/23 15:21	1
1,4-Difluorobenzene (Surr)	90		70 - 130				06/16/23 10:43	06/17/23 15:21	1

Method: TAL SOP Total BTEX - Tot	al BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			06/19/23 15:52	1

Method: SW846 8015 NM - Diesel F	Range Organi	cs (DRO) (G	SC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			06/15/23 12:35	1

Method: SW846 8015B NM - Dies	sel Range Orga	nics (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		06/14/23 11:36	06/14/23 19:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/14/23 11:36	06/14/23 19:25	1

Dil Fac

Dil Fac

Client Sample Results

Client: Vertex Job ID: 890-4814-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-14 0'

Lab Sample ID: 890-4814-3 Date Collected: 06/12/23 10:10 Date Received: 06/12/23 15:19

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/14/23 11:36	06/14/23 19:25
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed
1-Chlorooctane	111		70 - 130				06/14/23 11:36	06/14/23 19:25
o-Terphenyl	92		70 - 130				06/14/23 11:36	06/14/23 19:25

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 5.03 06/14/23 13:52 Chloride 71.6 mg/Kg

Client Sample ID: BH23-14 2'

Date Collected: 06/12/23 10:15 Date Received: 06/12/23 15:19

Lab Sample ID: 890-4814-4 **Matrix: Solid**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/16/23 10:43	06/17/23 15:41	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/16/23 10:43	06/17/23 15:41	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/16/23 10:43	06/17/23 15:41	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/16/23 10:43	06/17/23 15:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/16/23 10:43	06/17/23 15:41	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/16/23 10:43	06/17/23 15:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130				06/16/23 10:43	06/17/23 15:41	1
1,4-Difluorobenzene (Surr)	96		70 - 130				06/16/23 10:43	06/17/23 15:41	1

Method: TAL SOP Total BTEX - Tot	al BIEX Calc	ulation						
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			06/19/23 15:52	1
_								

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			06/15/23 12:35	1
Method: SW846 8015B NM - Die	sel Range Orga	nics (DRO) (0	SC)						
		. , , ,	•	MDI	Unit	n	Prenared	Analyzod	Dil Fac
Method: SW846 8015B NM - Die Analyte		nics (DRO) (C	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
		Qualifier	•	MDL	Unit mg/Kg	<u>D</u>	Prepared 06/14/23 11:36	Analyzed 06/14/23 19:48	Dil Fac
Analyte	Result	Qualifier	RL	MDL		<u>D</u>			Dil Fac

C10-C28) OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg	06/14/23 11:36	06/14/23 19:48	1
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130		06/14/23 11:36	06/14/23 19:48	1
o-Terphenyl	103		70 - 130		06/14/23 11:36	06/14/23 19:48	1

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Soluble							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	50.6		5.01		mg/Kg			06/14/23 14:09	1

Surrogate Summary

Job ID: 890-4814-1 Client: Vertex Project/Site: Corral Fly SDG: 23E-02502

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)	
880-29314-A-1-B MS	Matrix Spike	102	108	
880-29314-A-1-C MSD	Matrix Spike Duplicate	106	107	
890-4814-1	BH23-13 0'	82	94	
890-4814-2	BH23-13 2'	86	80	
890-4814-3	BH23-14 0'	89	90	
890-4814-4	BH23-14 2'	91	96	
LCS 880-55677/1-A	Lab Control Sample	137 S1+	110	
LCSD 880-55677/2-A	Lab Control Sample Dup	115	106	
MB 880-55677/5-A	Method Blank	67 S1-	99	
MB 880-55680/5-A	Method Blank	69 S1-	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)
		1001	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-29502-A-21-C MS	Matrix Spike	115	83	
880-29502-A-21-D MSD	Matrix Spike Duplicate	116	86	
390-4814-1	BH23-13 0'	111	92	
390-4814-2	BH23-13 2'	130	103	
390-4814-3	BH23-14 0'	111	92	
390-4814-4	BH23-14 2'	129	103	
_CS 880-55508/2-A	Lab Control Sample	123	106	
LCSD 880-55508/3-A	Lab Control Sample Dup	104	88	
MB 880-55508/1-A	Method Blank	61 S1-	52 S1-	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Vertex Job ID: 890-4814-1 SDG: 23E-02502 Project/Site: Corral Fly

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-55677/5-A

Matrix: Solid Analysis Batch: 55652 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 55677

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/16/23 10:43	06/17/23 09:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/16/23 10:43	06/17/23 09:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/16/23 10:43	06/17/23 09:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/16/23 10:43	06/17/23 09:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/16/23 10:43	06/17/23 09:26	1
o-Xylene	< 0.00200	U	0.00200		mg/Kg		06/16/23 10:43	06/17/23 09:26	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	67	S1-	70 - 130	06/16/23 10:43	06/17/23 09:26	1
1,4-Difluorobenzene (Surr)	99		70 - 130	06/16/23 10:43	06/17/23 09:26	1

Lab Sample ID: LCS 880-55677/1-A

Matrix: Solid

Analysis Batch: 55652

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 55677

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09597		mg/Kg		96	70 - 130	
Ethylbenzene	0.100	0.08456		mg/Kg		85	70 - 130	
Toluene	0.100	0.08390		mg/Kg		84	70 - 130	
m-Xylene & p-Xylene	0.200	0.1708		mg/Kg		85	70 - 130	
o-Xylene	0.100	0.08842		mg/Kg		88	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	137	S1+	70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 880-55677/2-A

Matrix: Solid

Analysis Batch: 55652

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 55677

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.09332		mg/Kg		93	70 - 130	3	35	
Ethylbenzene	0.100	0.07964		mg/Kg		80	70 - 130	6	35	
Toluene	0.100	0.08119		mg/Kg		81	70 - 130	3	35	
m-Xylene & p-Xylene	0.200	0.1616		mg/Kg		81	70 - 130	6	35	
o-Xylene	0.100	0.08321		mg/Kg		83	70 - 130	6	35	

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	115	70 - 130
1,4-Difluorobenzene (Surr)	106	70 - 130

Lab Sample ID: 880-29314-A-1-B MS

Matrix: Solid

Analysis Batch: 55652

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

Prep Batch: 55677

_	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00200	U	0.0994	0.09585		mg/Kg		96	70 - 130	
Ethylbenzene	<0.00200	U	0.0994	0.08588		mg/Kg		86	70 - 130	

Prep Batch: 55677

QC Sample Results

Job ID: 890-4814-1 Client: Vertex Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: 880-29314-A-1-B MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 55652

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Toluene	<0.00200	U	0.0994	0.08046		mg/Kg		80	70 - 130	
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1636		mg/Kg		82	70 - 130	
o-Xylene	<0.00200	U	0.0994	0.08641		mg/Kg		87	70 - 130	

MS MS

Surrogate	%Recovery Qualifie	r Limits
4-Bromofluorobenzene (Surr)	102	70 - 130
1,4-Difluorobenzene (Surr)	108	70 - 130

Lab Sample ID: 880-29314-A-1-C MSD

Matrix: Solid									Prep	Type: To	tal/NA
Analysis Batch: 55652									Pre	p Batch:	55677
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	_ D	%Rec	Limits	RPD	Limit

Benzene <0.00200 U 0.0998 0.09425 mg/Kg 94 70 - 130 35 0.0998 70 - 130 35 Ethylbenzene <0.00200 U 0.08649 mg/Kg 87 Toluene <0.00200 U 0.0998 0.08280 mg/Kg 82 70 - 130 3 35 0.200 0.1697 70 - 130 35 m-Xylene & p-Xylene <0.00401 U mg/Kg 85 0.0998 <0.00200 U 0.08586 86 70 - 130 o-Xylene mg/Kg

MSD MSD

MB MB

Surrogate	%Recovery Qualifi	er Limits
4-Bromofluorobenzene (Surr)	106	70 - 130
1,4-Difluorobenzene (Surr)	107	70 - 130

Lab Sample ID: MB 880-55680/5-A

Matrix: Solid

Analysis Batch: 55652

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

Client Sample ID: Matrix Spike Duplicate

Prep Batch: 55680

Analyte	Result	Qualifier	RL	MDL U	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	n	mg/Kg		06/16/23 11:48	06/16/23 22:47	1
Ethylbenzene	<0.00200	U	0.00200	n	mg/Kg		06/16/23 11:48	06/16/23 22:47	1
Toluene	<0.00200	U	0.00200	n	mg/Kg		06/16/23 11:48	06/16/23 22:47	1
Xylenes, Total	<0.00400	U	0.00400	n	mg/Kg		06/16/23 11:48	06/16/23 22:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	n	mg/Kg		06/16/23 11:48	06/16/23 22:47	1
o-Xylene	<0.00200	U	0.00200	n	mg/Kg		06/16/23 11:48	06/16/23 22:47	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	69	S1-	70 - 130	06/16/23 11:48	06/16/23 22:47	1
1,4-Difluorobenzene (Surr)	99		70 - 130	06/16/23 11:48	06/16/23 22:47	1

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

Matrix: Solid

Analysis Batch: 55457

Lab Sample ID: MB 880-55508/1-A

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

Prep Batch: 55508

мв мв Result Qualifier MDL Unit Prepared <50.0 U 50.0 06/14/23 11:36 06/14/23 08:05 Gasoline Range Organics mg/Kg (GRO)-C6-C10

Client: Vertex

MR MR

Job ID: 890-4814-1

SDG: 23E-02502

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

Lab Sample ID: MB 880-55508/1-A

Matrix: Solid

Surrogate

o-Terphenyl

Analyte

C10-C28)

(GRO)-C6-C10

1-Chlorooctane

Analysis Batch: 55457

Project/Site: Corral Fly

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 55508

ı										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Diesel Range Organics (Over	<50.0	U	50.0		mg/Kg	 _	06/14/23 11:36	06/14/23 08:05	1
	C10-C28) Oll Range Organics (Over C28-C36)	<50.0	П	50.0		mg/Kg		06/14/23 11:36	06/14/23 08:05	1
	On Narige Organics (Over 020-030)	٧٥٥.٥	O	30.0		mg/rtg		00/14/23 11.30	00/14/23 00:03	
		MB	MB							

%Recovery Qualifier Limits Prepared Analyzed Dil Fac 61 S1-70 - 130 06/14/23 11:36 06/14/23 08:05 52 S1-70 - 130 06/14/23 11:36 06/14/23 08:05

Lab Sample ID: LCS 880-55508/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 55457

Gasoline Range Organics

Diesel Range Organics (Over

Prep Batch: 55508 LCS LCS Spike Added Result Qualifier Unit %Rec Limits 1000 842.2 84 70 - 130 mg/Kg 1000 942.0 mg/Kg 94 70 - 130

LCS LCS Qualifier Limits Surrogate %Recovery 1-Chlorooctane 70 - 130 123 o-Terphenyl 106 70 - 130

Lab Sample ID: LCSD 880-55508/3-A

Matrix: Solid

Analysis Batch: 55457

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

Prep Batch: 55508

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	777.4		mg/Kg		78	70 - 130	8	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	851.6		mg/Kg		85	70 - 130	10	20	
C10-C28)										

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 104 70 - 130 o-Terphenyl 88 70 - 130

Lab Sample ID: 880-29502-A-21-C MS

Matrix: Solid

Analysis Batch: 55457

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 55508

-	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	997	1706	F1	mg/Kg		169	70 - 130
Diesel Range Organics (Over	<50.0	U F1	997	1634	F1	mg/Kg		161	70 - 130

C10-C28)

	MS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	83		70 - 130

Client: Vertex Job ID: 890-4814-1 Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: 880-29502-A-21-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Analysis Batch: 55457 Prep Type: Total/NA Prep Batch: 55508

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: BH23-14 0'

Client Sample ID: BH23-14 0'

Sample Sample MSD MSD RPD Spike Result Qualifier Analyte Result Qualifier Added %Rec Limits RPD Limit Unit D Gasoline Range Organics <50.0 UF1 997 1707 F1 mg/Kg 169 70 - 130 0 20 (GRO)-C6-C10 997 1690 F1 70 - 130 Diesel Range Organics (Over <50.0 U F1 mg/Kg 167 3 20

C10-C28)

MSD MSD %Recovery Qualifier Limits Surrogate 1-Chlorooctane 70 - 130 116 o-Terphenyl 86 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-55470/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 55510

MB MB Result Qualifier MDL Analyte RL Unit Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 06/14/23 12:16 mg/Kg

Lab Sample ID: LCS 880-55470/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 55510

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 250.4 100 90 - 110 mg/Kg

Lab Sample ID: LCSD 880-55470/3-A

Matrix: Solid

Analysis Batch: 55510

Spike LCSD LCSD RPD %Rec Analyte Added Result Qualifier Unit %Rec RPD Limits Limit Chloride 250 250.4 100 90 - 110 mg/Kg 0

Lab Sample ID: 890-4814-3 MS

Matrix: Solid

Analysis Batch: 55510

Sample Sample Spike MS MS %Rec Result Qualifier Added Qualifier Analyte Result Unit %Rec Limits Chloride 252 90 - 110 71.6 302.4 mg/Kg

Lab Sample ID: 890-4814-3 MSD

Matrix: Solid

Analysis Ratch: 55510

Alialysis balcii. 555 iu											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	71.6		252	302.5		mg/Kg		92	90 - 110	0	20

QC Association Summary

Client: Vertex Job ID: 890-4814-1 Project/Site: Corral Fly SDG: 23E-02502

GC VOA

Analysis Batch: 55652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4814-1	BH23-13 0'	Total/NA	Solid	8021B	55677
890-4814-2	BH23-13 2'	Total/NA	Solid	8021B	55677
890-4814-3	BH23-14 0'	Total/NA	Solid	8021B	55677
890-4814-4	BH23-14 2'	Total/NA	Solid	8021B	55677
MB 880-55677/5-A	Method Blank	Total/NA	Solid	8021B	55677
MB 880-55680/5-A	Method Blank	Total/NA	Solid	8021B	55680
LCS 880-55677/1-A	Lab Control Sample	Total/NA	Solid	8021B	55677
LCSD 880-55677/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	55677
880-29314-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	55677
880-29314-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	55677

Prep Batch: 55677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4814-1	BH23-13 0'	Total/NA	Solid	5035	<u> </u>
890-4814-2	BH23-13 2'	Total/NA	Solid	5035	
890-4814-3	BH23-14 0'	Total/NA	Solid	5035	
890-4814-4	BH23-14 2'	Total/NA	Solid	5035	
MB 880-55677/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-55677/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-55677/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-29314-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-29314-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 55680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-55680/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 55869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4814-1	BH23-13 0'	Total/NA	Solid	Total BTEX	
890-4814-2	BH23-13 2'	Total/NA	Solid	Total BTEX	
890-4814-3	BH23-14 0'	Total/NA	Solid	Total BTEX	
890-4814-4	BH23-14 2'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 55457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4814-1	BH23-13 0'	Total/NA	Solid	8015B NM	55508
890-4814-2	BH23-13 2'	Total/NA	Solid	8015B NM	55508
890-4814-3	BH23-14 0'	Total/NA	Solid	8015B NM	55508
890-4814-4	BH23-14 2'	Total/NA	Solid	8015B NM	55508
MB 880-55508/1-A	Method Blank	Total/NA	Solid	8015B NM	55508
LCS 880-55508/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	55508
LCSD 880-55508/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	55508
880-29502-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	55508
880-29502-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	55508

Prep Batch: 55508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4814-1	BH23-13 0'	Total/NA	Solid	8015NM Prep	

QC Association Summary

 Client: Vertex
 Job ID: 890-4814-1

 Project/Site: Corral Fly
 SDG: 23E-02502

GC Semi VOA (Continued)

Prep Batch: 55508 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4814-2	BH23-13 2'	Total/NA	Solid	8015NM Prep	
890-4814-3	BH23-14 0'	Total/NA	Solid	8015NM Prep	
890-4814-4	BH23-14 2'	Total/NA	Solid	8015NM Prep	
MB 880-55508/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-55508/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-55508/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-29502-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-29502-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 55603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4814-1	BH23-13 0'	Total/NA	Solid	8015 NM	
890-4814-2	BH23-13 2'	Total/NA	Solid	8015 NM	
890-4814-3	BH23-14 0'	Total/NA	Solid	8015 NM	
890-4814-4	BH23-14 2'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 55470

Γ					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4814-1	BH23-13 0'	Soluble	Solid	DI Leach	
890-4814-2	BH23-13 2'	Soluble	Solid	DI Leach	
890-4814-3	BH23-14 0'	Soluble	Solid	DI Leach	
890-4814-4	BH23-14 2'	Soluble	Solid	DI Leach	
MB 880-55470/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-55470/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-55470/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4814-3 MS	BH23-14 0'	Soluble	Solid	DI Leach	
890-4814-3 MSD	BH23-14 0'	Soluble	Solid	DI Leach	

Analysis Batch: 55510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4814-1	BH23-13 0'	Soluble	Solid	300.0	55470
890-4814-2	BH23-13 2'	Soluble	Solid	300.0	55470
890-4814-3	BH23-14 0'	Soluble	Solid	300.0	55470
890-4814-4	BH23-14 2'	Soluble	Solid	300.0	55470
MB 880-55470/1-A	Method Blank	Soluble	Solid	300.0	55470
LCS 880-55470/2-A	Lab Control Sample	Soluble	Solid	300.0	55470
LCSD 880-55470/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	55470
890-4814-3 MS	BH23-14 0'	Soluble	Solid	300.0	55470
890-4814-3 MSD	BH23-14 0'	Soluble	Solid	300.0	55470
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Client: Vertex Project/Site: Corral Fly

Job ID: 890-4814-1

SDG: 23E-02502

Client Sample ID: BH23-13 0'

Lab Sample ID: 890-4814-1

Matrix: Solid

Date Collected: 06/12/23 10:00 Date Received: 06/12/23 15:19

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	55677	06/16/23 10:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55652	06/17/23 14:39	SM	EET MID
Total/NA	Analysis	Total BTEX		1			55869	06/19/23 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			55603	06/15/23 12:35	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	55508	06/14/23 11:36	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55457	06/14/23 18:40	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	55470	06/14/23 11:00	KS	EET MID
Soluble	Analysis	300.0		1			55510	06/14/23 13:41	CH	EET MID

Client Sample ID: BH23-13 2'

Lab Sample ID: 890-4814-2 Date Collected: 06/12/23 10:05

Matrix: Solid

Date Received: 06/12/23 15:19

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 Total/NA 5.01 g 5 mL 55677 06/16/23 10:43 EL EET MID Total/NA 8021B 5 mL 55652 06/17/23 15:00 **EET MID** Analysis 1 5 mL SM Total/NA Total BTEX 55869 06/19/23 15:52 SM Analysis 1 **EET MID** Total/NA Analysis 8015 NM 55603 06/15/23 12:35 ΑJ **EET MID** Total/NA 55508 06/14/23 11:36 Prep 8015NM Prep 10.02 g 10 mL A.I EET MID Total/NA Analysis 8015B NM 1 uL 1 uL 55457 06/14/23 19:02 AJ **EET MID** Soluble 5.02 g 55470 06/14/23 11:00 KS Leach DI Leach 50 mL EET MID Soluble Analysis 300.0 55510 06/14/23 13:46 СН **EET MID**

Client Sample ID: BH23-14 0'

Date Collected: 06/12/23 10:10

Date Received: 06/12/23 15:19

Lab Sample ID: 890-4814-3

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	55677	06/16/23 10:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55652	06/17/23 15:21	SM	EET MID
Total/NA	Analysis	Total BTEX		1			55869	06/19/23 15:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			55603	06/15/23 12:35	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	55508	06/14/23 11:36	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55457	06/14/23 19:25	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	55470	06/14/23 11:00	KS	EET MID
Soluble	Analysis	300.0		1			55510	06/14/23 13:52	CH	EET MID

Client Sample ID

Date Collected: 06/1

Date Received: 06/12/23 15:19

Analysis	300.0	1	55510	06/14/23 13:52	СН	EET MID
D: BH23-	14 2'			Lab Sam	ple ID	: 890-4814-4
/12/23 10:1	5					Matrix: Solid
40100 45-44	•					

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	55677	06/16/23 10:43	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	55652	06/17/23 15:41	SM	EET MID
Total/NA	Analysis	Total BTEX		1			55869	06/19/23 15:52	SM	EET MID

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6/19/2023

Lab Chronicle

Client: Vertex Job ID: 890-4814-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BH23-14 2'

Date Received: 06/12/23 15:19

Lab Sample ID: 890-4814-4 Date Collected: 06/12/23 10:15

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			55603	06/15/23 12:35	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	55508	06/14/23 11:36	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	55457	06/14/23 19:48	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	55470	06/14/23 11:00	KS	EET MID
Soluble	Analysis	300.0		1			55510	06/14/23 14:09	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
 Job ID: 890-4814-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-25	06-30-23
The following analytes	are included in this report by	t the laboratory is not cortifi	ied by the governing authority. This list ma	arinalisa analistaa farii
the agency does not of	• •	it the laboratory is not certifi	ed by the governing authority. This list his	ay include analytes for v
,	• •	Matrix	Analyte	ay include analytes for v
the agency does not of	er certification.	•	, , ,	ay include analytes for v

EET MID

EET MID

SW846

ASTM

Method Summary

Client: Vertex Job ID: 890-4814-1
Project/Site: Corral Fly SDG: 23E-02502

Method **Method Description** Protocol Laboratory 8021B Volatile Organic Compounds (GC) SW846 EET MID Total BTEX Calculation TAL SOP Total BTEX 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 **EET MID** Closed System Purge and Trap SW846

Protocol References:

8015NM Prep

DI Leach

ASTM = ASTM International

EPA = US Environmental Protection Agency

Microextraction

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Deionized Water Leaching Procedure

Laboratory References:

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

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BH23-14 2'

890-4814-4

Sample Summary

 Client: Vertex
 Job ID: 890-4814-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Lab Sample ID Client Sample ID Matrix Collected Received 890-4814-1 BH23-13 0' Solid 06/12/23 10:00 06/12/23 15:19 890-4814-2 BH23-13 2' Solid 06/12/23 10:05 06/12/23 15:19 890-4814-3 BH23-14 0' Solid 06/12/23 10:10 06/12/23 15:19

06/12/23 10:15

06/12/23 15:19

Solid

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eurofins :

Environment Testing

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334

Work Order No:

			1000	UDDOP'INNI (2/2) 235,/230' CBIISDBA' INNI (2/3) 200, 2125	www.xenco.com	Page of
Project Manager:	house	Nox.'(Bill to: (if different)	Rot Kirk	Work Order Comments	ments
Company Name:	Xotral		Company Name:		Program: UST/PST PRP Brown	Brownfields ☐ RRC ☐ Superfund ☐
Address:			Address:		State of Project:	
City, State ZIP:			City, State ZIP:		Reporting: Level III Level III PST/UST TRRP	/UST TRRP Level IV
Phone:			Email: cdixon@vertex.ca	crtex.ca analytical@vertex.ca	2 Deliverables: EDD ADaPT	Other:
Name:	ana I-h		Turn Around	ANALYSIS REQUEST	UEST	Preservative Codes
er:	0	2	Routine Rush	Pres. Code		None: NO DI Water: H ₂ O
			Due Date:		C	Cool: Cool MeOH: Me
	Hunton Main		starts the day received by		I	HCL: HC HNO 3: HN
	- 1		the lab, if received by 4:30pm			H ₂ SO ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank:	No W	Wet ice: De No	eters		H,PO.:HP
Samples Received Intact:	(Vés) No	Thermometer ID:	(NA-407	ram	z	NaHSO 4: NABIS
Cooler Custody Seals:	Yes No M/A	Correction Factor:		Pa	Z	Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	Yes No NA	Temperature Reading:	ding: 2.5	X		Zn Acetate+NaOH: Zn
Total Containers:		Corrected Temperature:	rature: 2	OF E		NaOH+Ascorbic Acid: SAPC
Sample Identification	ation Matrix	Date Sampled	Time Depth Grab/	BT C		Sample Comments
BH23-13 6	50:	20.00 ERIEM		*		
3H23-13 21	2/	100	20:05	+++++++++++++++++++++++++++++++++++++++		
BH23-24 0) (10	10:10	ナアナ		
BH23-44 21		1 70	10:15	* * *		
Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	200.8 / 6020: d Metal(s) to be a	8RCR,	13PPM Texas 11 /	A 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg ITCLP/SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se	Mn Mo Ni K Se Ag SiO ₂ Na Sr Ag Tl U Hg: $1631/245.1$	TI Sn U V Zn /7470 /7471
lotice: Signature of this document f service. Eurofins Xenco will be f Eurofins Xenco. A minimum ch	nt and relinquishment of sa eliable only for the cost of sa harge of \$85.00 will be appl	mples constitutes a valid pu amples and shall not assum led to each project and a ch	irchase order from client company e any responsibility for any losses o arge of \$5 for each sample submit	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 nego	rms and conditions beyond the control less previously negotiated.	
Relinquished by: (Signature)	gnature)	Received by: (Signatu	ignature)	Date/Time Relinquished by: (Signature)	ture) Received by: (Signature)	Date/Time
Muster He	4.	morale	astal	61518/11/11		
	-			0		
				•		

| Environment Testing

Chain of Custody Record

	Sampler:			Lab PM	š		l		l	ı	١	င္ယ	nier Tn	Carrier Tracking No(s)	No(s)		l		COC No	o.		
Client Contact.	Phone			Kra	Kramer, Jessica	essica	"					-							390-1	890-1323 1		
Shipping/Receiving	ā			Jessic	ե-мак Jessica Kramer@et.eurofin	amer	@et.e	eurofi	susn	sus com		Ne Sta	State of Origin New Mexico	XICO					Page [.] Page	Page 1 of 1		;
Eurofins Environment Testing South Centr					Accre	Accreditations Required (See note) NELAP - Texas	s Requ	ired (S	ee no	œ)									Job # 890-4	Job #: 890-4814-1		
Address 1211 W Florida Ave, ,	Due Date Requested 6/16/2023								₽	Analysis		Requested	ste	_		ı			rese	Preservation Codes	odes	. 1
City Midland	TAT Requested (days)	ys)			977773 1441111111111111111111111111111111	<u>anstelle</u>				—┡		-	-	7					A - HCL B - NaO	B - NaOH	0 Z :	AsNaO2
State Zip: TX, 79701	!				4464	I TPH												jih. Maratalian	E D C	Nitric Acid	ם מנ	
Phone: 432-704-5440(Tel)	PO#:				0)	D) Ful	de												F - MeOH G - Amchlor	ichlor	⊣ഗ;	TSP Dodecahydrate
Email	WO #				V250388899**V		Chlori	L										s		Recording Adia		
Project Name Corral Fly	Project #: 89000162				0.000-0.0000000000000000000000000000000		EACH	EX - L								,		taine	K-EDTA L-EDA	ΑŤΑ	ı ≺ ≶	
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				Matrix	000000000000000000000000000000000000000		28D/D	_Calc	CV	С								rofc	=			
		Sample	Sample Type	(W=water S=solid, O=waste/oil,	d Filtered form MS/	MOD_NM	ORGFM_2	B/5035FP	I_BTEX_G	MOD_Cale	,							i Numbe				
Comple Memiliation Colonia (Capilla)	Sample Date		Preservation Code:	A=Air)	100	363 Z30	30	80	Т	80		400			700	ndi		()T(Special	Insti	Special Instructions/Note.
BH23-13 0' (890-4814-1)	6/12/23	10 00 Mountain		Solid		×	×	×	×	×				Ĭ		S. company		4)				
BH23-13 2' (890-4814-2)	6/12/23	10 05 Mountain		Solid		×	×	×	×	×								-				
BH23-14 0' (890-4814-3)	6/12/23	10 10 Mountain		Solid		×	×	×	×	×										ļ		
BH23-14 2' (890-4814-4)	6/12/23	10 15 Mountain		Solid		×	×	×	×	×								4				
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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	nt Testing South Centro cove for analysis/tests/ entral LLC attention im	al LLC place: matrix being a mediately If	s the ownership analyzed the sa all requested ac	of method, a imples must be creditations a	nalyte & le shipp are curre	accreded backed backed ant to d	litation k to the ate re	comp Eurof	liance fins Er e sign	nce upon our subcontract laboratories. This sample shipment is is Environment Testing South Central LLC laboratory or other ins signed Chain of Custody attesting to said compliance to Eurofins	ur sub lent Te lin of C	contractions sting s	t labo louth (attest	ratorie Central ing to	s. Thi LLC said o	s sam labora omplia	ple sh tory c	ipme r othe c Euro	ıt is for r instru fins En	warded und ctions will b wironment	der ch pe pro	forwarded under chain-of-custody If the tructions will be provided. Any changes to Environment Testing South Central LLC
Possible Hazard Identification					S	Sample Disposal	Dis	osal	\sim	A fee may be assessed if samples	ay bo	ass	sse	difs	Jdune	es a	e e	tain	are retained longer	ger than	1 m	month)
Deliverable Requested II. III. IV. Other (specify)	Primary Deliverable Rank	hle Rank 2	3		2	Return To Client Disp	Return To C	700	lient		ſ	Dist	osal	Disposal By Lab	ď	_		Arch	Archive For	X		Months
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Custody Seal No						Cool	Cooler Temperature(s) °C and Other Remarks	peratu	re(s)	Cand	Other	Remar	8	l	Ī				İ		-	

6/19/2023

Login Sample Receipt Checklist

 Client: Vertex
 Job Number: 890-4814-1

 SDG Number: 23E-02502

Login Number: 4814 List Source: Eurofins Carlsbad

List Number: 1

Creator: Stutzman, Amanda

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	

e 255 of 550

Login Sample Receipt Checklist

Client: Vertex Job Number: 890-4814-1 SDG Number: 23E-02502

List Source: Eurofins Midland

List Source: List Number: 2 List Creation: 0

List Creation: 06/14/23 11:22 AM

Creator: Teel, Brianna

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

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Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 7/17/2023 1:46:58 PM Revision 1

JOB DESCRIPTION

Corral Fly SWD SDG NUMBER 23E-02502

JOB NUMBER

890-4902-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

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

Authorization

Generated 7/17/2023 1:46:58 PM Revision 1

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies Page 2 of 23

Client: Vertex Laboratory Job ID: 890-4902-1 Project/Site: Corral Fly SWD SDG: 23E-02502

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Definitions/Glossary

Client: Vertex Job ID: 890-4902-1 Project/Site: Corral Fly SWD

SDG: 23E-02502

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD 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.

Glossarv

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) Limit of Quantitation (DoD/DOE) LOQ 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)

Negative / Absent NEG POS Positive / Present

Practical Quantitation Limit PQL

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) **TEQ**

TNTC Too Numerous To Count

Case Narrative

Client: Vertex

Project/Site: Corral Fly SWD

Job ID: 890-4902-1

SDG: 23E-02502

Job ID: 890-4902-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4902-1

REVISION

The report being provided is a revision of the original report sent on 7/11/2023. The report (revision 1) is being revised due to Per client email, requesting TPH re run.

Receipt

The samples were received on 7/6/2023 9:23 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

GC VOA

Method 8021B: CCV was biased low for benzene. Another CCV was analyzed and acceptable within the 12 hour window; therefore the data was qualified and reported.(CCV 880-57167/20)

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 880-57168 and analytical batch 880-57224 was outside the upper control limits.

Method 8015MOD NM: Surrogate recovery for the following sample was outside control limits: (890-4901-A-7-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD NM: Spike compounds were inadvertently omitted during the extraction process for the matrix spike (MS); therefore, matrix spike recoveries are unavailable for preparation batch 880-57168 and analytical batch 880-57224. The associated laboratory control sample (LCS) met acceptance criteria.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-57168 and analytical batch 880-57224 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

Method 8015MOD NM: The surrogate recovery for the blank associated with preparation batch 880-57501 and analytical batch 880-57664 was outside the upper control limits.

Method 8015MOD NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-57664/20), (CCV 880-57664/31) and (CCV 880-57664/5). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-4915-A-1-E) and (890-4915-A-1-F) MS). 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.

Eurofins Carlsbad 7/17/2023 (Rev. 1)

Matrix: Solid

Lab Sample ID: 890-4902-1

Client: Vertex Job ID: 890-4902-1
Project/Site: Corral Fly SWD SDG: 23E-02502

Client Sample ID: BH23-02 6"

Date Collected: 07/03/23 10:00 Date Received: 07/06/23 09:23

Sample Depth: 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/07/23 13:04	07/08/23 06:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/07/23 13:04	07/08/23 06:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/07/23 13:04	07/08/23 06:49	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/07/23 13:04	07/08/23 06:49	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/07/23 13:04	07/08/23 06:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/07/23 13:04	07/08/23 06:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130				07/07/23 13:04	07/08/23 06:49	1
1,4-Difluorobenzene (Surr)	91		70 - 130				07/07/23 13:04	07/08/23 06:49	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			07/10/23 15:12	1
Method: SW846 8015 NM - Die	sel Range	Organics (DRO) (GC)						

Analyte	Result C	-	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	J	50.0	mg/Kg			07/10/23 12:23	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/07/23 12:45	07/09/23 16:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		07/07/23 12:45	07/09/23 16:49	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/07/23 12:45	07/09/23 16:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130				07/07/23 12:45	07/09/23 16:49	1

o-Terphenyl	112	70 - 130		C	07/07/23 12:45	07/09/23 16:49	1
Method: EPA 300.0 - Anions, Id	• • •		MDL 11-24	_	B	Anabasad	D!! F
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac

 Chloride
 38.6
 4.98
 mg/Kg
 07/07/23 14:03
 1

 Client Sample ID: BH23-03 6'
 Lab Sample ID: 890-4902-2

Date Collected: 07/03/23 10:05 Date Received: 07/06/23 09:23

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

Sample Depth: 6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/07/23 13:04	07/08/23 07:09	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/07/23 13:04	07/08/23 07:09	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/07/23 13:04	07/08/23 07:09	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/07/23 13:04	07/08/23 07:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/07/23 13:04	07/08/23 07:09	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/07/23 13:04	07/08/23 07:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	84		70 - 130				07/07/23 13:04	07/08/23 07:09	1

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Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-4902-2

Client Sample Results

Client: Vertex Job ID: 890-4902-1
Project/Site: Corral Fly SWD SDG: 23E-02502

Client Sample ID: BH23-03 6'

Date Collected: 07/03/23 10:05 Date Received: 07/06/23 09:23

Sample Depth: 6

Method: SW846 8021B	- Volatile Organi	c Compounds	(GC)	(Continued)
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Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	87	70 - 130	07/07/23 13:04	07/08/23 07:09	1

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			07/10/23 15:12	1

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1 U	50.1	ma/Ka			07/10/23 12:23	1

Method: SW846 8015B NM - Diesel Range	Organics	(DRO)	(GC)
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	g.	• . ga	, (=::=) (==)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		07/12/23 12:11	07/14/23 16:57	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		07/12/23 12:11	07/14/23 16:57	1
Oll Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		07/12/23 12:11	07/14/23 16:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130	07/12/23 12:11	07/14/23 16:57	1
o-Terphenyl	106		70 - 130	07/12/23 12:11	07/14/23 16:57	1

Method: EPA 300.0	 Anions, Ion Chromatography 	- Soluble
A a last a	Descrit Overliften	D.

Analyte	Result Qualif	er RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43.7	4.95	mg/Kg			07/07/23 14:18	1

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Surrogate Summary

Client: Vertex Job ID: 890-4902-1 Project/Site: Corral Fly SWD SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

			Perce	nt Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-30445-A-1-A MS	Matrix Spike	113	97	
880-30445-A-1-B MSD	Matrix Spike Duplicate	114	96	
890-4902-1	BH23-02 6"	83	91	
890-4902-2	BH23-03 6'	84	87	
LCS 880-57170/1-A	Lab Control Sample	104	94	
LCSD 880-57170/2-A	Lab Control Sample Dup	118	99	
MB 880-57164/5-A	Method Blank	70	88	
MB 880-57170/5-A	Method Blank	82	76	

BFB = 4-Bromofluorobenzene (Surr) DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

			Perce	Percent Surrogate Recovery (Acceptance Limits		
		1CO1	OTPH1			
ab Sample ID	Client Sample ID	(70-130)	(70-130)			
0-4901-A-7-D MS	Matrix Spike	107	93			
0-4901-A-7-E MSD	Matrix Spike Duplicate	136 S1+	109			
0-4902-1	BH23-02 6"	129	112			
0-4902-2	BH23-03 6'	125	106			
)-4915-A-1-F MS	Matrix Spike	140 S1+	103			
0-4915-A-1-G MSD	Matrix Spike Duplicate	124	89			
CS 880-57168/2-A	Lab Control Sample	87	80			
S 880-57501/2-A	Lab Control Sample	106	92			
SD 880-57168/3-A	Lab Control Sample Dup	108	98			
CSD 880-57501/3-A	Lab Control Sample Dup	103	91			
B 880-57168/1-A	Method Blank	151 S1+	131 S1+			
B 880-57501/1-A	Method Blank	146 S1+	122			

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Client: Vertex Job ID: 890-4902-1 Project/Site: Corral Fly SWD SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-57164/5-A

Matrix: Solid

Analysis Batch: 57167

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57164

	МВ	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/07/23 12:29	07/07/23 18:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/07/23 12:29	07/07/23 18:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/07/23 12:29	07/07/23 18:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/07/23 12:29	07/07/23 18:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/07/23 12:29	07/07/23 18:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/07/23 12:29	07/07/23 18:09	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	70		70 - 130	07/07/23 12:29	07/07/23 18:09	1
1,4-Difluorobenzene (Surr)	88		70 - 130	07/07/23 12:29	07/07/23 18:09	1

Lab Sample ID: MB 880-57170/5-A

Matrix: Solid

Analysis Batch: 57167

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

Prep Batch: 57170

	MB	MB					•	
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/07/23 13:04	07/08/23 04:45	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/07/23 13:04	07/08/23 04:45	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/07/23 13:04	07/08/23 04:45	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/07/23 13:04	07/08/23 04:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/07/23 13:04	07/08/23 04:45	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/07/23 13:04	07/08/23 04:45	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130	07/07/23 13:04	07/08/23 04:45	1
1,4-Difluorobenzene (Surr)	76		70 - 130	07/07/23 13:04	07/08/23 04:45	1

Lab Sample ID: LCS 880-57170/1-A

Matrix: Solid

Analysis Batch: 57167

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 57170

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1009		mg/Kg		101	70 - 130	
Ethylbenzene	0.100	0.1173		mg/Kg		117	70 - 130	
Toluene	0.100	0.1211		mg/Kg		121	70 - 130	
m-Xylene & p-Xylene	0.200	0.2350		mg/Kg		118	70 - 130	
o-Xylene	0.100	0.1184		mg/Kg		118	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1.4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: LCSD 880-57170/2-A		Client Sample ID: Lab Control Sample Dup							
Matrix: Solid						Prep Ty	pe: Tot	al/NA	
Analysis Batch: 57167							Prep E	Batch:	57170
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08804		mg/Kg		88	70 - 130	14	35

Client: Vertex Job ID: 890-4902-1 Project/Site: Corral Fly SWD SDG: 23E-02502

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

Lab Sample ID: LCSD 880-57170/2-A

Matrix: Solid Analysis Batch: 57167 Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 57170

LCSD LCSD **RPD** Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Ethylbenzene 0.100 0.1004 mg/Kg 100 70 - 130 16 35 Toluene 0.100 0.1024 mg/Kg 102 70 - 130 17 35 0.200 0.2044 102 70 - 130 35 m-Xylene & p-Xylene mg/Kg 14 0.100 35 o-Xylene 0.1060 mg/Kg 106 70 - 130 11

LCSD LCSD

Surrogate	%Recovery Quali	ifier Limits
4-Bromofluorobenzene (Surr)	118	70 - 130
1,4-Difluorobenzene (Surr)	99	70 - 130

Lab Sample ID: 880-30445-A-1-A MS **Client Sample ID: Matrix Spike**

Matrix: Solid

Analysis Batch: 57167

Prep Type: Total/NA

Prep Batch: 57170

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier D %Rec Limits Analyte Unit Benzene <0.00202 U 0.0996 0.08366 83 70 - 130 mg/Kg Ethylbenzene <0.00202 U 0.0996 0.08941 mg/Kg 90 70 - 130 Toluene <0.00202 U 0.0996 0.09259 mg/Kg 93 70 - 130 <0.00403 U 0.199 89 m-Xylene & p-Xylene 0.1768 mg/Kg 70 - 130o-Xylene <0.00202 U 0.0996 0.08843 mg/Kg 89 70 - 130

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	113	70 - 130
1,4-Difluorobenzene (Surr)	97	70 - 130

Lab Sample ID: 880-30445-A-1-B MSD

Matrix: Solid

o-Xylene

Analysis Batch: 57167

Client Sample ID: Matrix Spike Duplicate

80

mq/Kq

Prep Type: Total/NA

Prep Batch: 57170

10

35

Spike MSD MSD %Rec **RPD** Sample Sample Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits **RPD** Limit Benzene <0.00202 U 0.0990 0.07753 mg/Kg 77 70 - 130 8 35 Ethylbenzene <0.00202 U 0.0990 0.08307 mg/Kg 84 70 - 130 35 Toluene <0.00202 U 0.0990 0.08626 mg/Kg 87 70 - 130 35 81 70 - 130 35 m-Xylene & p-Xylene <0.00403 U 0.198 0.1594 mg/Kg 10

0.07964

MDL Unit

mg/Kg

0.0990

MSD MSD

MB MB Result Qualifier

<50.0 U

<0.00202 U

Surrogate	%Recovery	Qualifier	Limits		
4-Bromofluorobenzene (Surr)	114		70 - 130		
1,4-Difluorobenzene (Surr)	96		70 - 130		

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

Lab Sample ID: MB 880-57168/1-A

Matrix: Solid

Analysis Batch: 57224

Gasoline Range Organics

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

70 - 130

Prep Batch: 57168

Prepared Analyzed Dil Fac 07/07/23 12:45 07/09/23 08:19

(GRO)-C6-C10

Analyte

Eurofins Carlsbad

RL

50.0

Client: Vertex Job ID: 890-4902-1
Project/Site: Corral Fly SWD SDG: 23E-02502

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

Lab Sample ID: MB 880-57168/1-A

Matrix: Solid
Analysis Batch: 57224

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 57168

١	•		MD						•	
ı		MB	MB							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/07/23 12:45	07/09/23 08:19	1
	OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/07/23 12:45	07/09/23 08:19	1
		MB	MB							
	Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	1-Chlorooctane	151	S1+	70 - 130				07/07/23 12:45	07/09/23 08:19	1
	o-Terphenyl	131	S1+	70 - 130				07/07/23 12:45	07/09/23 08:19	1

Lab Sample ID: LCS 880- Matrix: Solid Analysis Batch: 57224	57168/2-A					Clien	t Sai	mpie ID	: Lab Control Sample Prep Type: Total/NA Prep Batch: 57168
			Spike	LCS	LCS				%Rec
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10			1000	881.5		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)			1000	697.0		mg/Kg		70	70 - 130
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	87		70 - 130						
o-Terphenyl	80		70 - 130						

Lab Sample ID. LCSD 660-57 166/3-A			•	JIIEIIL Sa	IIIPIE	ID. Lai		Sample	; Dup
Matrix: Solid							Prep Ty	pe: Tot	al/NA
Analysis Batch: 57224							Prep E	atch:	57168
•	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	1000	988.4		mg/Kg		99	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	1000	893.1	*1	mg/Kg		89	70 - 130	25	20
1000 1000									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 890-4901 Matrix: Solid Analysis Batch: 57224	-A-7-D MS						C	lient Sa	mple ID: Matrix Spike Prep Type: Total/NA Prep Batch: 57168
	Sample	Sample	Spike	MS	MS				%Rec
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics (GRO)-C6-C10	<50.1	U F1 F2	999	<50.0	U F1	mg/Kg		-2	70 - 130
Diesel Range Organics (Over C10-C28)	239	*1 F1 F2	999	235.9	F1	mg/Kg		-0.3	70 - 130
	MS	MS							
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	107		70 - 130						
o-Terphenyl	93		70 - 130						

Spike

Added

1000

1000

Client: Vertex Job ID: 890-4902-1 Project/Site: Corral Fly SWD SDG: 23E-02502

MSD MSD

1166 F2

1539 F2

Result Qualifier

Unit

mg/Kg

mg/Kg

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

Lab Sample ID: 890-4901-A-7-E MSD

Matrix: Solid

Analysis Batch: 57224

Gasoline Range Organics

Client Sample ID: Matrix Spike Duplicate

130

Prep Type: Total/NA

147

Prep Batch: 57168

%Rec **RPD** %Rec Limits RPD Limit 112 70 - 130 192 20

Diesel Range Organics (Over C10-C28)

(GRO)-C6-C10

Analyte

MSD MSD

Sample Sample

Result Qualifier

<50.1 U F1 F2

239 *1 F1 F2

Surrogate %Recovery Qualifier Limits 1-Chlorooctane S1+ 70 - 130 136 70 - 130 o-Terphenyl 109

Client Sample ID: Method Blank

70 - 130

Prep Type: Total/NA

Prep Batch: 57501

Lab Sample ID: MB 880-57501/1-A

Matrix: Solid

Analysis Batch: 57664

MB MB

MDL Unit Result Qualifier RL D Dil Fac Analyte Prepared Analyzed Gasoline Range Organics <50.0 U 50.0 07/12/23 12:11 07/14/23 07:48 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg 07/12/23 12:11 07/14/23 07:48 C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 07/12/23 12:11 07/14/23 07:48 mg/Kg

MB MB Surrogate

%Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 146 S1+ 70 - 130 07/12/23 12:11 07/14/23 07:48 70 - 130 o-Terphenyl 122 07/12/23 12:11 07/14/23 07:48

Lab Sample ID: LCS 880-57501/2-A

Matrix: Solid

Analysis Batch: 57664

Client Sample ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 57501

Spike LCS LCS %Rec Added Result Qualifier %Rec Limits Analyte Unit D Gasoline Range Organics 1000 1156 mg/Kg 116 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 1000 990.1 mg/Kg 99 70 - 130

C10-C28)

LCS LCS

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 106 92 70 - 130 o-Terphenyl

Lab Sample ID: LCSD 880-57501/3-A

Matrix: Solid

Analysis Batch: 57664

Gasoline Range Organics

Client Sample ID: Lab Control Sample Dup

%Rec

103

87

70 - 130

Prep Type: Total/NA Prep Batch: 57501

%Rec **RPD** Limits **RPD** Limit 70 - 130 11 20

Diesel Range Organics (Over C10-C28)

(GRO)-C6-C10

Analyte

Eurofins Carlsbad

13

Spike

Added

1000

1000

LCSD LCSD

1034

873.4

Result Qualifier

Unit

mg/Kg

mg/Kg

20

Limits

70 - 130

70 - 130

Limits

70 - 130 70 - 130

Client: Vertex Job ID: 890-4902-1 Project/Site: Corral Fly SWD SDG: 23E-02502

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

91

%Recovery Qualifier

103

140 S1+

Lab Sample ID: LCSD 880-57501/3-A

Matrix: Solid

Analysis Batch: 57664

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 57501

LCSD LCSD %Recovery Qualifier Surrogate 1-Chlorooctane 103

Lab Sample ID: 890-4915-A-1-F MS

Matrix: Solid

o-Terphenyl

Analysis Batch: 57664

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 57501

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Gasoline Range Organics <50.1 U 1000 1142 mg/Kg 110 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 164 1000 1252 mg/Kg 108 70 - 130 C10-C28) MS MS

Lab Sample ID: 890-4915-A-1-G MSD

Matrix: Solid

Surrogate

o-Terphenyl

1-Chlorooctane

Analysis Batch: 57664

Client Sample ID: Matrix Spike Duplicate

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 57501

Sample Sample Spike MSD MSD %Rec **RPD** Result Qualifier Added Result Qualifier Limits **RPD Analyte** Unit D %Rec I imit Ū Gasoline Range Organics <50.1 999 1002 mg/Kg 97 70 - 130 13 20 (GRO)-C6-C10 999 70 - 130 Diesel Range Organics (Over 164 1081 mg/Kg 92 15 20 C10-C28)

MSD MSD

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 70 - 130 124 70 - 130 o-Terphenyl 89

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-57126/1-A Client Sample ID: Method Blank

Matrix: Solid

Analysis Batch: 57174

Prep Type: Soluble

Result Qualifier RL **MDL** Unit Dil Fac Analyte Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 07/07/23 12:35

Lab Sample ID: LCS 880-57126/2-A

MB MB

Matrix: Solid

Analysis Batch: 57174

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Chloride 250 252.0 mg/Kg 101

Eurofins Carlsbad

Prep Type: Soluble

Lab Sample ID: LCSD 880-57126/3-A

QC Sample Results

Client: Vertex Job ID: 890-4902-1
Project/Site: Corral Fly SWD SDG: 23E-02502

Method: 300.0 - Anions, Ion Chromatography (Continued)

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

Matrix: Solid

Analysis Batch: 57174

Spike LCSD LCSD %Rec RPD
Analysis Batch: 57174

Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Chloride 250 252.5 mg/Kg 101 90 - 110 0 20

Lab Sample ID: 890-4902-1 MS Client Sample ID: BH23-02 6"

Matrix: Solid Prep Type: Soluble

Analysis Batch: 57174

Sample Sample Spike MS MS %Rec

Analyte Result Qualifier Added Result Qualifier Unit D Result Mg/Kg 101 90 - 110

Lab Sample ID: 890-4902-1 MSD Client Sample ID: BH23-02 6"

Matrix: Solid Prep Type: Soluble

Analysis Batch: 57174
Sample Sample Spike MSD MSD

%Rec RPD Analyte Result Qualifier Added Result Qualifier Limits RPD Limit Unit %Rec Chloride 38.6 249 289.9 101 90 - 110 20 mg/Kg

4

5

6

7

8

9

10

11

QC Association Summary

Client: Vertex

Project/Site: Corral Fly SWD

Job ID: 890-4902-1

SDG: 23E-02502

GC VOA

Prep Batch: 57164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-57164/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 57167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4902-1	BH23-02 6"	Total/NA	Solid	8021B	57170
890-4902-2	BH23-03 6'	Total/NA	Solid	8021B	57170
MB 880-57164/5-A	Method Blank	Total/NA	Solid	8021B	57164
MB 880-57170/5-A	Method Blank	Total/NA	Solid	8021B	57170
LCS 880-57170/1-A	Lab Control Sample	Total/NA	Solid	8021B	57170
LCSD 880-57170/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	57170
880-30445-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	57170
880-30445-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	57170

Prep Batch: 57170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4902-1	BH23-02 6"	Total/NA	Solid	5035	
890-4902-2	BH23-03 6'	Total/NA	Solid	5035	
MB 880-57170/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-57170/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57170/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-30445-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-30445-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 57351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4902-1	BH23-02 6"	Total/NA	Solid	Total BTEX	
890-4902-2	BH23-03 6'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 57168

Lab Sample ID 890-4902-1	Client Sample ID BH23-02 6"	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-57168/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-57168/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-57168/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4901-A-7-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4901-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 57224

Lab Sample ID 890-4902-1	Client Sample ID BH23-02 6"	Prep Type Total/NA	Matrix Solid	Method 8015B NM	Prep Batch 57168
MB 880-57168/1-A	Method Blank	Total/NA	Solid	8015B NM	57168
LCS 880-57168/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	57168
LCSD 880-57168/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	57168
890-4901-A-7-D MS	Matrix Spike	Total/NA	Solid	8015B NM	57168
890-4901-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	57168

Analysis Batch: 57304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4902-1	BH23-02 6"	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Vertex

Project/Site: Corral Fly SWD

Job ID: 890-4902-1

SDG: 23E-02502

GC Semi VOA (Continued)

Analysis Batch: 57304 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4902-2	BH23-03 6'	Total/NA	Solid	8015 NM	

Prep Batch: 57501

Lab Sample ID 890-4902-2	Client Sample ID BH23-03 6'	Prep Type Total/NA	Matrix Solid	Method Prep	Batch
MB 880-57501/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-57501/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-57501/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4915-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4915-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 57664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4902-2	BH23-03 6'	Total/NA	Solid	8015B NM	57501
MB 880-57501/1-A	Method Blank	Total/NA	Solid	8015B NM	57501
LCS 880-57501/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	57501
LCSD 880-57501/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	57501
890-4915-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	57501
890-4915-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	57501

HPLC/IC

Leach Batch: 57126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4902-1	BH23-02 6"	Soluble	Solid	DI Leach	
890-4902-2	BH23-03 6'	Soluble	Solid	DI Leach	
MB 880-57126/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-57126/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-57126/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4902-1 MS	BH23-02 6"	Soluble	Solid	DI Leach	
890-4902-1 MSD	BH23-02 6"	Soluble	Solid	DI I each	

Analysis Batch: 57174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4902-1	BH23-02 6"	Soluble	Solid	300.0	57126
890-4902-2	BH23-03 6'	Soluble	Solid	300.0	57126
MB 880-57126/1-A	Method Blank	Soluble	Solid	300.0	57126
LCS 880-57126/2-A	Lab Control Sample	Soluble	Solid	300.0	57126
LCSD 880-57126/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57126
890-4902-1 MS	BH23-02 6"	Soluble	Solid	300.0	57126
890-4902-1 MSD	BH23-02 6"	Soluble	Solid	300.0	57126

Lab Chronicle

Client: Vertex Job ID: 890-4902-1 Project/Site: Corral Fly SWD SDG: 23E-02502

Client Sample ID: BH23-02 6"

Lab Sample ID: 890-4902-1 Date Collected: 07/03/23 10:00 Date Received: 07/06/23 09:23

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	57170	07/07/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57167	07/08/23 06:49	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57351	07/10/23 15:12	AJ	EET MID
Total/NA	Analysis	8015 NM		1			57304	07/10/23 12:23	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	57168	07/07/23 12:45	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57224	07/09/23 16:49	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	57126	07/07/23 09:34	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	57174	07/07/23 14:03	CH	EET MID

Client Sample ID: BH23-03 6'

Lab Sample ID: 890-4902-2 Date Collected: 07/03/23 10:05 **Matrix: Solid**

Date Received: 07/06/23 09:23

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	57170	07/07/23 13:04	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57167	07/08/23 07:09	AJ	EET MIC
Total/NA	Analysis	Total BTEX		1			57351	07/10/23 15:12	AJ	EET MID
Total/NA	Analysis	8015 NM		1			57304	07/10/23 12:23	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	57501	07/12/23 12:11	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57664	07/14/23 16:57	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	57126	07/07/23 09:34	KS	EET MI
Soluble	Analysis	300.0		1	50 mL	50 mL	57174	07/07/23 14:18	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 Job ID: 890-4902-1
Project/Site: Corral Fly SWD SDG: 23E-02502

Laboratory: Eurofins Midland

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

Authority	Pr	rogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-23-26	06-30-24
The following analyte the agency does not		ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for which
5 ,				
Analysis Method	Prep Method	Matrix	Analyte	
0 ,		Matrix Solid	Analyte Total TPH	

4

5

7

9

10

12

13

Method Summary

Client: Vertex

Method

Total BTEX

8015 NM

300.0

5035

8015B NM

8015NM Prep

DI Leach

8021B

Project/Site: Corral Fly SWD

Job ID: 890-4902-1

EET MID

EET MID

Protocol SW846

TAL SOP

SW846

SW846

SW846

SW846

ASTM

EPA

SDG: 23E-02502

Laboratory	
EET MID	
EET MID	
EET MID	E

EET MID **EET MID EET MID**

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

Microextraction

Method Description

Total BTEX Calculation

Volatile Organic Compounds (GC)

Diesel Range Organics (DRO) (GC)

Diesel Range Organics (DRO) (GC)

Deionized Water Leaching Procedure

Anions, Ion Chromatography

Closed System Purge and Trap

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

Eurofins Carlsbad

Released to Imaging: 8/5/2024 4:13:08 PM

Sample Summary

Client: Vertex

Project/Site: Corral Fly SWD

Job ID: 890-4902-1

SDG: 23E-02502

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4902-1	BH23-02 6"	Solid	07/03/23 10:00	07/06/23 09:23	6
890-4902-2	BH23-03 6'	Solid	07/03/23 10:05	07/06/23 09:23	6

				eurorins	
		Xenco	Environment lesting		
	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300	Chain of Custody
www.xenco			Work Order		

	Xenco	EL Paso, TX Hobbs, NM	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199		Page
Project Manager:	Chance Dixon	Bill to: (if different)	ROB KICK	Work Order Co	omments
Company Name:	L	Company Name:		Program: UST/PST PRP] Brownfields ☐ RRC ☐ Superfund ☐
	On File	Address:		State of Project:	1
e ZIP:		City, State ZIP:		Reporting: Level II Level II	Reporting: Level II Level III PST/UST TRRP Level IV
Phone:		Email: Colinona vertex.co	gnoly,	Deliverables: EDD	ADaPT Other:
Name:	COCKIEIN SAID	Turn Around	ANALYSIS REQUEST	QUEST QUEST	Preservative Codes
er:	n 1	tine Rush Code			None: NO DI Water: H ₂ O
Project Location:	Due Date:				Cool: Cool MeOH: Me
er's Name:	Chance Dixon TAT sta	TAT starts the day received by the lab. if received by 4:30pm	5		HCL: HC HNO 3: HN
SAMDI E RECEIDT	Tamp Rink. Vac 10 Wat Ica.		5 /		
Samples Received Intact:	Yes No Thermometer II	3	<u> </u>		NaHSO 4: NABIS
Cooler Custody Seals:	Yes No N/A		30		Na ₂ S ₂ O ₃ ; NaSO ₃
Sample Custody Seals:	Yes No N/A Temperature Reading:			Chain of Custody	Zn Acetate+NaOH: Zn
Sample Identification	Matrix	e Depth Grab # of	TP		Sample Comments
BH25-02	CA	2			
8425-03	6' 1 1 10:05				
Total 200.7 / 6010 ircle Method(s) an	Total 200.7 / 6010 200.8 / 6020: 8RCRA Circle Method(s) and Metal(s) to be analyzed TCL	13PPM Texas 11 Al Sb LP / SPLP 6010 : 8RCRA Sb	As Ba Be B Cd Ca Cr Co Cu Fe Pb As Ba Be Cd Cr Co Cu Pb Mn Mo	Mn Mo Ni K Se Ag Tl U	Ag SiO ₂ Na Sr Tl Sn U V Zn Hg: 1631 / 245.1 / 7470 / 7471
xice: Signature of this docum service. Eurofins Xenco will b	ent and relinquishment of samples constitutes a valid purch be liable only for the cost of samples and shall not assume an charge of \$85,00 will be applied to each project and a charge	see order from client company to Eu responsibility for any losses or exp of \$5 for each sample submitted to	voltics: 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 samples are subjected 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.	terms and conditions ss beyond the control unless previously negotiated.	
Relinquished by: (Signature)	signature) Received by: (Signature)	ature)	Date/Time Relinquished by: (Signature	nature) Received by: (Signature)	Jnature) Date/Time
conti	(Joe W)		7-6-23923		
			6		

Revised Date 08/25/2020 Rev 2020 2

Login Sample Receipt Checklist

Client: Vertex Job Number: 890-4902-1 SDG Number: 23E-02502

Login Number: 4902 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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	

Released to Imaging: 8/5/2024 4:13:08 PM

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Login Sample Receipt Checklist

Client: Vertex Job Number: 890-4902-1 SDG Number: 23E-02502

List Source: Eurofins Midland
List Number: 2
List Creation: 07/07/23 10:52 AM

Creator: Rodriguez, Leticia

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	N/A	

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7/17/2023 (Rev. 1)

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<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 7/17/2023 10:23:59 AM

JOB DESCRIPTION

Corral Fly SDG NUMBER 23E-02502

JOB NUMBER

890-4917-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

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

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

Authorization

Generated 7/17/2023 10:23:59 AM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

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Laboratory Job ID: 890-4917-1 Client: Vertex Project/Site: Corral Fly SDG: 23E-02502

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Definitions/Glossary

Client: Vertex Job ID: 890-4917-1 Project/Site: Corral Fly SDG: 23E-02502

Qualifiers

GC VOA Qualifier

Quannon	Qualifier Decemption
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.

Qualifier Description

GC Semi VOA

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

Indicates the analyte was analyzed for but not detected.

HPLC/IC	
Qualifier	Qualifier Description

Glossary

MCL

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

Contains No Free Liquid DFR 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

Decision Level Concentration (Radiochemistry) DLC

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry) Method Detection Limit

MDL 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)

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) Toxicity Equivalent Quotient (Dioxin) TEQ

TNTC Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 890-4917-1
Project/Site: Corral Fly SDG: 23E-02502

Job ID: 890-4917-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4917-1

Receipt

The samples were received on 7/7/2023 4:20 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 23.6°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BES23-01 0.5' (890-4917-1), BES23-02 0.5' (890-4917-2), BES23-03 0.5' (890-4917-3), BES23-04 0.5' (890-4917-4), BES23-05 0.5' (890-4917-5), BES23-06 0.5' (890-4917-6), BES23-07 0.5' (890-4917-7), BES23-08 0.5' (890-4917-8), BES23-09 0.5' (890-4917-9), BES23-10 0.5' (890-4917-10), BES23-11 0.5' (890-4917-11), BES23-12 0.5' (890-4917-12), BES23-13 0.5' (890-4917-13), BES23-14 0.5' (890-4917-14), BES23-15 0.5' (890-4917-15), BES23-16 0.5' (890-4917-16), BES23-17 0.5' (890-4917-17), BES23-18 0.5' (890-4917-18), BES23-19 0.5' (890-4917-19) and BES23-20 0.5' (890-4917-20).

GC VOA

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-57409 and analytical batch 880-57424 was outside the upper control limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: BES23-09 0.5' (890-4917-9) and BES23-16 0.5' (890-4917-16). 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: Surrogate recovery for the following samples were outside control limits: (CCV 880-57755/31), (CCV 880-57755/47) and (CCV 880-57755/58). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The matrix spike (MS) recoveries for preparation batch 880-57500 and analytical batch 880-57755 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.

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Lab Sample ID: 890-4917-1

Client Sample Results

Client: Vertex Job ID: 890-4917-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-01 0.5'

Date Collected: 07/07/23 09:00 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 00:00	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 00:00	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 00:00	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		07/11/23 12:27	07/12/23 00:00	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		07/11/23 12:27	07/12/23 00:00	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 00:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130				07/11/23 12:27	07/12/23 00:00	1
1,4-Difluorobenzene (Surr)	80		70 - 130				07/11/23 12:27	07/12/23 00:00	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Allalyte									
Total BTEX	<0.00404	U	0.00404		mg/Kg			07/12/23 14:53	1
Total BTEX	<0.00404				mg/Kg			07/12/23 14:53	1
	<0.00404 el Range Organ			MDL			Prepared	07/12/23 14:53 Analyzed	1 Dil Fac
Total BTEX Method: SW846 8015 NM - Diese	<0.00404 el Range Organ	ics (DRO) (GC)	MDL		<u>D</u>	Prepared		
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH	<0.00404 el Range Organ Result 145	ics (DRO) (GC) RL 49.7	MDL	Unit	D	Prepared	Analyzed	
Total BTEX Method: SW846 8015 NM - Diese Analyte	<0.00404 el Range Organ Result 145 sel Range Orga	ics (DRO) (GC) RL 49.7	MDL	Unit mg/Kg	<u>D</u>	Prepared Prepared	Analyzed	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese	<0.00404 el Range Organ Result 145 sel Range Orga	Qualifier nics (DRO) Qualifier	GC) RL 49.7		Unit mg/Kg			Analyzed 07/17/23 10:54	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics	<0.00404 el Range Organ Result 145 sel Range Orga Result	Qualifier nics (DRO) Qualifier	(GC) RL RL		Unit mg/Kg Unit		Prepared	Analyzed 07/17/23 10:54 Analyzed	Dil Fac Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<0.00404 el Range Organ Result 145 sel Range Orga Result	ics (DRO) (Qualifier nics (DRO) Qualifier U	(GC) RL RL		Unit mg/Kg Unit		Prepared	Analyzed 07/17/23 10:54 Analyzed	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<0.00404 el Range Organ Result 145 sel Range Orga Result <49.7	ics (DRO) (Qualifier nics (DRO) Qualifier U	GC) RL 49.7 (GC) RL 49.7 49.7		Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56	Analyzed 07/17/23 10:54 Analyzed 07/16/23 21:47 07/16/23 21:47	Dil Fac Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<0.00404 el Range Organ Result 145 sel Range Orga Result <49.7	ics (DRO) (Qualifier nics (DRO) Qualifier U	(GC) RL 49.7 (GC) RL 49.7		Unit mg/Kg Unit mg/Kg		Prepared 07/12/23 11:56	Analyzed 07/17/23 10:54 Analyzed 07/16/23 21:47	Dil Fac Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<0.00404 el Range Organ Result 145 sel Range Orga Result <49.7	ics (DRO) (Qualifier nics (DRO) Qualifier U F1	GC) RL 49.7 (GC) RL 49.7 49.7		Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56	Analyzed 07/17/23 10:54 Analyzed 07/16/23 21:47 07/16/23 21:47 Analyzed	Dil Fac Dil Fac 1 1 1 1
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<0.00404 el Range Organ Result 145 sel Range Orga Result <49.7 145 <49.7	ics (DRO) (Qualifier nics (DRO) Qualifier U F1	GC) RL 49.7 (GC) RL 49.7 49.7 49.7		Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56	Analyzed 07/17/23 10:54 Analyzed 07/16/23 21:47 07/16/23 21:47	Dil Fac Dil Fac

Client Sample ID: BES23-02 0.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Result Qualifier

7870

Date Collected: 07/07/23 09:05

Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte

Chloride

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 00:25	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 00:25	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 00:25	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		07/11/23 12:27	07/12/23 00:25	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		07/11/23 12:27	07/12/23 00:25	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 00:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130				07/11/23 12:27	07/12/23 00:25	1

RL

50.1

MDL Unit

mg/Kg

D

Prepared

Analyzed

07/11/23 20:38

Lab Sample ID: 890-4917-2

Dil Fac

Matrix: Solid

Eurofins Carlsbad

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Client: Vertex

Job ID: 890-4917-1

SDG: 23E-02502

Client Sample ID: BES23-02 0.5'

Date Collected: 07/07/23 09:05 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Project/Site: Corral Fly

Lab Sample ID: 890-4917-2

Lab Sample ID: 890-4917-3

Matrix: Solid

Matrix: Solid

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

%Recovery Qualifier Limits Prepared Surrogate Analyzed Dil Fac 70 - 130 07/11/23 12:27 1,4-Difluorobenzene (Surr) 07/12/23 00:25

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte Result Qualifier RL MDL Unit D Analyzed Dil Fac Prepared Total BTEX <0.00403 0.00403 07/12/23 14:53 mg/Kg

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

Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac **Total TPH** 50.5 07/17/23 10:54 70.6 mg/Kg

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

MDL Unit Analyte Result Qualifier RL D Prepared Analyzed Dil Fac <50.5 U 50.5 07/16/23 22:47 Gasoline Range Organics mg/Kg 07/12/23 11:56 (GRO)-C6-C10 50.5 07/12/23 11:56 07/16/23 22:47 **Diesel Range Organics (Over** 70.6 mg/Kg C10-C28) OII Range Organics (Over C28-C36) <50.5 U 50.5 mg/Kg 07/12/23 11:56 07/16/23 22:47

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 108 70 - 130 07/12/23 11:56 07/16/23 22:47 07/16/23 22:47 o-Terphenyl 116 70 - 130 07/12/23 11:56

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 24.9 07/11/23 20:53 Chloride 1450 mg/Kg

Client Sample ID: BES23-03 0.5'

Date Collected: 07/07/23 09:10

Date Received: 07/07/23 16:20

Sample Depth: 0.5

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 07/11/23 12:27 07/12/23 00:50 Ethylbenzene <0.00200 U 0.00200 07/11/23 12:27 07/12/23 00:50 mg/Kg Toluene <0.00200 U 0.00200 07/11/23 12:27 07/12/23 00:50 mg/Kg 0.00401 07/11/23 12:27 07/12/23 00:50 Xylenes, Total <0.00401 U mg/Kg m-Xylene & p-Xylene <0.00401 U 0.00401 mg/Kg 07/11/23 12:27 07/12/23 00:50 o-Xylene <0.00200 U 0.00200 mg/Kg 07/11/23 12:27 07/12/23 00:50

%Recovery Qualifier Limits Dil Fac Surrogate Prepared Analyzed 70 - 130 07/11/23 12:27 4-Bromofluorobenzene (Surr) 121 07/12/23 00:50 1,4-Difluorobenzene (Surr) 85 70 - 130 07/11/23 12:27 07/12/23 00:50

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte Result Qualifier RL MDL D Unit Prepared Analyzed Dil Fac Total BTEX <0.00401 0.00401 07/12/23 14:53 mg/Kg

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

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac **Total TPH** 49.7 07/17/23 10:54 120 mg/Kg

Lab Sample ID: 890-4917-3

Lab Sample ID: 890-4917-4

Matrix: Solid

Client: Vertex Job ID: 890-4917-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-03 0.5'

Date Collected: 07/07/23 09:10 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		07/12/23 11:56	07/16/23 23:08	1
Diesel Range Organics (Over C10-C28)	120		49.7		mg/Kg		07/12/23 11:56	07/16/23 23:08	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		07/12/23 11:56	07/16/23 23:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130				07/12/23 11:56	07/16/23 23:08	1
o-Terphenyl	112		70 - 130				07/12/23 11:56	07/16/23 23:08	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: BES23-04 0.5'

Date Collected: 07/07/23 09:15

Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 01:15	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 01:15	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 01:15	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		07/11/23 12:27	07/12/23 01:15	1
m-Xylene & p-Xylene	< 0.00396	U	0.00396		mg/Kg		07/11/23 12:27	07/12/23 01:15	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 01:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130				07/11/23 12:27	07/12/23 01:15	1
1,4-Difluorobenzene (Surr)	87		70 - 130				07/11/23 12:27	07/12/23 01:15	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	11	0.00396		mg/Kg			07/12/23 14:53	1
IUIAI DI LA	\0.00390	U	0.00396		mg/rkg			07/12/23 14.33	ı
-					mg/Kg			07/12/23 14:53	ı
Method: SW846 8015 NM - Diese Analyte	l Range Organ			MDL	Unit	D	Prepared	Analyzed	Dil Fac
: Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)	MDL		<u>D</u>	Prepared		
Method: SW846 8015 NM - Diese Analyte Total TPH	Range Organ Result 87.0	ics (DRO) (Qualifier	GC) RL 49.8	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	Range Organ Result 87.0 sel Range Orga	ics (DRO) (Qualifier	GC) RL 49.8		Unit	<u>D</u>	Prepared Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics	Range Organ Result 87.0 sel Range Orga	ics (DRO) (Qualifier nics (DRO) Qualifier	GC) RL 49.8		Unit mg/Kg			Analyzed 07/17/23 10:54	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10	Result 87.0 sel Range Organ Result <49.8	ics (DRO) (Qualifier nics (DRO) Qualifier	GC) RL 49.8 (GC) RL 49.8		Unit mg/Kg Unit mg/Kg		Prepared 07/12/23 11:56	Analyzed 07/17/23 10:54 Analyzed 07/16/23 23:28	Dil Fac Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Range Organ Result 87.0 sel Range Orga Result	ics (DRO) (Qualifier nics (DRO) Qualifier	GC) RL 49.8 (GC) RL		Unit mg/Kg		Prepared	Analyzed 07/17/23 10:54	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 87.0 sel Range Organ Result <49.8	ics (DRO) (Qualifier nics (DRO) Qualifier U	GC) RL 49.8 (GC) RL 49.8		Unit mg/Kg Unit mg/Kg		Prepared 07/12/23 11:56	Analyzed 07/17/23 10:54 Analyzed 07/16/23 23:28	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 87.0 sel Range Organ Result 87.0 sel Range Orga Result <49.8 87.0	ics (DRO) (Qualifier nics (DRO) Qualifier U	GC) RL 49.8 (GC) RL 49.8 49.8		Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56	Analyzed 07/17/23 10:54 Analyzed 07/16/23 23:28 07/16/23 23:28	Dil Fac Dil Fac 1 1 1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies Analyte	Result 87.0 sel Range Organ Result 49.8 49.8	ics (DRO) (Qualifier nics (DRO) Qualifier U	GC) RL 49.8 (GC) RL 49.8 49.8 49.8		Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56	Analyzed 07/17/23 10:54 Analyzed 07/16/23 23:28 07/16/23 23:28	Dil Fac Dil Fac

Matrix: Solid

Lab Sample ID: 890-4917-4

Job ID: 890-4917-1

Client: Vertex Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-04 0.5'

Date Collected: 07/07/23 09:15 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Soluble	•						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8020		50.2		mg/Kg			07/11/23 21:04	10

Client Sample ID: BES23-05 0.5' Lab Sample ID: 890-4917-5

Date Collected: 07/07/23 09:20

Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/12/23 01:40	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/12/23 01:40	
Toluene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/12/23 01:40	
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/11/23 12:27	07/12/23 01:40	
m-Xylene & p-Xylene	< 0.00399	U	0.00399		mg/Kg		07/11/23 12:27	07/12/23 01:40	
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/12/23 01:40	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	105		70 - 130				07/11/23 12:27	07/12/23 01:40	
1,4-Difluorobenzene (Surr)	85		70 - 130				07/11/23 12:27	07/12/23 01:40	1
Method: TAL SOP Total BTEX - 1	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/12/23 14:53	1
Method: SW846 8015 NM - Diese			•	MDI	11-4		Dunnand	Austral	D!! F
Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
Total TPH	66.1		50.0		mg/Kg			07/17/23 10:54	1
Method: SW846 8015B NM - Dies			• •						
Analyte		Qualifier	RL	MDL		D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/12/23 11:56	07/16/23 23:48	1
Diesel Range Organics (Over C10-C28)	66.1		50.0		mg/Kg		07/12/23 11:56	07/16/23 23:48	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/12/23 11:56	07/16/23 23:48	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1-Chlorooctane	103		70 - 130				07/12/23 11:56	07/16/23 23:48	1
o-Terphenyl	113		70 - 130				07/12/23 11:56	07/16/23 23:48	•
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Lab Sample ID: 890-4917-6

Client Sample Results

Client: Vertex Job ID: 890-4917-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-06 0.5'

Date Collected: 07/07/23 09:25 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/11/23 12:27	07/12/23 02:05	
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/11/23 12:27	07/12/23 02:05	
Toluene	<0.00201	U	0.00201		mg/Kg		07/11/23 12:27	07/12/23 02:05	
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/11/23 12:27	07/12/23 02:05	
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/11/23 12:27	07/12/23 02:05	
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/11/23 12:27	07/12/23 02:05	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	113		70 - 130				07/11/23 12:27	07/12/23 02:05	
1,4-Difluorobenzene (Surr)	86		70 - 130				07/11/23 12:27	07/12/23 02:05	
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/12/23 14:53	
	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Method: SW846 8015 NM - Diese Analyte Total TPH	•	. , ,	•	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 07/17/23 10:54	Dil Fa
Analyte Total TPH	Result 170	Qualifier		MDL		D	Prepared		Dil Fa
Analyte Total TPH Method: SW846 8015B NM - Dies	Result 170 sel Range Orga	Qualifier				<u>D</u>	Prepared Prepared		
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result 170 sel Range Orga	Qualifier nics (DRO) Qualifier	RL 50.3		mg/Kg			07/17/23 10:54	Dil Fa
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 170 sel Range Orga	Qualifier nics (DRO) Qualifier	RL 50.3 (GC)		mg/Kg		Prepared	07/17/23 10:54 Analyzed	Dil Fa
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 170 sel Range Orga Result < 50.3	Qualifier nics (DRO) Qualifier U	RL 50.3 (GC) RL 50.3		mg/Kg Unit mg/Kg		Prepared 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 00:08	Dil Fa
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 170 sel Range Orga Result < 50.3 170	Qualifier nics (DRO) Qualifier U	RL 50.3 (GC) RL 50.3 50.3		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 00:08 07/17/23 00:08	Dil Fa
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 170	Qualifier nics (DRO) Qualifier U	RL 50.3 (GC) RL 50.3 50.3 50.3		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 00:08 07/17/23 00:08 07/17/23 00:08	Dil Fa
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result 170	Qualifier nics (DRO) Qualifier U	RL 50.3		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56 Prepared	07/17/23 10:54 Analyzed 07/17/23 00:08 07/17/23 00:08 07/17/23 00:08 Analyzed	Dil Fa
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result 170	Qualifier nics (DRO) Qualifier U	RL 50.3 (GC) RL 50.3 50.3 50.3 Limits 70 - 130 70 - 130		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56 Prepared 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 00:08 07/17/23 00:08 Analyzed 07/17/23 00:08	Dil Fa
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result 170	Qualifier nics (DRO) Qualifier U	RL 50.3 (GC) RL 50.3 50.3 50.3 Limits 70 - 130 70 - 130	MDL	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56 Prepared 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 00:08 07/17/23 00:08 Analyzed 07/17/23 00:08	Dil Fac

Client Sample ID: BES23-07 0.5'

Date Collected: 07/07/23 09:30

Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 02:30	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 02:30	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 02:30	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		07/11/23 12:27	07/12/23 02:30	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		07/11/23 12:27	07/12/23 02:30	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 02:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130				07/11/23 12:27	07/12/23 02:30	

Eurofins Carlsbad

Matrix: Solid

Lab Sample ID: 890-4917-7

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Client: Vertex Project/Site: Corral Fly

Job ID: 890-4917-1

SDG: 23E-02502

Client Sample ID: BES23-07 0.5'

Date Collected: 07/07/23 09:30 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Lab Sample ID: 890-4917-7

Lab Sample ID: 890-4917-8

Matrix: Solid

Matrix: Solid

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

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1 4-Difluorobenzene (Surr)		70 130	07/11/23 12:27	07/12/23 02:30	

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	0.00403	ma/Ka			07/12/23 14:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	76.6		50.4		ma/Ka			07/17/23 10:54	1

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

Analyte	Result C	Qualifier RL	MDL Un	nit D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4 U	50.4	mç	g/Kg	07/12/23 11:56	07/17/23 00:28	1
Diesel Range Organics (Over C10-C28)	76.6	50.4	mç	g/Kg	07/12/23 11:56	07/17/23 00:28	1
Oll Range Organics (Over C28-C36)	<50.4 U	50.4	mç	g/Kg	07/12/23 11:56	07/17/23 00:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	07/12/23 11:56	07/17/23 00:28	1
o-Terphenyl	114		70 - 130	07/12/23 11:56	07/17/23 00:28	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	2160		25.0		mg/Kg			07/11/23 21:29	5	

Client Sample ID: BES23-08 0.5'

Date Collected: 07/07/23 09:35

Date Received: 07/07/23 16:20

Sample Depth: 0.5

Mathad. CIMO 4C	OCCAP V	Interior Overenia	Compounds (GC)
- Memor: 500546	AUZID - V	olatile Organic	Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 02:56	1
Ethylbenzene	< 0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 02:56	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 02:56	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/11/23 12:27	07/12/23 02:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/11/23 12:27	07/12/23 02:56	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 02:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130				07/11/23 12:27	07/12/23 02:56	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzea	DII Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	07/11/23 12:27	07/12/23 02:56	1
1,4-Difluorobenzene (Surr)	71		70 - 130	07/11/23 12:27	07/12/23 02:56	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	ma/Ka			07/12/23 14:53	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			07/17/23 10:54	1

Client Sample Results

Client: Vertex Job ID: 890-4917-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-08 0.5'

Date Received: 07/07/23 16:20

Sample Depth: 0.5

Lab Sample ID: 890-4917-8 Date Collected: 07/07/23 09:35 Matrix: Solid

Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9		mg/Kg		07/12/23 11:56	07/17/23 00:48	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.9	U	49.9		mg/Kg		07/12/23 11:56	07/17/23 00:48	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/12/23 11:56	07/17/23 00:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130				07/12/23 11:56	07/17/23 00:48	1
o-Terphenyl	114		70 - 130				07/12/23 11:56	07/17/23 00:48	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8280		49.8		mg/Kg			07/11/23 21:34	10

Client Sample ID: BES23-09 0.5'

Date Collected: 07/07/23 09:40

Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 03:21	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 03:21	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 03:21	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		07/11/23 12:27	07/12/23 03:21	1
m-Xylene & p-Xylene	< 0.00396	U	0.00396		mg/Kg		07/11/23 12:27	07/12/23 03:21	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 03:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130				07/11/23 12:27	07/12/23 03:21	1
1,4-Difluorobenzene (Surr)	89		70 - 130				07/11/23 12:27	07/12/23 03:21	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00396	U	0.00396		mg/Kg			07/12/23 14:53	1
-					mg/Kg			07/12/23 14:53	1
: Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)						
: Method: SW846 8015 NM - Diese	el Range Organ			MDL	mg/Kg	D	Prepared	07/12/23 14:53 Analyzed	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH	el Range Organ	ics (DRO) (GC)	MDL		<u>D</u>	Prepared		
Method: SW846 8015 NM - Diese Analyte	Range Organ Result 166	ics (DRO) ((Qualifier	GC) RL 50.2	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH	el Range Organ Result 166 sel Range Orga	ics (DRO) ((Qualifier	GC) RL 50.2		Unit	<u>D</u>	Prepared Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	el Range Organ Result 166 sel Range Orga	Qualifier nics (DRO) Qualifier	RL 50.2 (GC)		Unit mg/Kg	_	<u> </u>	Analyzed 07/17/23 10:54	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10	el Range Organ Result 166 sel Range Orga Result	Qualifier nics (DRO) Qualifier	GC) RL 50.2 (GC) RL 50.2		Unit mg/Kg	_	Prepared 07/12/23 11:56	Analyzed 07/17/23 10:54 Analyzed 07/17/23 01:08	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	el Range Organ Result 166 sel Range Orga Result	Qualifier nics (DRO) Qualifier	GC) RL 50.2 (GC) RL		Unit mg/Kg	_	Prepared	Analyzed 07/17/23 10:54	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 166 sel Range Organ Result 466 sel Range Orga Result <50.2	ics (DRO) ((Qualifier nics (DRO) Qualifier U	GC) RL 50.2 (GC) RL 50.2 50.2		Unit mg/Kg Unit mg/Kg mg/Kg	_	Prepared 07/12/23 11:56 07/12/23 11:56	Analyzed 07/17/23 10:54 Analyzed 07/17/23 01:08 07/17/23 01:08	Dil Fac Dil Fac 1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10	Result 166 sel Range Organ Result 167 sel Range Organ Result <50.2	ics (DRO) ((Qualifier nics (DRO) Qualifier U	GC) RL 50.2 (GC) RL 50.2		Unit mg/Kg Unit mg/Kg	_	Prepared 07/12/23 11:56	Analyzed 07/17/23 10:54 Analyzed 07/17/23 01:08	Dil Fac Dil Fac 1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 166 sel Range Organ Result Result < 50.2 %Recovery	ics (DRO) ((Qualifier nics (DRO) Qualifier U	GC) RL 50.2 (GC) RL 50.2 50.2 50.2 Limits		Unit mg/Kg Unit mg/Kg mg/Kg	_	Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56 Prepared	Analyzed 07/17/23 10:54 Analyzed 07/17/23 01:08 07/17/23 01:08 Analyzed	Dil Fac Dil Fac 1 1 1
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	el Range Organ Result 166 sel Range Orga Result <50.2 166 <50.2	ics (DRO) ((Qualifier nics (DRO) Qualifier U	GC) RL 50.2 (GC) RL 50.2 50.2 50.2		Unit mg/Kg Unit mg/Kg mg/Kg	_	Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56	Analyzed 07/17/23 10:54 Analyzed 07/17/23 01:08 07/17/23 01:08	Dil Fac Dil Fac 1

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Lab Sample ID: 890-4917-9

Matrix: Solid

Lab Sample ID: 890-4917-9

Client Sample Results

Client: Vertex Job ID: 890-4917-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-09 0.5'

Date Collected: 07/07/23 09:40 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Soluble	е						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9680		99.2		mg/Kg			07/11/23 21:40	20

Client Sample ID: BES23-10 0.5'

Date Collected: 07/07/23 09:45

Lab Sample ID: 890-4917-10

Matrix: Solid

Date Collected: 07/07/23 09:45 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 03:46	
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 03:46	
Toluene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 03:46	
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		07/11/23 12:27	07/12/23 03:46	
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		07/11/23 12:27	07/12/23 03:46	
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/11/23 12:27	07/12/23 03:46	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	120		70 - 130				07/11/23 12:27	07/12/23 03:46	
1,4-Difluorobenzene (Surr)	83		70 - 130				07/11/23 12:27	07/12/23 03:46	
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00404	U	0.00404		mg/Kg			07/12/23 14:53	
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)						
Amalusta	Desuit	Ouglifier	,	MDI	11:4	_	Duamanad	Amalumad	Dil Fa
*		Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	
Analyte Total TPH	Result <50.0		,	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 07/17/23 10:54	
*	<50.0	U		MDL		<u>D</u>	Prepared		
Total TPH	<50.0	U				<u>D</u> 	Prepared Prepared		
Total TPH Method: SW846 8015B NM - Dies	<50.0	nics (DRO) Qualifier	RL 50.0		mg/Kg			07/17/23 10:54	Dil Fa
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	<50.0 sel Range Orga Result	nics (DRO) Qualifier	RL 50.0		mg/Kg		Prepared	07/17/23 10:54 Analyzed	Dil Fa
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<50.0 sel Range Orga Result <50.0	nics (DRO) Qualifier U	RL		mg/Kg Unit mg/Kg		Prepared 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 01:28	Dil Fa
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<50.0 sel Range Orga Result <50.0 <50.0	nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0 50.0		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 01:28 07/17/23 01:28	Dil Fa
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<50.0 sel Range Orga Result <50.0 <50.0 <50.0	nics (DRO) Qualifier U	RL 50.0 (GC) RL 50.0 50.0 50.0		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 01:28 07/17/23 01:28 07/17/23 01:28	Dil Fa
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<50.0 sel Range Orga Result <50.0 <50.0 <50.0 %Recovery	nics (DRO) Qualifier U	RL		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56 Prepared	07/17/23 10:54 Analyzed 07/17/23 01:28 07/17/23 01:28 07/17/23 01:28 Analyzed	Dil Fa
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<50.0 sel Range Orga Result <50.0 <50.0 <50.0 %Recovery 89 97	Oualifier U Qualifier U Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56 Prepared 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 01:28 07/17/23 01:28 Analyzed 07/17/23 01:28	Dil Fa
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	<50.0 sel Range Orga Result <50.0 <50.0 <50.0 %Recovery 89 97 Chromatograp	Oualifier U Qualifier U Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	MDL	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56 Prepared 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 01:28 07/17/23 01:28 Analyzed 07/17/23 01:28	Dil Fa

Lab Sample ID: 890-4917-11

Client Sample Results

Client: Vertex Job ID: 890-4917-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-11 0.5'

Date Collected: 07/07/23 09:50 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/11/23 12:27	07/12/23 05:28	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/11/23 12:27	07/12/23 05:28	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/11/23 12:27	07/12/23 05:28	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/11/23 12:27	07/12/23 05:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/11/23 12:27	07/12/23 05:28	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/11/23 12:27	07/12/23 05:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130				07/11/23 12:27	07/12/23 05:28	1
1,4-Difluorobenzene (Surr)	121		70 - 130				07/11/23 12:27	07/12/23 05:28	1
Method: TAL SOP Total BTEX	- Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/12/23 14:53	1
- Method: SW846 8015 NM - Die	esel Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
		U	50.2		mg/Kg			07/17/23 10:54	

Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		07/12/23 11:56	07/17/23 02:08	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		07/12/23 11:56	07/17/23 02:08	1
Oll Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		07/12/23 11:56	07/17/23 02:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130				07/12/23 11:56	07/17/23 02:08	1
o-Terphenyl	97		70 - 130				07/12/23 11:56	07/17/23 02:08	1

Method: EPA 300.0 - Anions, Ion C	hromatography - Soluble						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9660	99.4	mg/Kg			07/11/23 21:50	20

Client Sample ID: BES23-12 0.5'

Date Collected: 07/07/23 09:55 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/12/23 05:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/12/23 05:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/12/23 05:54	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/11/23 12:27	07/12/23 05:54	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/11/23 12:27	07/12/23 05:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/12/23 05:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130				07/11/23 12:27	07/12/23 05:54	

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Lab Sample ID: 890-4917-12

Matrix: Solid

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Lab Sample ID: 890-4917-12

Lab Sample ID: 890-4917-13

Matrix: Solid

Job ID: 890-4917-1

Client: Vertex Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-12 0.5'

Date Collected: 07/07/23 09:55 Date Received: 07/07/23 16:20

Sample Depth: 0.5

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

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1.4-Difluorobenzene (Surr)	78	70 - 130	07/11/23 12:27	07/12/23 05:54	

Method: TAL So	OP Total BTFX	- Total BTEX	Calculation
INICIIIOG. IAL O	JI IOLAI DILA	- IUlai DILA	Calculation

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			07/12/23 14:53	1

Method:	SW846	8015 NI	M - Dies	ol Range	Organics	(DRO)	(GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	ared	Analyzed	Dil Fac
Total TPH	181		50.5		mg/Kg			07/17/23 10:54	1

Method: SW846 8015B	NM - Diesel Range	Organics (DRO) (G	C)
Michiga. Offoto ou lob	THIN - Dicaci Italige	organics (bito) (c	, – ,

		, ,	•						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		07/12/23 11:56	07/17/23 02:28	1
Diesel Range Organics (Over C10-C28)	181		50.5		mg/Kg		07/12/23 11:56	07/17/23 02:28	1
Oll Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		07/12/23 11:56	07/17/23 02:28	1
Currente	0/ Dagguerre	Ovelifier	Limita				Duamanad	Amalumad	Dil 5

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106	70 - 130	07/12/23 11:56	07/17/23 02:28	1
o-Terphenyl	109	70 - 130	07/12/23 11:56	07/17/23 02:28	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte		ualifier RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8590	50.0	mg/Kg			07/11/23 22:05	10

Client Sample ID: BES23-13 0.5'

Date Collected: 07/07/23 10:00

Date Received: 07/07/23 16:20

Sample Depth: 0.5

 Mathad.	CIMO 4C	0024D	Valatila Ossania	Compounds (GC)
viernoa:	SVVA4n	AUZID .	· voiatile Organic	: Compounds (GC)

Analyte	Result	Qualifier	RL	MDL U	nit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		ng/Kg		07/11/23 12:27	07/12/23 06:20	1
Ethylbenzene	<0.00200	U	0.00200	m	ng/Kg		07/11/23 12:27	07/12/23 06:20	1
Toluene	<0.00200	U	0.00200	m	ng/Kg		07/11/23 12:27	07/12/23 06:20	1
Xylenes, Total	<0.00400	U	0.00400	m	ng/Kg		07/11/23 12:27	07/12/23 06:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	m	ng/Kg		07/11/23 12:27	07/12/23 06:20	1
o-Xylene	<0.00200	U	0.00200	m	ng/Kg		07/11/23 12:27	07/12/23 06:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130				07/11/23 12:27	07/12/23 06:20	1
4.4.Diff	70		70 400				07/44/00 40:07	07/40/00 00:00	

4-Bromofluorobenzene (Surr)	108	70 - 130	07/11/23 12:27 07/12/23 06:20	1
1,4-Difluorobenzene (Surr)	70	70 - 130	07/11/23 12:27 07/12/23 06:20	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			07/12/23 14:53	1

Analyte	Result	Qualifier	, RL	MDL U	nit	D	Prepared	Analyzed	Dil Fac	
Total TPH	64.6		50.5	m	g/Kg			07/17/23 10:54	1	

Lab Sample ID: 890-4917-13

Lab Sample ID: 890-4917-14

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-4917-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-13 0.5'

Date Collected: 07/07/23 10:00 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		07/12/23 11:56	07/17/23 02:48	1
Diesel Range Organics (Over C10-C28)	64.6		50.5		mg/Kg		07/12/23 11:56	07/17/23 02:48	1
Oll Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		07/12/23 11:56	07/17/23 02:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				07/12/23 11:56	07/17/23 02:48	1
o-Terphenyl	96		70 - 130				07/12/23 11:56	07/17/23 02:48	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: BES23-14 0.5'

Date Collected: 07/07/23 10:05

Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 06:45	1
Ethylbenzene	< 0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 06:45	1
Toluene	< 0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 06:45	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/11/23 12:27	07/12/23 06:45	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/11/23 12:27	07/12/23 06:45	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 06:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130				07/11/23 12:27	07/12/23 06:45	1
1,4-Difluorobenzene (Surr)	70		70 - 130				07/11/23 12:27	07/12/23 06:45	1
Method: TAL SOP Total BTEX - T Analyte Total BTEX		Qualifier	RL	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 07/12/23 14:53	Dil Fac
Method: SW846 8015 NM - Diese Analyte		ics (DRO) (GC)	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	61.7		50.1		mg/Kg			07/17/23 10:54	1
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		07/12/23 11:56	07/17/23 03:08	1
Diesel Range Organics (Over C10-C28)	61.7		50.1		mg/Kg		07/12/23 11:56	07/17/23 03:08	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		07/12/23 11:56	07/17/23 03:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130				07/12/23 11:56	07/17/23 03:08	1

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Lab Sample ID: 890-4917-14

Client Sample Results

Client: Vertex Job ID: 890-4917-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-14 0.5'

Date Collected: 07/07/23 10:05 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Soluble	•						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1040		25.1		mg/Kg			07/11/23 22:26	5

Lab Sample ID: 890-4917-15 Client Sample ID: BES23-15 0.5' Matrix: Solid

Date Collected: 07/07/23 10:10

Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/12/23 07:12	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/12/23 07:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/12/23 07:12	
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/11/23 12:27	07/12/23 07:12	1
m-Xylene & p-Xylene	< 0.00399	U	0.00399		mg/Kg		07/11/23 12:27	07/12/23 07:12	
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/12/23 07:12	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	119		70 - 130				07/11/23 12:27	07/12/23 07:12	1
1,4-Difluorobenzene (Surr)	84		70 - 130				07/11/23 12:27	07/12/23 07:12	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)						
	Result	Qualifier	GC) RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	•	Qualifier	•	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 07/17/23 10:54	
Analyte Total TPH		Qualifier U		MDL		<u>D</u>	Prepared		
Analyte Total TPH Method: SW846 8015B NM - Dies	Result <50.1 sel Range Orga	Qualifier Unics (DRO) Qualifier				<u>D</u>	Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <50.1	Qualifier Unics (DRO) Qualifier	RL 50.1		mg/Kg	_ =		07/17/23 10:54	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.1 sel Range Orga	Qualifier U nics (DRO) Qualifier U	RL 50.1		mg/Kg	_ =	Prepared	07/17/23 10:54 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.1 sel Range Orga Result <50.1	Qualifier U nics (DRO) Qualifier U	RL 50.1		mg/Kg Unit mg/Kg	_ =	Prepared 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 03:28	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U nics (DRO) Qualifier U U	RL 50.1 (GC) RL 50.1 50.1		mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 07/12/23 11:56 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 03:28 07/17/23 03:28	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier U nics (DRO) Qualifier U U	RL 50.1 (GC) RL 50.1 50.1 50.1		mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 03:28 07/17/23 03:28 07/17/23 03:28	Dil Face
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result	Qualifier U nics (DRO) Qualifier U U	RL		mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56 Prepared	07/17/23 10:54 Analyzed 07/17/23 03:28 07/17/23 03:28 07/17/23 03:28 Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: EPA 300.0 - Anions, Ion	Result	Qualifier U nics (DRO) Qualifier U U Qualifier	RL 50.1 (GC) RL 50.1 50.1 50.1 Limits 70 - 130 70 - 130		mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56 Prepared 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 03:28 07/17/23 03:28 Analyzed 07/17/23 03:28	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U nics (DRO) Qualifier U U Qualifier	RL 50.1 (GC) RL 50.1 50.1 50.1 Limits 70 - 130 70 - 130	MDL	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56 Prepared 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 03:28 07/17/23 03:28 Analyzed 07/17/23 03:28	Dil Fac

Lab Sample ID: 890-4917-16

Client Sample Results

Client: Vertex Job ID: 890-4917-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-16 0.5'

Date Collected: 07/07/23 10:15 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 07:38	1
Ethylbenzene	< 0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 07:38	1
Toluene	< 0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 07:38	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/11/23 12:27	07/12/23 07:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/11/23 12:27	07/12/23 07:38	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 07:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130				07/11/23 12:27	07/12/23 07:38	1
1,4-Difluorobenzene (Surr)	74		70 - 130				07/11/23 12:27	07/12/23 07:38	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/12/23 14:53	1
Method: SW846 8015 NM - Diese		, ,,	•						
Analyte	Result	ics (DRO) (Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	
		, ,,	•	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 07/17/23 10:54	
Analyte	Result 59.1 sel Range Orga	Qualifier Qualifier Qualifier Qualifier	RL 49.5		mg/Kg				1
Analyte Total TPH Method: SW846 8015B NM - Die Analyte	Result 59.1 sel Range Orga	Qualifier nics (DRO) Qualifier	RL 49.5 (GC)		mg/Kg	<u>D</u>	Prepared	07/17/23 10:54 Analyzed	1
Analyte Total TPH Method: SW846 8015B NM - Die	Result 59.1 sel Range Orga	Qualifier nics (DRO) Qualifier	RL 49.5		mg/Kg			07/17/23 10:54	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics	Result 59.1 sel Range Orga	Qualifier nics (DRO) Qualifier	RL 49.5 (GC)		mg/Kg		Prepared	07/17/23 10:54 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 59.1 Sel Range Orga Result <49.5	Qualifier unics (DRO) Qualifier U	RL 49.5 (GC) RL 49.5		mg/Kg Unit mg/Kg		Prepared 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 03:48	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result Sel Range Orga Result 49.5 59.1	Qualifier unics (DRO) Qualifier U	RL 49.5 (GC) RL 49.5 49.5		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 03:48 07/17/23 03:48	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result 59.1 sel Range Orga Result < 49.5 59.1 49.5	Qualifier unics (DRO) Qualifier U	RL 49.5 (GC) RL 49.5 49.5 49.5		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 03:48 07/17/23 03:48 07/17/23 03:48	Dil Face 1 1 1 1 Dil Face
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier unics (DRO) Qualifier U	RL 49.5 (GC) RL 49.5 49.5 49.5 Limits		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56 Prepared	07/17/23 10:54 Analyzed 07/17/23 03:48 07/17/23 03:48 07/17/23 03:48 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result	Qualifier U Qualifier U Qualifier	RL 49.5 (GC) RL 49.5 49.5 49.5 Limits 70 - 130 70 - 130		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56 Prepared 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 03:48 07/17/23 03:48 Analyzed 07/17/23 03:48	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U Qualifier U Qualifier	RL 49.5 (GC) RL 49.5 49.5 49.5 Limits 70 - 130 70 - 130	MDL	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/12/23 11:56 07/12/23 11:56 07/12/23 11:56 Prepared 07/12/23 11:56	07/17/23 10:54 Analyzed 07/17/23 03:48 07/17/23 03:48 Analyzed 07/17/23 03:48	Dil Fac

Client Sample ID: BES23-17 0.5'

Date Collected: 07/07/23 10:20

Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 08:03	
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 08:03	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 08:03	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		07/11/23 12:27	07/12/23 08:03	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		07/11/23 12:27	07/12/23 08:03	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 08:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130				07/11/23 12:27	07/12/23 08:03	

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Lab Sample ID: 890-4917-17

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Matrix: Solid

Client: Vertex

Job ID: 890-4917-1

SDG: 23E-02502

Client Sample ID: BES23-17 0.5'

Date Collected: 07/07/23 10:20 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Project/Site: Corral Fly

Lab Sample ID: 890-4917-17

Lab Sample ID: 890-4917-18

Matrix: Solid

Matrix: Solid

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

%Recovery Qualifier Limits Prepared Surrogate Analyzed Dil Fac 70 - 130 1,4-Difluorobenzene (Surr) 07/11/23 12:27 07/12/23 08:03

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte Result Qualifier RL MDL Unit D Analyzed Dil Fac Prepared Total BTEX <0.00397 0.00397 07/12/23 14:53 mg/Kg

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

Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac **Total TPH** 49.6 07/17/23 10:54 166 mg/Kg

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

MDL Unit Analyte Result Qualifier RL D Prepared Analyzed Dil Fac <49.6 U Gasoline Range Organics 49.6 mg/Kg 07/12/23 11:56 07/17/23 04:09 (GRO)-C6-C10 49.6 07/12/23 11:56 07/17/23 04:09 **Diesel Range Organics (Over** 166 mg/Kg C10-C28) OII Range Organics (Over C28-C36) <49.6 U 49.6 mg/Kg 07/12/23 11:56 07/17/23 04:09

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 88 70 - 130 07/12/23 11:56 07/17/23 04:09 93 70 - 130 07/12/23 11:56 07/17/23 04:09 o-Terphenyl

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 50.1 07/11/23 22:42 Chloride 4250 mg/Kg

Client Sample ID: BES23-18 0.5'

Date Collected: 07/07/23 10:25

Date Received: 07/07/23 16:20

Sample Depth: 0.5

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

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Benzene <0.00202 U 0.00202 mg/Kg 07/11/23 12:27 07/12/23 08:47 Ethylbenzene <0.00202 U 0.00202 07/11/23 12:27 07/12/23 08:47 mg/Kg Toluene <0.00202 U 0.00202 07/11/23 12:27 07/12/23 08:47 mg/Kg 0.00403 07/11/23 12:27 07/12/23 08:47 Xylenes, Total <0.00403 U mg/Kg m-Xylene & p-Xylene <0.00403 U 0.00403 mg/Kg 07/11/23 12:27 07/12/23 08:47 o-Xylene <0.00202 U 0.00202 mg/Kg 07/11/23 12:27 07/12/23 08:47

%Recovery Qualifier Limits Dil Fac Surrogate Prepared Analyzed 70 - 130 4-Bromofluorobenzene (Surr) 120 07/11/23 12:27 07/12/23 08:47 1,4-Difluorobenzene (Surr) 81 70 - 130 07/11/23 12:27 07/12/23 08:47

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte Result Qualifier RL MDL D Unit Prepared Analyzed Dil Fac <0.00403 Total BTEX 0.00403 07/12/23 14:53 mg/Kg

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

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac **Total TPH** 49.8 07/17/23 10:54 78.3 mg/Kg

Lab Sample ID: 890-4917-18

Lab Sample ID: 890-4917-19

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-4917-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-18 0.5'

Date Collected: 07/07/23 10:25 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		07/12/23 11:56	07/17/23 04:29	1
Diesel Range Organics (Over C10-C28)	78.3		49.8		mg/Kg		07/12/23 11:56	07/17/23 04:29	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/12/23 11:56	07/17/23 04:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130				07/12/23 11:56	07/17/23 04:29	1
o-Terphenyl	102		70 - 130				07/12/23 11:56	07/17/23 04:29	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
			D.	MDL	Linit	D	Dropored	Anglyzad	Dil Fac
Analyte	Result	Qualifier	RL	MDL	UIIIL	U	Prepared	Analyzed	DII Fac

Client Sample ID: BES23-19 0.5'

Date Collected: 07/07/23 10:30

Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 09:12	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 09:12	1
Toluene	< 0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 09:12	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/11/23 12:27	07/12/23 09:12	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/11/23 12:27	07/12/23 09:12	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/11/23 12:27	07/12/23 09:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130				07/11/23 12:27	07/12/23 09:12	1
1,4-Difluorobenzene (Surr)	74		70 - 130				07/11/23 12:27	07/12/23 09:12	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/12/23 14:53	1
Method: SW846 8015 NM - Diese	I Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	58.0		49.9		mg/Kg			07/17/23 10:54	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (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		07/12/23 11:56	07/17/23 04:49	1
Diesel Range Organics (Over C10-C28)	58.0		49.9		mg/Kg		07/12/23 11:56	07/17/23 04:49	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/12/23 11:56	07/17/23 04:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
			70 - 130				07/12/23 11:56	07/17/23 04:49	
1-Chlorooctane	87		10 - 130				07/12/23 11.30	01/11/23 04.43	1

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Client: Vertex

Job ID: 890-4917-1

SDG: 23E-02502

Client Sample ID: BES23-19 0.5'

Date Collected: 07/07/23 10:30 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Project/Site: Corral Fly

Lab Sample ID: 890-4917-19

Matrix: Solid

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Soluble	•						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10300		99.8		mg/Kg			07/11/23 22:52	20

Client Sample ID: BES23-20 0.5' Lab Sample ID: 890-4917-20 Matrix: Solid

Date Collected: 07/07/23 10:35 Date Received: 07/07/23 16:20

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 09:38	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 09:38	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 09:38	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		07/11/23 12:27	07/12/23 09:38	1
m-Xylene & p-Xylene	< 0.00396	U	0.00396		mg/Kg		07/11/23 12:27	07/12/23 09:38	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/11/23 12:27	07/12/23 09:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130				07/11/23 12:27	07/12/23 09:38	1
1,4-Difluorobenzene (Surr)	81		70 - 130				07/11/23 12:27	07/12/23 09:38	1
Method: TAL SOP Total BTEX	- Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			07/12/23 14:53	1
Method: SW846 8015 NM - Die	esel Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	94.3		49.9		mg/Kg			07/17/23 10:54	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/12/23 11:56	07/17/23 05:09	1
Diesel Range Organics (Over C10-C28)	94.3		49.9		mg/Kg		07/12/23 11:56	07/17/23 05:09	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/12/23 11:56	07/17/23 05:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130				07/12/23 11:56	07/17/23 05:09	1
o-Terphenyl	96		70 - 130				07/12/23 11:56	07/17/23 05:09	1

Method: EPA 300.0 - Anions, Ion C	hromatograp	hy - Soluble	9						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7320		49.8		mg/Kg			07/11/23 22:57	10

Surrogate Summary

 Client: Vertex
 Job ID: 890-4917-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limit
		BFB1	DFBZ1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
90-4917-1	BES23-01 0.5'	100	80	
90-4917-1 MS	BES23-01 0.5'	113	82	
90-4917-1 MSD	BES23-01 0.5'	122	97	
90-4917-2	BES23-02 0.5'	107	79	
90-4917-3	BES23-03 0.5'	121	85	
0-4917-4	BES23-04 0.5'	128	87	
0-4917-5	BES23-05 0.5'	105	85	
90-4917-6	BES23-06 0.5'	113	86	
0-4917-7	BES23-07 0.5'	127	88	
0-4917-8	BES23-08 0.5'	114	71	
0-4917-9	BES23-09 0.5'	131 S1+	89	
0-4917-10	BES23-10 0.5'	120	83	
0-4917-11	BES23-11 0.5'	126	121	
0-4917-12	BES23-12 0.5'	124	78	
0-4917-13	BES23-13 0.5'	108	70	
)-4917-14	BES23-14 0.5'	122	70	
0-4917-15	BES23-15 0.5'	119	84	
-4917-16	BES23-16 0.5'	132 S1+	74	
0-4917-17	BES23-17 0.5'	117	79	
0-4917-18	BES23-18 0.5'	120	81	
0-4917-19	BES23-19 0.5'	115	74	
90-4917-20	BES23-20 0.5'	115	81	
CS 880-57409/1-A	Lab Control Sample	102	88	
SD 880-57409/2-A	Lab Control Sample Dup	101	91	
3 880-57409/5-A	Method Blank	64 S1-	80	
3 880-57424/8	Method Blank	61 S1-	78	

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	
_ab Sample ID	Client Sample ID	(70-130)	(70-130)	
90-4917-1	BES23-01 0.5'	92	99	
90-4917-1 MS	BES23-01 0.5'	93	89	
90-4917-1 MSD	BES23-01 0.5'	101	99	
390-4917-2	BES23-02 0.5'	108	116	
390-4917-3	BES23-03 0.5'	105	112	
390-4917-4	BES23-04 0.5'	89	94	
390-4917-5	BES23-05 0.5'	103	113	
390-4917-6	BES23-06 0.5'	93	100	
390-4917-7	BES23-07 0.5'	106	114	
390-4917-8	BES23-08 0.5'	106	114	
390-4917-9	BES23-09 0.5'	98	105	
390-4917-10	BES23-10 0.5'	89	97	
890-4917-11	BES23-11 0.5'	94	97	

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Surrogate Summary

 Client: Vertex
 Job ID: 890-4917-1

 Project/Site: Corral Fly
 SDG: 23E-02502

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1001	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-4917-12	BES23-12 0.5'	106	109	
890-4917-13	BES23-13 0.5'	89	96	
890-4917-14	BES23-14 0.5'	85	89	
890-4917-15	BES23-15 0.5'	88	96	
890-4917-16	BES23-16 0.5'	102	110	
890-4917-17	BES23-17 0.5'	88	93	
890-4917-18	BES23-18 0.5'	101	102	
890-4917-19	BES23-19 0.5'	87	94	
890-4917-20	BES23-20 0.5'	93	96	
LCS 880-57500/2-A	Lab Control Sample	98	93	
LCSD 880-57500/3-A	Lab Control Sample Dup	98	92	
MB 880-57500/1-A	Method Blank	91	101	

1CO = 1-Chlorooctane OTPH = o-Terphenyl

QC Sample Results

Client: Vertex Job ID: 890-4917-1
Project/Site: Corral Fly SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-57409/5-A

Matrix: Solid Analysis Batch: 57424 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57409

	МВ	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/11/23 23:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/11/23 23:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/11/23 23:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/11/23 12:27	07/11/23 23:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/11/23 12:27	07/11/23 23:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/11/23 12:27	07/11/23 23:35	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	64	S1-	70 - 130	07/11/23 12:27	07/11/23 23:35	1
1.4-Difluorobenzene (Surr)	80		70 - 130	07/11/23 12:27	07/11/23 23:35	1

Lab Sample ID: LCS 880-57409/1-A

Matrix: Solid

Analysis Batch: 57424

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 57409

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.09230 mg/Kg 92 70 - 130 Ethylbenzene 0.100 0.09674 mg/Kg 97 70 - 130 Toluene 0.100 0.08546 mg/Kg 85 70 - 130 0.200 88 70 - 130 m-Xylene & p-Xylene 0.1770 mg/Kg 0.100 70 - 130 o-Xylene 0.09118 mg/Kg

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

Lab Sample ID: LCSD 880-57409/2-A

Matrix: Solid

Analysis Batch: 57424

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 57409

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08799		mg/Kg		88	70 - 130	5	35
Ethylbenzene	0.100	0.09432		mg/Kg		94	70 - 130	3	35
Toluene	0.100	0.08412		mg/Kg		84	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1716		mg/Kg		86	70 - 130	3	35
o-Xylene	0.100	0.09119		mg/Kg		91	70 - 130	0	35

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	101	70 - 130
1,4-Difluorobenzene (Surr)	91	70 - 130

Lab Sample ID: 890-4917-1 MS

Matrix: Solid

Analysis Batch: 57424

Client Sample ID: BES23-01 0.5'

Prep Type: Total/NA

Prep Batch: 57409

Sample Sample Spike MS MS Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits <0.00202 U 0.0994 91 Benzene 0.09073 mg/Kg 70 - 130 Ethylbenzene <0.00202 U 0.0994 0.09014 mg/Kg 91 70 - 130

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QC Sample Results

Client: Vertex Job ID: 890-4917-1
Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: 890-4917-1 MS

Matrix: Solid

Analysis Batch: 57424

Client Sample ID: BES23-01 0.5'

Prep Type: Total/NA

Prep Batch: 57409

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Toluene	<0.00202	U	0.0994	0.07793		mg/Kg		78	70 - 130	
m-Xylene & p-Xylene	<0.00404	U	0.199	0.1624		mg/Kg		82	70 - 130	
o-Xylene	<0.00202	U	0.0994	0.08857		mg/Kg		89	70 - 130	

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 113
 70 - 130

 1,4-Difluorobenzene (Surr)
 82
 70 - 130

Lab Sample ID: 890-4917-1 MSD Client Sample ID: BES23-01 0.5'

Matrix: Solid Prep Type: Total/NA
Analysis Batch: 57424 Prep Batch: 57409

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U	0.0998	0.08603		mg/Kg		86	70 - 130	5	35
Ethylbenzene	<0.00202	U	0.0998	0.08714		mg/Kg		87	70 - 130	3	35
Toluene	<0.00202	U	0.0998	0.07956		mg/Kg		80	70 - 130	2	35
m-Xylene & p-Xylene	<0.00404	U	0.200	0.1554		mg/Kg		78	70 - 130	4	35
o-Xylene	<0.00202	U	0.0998	0.08154		mg/Kg		82	70 - 130	8	35

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 122
 70 - 130

 1,4-Difluorobenzene (Surr)
 97
 70 - 130

Lab Sample ID: MB 880-57424/8

Matrix: Solid

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

Analysis Batch: 57424

MB MB

	INID	INID							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg			07/11/23 19:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg			07/11/23 19:21	1
Toluene	<0.00200	U	0.00200		mg/Kg			07/11/23 19:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg			07/11/23 19:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg			07/11/23 19:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg			07/11/23 19:21	1

	MB	МВ				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	61	S1-	70 - 130		07/11/23 19:21	1
1,4-Difluorobenzene (Surr)	78		70 - 130		07/11/23 19:21	1

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

Lab Sample ID: MB 880-57500/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 57755

MB MB

Prep Batch: 57500

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Gasoline Range Organics
 <50.0</td>
 U
 50.0
 mg/Kg
 07/12/23 11:56
 07/16/23 20:46
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 (GRO)-C6-C10
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Client: Vertex Project/Site: Corral Fly

Job ID: 890-4917-1 SDG: 23E-02502

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued) Lab Sample ID: MB 880-57500/1-A

Matrix: Solid

Analysis Batch: 57755

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57500

Analyte	Result	Qualifier	
	INID	IVID	

Analyte	Result	Qualifier	RL	MDL Un	lit L	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg	g/Kg	07/12/23 11:56	07/16/23 20:46	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg	g/Kg	07/12/23 11:56	07/16/23 20:46	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepar	ed	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	07/12/23	11:56 07	7/16/23 20:46	1
o-Terphenyl	101		70 - 130	07/12/23	11:56 07	7/16/23 20:46	1

Client Sample ID: Lab Control Sample

Matrix: Solid

Analysis Batch: 57755

Lab Sample ID: LCS 880-57500/2-A

Prep Type: Total/NA

Prep Batch: 57500

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	1014		mg/Kg		101	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	942.2		mg/Kg		94	70 - 130	
C10-C28)								

LCS LCS

I	Surrogate	%Recovery	Qualifier	Limits
	1-Chlorooctane	98		70 - 130
	o-Terphenyl	93		70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Analysis Batch: 57755

Lab Sample ID: 890-4917-1 MS

Analysis Batch: 57755

Matrix: Solid

Lab Sample ID: LCSD 880-57500/3-A

Prep Type: Total/NA

Prep Batch: 57500

	;	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	А	dded	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics		1000	993.2		mg/Kg		99	70 - 130	2	20	
(GRO)-C6-C10											
Diesel Range Organics (Over		1000	948.3		mg/Kg		95	70 - 130	1	20	
C10-C28)											

LCSD LCSD Limits

Surrogate %Recovery Qualifier 1-Chlorooctane 98 70 - 130 o-Terphenyl 92 70 - 130

Client Sample ID: BES23-01 0.5'

Prep Type: Total/NA

Prep Batch: 57500

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	1010	928.0		mg/Kg		92	70 - 130	
Diesel Range Organics (Over C10-C28)	145	F1	1010	846.6	F1	mg/Kg		69	70 - 130	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	93		70 13

70 - 130 89 70 - 130 o-Terphenyl

Client: Vertex Job ID: 890-4917-1 SDG: 23E-02502 Project/Site: Corral Fly

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

Lab Sample ID: 890-4917-1 MSD Client Sample ID: BES23-01 0.5'

Matrix: Solid Analysis Batch: 57755 Prep Type: Total/NA Prep Batch: 57500

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	1010	1116		mg/Kg		111	70 - 130	18	20
Diesel Range Organics (Over	145	F1	1010	946.6		mg/Kg		79	70 - 130	11	20

C10-C28)

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	99		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-57318/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 57419

мв мв

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00 U	5.00	mg/Kg			07/11/23 20:23	1

Lab Sample ID: LCS 880-57318/2-A **Client Sample ID: Lab Control Sample** Matrix: Solid **Prep Type: Soluble**

Analysis Batch: 57419

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	 250	253.6		mg/Kg		101	90 - 110	

Lab Sample ID: LCSD 880-57318/3-A

Matrix: Solid

Analysis Batch: 57419

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	254.9		ma/Ka		102	90 - 110		20

Lab Sample ID: 890-4917-1 MS Client Sample ID: BES23-01 0.5' **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 57419

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	7870		2510	10290		ma/Ka		96	90 110	

Lab Sample ID: 890-4917-1 MSD Client Sample ID: BES23-01 0.5'

Matrix: Solid

Analysis Batch: 57419

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	7870		2510	10300		mg/Kg		97	90 - 110	0	20

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Prep Type: Soluble

Chloride

QC Sample Results

Client: Vertex Job ID: 890-4917-1
Project/Site: Corral Fly SDG: 23E-02502

Method: 300.0 - Anions, Ion Chromatography (Continued)

9660

Lab Sample ID: 890-4917-11 MS Client Sample ID: BES23-11 0.5'

Matrix: Solid
Analysis Batch: 57419

Sample Sample Spike MS MS %Rec
Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits

4970

Lab Sample ID: 890-4917-11 MSD Client Sample ID: BES23-11 0.5'

Matrix: Solid Prep Type: Soluble

14620

mg/Kg

100

90 - 110

Analysis Batch: 57419

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Added Result Qualifier Limits RPD Limit Analyte Unit D %Rec Chloride 9660 4970 14640 mg/Kg 100 90 - 110 0 20

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QC Association Summary

 Client: Vertex
 Job ID: 890-4917-1

 Project/Site: Corral Fly
 SDG: 23E-02502

GC VOA

Prep Batch: 57409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-4917-1	BES23-01 0.5'	Total/NA	Solid	5035	
890-4917-2	BES23-02 0.5'	Total/NA	Solid	5035	
890-4917-3	BES23-03 0.5'	Total/NA	Solid	5035	
890-4917-4	BES23-04 0.5'	Total/NA	Solid	5035	
890-4917-5	BES23-05 0.5'	Total/NA	Solid	5035	
890-4917-6	BES23-06 0.5'	Total/NA	Solid	5035	
890-4917-7	BES23-07 0.5'	Total/NA	Solid	5035	
890-4917-8	BES23-08 0.5'	Total/NA	Solid	5035	
890-4917-9	BES23-09 0.5'	Total/NA	Solid	5035	
890-4917-10	BES23-10 0.5'	Total/NA	Solid	5035	
890-4917-11	BES23-11 0.5'	Total/NA	Solid	5035	
890-4917-12	BES23-12 0.5'	Total/NA	Solid	5035	
890-4917-13	BES23-13 0.5'	Total/NA	Solid	5035	
890-4917-14	BES23-14 0.5'	Total/NA	Solid	5035	
890-4917-15	BES23-15 0.5'	Total/NA	Solid	5035	
890-4917-16	BES23-16 0.5'	Total/NA	Solid	5035	
890-4917-17	BES23-17 0.5'	Total/NA	Solid	5035	
890-4917-18	BES23-18 0.5'	Total/NA	Solid	5035	
890-4917-19	BES23-19 0.5'	Total/NA	Solid	5035	
890-4917-20	BES23-20 0.5'	Total/NA	Solid	5035	
MB 880-57409/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-57409/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57409/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4917-1 MS	BES23-01 0.5'	Total/NA	Solid	5035	
890-4917-1 MSD	BES23-01 0.5'	Total/NA	Solid	5035	

Analysis Batch: 57424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4917-1	BES23-01 0.5'	Total/NA	Solid	8021B	57409
890-4917-2	BES23-02 0.5'	Total/NA	Solid	8021B	57409
890-4917-3	BES23-03 0.5'	Total/NA	Solid	8021B	57409
890-4917-4	BES23-04 0.5'	Total/NA	Solid	8021B	57409
890-4917-5	BES23-05 0.5'	Total/NA	Solid	8021B	57409
890-4917-6	BES23-06 0.5'	Total/NA	Solid	8021B	57409
890-4917-7	BES23-07 0.5'	Total/NA	Solid	8021B	57409
890-4917-8	BES23-08 0.5'	Total/NA	Solid	8021B	57409
890-4917-9	BES23-09 0.5'	Total/NA	Solid	8021B	57409
390-4917-10	BES23-10 0.5'	Total/NA	Solid	8021B	57409
390-4917-11	BES23-11 0.5'	Total/NA	Solid	8021B	57409
390-4917-12	BES23-12 0.5'	Total/NA	Solid	8021B	57409
890-4917-13	BES23-13 0.5'	Total/NA	Solid	8021B	57409
890-4917-14	BES23-14 0.5'	Total/NA	Solid	8021B	57409
890-4917-15	BES23-15 0.5'	Total/NA	Solid	8021B	57409
890-4917-16	BES23-16 0.5'	Total/NA	Solid	8021B	57409
890-4917-17	BES23-17 0.5'	Total/NA	Solid	8021B	57409
890-4917-18	BES23-18 0.5'	Total/NA	Solid	8021B	57409
890-4917-19	BES23-19 0.5'	Total/NA	Solid	8021B	57409
890-4917-20	BES23-20 0.5'	Total/NA	Solid	8021B	57409
MB 880-57409/5-A	Method Blank	Total/NA	Solid	8021B	57409
MB 880-57424/8	Method Blank	Total/NA	Solid	8021B	
LCS 880-57409/1-A	Lab Control Sample	Total/NA	Solid	8021B	57409

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QC Association Summary

Client: Vertex Job ID: 890-4917-1
Project/Site: Corral Fly SDG: 23E-02502

GC VOA (Continued)

Analysis Batch: 57424 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-57409/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	57409
890-4917-1 MS	BES23-01 0.5'	Total/NA	Solid	8021B	57409
890-4917-1 MSD	BES23-01 0.5'	Total/NA	Solid	8021B	57409

Analysis Batch: 57527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4917-1	BES23-01 0.5'	Total/NA	Solid	Total BTEX	-
890-4917-2	BES23-02 0.5'	Total/NA	Solid	Total BTEX	
890-4917-3	BES23-03 0.5'	Total/NA	Solid	Total BTEX	
890-4917-4	BES23-04 0.5'	Total/NA	Solid	Total BTEX	
890-4917-5	BES23-05 0.5'	Total/NA	Solid	Total BTEX	
890-4917-6	BES23-06 0.5'	Total/NA	Solid	Total BTEX	
890-4917-7	BES23-07 0.5'	Total/NA	Solid	Total BTEX	
890-4917-8	BES23-08 0.5'	Total/NA	Solid	Total BTEX	
890-4917-9	BES23-09 0.5'	Total/NA	Solid	Total BTEX	
890-4917-10	BES23-10 0.5'	Total/NA	Solid	Total BTEX	
890-4917-11	BES23-11 0.5'	Total/NA	Solid	Total BTEX	
890-4917-12	BES23-12 0.5'	Total/NA	Solid	Total BTEX	
890-4917-13	BES23-13 0.5'	Total/NA	Solid	Total BTEX	
890-4917-14	BES23-14 0.5'	Total/NA	Solid	Total BTEX	
890-4917-15	BES23-15 0.5'	Total/NA	Solid	Total BTEX	
890-4917-16	BES23-16 0.5'	Total/NA	Solid	Total BTEX	
890-4917-17	BES23-17 0.5'	Total/NA	Solid	Total BTEX	
890-4917-18	BES23-18 0.5'	Total/NA	Solid	Total BTEX	
890-4917-19	BES23-19 0.5'	Total/NA	Solid	Total BTEX	
890-4917-20	BES23-20 0.5'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 57500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
890-4917-1	BES23-01 0.5'	Total/NA	Solid	8015NM Prep	
890-4917-2	BES23-02 0.5'	Total/NA	Solid	8015NM Prep	
890-4917-3	BES23-03 0.5'	Total/NA	Solid	8015NM Prep	
390-4917-4	BES23-04 0.5'	Total/NA	Solid	8015NM Prep	
390-4917-5	BES23-05 0.5'	Total/NA	Solid	8015NM Prep	
390-4917-6	BES23-06 0.5'	Total/NA	Solid	8015NM Prep	
390-4917-7	BES23-07 0.5'	Total/NA	Solid	8015NM Prep	
390-4917-8	BES23-08 0.5'	Total/NA	Solid	8015NM Prep	
390-4917-9	BES23-09 0.5'	Total/NA	Solid	8015NM Prep	
390-4917-10	BES23-10 0.5'	Total/NA	Solid	8015NM Prep	
390-4917-11	BES23-11 0.5'	Total/NA	Solid	8015NM Prep	
390-4917-12	BES23-12 0.5'	Total/NA	Solid	8015NM Prep	
390-4917-13	BES23-13 0.5'	Total/NA	Solid	8015NM Prep	
390-4917-14	BES23-14 0.5'	Total/NA	Solid	8015NM Prep	
390-4917-15	BES23-15 0.5'	Total/NA	Solid	8015NM Prep	
390-4917-16	BES23-16 0.5'	Total/NA	Solid	8015NM Prep	
390-4917-17	BES23-17 0.5'	Total/NA	Solid	8015NM Prep	
890-4917-18	BES23-18 0.5'	Total/NA	Solid	8015NM Prep	
390-4917-19	BES23-19 0.5'	Total/NA	Solid	8015NM Prep	
890-4917-20	BES23-20 0.5'	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Vertex Job ID: 890-4917-1 Project/Site: Corral Fly SDG: 23E-02502

GC Semi VOA (Continued)

Prep Batch: 57500 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-57500/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-57500/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-57500/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4917-1 MS	BES23-01 0.5'	Total/NA	Solid	8015NM Prep	
890-4917-1 MSD	BES23-01 0.5'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 57755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4917-1	BES23-01 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-2	BES23-02 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-3	BES23-03 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-4	BES23-04 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-5	BES23-05 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-6	BES23-06 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-7	BES23-07 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-8	BES23-08 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-9	BES23-09 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-10	BES23-10 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-11	BES23-11 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-12	BES23-12 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-13	BES23-13 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-14	BES23-14 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-15	BES23-15 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-16	BES23-16 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-17	BES23-17 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-18	BES23-18 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-19	BES23-19 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-20	BES23-20 0.5'	Total/NA	Solid	8015B NM	57500
MB 880-57500/1-A	Method Blank	Total/NA	Solid	8015B NM	57500
LCS 880-57500/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	57500
LCSD 880-57500/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	57500
890-4917-1 MS	BES23-01 0.5'	Total/NA	Solid	8015B NM	57500
890-4917-1 MSD	BES23-01 0.5'	Total/NA	Solid	8015B NM	57500

Analysis Batch: 57825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
890-4917-1	BES23-01 0.5'	Total/NA	Solid	8015 NM	
890-4917-2	BES23-02 0.5'	Total/NA	Solid	8015 NM	
890-4917-3	BES23-03 0.5'	Total/NA	Solid	8015 NM	
890-4917-4	BES23-04 0.5'	Total/NA	Solid	8015 NM	
890-4917-5	BES23-05 0.5'	Total/NA	Solid	8015 NM	
890-4917-6	BES23-06 0.5'	Total/NA	Solid	8015 NM	
890-4917-7	BES23-07 0.5'	Total/NA	Solid	8015 NM	
890-4917-8	BES23-08 0.5'	Total/NA	Solid	8015 NM	
890-4917-9	BES23-09 0.5'	Total/NA	Solid	8015 NM	
890-4917-10	BES23-10 0.5'	Total/NA	Solid	8015 NM	
390-4917-11	BES23-11 0.5'	Total/NA	Solid	8015 NM	
890-4917-12	BES23-12 0.5'	Total/NA	Solid	8015 NM	
890-4917-13	BES23-13 0.5'	Total/NA	Solid	8015 NM	
890-4917-14	BES23-14 0.5'	Total/NA	Solid	8015 NM	
890-4917-15	BES23-15 0.5'	Total/NA	Solid	8015 NM	

Client: Vertex Job ID: 890-4917-1 Project/Site: Corral Fly SDG: 23E-02502

GC Semi VOA (Continued)

Analysis Batch: 57825 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4917-16	BES23-16 0.5'	Total/NA	Solid	8015 NM	
890-4917-17	BES23-17 0.5'	Total/NA	Solid	8015 NM	
890-4917-18	BES23-18 0.5'	Total/NA	Solid	8015 NM	
890-4917-19	BES23-19 0.5'	Total/NA	Solid	8015 NM	
890-4917-20	BES23-20 0.5'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 57318

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4917-1	BES23-01 0.5'	Soluble	Solid	DI Leach	_
890-4917-2	BES23-02 0.5'	Soluble	Solid	DI Leach	
890-4917-3	BES23-03 0.5'	Soluble	Solid	DI Leach	
890-4917-4	BES23-04 0.5'	Soluble	Solid	DI Leach	
890-4917-5	BES23-05 0.5'	Soluble	Solid	DI Leach	
890-4917-6	BES23-06 0.5'	Soluble	Solid	DI Leach	
890-4917-7	BES23-07 0.5'	Soluble	Solid	DI Leach	
890-4917-8	BES23-08 0.5'	Soluble	Solid	DI Leach	
890-4917-9	BES23-09 0.5'	Soluble	Solid	DI Leach	
890-4917-10	BES23-10 0.5'	Soluble	Solid	DI Leach	
890-4917-11	BES23-11 0.5'	Soluble	Solid	DI Leach	
890-4917-12	BES23-12 0.5'	Soluble	Solid	DI Leach	
890-4917-13	BES23-13 0.5'	Soluble	Solid	DI Leach	
890-4917-14	BES23-14 0.5'	Soluble	Solid	DI Leach	
890-4917-15	BES23-15 0.5'	Soluble	Solid	DI Leach	
890-4917-16	BES23-16 0.5'	Soluble	Solid	DI Leach	
890-4917-17	BES23-17 0.5'	Soluble	Solid	DI Leach	
890-4917-18	BES23-18 0.5'	Soluble	Solid	DI Leach	
890-4917-19	BES23-19 0.5'	Soluble	Solid	DI Leach	
890-4917-20	BES23-20 0.5'	Soluble	Solid	DI Leach	
MB 880-57318/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-57318/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-57318/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4917-1 MS	BES23-01 0.5'	Soluble	Solid	DI Leach	
890-4917-1 MSD	BES23-01 0.5'	Soluble	Solid	DI Leach	
890-4917-11 MS	BES23-11 0.5'	Soluble	Solid	DI Leach	
890-4917-11 MSD	BES23-11 0.5'	Soluble	Solid	DI Leach	

Analysis Batch: 57419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4917-1	BES23-01 0.5'	Soluble	Solid	300.0	57318
890-4917-2	BES23-02 0.5'	Soluble	Solid	300.0	57318
890-4917-3	BES23-03 0.5'	Soluble	Solid	300.0	57318
890-4917-4	BES23-04 0.5'	Soluble	Solid	300.0	57318
890-4917-5	BES23-05 0.5'	Soluble	Solid	300.0	57318
890-4917-6	BES23-06 0.5'	Soluble	Solid	300.0	57318
890-4917-7	BES23-07 0.5'	Soluble	Solid	300.0	57318
890-4917-8	BES23-08 0.5'	Soluble	Solid	300.0	57318
890-4917-9	BES23-09 0.5'	Soluble	Solid	300.0	57318
890-4917-10	BES23-10 0.5'	Soluble	Solid	300.0	57318
890-4917-11	BES23-11 0.5'	Soluble	Solid	300.0	57318

 Client: Vertex
 Job ID: 890-4917-1

 Project/Site: Corral Fly
 SDG: 23E-02502

HPLC/IC (Continued)

Analysis Batch: 57419 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4917-12	BES23-12 0.5'	Soluble	Solid	300.0	57318
890-4917-13	BES23-13 0.5'	Soluble	Solid	300.0	57318
890-4917-14	BES23-14 0.5'	Soluble	Solid	300.0	57318
890-4917-15	BES23-15 0.5'	Soluble	Solid	300.0	57318
890-4917-16	BES23-16 0.5'	Soluble	Solid	300.0	57318
890-4917-17	BES23-17 0.5'	Soluble	Solid	300.0	57318
890-4917-18	BES23-18 0.5'	Soluble	Solid	300.0	57318
890-4917-19	BES23-19 0.5'	Soluble	Solid	300.0	57318
890-4917-20	BES23-20 0.5'	Soluble	Solid	300.0	57318
MB 880-57318/1-A	Method Blank	Soluble	Solid	300.0	57318
LCS 880-57318/2-A	Lab Control Sample	Soluble	Solid	300.0	57318
LCSD 880-57318/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57318
890-4917-1 MS	BES23-01 0.5'	Soluble	Solid	300.0	57318
890-4917-1 MSD	BES23-01 0.5'	Soluble	Solid	300.0	57318
890-4917-11 MS	BES23-11 0.5'	Soluble	Solid	300.0	57318
890-4917-11 MSD	BES23-11 0 5'	Soluble	Solid	300.0	57318

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Client: Vertex Job ID: 890-4917-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-01 0.5'

Date Collected: 07/07/23 09:00 Date Received: 07/07/23 16:20 Lab Sample ID: 890-4917-1

Matrix: Solid

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-4917-3

Lab Sample ID: 890-4917-4

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 00:00	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/16/23 21:47	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		10			57419	07/11/23 20:38	CH	EET MID

Client Sample ID: BES23-02 0.5' Lab Sample ID: 890-4917-2

Date Collected: 07/07/23 09:05

Date Received: 07/07/23 16:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 00:25	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/16/23 22:47	SM	EET MIC
Soluble	Leach	DI Leach			5.02 g	50 mL	57318	07/10/23 13:55	KS	EET MIC
Soluble	Analysis	300.0		5			57419	07/11/23 20:53	CH	EET MID

Client Sample ID: BES23-03 0.5'

Date Collected: 07/07/23 09:10

Date Received: 07/07/23 16:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 00:50	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/16/23 23:08	SM	EET MIC
Soluble	Leach	DI Leach			5.03 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		5			57419	07/11/23 20:58	CH	EET MID

Client Sample ID: BES23-04 0.5'

Date Collected: 07/07/23 09:15

Date Received: 07/07/23 16:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 01:15	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID

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Matrix: Solid

Client: Vertex

Job ID: 890-4917-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-04 0.5'

Date Collected: 07/07/23 09:15 Date Received: 07/07/23 16:20 Lab Sample ID: 890-4917-4

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/16/23 23:28	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		10			57419	07/11/23 21:04	CH	EET MID

Client Sample ID: BES23-05 0.5' Lab Sample ID: 890-4917-5

Date Collected: 07/07/23 09:20 Date Received: 07/07/23 16:20

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 01:40	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/16/23 23:48	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		5			57419	07/11/23 21:09	CH	EET MID

Client Sample ID: BES23-06 0.5' Lab Sample ID: 890-4917-6

Date Collected: 07/07/23 09:25 Date Received: 07/07/23 16:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 02:05	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/17/23 00:08	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		10			57419	07/11/23 21:24	CH	EET MIC

Client Sample ID: BES23-07 0.5'

Date Collected: 07/07/23 09:30 **Matrix: Solid** Date Received: 07/07/23 16:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 02:30	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/17/23 00:28	SM	EET MID

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Lab Sample ID: 890-4917-7

Matrix: Solid

Lab Chronicle

Client: Vertex Job ID: 890-4917-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-07 0.5'

Date Collected: 07/07/23 09:30 Date Received: 07/07/23 16:20 Lab Sample ID: 890-4917-7

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		5			57419	07/11/23 21:29	CH	EET MID

Client Sample ID: BES23-08 0.5'

Lab Sample ID: 890-4917-8

Date Collected: 07/07/23 09:35 Date Received: 07/07/23 16:20 . Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 02:56	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/17/23 00:48	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		10			57419	07/11/23 21:34	CH	EET MID

Client Sample ID: BES23-09 0.5'

Lab Sample ID: 890-4917-9

Date Collected: 07/07/23 09:40 Date Received: 07/07/23 16:20 Matrix: Solid

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 03:21	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/17/23 01:08	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		20			57419	07/11/23 21:40	CH	EET MID

Client Sample ID: BES23-10 0.5'

Lab Sample ID: 890-4917-10

Date Collected: 07/07/23 09:45 Date Received: 07/07/23 16:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 03:46	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/17/23 01:28	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		10			57419	07/11/23 21:45	CH	EET MID

Client: Vertex Job ID: 890-4917-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-11 0.5'

Date Collected: 07/07/23 09:50 Date Received: 07/07/23 16:20 Lab Sample ID: 890-4917-11

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 05:28	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/17/23 02:08	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		20			57419	07/11/23 21:50	CH	EET MID

Client Sample ID: BES23-12 0.5' Lab Sample ID: 890-4917-12

Date Collected: 07/07/23 09:55

Date Received: 07/07/23 16:20

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 05:54	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/17/23 02:28	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		10			57419	07/11/23 22:05	CH	EET MID

Client Sample ID: BES23-13 0.5'

Date Collected: 07/07/23 10:00

Date Received: 07/07/23 16:20

Lab Sample ID: 890-4917-13

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 06:20	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/17/23 02:48	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		20			57419	07/11/23 22:10	CH	EET MID

Client Sample ID: BES23-14 0.5'

Date Collected: 07/07/23 10:05

Date Received: 07/07/23 16:20

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Lab Samp	ole ID: 8	90-4917-14	
		Matrix: Solid	

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 06:45	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID

Eurofins Carlsbad

Matrix: Solid

Client: Vertex

Job ID: 890-4917-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-14 0.5'

Date Collected: 07/07/23 10:05 Date Received: 07/07/23 16:20

Lab Sample ID: 890-4917-14

Lab Sample ID: 890-4917-16

Matrix: Solid

Matrix: Solid

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/17/23 03:08	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		5			57419	07/11/23 22:26	CH	EET MID

Client Sample ID: BES23-15 0.5' Lab Sample ID: 890-4917-15

Date Collected: 07/07/23 10:10 Date Received: 07/07/23 16:20

Batch Batch Dil Initial Final Batch Prepared Prep Type Method Amount Amount Number or Analyzed Type Run Factor Analyst Lab 5035 Total/NA Prep 5.01 g 5 mL 57409 07/11/23 12:27 EL **EET MID** Total/NA Analysis 8021B 5 mL 5 mL 57424 07/12/23 07:12 SM EET MID 1 Total/NA Total BTEX **EET MID** Analysis 1 57527 07/12/23 14:53 SM Total/NA Analysis 8015 NM 57825 07/17/23 10:54 SM EET MID 1 Total/NA Prep 8015NM Prep 9.98 g 10 mL 57500 07/12/23 11:56 TKC **EET MID** Total/NA Analysis 8015B NM 1 uL 1 uL 57755 07/17/23 03:28 SM **EET MID** Soluble Leach DI Leach 4.97 g 50 mL 57318 07/10/23 13:55 KS EET MID Soluble Analysis 300.0 20 57419 07/11/23 22:31 СН **EET MID**

Client Sample ID: BES23-16 0.5'

Date Collected: 07/07/23 10:15

Date Received: 07/07/23 16:20

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 07:38	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/17/23 03:48	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		5			57419	07/11/23 22:36	CH	EET MID

Client Sample ID: BES23-17 0.5' Lab Sample ID: 890-4917-17

Date Collected: 07/07/23 10:20 Date Received: 07/07/23 16:20

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 08:03	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.09 g 1 uL	10 mL 1 uL	57500 57755	07/12/23 11:56 07/17/23 04:09	TKC SM	EET MID EET MID

Eurofins Carlsbad

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Matrix: Solid

Client: Vertex

Project/Site: Corral Fly

SDG: 23E-02502

Lab Sample ID: 890-4917-17

Client Sample ID: BES23-17 0.5'

Date Collected: 07/07/23 10:20 Date Received: 07/07/23 16:20

Matrix: Solid

Job ID: 890-4917-1

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		10			57419	07/11/23 22:42	CH	EET MID

Client Sample ID: BES23-18 0.5' Lab Sample ID: 890-4917-18

Date Collected: 07/07/23 10:25 Date Received: 07/07/23 16:20 **Matrix: Solid**

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 08:47	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/17/23 04:29	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		10			57419	07/11/23 22:47	CH	EET MID

Client Sample ID: BES23-19 0.5'

Date Collected: 07/07/23 10:30 Date Received: 07/07/23 16:20 Lab Sample ID: 890-4917-19

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 09:12	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/17/23 04:49	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		20			57419	07/11/23 22:52	CH	EET MID

Client Sample ID: BES23-20 0.5'

Date Collected: 07/07/23 10:35 Date Received: 07/07/23 16:20 Lab Sample ID: 890-4917-20

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	57409	07/11/23 12:27	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57424	07/12/23 09:38	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57527	07/12/23 14:53	SM	EET MID
Total/NA	Analysis	8015 NM		1			57825	07/17/23 10:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	57500	07/12/23 11:56	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	57755	07/17/23 05:09	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	57318	07/10/23 13:55	KS	EET MID
Soluble	Analysis	300.0		10			57419	07/11/23 22:57	CH	EET MID

Lab Chronicle

Client: Vertex

Project/Site: Corral Fly

Laboratory References:

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

Job ID: 890-4917-1 SDG: 23E-02502

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Accreditation/Certification Summary

 Client: Vertex
 Job ID: 890-4917-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Laboratory: Eurofins Midland

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

Authority		ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-23-26	06-30-24
The following analytes	are included in this report by	it the leberatory is not cortifi	and the sale of the control of the sale of	
the agency does not of	' '	it the laboratory is not certifi	ied by the governing authority. This list ma	ay include analytes for v
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Method Summary

Client: Vertex Job ID: 890-4917-1 Project/Site: Corral Fly

SDG: 23E-02502

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: Corral Fly

Job ID: 890-4917-1

SDG: 23E-02502

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4917-1	BES23-01 0.5'	Solid	07/07/23 09:00	07/07/23 16:20	0.5
890-4917-2	BES23-02 0.5'	Solid	07/07/23 09:05	07/07/23 16:20	0.5
890-4917-3	BES23-03 0.5'	Solid	07/07/23 09:10	07/07/23 16:20	0.5
890-4917-4	BES23-04 0.5'	Solid	07/07/23 09:15	07/07/23 16:20	0.5
890-4917-5	BES23-05 0.5'	Solid	07/07/23 09:20	07/07/23 16:20	0.5
890-4917-6	BES23-06 0.5'	Solid	07/07/23 09:25	07/07/23 16:20	0.5
890-4917-7	BES23-07 0.5'	Solid	07/07/23 09:30	07/07/23 16:20	0.5
890-4917-8	BES23-08 0.5'	Solid	07/07/23 09:35	07/07/23 16:20	0.5
890-4917-9	BES23-09 0.5'	Solid	07/07/23 09:40	07/07/23 16:20	0.5
890-4917-10	BES23-10 0.5'	Solid	07/07/23 09:45	07/07/23 16:20	0.5
890-4917-11	BES23-11 0.5'	Solid	07/07/23 09:50	07/07/23 16:20	0.5
890-4917-12	BES23-12 0.5'	Solid	07/07/23 09:55	07/07/23 16:20	0.5
890-4917-13	BES23-13 0.5'	Solid	07/07/23 10:00	07/07/23 16:20	0.5
890-4917-14	BES23-14 0.5'	Solid	07/07/23 10:05	07/07/23 16:20	0.5
890-4917-15	BES23-15 0.5'	Solid	07/07/23 10:10	07/07/23 16:20	0.5
890-4917-16	BES23-16 0.5'	Solid	07/07/23 10:15	07/07/23 16:20	0.5
890-4917-17	BES23-17 0.5'	Solid	07/07/23 10:20	07/07/23 16:20	0.5
890-4917-18	BES23-18 0.5'	Solid	07/07/23 10:25	07/07/23 16:20	0.5
890-4917-19	BES23-19 0.5'	Solid	07/07/23 10:30	07/07/23 16:20	0.5
890-4917-20	BES23-20 0.5'	Solid	07/07/23 10:35	07/07/23 16:20	0.5

Circle Method(s) and

Total 200.7 / 6010

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Address:

Company Name: Project Manager:

City, State ZIP:

Chain of Custody

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Environment Testing	Sting Midland TX (432) 704-5440. San Antonio, TX (210) 509-3334	n Antonio, TX (210) 509-3334	Work Order No:	
Xenco		ubbock, TX (806) 794-1296		
	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	arlshad, NM (575) 988-3199	www.xenco.com	Page of O
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			State of Project:]
	e ZIP:	cdixon & vertex.ca	Reporting: Level Level PST/UST	/UST TRRP Level IV
	Email: Cdixon@vertex	c.Ca	Deliverables: EDD ADaPT	Other:
ra Fh	Turn Around	ANALYSIS REQUEST	1	Preservative Codes
36-02502	Routine Rush Pres.			None: NO DI Water: H ₂ O
	Due Date:		00	Cool: Cool MeOH: Me
unter Klein	TAT starts the day received by the lab. If received by 4:30pm			HCL: HC HNO 3: HN
7	1			
Temp Blank: Yes No	Wet Ice: (Yes) No			H ₃ PO ₄ : HP
Thermometer ID:	aram		Z	NaHSO 4: NABIS
Yes Nd N/A Correction Factor:	30.0			Na ₂ S ₂ O ₃ : NaSO ₃
Yes No N/A Temperature Reading:	200	890-4917 Chain of Custody		Zn Acetate+NaOH: Zn
Corrected Temperature:	emperature: Q3.6	-	-	NaOH+ASCORDIC ACID: SAFC
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200.8 / 6020: 8R0	8RCRA 13PPM Texas 11 Al Sb As Ba Be B	Cd Ca Cr Co Cu Fe	Vi K Se	TI Sn U V Zn
Metal(s) to be analyzed	TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag II U	e Cd Cr Co Cu Pb Mn Mo Ni Se	Ag II U Hg: 1631 / 245.1 / /4/0 / /4/1	/4/0 / /4/1
relinquishment of samples constitutes a val only for the cost of samples and shall not as	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 be 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 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 the cost of samples and shall be approved in less than the control of the cost of samples and shall be approved in less than the control of the cost of samples are such as the cost of samples are su	lates and subcontractors. It assigns standard terms a e client if such losses are due to circumstances beyon to not analyzed. These terms will be enforced unless in	and conditions at the control reviously negotiated	
nature) Aeceived by: (Signature)	nature) A Received by: (Signature) Date/Time Relinquished by: (Signature) Ri	Relinquished by: (Signature)	e) Received by: (Signature)	Date/Time
	7.7.23	1630		
		4 4		
		c		

SAMPLE RECEIPT

Sampler's Name:

oject Location:

Project Number:

oject Name:

Samples Received Intact:

Cooler Custody Seals:

Total Containers: Sample Custody Seals:

Sample Identificati

Revised Date 08/25/2020 Rev 2020 2

eurofins :

Xenco

Environment Testing

Due Date: Routine

Project Location:

Project Number

roject Name:

orra

Turn Around

ANALYSIS REQUEST

HCL: HC

HNO 3: HN МеОН: Ме DI Water: H₂O

Cool: Cool None: NO

Preservative Codes

Rush

Pres.

City, State ZIP:

Address: Company Name: Project Manager:

Verte X

Dixon

Bill to: (if different)

Company Name:

Address: City, State ZIP:

13

Chain of Custody

Midland, TX (432) 704-544 EL Paso, TX (915) 585-34 Hobbs, NM (575) 392-75

Cdixona Vatex. Ca Deliverables: EDD ADAF	City, State ZIP: Reporting: Level III Level III F	Address: State of Project:	Company Name: Solaris Midstrand Program: UST/PST PRP Brow	Sill to: (if different) Rob Kirk Work Order Co	www.xenco.com	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334 Work Order No:
EDD ADaPT Other:	Reporting: Level III Level III PST/UST TRRP Level IV	#	Program: UST/PST ☐ PRP☐ Brownfields ☐ RRC ☐ Superfund ☐	Work Order Comments	www.xenco.com Page Q of Q)		Work Order No:

Revised Date: 08/25/2020 Rev. 2020.2							
		6					
		*6	1.1.0016		Can so	tem	Amuter M
Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	e)	Received by: (Signature	nature)	Relinquished by: (Signature)
	rol segotiated.	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.	to Eurofins Xenco, its affiliates and expenses incurred by the client it defenses incurred by the client it.	ler from client company onsibility for any losses o for each sample submit	es constitutes a valld purchase on les and shall not assume any resp o each project and a charge of \$5	and relinquishment of sample able only for the cost of sample ge of \$85.00 will be applied t	dice: Signature of this document service. Eurofins Xenco will be liseurofins Xenco. A minimum cha
/ 7471	g Mn Mo Ni K Se Ag SiO ₂ Na Sr II Sn U V Zn Se Ag Ti U Hg: 1631/245.1/7470/7471	A 13PPM Texas 11 ALS b As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U	RA Sb As Ba Be Cd C	8RCRA 13PPM Texas 11 Al Sb As TCLP/SPLP 6010 : 8RCRA Sb A	9RCRA 13Pl yzed TCLP/9	200.8 / 6020: Metal(s) to be anal	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed
			 		30:35	3.5' V	SES23-20 Q
					10:30	7.4.	ES23-19 0
			** * *		10:26	.5'	ES23-18 0
			XX X		70:30	,5/	ES23-17 B
			イイメ		10.75	3.5	F523-16 0
			イメメ		10:10	3,5/	ES23-25 6
			* * *		10:05	2.5	SEG 33-24 0
			メメ		10.00	3.5'	ES33-13 0
			ー人ドゲ		9.55	3.5	SES, 33-12 (
			アメアク	-	25:6 28/2/4	0,5 6,1	SES23-11
Sample Comments	S		Cont TA	Depth Comp	Date Time Sampled Sampled	on Matrix	Sample Identification
NaOH+Ascorbic Acid: SAPC	NaOH+		H		Corrected Temperature:		Total Containers:
Zn Acetate+NaOH: Zn	Zn Ace		X		Temperature Reading	Yes No N/A	Sample Custody Seals:
Na ₂ S ₂ O ₃ : NaSO ₃	Na ₂ S ₂ C		Pa		Correction Factor:	Yes No NA	Cooler Custody Seals:
NaHSO 4: NABIS	NaHSO		ram		Thermometer ID:	Yes No	Samples Received Intact:
HP	H ₃ PO ₄ : HP		eter	Yes No	Yes No Wet Ice:	Temp Blank:	SAMPLE RECEIPT
H 2 NaOH: Na	H ₂ SO ₄ : H ₂		s	the lab, if received by 4:30pm	the lab, if rea		PO #:
C HNO 3: HN	HCL: HC			TAT starts the day received by		Harry Klosz	Sampler's Name:

Login Sample Receipt Checklist

 Client: Vertex
 Job Number: 890-4917-1

 SDG Number: 23E-02502

Login Number: 4917 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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: 890-4917-1 SDG Number: 23E-02502

Login Number: 4917 **List Source: Eurofins Midland** List Number: 2 List Creation: 07/11/23 11:07 AM

Creator: Rodriguez, Leticia

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	N/A	

<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 7/26/2023 4:33:43 PM

JOB DESCRIPTION

Corral Fly SDG NUMBER 23E-02502

JOB NUMBER

890-4931-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



Released to Imaging: 8/5/2024 4:13:08 PM

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 7/26/2023 4:33:43 PM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

Client: Vertex Laboratory Job ID: 890-4931-1
Project/Site: Corral Fly SDG: 23E-02502

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Definitions/Glossary

Client: Vertex Job ID: 890-4931-1 Project/Site: Corral Fly SDG: 23E-02502

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

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

HPLC/IC

Qualifier **Qualifier Description**

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)

Dilution Factor Dil Fac

Detection Limit (DoD/DOE) DΙ

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**

Presumptive **PRES** QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 890-4931-1
Project/Site: Corral Fly SDG: 23E-02502

Job ID: 890-4931-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4931-1

Receipt

The samples were received on 7/12/2023 9:54 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 5.0°C

Receipt Exceptions

The following were received and analyzed from an unpreserved bulk soil jar: BES 23-21 0.5' (890-4931-1), BES 23-22 0.5' (890-4931-2), BES 23-23 0.5' (890-4931-3), BES 23-24 0.5' (890-4931-4), BES 23-25 0.5' (890-4931-5), BES 23-26 0.5' (890-4931-6), BES 23-27 0.5' (890-4931-7), BES 23-28 0.5' (890-4931-8) and BES 23-29 0.5' (890-4931-9).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-4931-A-1-F MS) and (890-4931-A-1-G MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC

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

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Client: Vertex

Project/Site: Corral Fly

Job ID: 890-4931-1 SDG: 23E-02502

Client Sample ID: BES 23-21 0.5'

Date Collected: 07/11/23 10:00 Date Received: 07/12/23 09:54 Lab Sample ID: 890-4931-1

07/19/23 10:30 07/25/23 17:14

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/14/23 14:36	07/15/23 18:08	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/14/23 14:36	07/15/23 18:08	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/14/23 14:36	07/15/23 18:08	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		07/14/23 14:36	07/15/23 18:08	1
m-Xylene & p-Xylene	< 0.00403	U	0.00403		mg/Kg		07/14/23 14:36	07/15/23 18:08	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/14/23 14:36	07/15/23 18:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130				07/14/23 14:36	07/15/23 18:08	1
1,4-Difluorobenzene (Surr)	93		70 - 130				07/14/23 14:36	07/15/23 18:08	1
_ Method: TAL SOP Total B1	EX - Total BTE	X Calculat	ion						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			07/17/23 13:55	1
_ 	Diesel Range	Organics (DRO) (GC)						
Analyte	_	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Analyte Result Qualifier RL 50.2 MDL Unit mg/Kg D Prepared Analyzed Dil Formation (DRO) (GC)

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

Analyte Result Qualifier RL MDL Unit mg/Kg D Prepared Analyzed Dil Formation (DRO) (GC)

Result Qualifier **MDL** Unit Prepared Analyzed Dil Fac <50.2 U 07/19/23 10:30 07/25/23 17:14 Gasoline Range Organics 50.2 mg/Kg (GRO)-C6-C10 **Diesel Range Organics (Over** 92.2 50.2 mg/Kg 07/19/23 10:30 07/25/23 17:14 C10-C28) Oll Range Organics (Over C28-C36) <50.2 U 50.2 mg/Kg 07/19/23 10:30 07/25/23 17:14 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 75 70 - 130 07/19/23 10:30 07/25/23 17:14

Method: EPA 300.0 - Anions, Ion Chromatography - SolubleAnalyteResult QualifierRL MDL Unit mg/KgD Prepared Malyzed 07/14/23 17:13D D Prepared 07/14/23 17:13

70 - 130

Client Sample ID: BES 23-22 0.5'

Lab Sample ID: 890-4931-2

89

Date Collected: 07/11/23 10:05 Date Received: 07/12/23 09:54

o-Terphenyl

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/14/23 14:36	07/15/23 18:29	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/14/23 14:36	07/15/23 18:29	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/14/23 14:36	07/15/23 18:29	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/14/23 14:36	07/15/23 18:29	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/14/23 14:36	07/15/23 18:29	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/14/23 14:36	07/15/23 18:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130				07/14/23 14:36	07/15/23 18:29	1
1,4-Difluorobenzene (Surr)	95		70 - 130				07/14/23 14:36	07/15/23 18:29	1

Eurofins Carlsbad

Matrix: Solid

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Client: Vertex Job ID: 890-4931-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES 23-22 0.5'

Date Collected: 07/11/23 10:05 Date Received: 07/12/23 09:54 Lab Sample ID: 890-4931-2

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			07/17/23 13:55	1

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

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	147	49 9	ma/Ka			07/26/23 13:31		

	1000111411190 019411100 (2110)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/19/23 10:30	07/25/23 18:21	1
Diesel Range Organics (Over C10-C28)	147		49.9		mg/Kg		07/19/23 10:30	07/25/23 18:21	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/19/23 10:30	07/25/23 18:21	1
Surrogate	%Recovery	Qualifier	l imite				Propared	Analyzod	Dil Fac

Surrogate	%Recovery G	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130	07/19/23 10:30	07/25/23 18:21	1
o-Terphenyl	91		70 - 130	07/19/23 10:30	07/25/23 18:21	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qual	lifier RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	165	5.04	mg/Kg			07/14/23 17:18	1

Client Sample ID: BES 23-23 0.5'

Lab Sample ID: 890-4931-3 Date Collected: 07/11/23 10:10 **Matrix: Solid**

Date Received: 07/12/23 09:54

Released to Imaging: 8/5/2024 4:13:08 PM

Method: SW846 8021B - Volatile Organic Compounds (GC	(د)
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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/14/23 14:36	07/15/23 18:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/14/23 14:36	07/15/23 18:49	1
Toluene	< 0.00200	U	0.00200		mg/Kg		07/14/23 14:36	07/15/23 18:49	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/14/23 14:36	07/15/23 18:49	1
m-Xylene & p-Xylene	< 0.00401	U	0.00401		mg/Kg		07/14/23 14:36	07/15/23 18:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/14/23 14:36	07/15/23 18:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4 Duamanthuanahanaana (O)			70 400				07/44/00 44:00	07/45/00 40:40	

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	07/14/23 14:36 07/15/23 18:49	1
1,4-Difluorobenzene (Surr)	91		70 - 130	07/14/23 14:36 07/15/23 18:49	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			07/17/23 13:55	1	

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

Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	82.4		49.8		mg/Kg		-	07/26/23 13:31	1

Method: 344046 60136 NW - D	iesei Kange	organics ((DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		07/19/23 10:30	07/25/23 18:43	1
Diesel Range Organics (Over C10-C28)	82.4		49.8		mg/Kg		07/19/23 10:30	07/25/23 18:43	1

Client: Vertex Job ID: 890-4931-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES 23-23 0.5'

Date Collected: 07/11/23 10:10

Lab Sample ID: 890-4931-3 Matrix: Solid

Date	Received:	07/12/23	09:54

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/19/23 10:30	07/25/23 18:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130				07/19/23 10:30	07/25/23 18:43	1
o-Terphenyl	88		70 - 130				07/19/23 10:30	07/25/23 18:43	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble										
1	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	810		5.02		mg/Kg			07/14/23 17:23	1

Client Sample ID: BES 23-24 0.5'

Date Collected: 07/11/23 10:15 Date Received: 07/12/23 09:54 Lab Sample ID: 890-4931-4

Matrix: Solid

Method: SW846 8021B	- Volatile Organic	Compoun	ds (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/14/23 14:36	07/15/23 19:10	1
Ethylbenzene	< 0.00199	U	0.00199		mg/Kg		07/14/23 14:36	07/15/23 19:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/14/23 14:36	07/15/23 19:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/14/23 14:36	07/15/23 19:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/14/23 14:36	07/15/23 19:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/14/23 14:36	07/15/23 19:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130	07/14/23 14:36	07/15/23 19:10	1
1,4-Difluorobenzene (Surr)	95		70 - 130	07/14/23 14:36	07/15/23 19:10	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			07/17/23 13:55	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)								
	Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
	Total TPH	61.9	49.6	mg/Kg			07/26/23 13:31	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		07/19/23 10:30	07/25/23 19:05	1
Diesel Range Organics (Over C10-C28)	61.9		49.6		mg/Kg		07/19/23 10:30	07/25/23 19:05	1
Oll Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		07/19/23 10:30	07/25/23 19:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	82	-	70 - 130				07/19/23 10:30	07/25/23 19:05	1
o-Terphenyl	95		70 - 130				07/19/23 10:30	07/25/23 19:05	1

Method: EPA 300.0 - Anions, Id	on Chromatography - S	oluble					
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	203	4.98	mg/Kg			07/14/23 17:28	1

Client: Vertex Job ID: 890-4931-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES 23-25 0.5

Date Collected: 07/11/23 10:20 Date Received: 07/12/23 09:54 Lab Sample ID: 890-4931-5

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/14/23 14:36	07/15/23 19:30	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/14/23 14:36	07/15/23 19:30	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/14/23 14:36	07/15/23 19:30	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		07/14/23 14:36	07/15/23 19:30	1
m-Xylene & p-Xylene	< 0.00396	U	0.00396		mg/Kg		07/14/23 14:36	07/15/23 19:30	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/14/23 14:36	07/15/23 19:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130				07/14/23 14:36	07/15/23 19:30	1
1,4-Difluorobenzene (Surr)	94		70 - 130				07/14/23 14:36	07/15/23 19:30	1
Method: TAL SOP Total BT	EX - Total BTE	X Calculat	ion						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			07/17/23 13:55	1

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

Analyte Result Qualifier RL MDL Unit D Prepared O7/26/23 13:31 DI Fac

Total TPH 60.0 49.6 mg/Kg 07/26/23 13:31 1

Method: SW846 8015B NM - D	iesel Range	Organics	(DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		07/19/23 10:30	07/25/23 19:27	1
Diesel Range Organics (Over C10-C28)	60.0		49.6		mg/Kg		07/19/23 10:30	07/25/23 19:27	1
Oll Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		07/19/23 10:30	07/25/23 19:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130				07/19/23 10:30	07/25/23 19:27	1
o-Terphenyl	89		70 - 130				07/19/23 10:30	07/25/23 19:27	1

Method: EPA 300.0 - Anions, Id	on Chromat	ography -	Soluble						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	771		25.2		mg/Kg			07/14/23 17:33	5

Client Sample ID: BES 23-26 0.5'

Lab Sample ID: 890-4931-6

Date Collected: 07/11/23 10:25 Date Received: 07/12/23 09:54

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/14/23 14:36	07/15/23 19:50	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/14/23 14:36	07/15/23 19:50	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/14/23 14:36	07/15/23 19:50	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/14/23 14:36	07/15/23 19:50	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/14/23 14:36	07/15/23 19:50	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/14/23 14:36	07/15/23 19:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130				07/14/23 14:36	07/15/23 19:50	1
1,4-Difluorobenzene (Surr)	92		70 - 130				07/14/23 14:36	07/15/23 19:50	1

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Matrix: Solid

2

3

5

7

9

10

12

Client: Vertex Job ID: 890-4931-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES 23-26 0.5'

291

Lab Sample ID: 890-4931-6 Date Collected: 07/11/23 10:25 **Matrix: Solid**

Date Received: 07/12/23 09:54

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/17/23 13:55	
Method: SW846 8015 NM - Die	sel Range (Organics (DRO) (GC)						
Analyte	_	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	57.4		49.5		mg/Kg			07/26/23 13:31	
Method: SW846 8015B NM - D	iesel Range	e Organics	(DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	<49.5	U	49.5		mg/Kg		07/19/23 10:30	07/25/23 19:49	-
GRO)-C6-C10									
Diesel Range Organics (Over	57.4		49.5		mg/Kg		07/19/23 10:30	07/25/23 19:49	
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.5	U	49.5		mg/Kg		07/19/23 10:30	07/25/23 19:49	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1-Chlorooctane	72		70 - 130				07/19/23 10:30	07/25/23 19:49	
p-Terphenyl	85		70 - 130				07/19/23 10:30	07/25/23 19:49	

Client Sample ID: BES 23-27 0.5'

Released to Imaging: 8/5/2024 4:13:08 PM

Chloride

Lab Sample ID: 890-4931-7 Date Collected: 07/11/23 10:30 **Matrix: Solid**

5.04

mg/Kg

Method: SW846 8021B - Vol						_	_		
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202		0.00202		mg/Kg		07/14/23 14:36	07/15/23 20:11	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/14/23 14:36	07/15/23 20:11	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/14/23 14:36	07/15/23 20:11	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		07/14/23 14:36	07/15/23 20:11	1
m-Xylene & p-Xylene	< 0.00404	U	0.00404		mg/Kg		07/14/23 14:36	07/15/23 20:11	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/14/23 14:36	07/15/23 20:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130				07/14/23 14:36	07/15/23 20:11	1
1,4-Difluorobenzene (Surr) Method: TAL SOP Total BTE	97 EX - Total BTE	X Calculat	70 - 130				07/14/23 14:36	07/15/23 20:11	1
Method: TAL SOP Total BTE Analyte	EX - Total BTE Result	Qualifier	ion RL	MDL	Unit	<u>D</u>	07/14/23 14:36 Prepared	Analyzed	Dil Fac
Method: TAL SOP Total BT	EX - Total BTE	Qualifier	ion	MDL	Unit mg/Kg	<u>D</u>			Dil Fac
Method: TAL SOP Total BTE Analyte Total BTEX Method: SW846 8015 NM - I	EX - Total BTE Result <0.00404 Diesel Range 0	Qualifier U Organics (ion RL 0.00404		mg/Kg	=	Prepared	Analyzed 07/17/23 13:55	1
Method: TAL SOP Total BTE Analyte Total BTEX Method: SW846 8015 NM - I Analyte	EX - Total BTE Result <	Qualifier U	ion RL 0.00404 DRO) (GC) RL		mg/Kg Unit	<u>D</u>		Analyzed 07/17/23 13:55 Analyzed	Dil Fac Dil Fac
Method: TAL SOP Total BTE Analyte	EX - Total BTE Result <0.00404 Diesel Range 0	Qualifier U Organics (ion RL 0.00404		mg/Kg	=	Prepared	Analyzed 07/17/23 13:55	1
Method: TAL SOP Total BTE Analyte Total BTEX Method: SW846 8015 NM - I Analyte Total TPH	EX - Total BTE Result <0.00404 Diesel Range Result 56.4	Qualifier U Organics (Qualifier	DRO) (GC) RL 50.5		mg/Kg Unit	=	Prepared	Analyzed 07/17/23 13:55 Analyzed	1
Method: TAL SOP Total BTE Analyte Total BTEX Method: SW846 8015 NM - I Analyte Total TPH Method: SW846 8015B NM	EX - Total BTE Result <0.00404 Diesel Range Result 56.4 - Diesel Range	Qualifier U Organics (Qualifier	DRO) (GC) RL 50.5	MDL	mg/Kg Unit	=	Prepared	Analyzed 07/17/23 13:55 Analyzed	1
Method: TAL SOP Total BTE Analyte Total BTEX Method: SW846 8015 NM - I Analyte	EX - Total BTE Result <0.00404 Diesel Range Result 56.4 - Diesel Range	Qualifier U Organics (Qualifier Organics Qualifier Qualifier	DRO) (GC) RL 50.5	MDL	mg/Kg Unit mg/Kg	 D	Prepared	Analyzed 07/17/23 13:55 Analyzed 07/26/23 13:31	Dil Fac

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07/14/23 17:38

Client: Vertex Job ID: 890-4931-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES 23-27 0.5'

Lab Sample ID: 890-4931-7 Date Collected: 07/11/23 10:30 **Matrix: Solid**

Date Received: 07/12/23 09:54

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		07/19/23 10:30	07/25/23 20:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 130				07/19/23 10:30	07/25/23 20:11	1
o-Terphenyl	87		70 - 130				07/19/23 10:30	07/25/23 20:11	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble Result Qualifier **MDL** Unit Prepared Analyzed Dil Fac Chloride 75.8 5.01 mg/Kg 07/14/23 17:53

Client Sample ID: BES 23-28 0.5'

Lab Sample ID: 890-4931-8 Date Collected: 07/11/23 10:35 Matrix: Solid

Date Received: 07/12/23 09:54

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/14/23 14:36	07/15/23 20:31	1
Ethylbenzene	< 0.00201	U	0.00201		mg/Kg		07/14/23 14:36	07/15/23 20:31	1
Toluene	< 0.00201	U	0.00201		mg/Kg		07/14/23 14:36	07/15/23 20:31	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/14/23 14:36	07/15/23 20:31	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/14/23 14:36	07/15/23 20:31	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/14/23 14:36	07/15/23 20:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	74		70 - 130				07/14/23 14:36	07/15/23 20:31	1
1,4-Difluorobenzene (Surr)	95		70 - 130				07/14/23 14:36	07/15/23 20:31	1

Total BTEX	<0.00402 U	0.00402	mg/Kg			07/17/23 13:55	1
Method: SW846 8015 NM - Diesel	Range Organics (DR	(GC)					
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac

Total TPH	95.4		50.4		mg/Kg			07/26/23 13:31	1
- Method: SW846 8015B NM - D	iesel 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		07/19/23 10:30	07/25/23 20:34	1
Diesel Range Organics (Over C10-C28)	95.4		50.4		mg/Kg		07/19/23 10:30	07/25/23 20:34	1
Oll Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		07/19/23 10:30	07/25/23 20:34	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	74		70 - 130				07/19/23 10:30	07/25/23 20:34	
o-Terphenyl	81		70 - 130				07/19/23 10:30	07/25/23 20:34	

ı	Method: EPA 300.0 - Anions, Ion Chromatography - Soluble											
l	Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac			
l	Chloride	207		4.98	mg/Kg			07/14/23 17:58	1			

Client: Vertex Job ID: 890-4931-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES 23-29 0.5

Date Collected: 07/11/23 10:40 Date Received: 07/12/23 09:54 Lab Sample ID: 890-4931-9

Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/14/23 14:36	07/15/23 20:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/14/23 14:36	07/15/23 20:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/14/23 14:36	07/15/23 20:52	1
Xylenes, Total	< 0.00399	U	0.00399		mg/Kg		07/14/23 14:36	07/15/23 20:52	1
m-Xylene & p-Xylene	< 0.00399	U	0.00399		mg/Kg		07/14/23 14:36	07/15/23 20:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/14/23 14:36	07/15/23 20:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130				07/14/23 14:36	07/15/23 20:52	1
1,4-Difluorobenzene (Surr)	91		70 - 130				07/14/23 14:36	07/15/23 20:52	1
Method: TAL SOP Total BTEX	. Total BTE	X Calculat	tion						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/17/23 13:55	1
Method: SW846 8015 NM - Die Analyte	_	Organics (Qualifier	DRO) (GC)	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3		mg/Kg			07/26/23 13:31	1
Method: SW846 8015B NM - D	Diesel Range	e Organics	(DRO) (GC)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		07/19/23 10:30	07/25/23 20:56	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		07/19/23 10:30	07/25/23 20:56	1
Oll Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		07/19/23 10:30	07/25/23 20:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 130				07/19/23 10:30	07/25/23 20:56	1
o-Terphenyl	80		70 - 130				07/19/23 10:30	07/25/23 20:56	1
Method: EPA 300.0 - Anions,	lon Chroma	tography -	Soluble						
Welliou. EFA 300.0 - Allions,		g p							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Surrogate Summary

Job ID: 890-4931-1 Client: Vertex Project/Site: Corral Fly SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

			Per	cent Surrogate Recov
		BFB1	DFBZ1	
Lab Sample ID CI	lient Sample ID	(70-130)	(70-130)	
890-4931-1 BE	ES 23-21 0.5'	80	93	
890-4931-1 MS BE	ES 23-21 0.5'	99	92	
890-4931-1 MSD BE	ES 23-21 0.5'	91	93	
890-4931-2 BE	ES 23-22 0.5'	86	95	
890-4931-3 BE	ES 23-23 0.5'	90	91	
890-4931-4 BE	ES 23-24 0.5'	82	95	
890-4931-5 BE	ES 23-25 0.5'	92	94	
890-4931-6 BE	ES 23-26 0.5'	83	92	
890-4931-7 BE	ES 23-27 0.5'	86	97	
890-4931-8 BE	ES 23-28 0.5'	74	95	
890-4931-9 BE	ES 23-29 0.5'	88	91	
LCS 880-57706/1-A La	ab Control Sample	97	92	
LCSD 880-57706/2-A La	ab Control Sample Dup	103	93	
MB 880-57706/5-A Me	ethod Blank	91	110	
Surrogate Legend				
BFB = 4-Bromofluorobenzene	e (Surr)			
DFBZ = 1,4-Difluorobenzene	(Surr)			

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

Matrix: Solid Prep Type: Total/NA

			_	ate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-4931-1	BES 23-21 0.5'	75	89	
890-4931-1 MS	BES 23-21 0.5'	9 S1-	16 S1-	
890-4931-1 MSD	BES 23-21 0.5'	9 S1-	8 S1-	
890-4931-2	BES 23-22 0.5'	78	91	
890-4931-3	BES 23-23 0.5'	78	88	
890-4931-4	BES 23-24 0.5'	82	95	
890-4931-5	BES 23-25 0.5'	78	89	
890-4931-6	BES 23-26 0.5'	72	85	
890-4931-7	BES 23-27 0.5'	77	87	
890-4931-8	BES 23-28 0.5'	74	81	
890-4931-9	BES 23-29 0.5'	70	80	
LCS 880-58016/2-A	Lab Control Sample	95	95	
LCSD 880-58016/3-A	Lab Control Sample Dup	86	87	
MB 880-58016/1-A	Method Blank	79	88	

1CO = 1-Chlorooctane OTPH = o-Terphenyl

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QC Sample Results

Client: Vertex Job ID: 890-4931-1 Project/Site: Corral Fly SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-57706/5-A

Matrix: Solid

Analysis Batch: 57752

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57706

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/14/23 14:36	07/15/23 17:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/14/23 14:36	07/15/23 17:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/14/23 14:36	07/15/23 17:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/14/23 14:36	07/15/23 17:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/14/23 14:36	07/15/23 17:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/14/23 14:36	07/15/23 17:39	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	07/14/23 14:36	07/15/23 17:39	1
1,4-Difluorobenzene (Surr)	110		70 - 130	07/14/23 14:36	07/15/23 17:39	1

Lab Sample ID: LCS 880-57706/1-A

Matrix: Solid

Analysis Batch: 57752

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 57706

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08059		mg/Kg		81	70 - 130	
Ethylbenzene	0.100	0.07726		mg/Kg		77	70 - 130	
Toluene	0.100	0.09173		mg/Kg		92	70 - 130	
m-Xylene & p-Xylene	0.200	0.1625		mg/Kg		81	70 - 130	
o-Xylene	0.100	0.07434		mg/Kg		74	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-57706/2-A

Matrix: Solid

Analysis Batch: 57752

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 57706

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08691		mg/Kg		87	70 - 130	8	35
Ethylbenzene	0.100	0.08840		mg/Kg		88	70 - 130	13	35
Toluene	0.100	0.1013		mg/Kg		101	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.1819		mg/Kg		91	70 - 130	11	35
o-Xylene	0.100	0.08739		mg/Kg		87	70 - 130	16	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1.4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 890-4931-1 MS

Matrix: Solid

Analysis Batch: 57752

Client Sample ID: BES 23-21 0.5'

Prep Type: Total/NA

Prep Batch: 57706

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U	0.0994	0.09181		mg/Kg		92	70 - 130	
Ethylbenzene	< 0.00202	U	0.0994	0.08545		mg/Kg		86	70 - 130	

Prep Batch: 57706

Prep Type: Total/NA

QC Sample Results

Client: Vertex Job ID: 890-4931-1 Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: 890-4931-1 MS Client Sample ID: BES 23-21 0.5' **Prep Type: Total/NA**

Matrix: Solid

Analysis Batch: 57752

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Toluene	<0.00202	U	0.0994	0.1034		mg/Kg		104	70 - 130	
m-Xylene & p-Xylene	<0.00403	U	0.199	0.1713		mg/Kg		86	70 - 130	
o-Xylene	<0.00202	U	0.0994	0.09163		mg/Kg		92	70 - 130	

MS MS Surrogate %Recovery Qualifier

4-Bromofluorobenzene (Surr) 99 70 - 130 1,4-Difluorobenzene (Surr) 92 70 - 130

Lab Sample ID: 890-4931-1 MSD Client Sample ID: BES 23-21 0.5'

Limits

Matrix: Solid

Analysis Batch: 57752									Prep E	satcn: :	5//06
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U	0.0998	0.08348		mg/Kg		84	70 - 130	10	35
Ethylbenzene	<0.00202	U	0.0998	0.07256		mg/Kg		73	70 - 130	16	35
Toluene	<0.00202	U	0.0998	0.09166		mg/Kg		92	70 - 130	12	35
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1499		mg/Kg		75	70 - 130	13	35
o-Xylene	<0.00202	U	0.0998	0.08090		mg/Kg		81	70 - 130	12	35
The state of the s											

MSD MSD Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 91 70 - 130 93 1,4-Difluorobenzene (Surr) 70 - 130

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

nnie ID: MR 880-58016/1-A

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Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 58016

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0		mg/Kg		07/19/23 10:30	07/25/23 14:31	1
(GRO)-C6-C10 Diesel Range Organics (Over	<50.0	U	50.0		mg/Kg		07/19/23 10:30	07/25/23 14:31	1
C10-C28) Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/19/23 10:30	07/25/23 14:31	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130	07/19/23 10:30	07/25/23 14:31	1
o-Terphenyl	88		70 - 130	07/19/23 10:30	07/25/23 14:31	1

Lab Sample ID: LCS 880-58016/2-A

Matrix: Solid							Prep Type	e: Total/NA
Analysis Batch: 58412							Prep Ba	atch: 58016
•	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	759.0		mg/Kg		76	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	932.2		mg/Kg		93	70 - 130	
C10-C28)								

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Client Sample ID: Lab Control Sample

Client: Vertex Job ID: 890-4931-1
Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: LCS 880-58016/2-A

Matrix: Solid

Analysis Batch: 58412

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 58016

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 95
 70 - 130

 o-Terphenyl
 95
 70 - 130

Lab Sample ID: LCSD 880-58016/3-A

Matrix: Solid

Analysis Batch: 58412

Lab Sample ID: 890-4931-1 MS

Analysis Batch: 58412

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 58016

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics 1000 749.8 mg/Kg 75 70 - 130 20 (GRO)-C6-C10 1000 Diesel Range Organics (Over 867.5 mg/Kg 87 70 - 130 20 C10-C28)

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	87		70 - 130

Client Sample ID: BES 23-21 0.5'

Prep Type: Total/NA

Prep Batch: 58016

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier Limits Analyte Unit D %Rec <50.2 U 1000 Gasoline Range Organics 848.5 mg/Kg 85 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 1000 92.2 1028 mg/Kg 94 70 - 130

C10-C28)

Matrix: Solid

 Surrogate
 %Recovery
 Qualifier
 Limits

 1-Chlorooctane
 9
 S1 70 - 130

 o-Terphenyl
 16
 S1 70 - 130

Lab Sample ID: 890-4931-1 MSD Client Sample ID: BES 23-21 0.5'

Matrix: Solid

Analysis Batch: 58412

Prep Type: Total/NA

Prep Batch: 58016

Sample Sample Spike MSD MSD %Rec **RPD** Result Qualifier RPD Added Result Qualifier Limits Limit Analyte Unit %Rec <50.2 U 1000 831.5 83 70 - 130 2 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 92.2 1000 993.4 mg/Kg 90 70 - 130 3 20

C10-C28)

	IVISD	IVISD			
Surrogate	%Recovery	Qualifier	Limits		
1-Chlorooctane	9	S1-	70 - 130		
o-Terphenyl	8	S1-	70 - 130		

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Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Client Sample ID: BES 23-26 0.5'

Client Sample ID: BES 23-26 0.5'

Prep Type: Soluble

QC Sample Results

Client: Vertex Job ID: 890-4931-1 Project/Site: Corral Fly SDG: 23E-02502

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-57588/1-A

Matrix: Solid

Analysis Batch: 57721

MB MB

Analyte Result Qualifier RL **MDL** Unit Analyzed Dil Fac D Prepared 5.00 07/14/23 16:14 Chloride <5.00 U mg/Kg

Lab Sample ID: LCS 880-57588/2-A

Matrix: Solid

Analysis Batch: 57721

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 90 - 110 249.7 mg/Kg 100

Lab Sample ID: LCSD 880-57588/3-A

Matrix: Solid

Analysis Batch: 57721

Spike LCSD LCSD %Rec RPD Added Result Qualifier Limits **RPD** Limit **Analyte** Unit %Rec Chloride 250 250.0 100 90 - 110 mg/Kg

Lab Sample ID: 890-4931-6 MS

Matrix: Solid

Analysis Batch: 57721

Spike MS MS %Rec Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 252 539.9 291 mg/Kg 99 90 - 110

Lab Sample ID: 890-4931-6 MSD

Matrix: Solid

Analysis Batch: 57721

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Unit %Rec Limits RPD Result Qualifier Limit Chloride 291 252 538.1 98 20 mg/Kg 90 - 110 0

Client: Vertex Job ID: 890-4931-1
Project/Site: Corral Fly SDG: 23E-02502

GC VOA

Prep Batch: 57706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4931-1	BES 23-21 0.5'	Total/NA	Solid	5035	
890-4931-2	BES 23-22 0.5'	Total/NA	Solid	5035	
890-4931-3	BES 23-23 0.5'	Total/NA	Solid	5035	
890-4931-4	BES 23-24 0.5'	Total/NA	Solid	5035	
890-4931-5	BES 23-25 0.5'	Total/NA	Solid	5035	
890-4931-6	BES 23-26 0.5'	Total/NA	Solid	5035	
890-4931-7	BES 23-27 0.5'	Total/NA	Solid	5035	
890-4931-8	BES 23-28 0.5'	Total/NA	Solid	5035	
890-4931-9	BES 23-29 0.5'	Total/NA	Solid	5035	
MB 880-57706/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-57706/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57706/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4931-1 MS	BES 23-21 0.5'	Total/NA	Solid	5035	
890-4931-1 MSD	BES 23-21 0.5'	Total/NA	Solid	5035	

Analysis Batch: 57752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4931-1	BES 23-21 0.5'	Total/NA	Solid	8021B	57706
890-4931-2	BES 23-22 0.5'	Total/NA	Solid	8021B	57706
890-4931-3	BES 23-23 0.5'	Total/NA	Solid	8021B	57706
890-4931-4	BES 23-24 0.5'	Total/NA	Solid	8021B	57706
890-4931-5	BES 23-25 0.5'	Total/NA	Solid	8021B	57706
890-4931-6	BES 23-26 0.5'	Total/NA	Solid	8021B	57706
890-4931-7	BES 23-27 0.5'	Total/NA	Solid	8021B	57706
890-4931-8	BES 23-28 0.5'	Total/NA	Solid	8021B	57706
890-4931-9	BES 23-29 0.5'	Total/NA	Solid	8021B	57706
MB 880-57706/5-A	Method Blank	Total/NA	Solid	8021B	57706
LCS 880-57706/1-A	Lab Control Sample	Total/NA	Solid	8021B	57706
LCSD 880-57706/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	57706
890-4931-1 MS	BES 23-21 0.5'	Total/NA	Solid	8021B	57706
890-4931-1 MSD	BES 23-21 0.5'	Total/NA	Solid	8021B	57706

Analysis Batch: 57845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4931-1	BES 23-21 0.5'	Total/NA	Solid	Total BTEX	
890-4931-2	BES 23-22 0.5'	Total/NA	Solid	Total BTEX	
890-4931-3	BES 23-23 0.5'	Total/NA	Solid	Total BTEX	
890-4931-4	BES 23-24 0.5'	Total/NA	Solid	Total BTEX	
890-4931-5	BES 23-25 0.5'	Total/NA	Solid	Total BTEX	
890-4931-6	BES 23-26 0.5'	Total/NA	Solid	Total BTEX	
890-4931-7	BES 23-27 0.5'	Total/NA	Solid	Total BTEX	
890-4931-8	BES 23-28 0.5'	Total/NA	Solid	Total BTEX	
890-4931-9	BES 23-29 0.5'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 58016

Lab Sample ID 890-4931-1	Client Sample ID BES 23-21 0.5'	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
890-4931-2	BES 23-22 0.5'	Total/NA	Solid	8015NM Prep	
890-4931-3	BES 23-23 0.5'	Total/NA	Solid	8015NM Prep	

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Job ID: 890-4931-1 Client: Vertex Project/Site: Corral Fly SDG: 23E-02502

GC Semi VOA (Continued)

Prep Batch: 58016 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4931-4	BES 23-24 0.5'	Total/NA	Solid	8015NM Prep	
890-4931-5	BES 23-25 0.5'	Total/NA	Solid	8015NM Prep	
890-4931-6	BES 23-26 0.5'	Total/NA	Solid	8015NM Prep	
890-4931-7	BES 23-27 0.5'	Total/NA	Solid	8015NM Prep	
890-4931-8	BES 23-28 0.5'	Total/NA	Solid	8015NM Prep	
890-4931-9	BES 23-29 0.5'	Total/NA	Solid	8015NM Prep	
MB 880-58016/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-58016/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-58016/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4931-1 MS	BES 23-21 0.5'	Total/NA	Solid	8015NM Prep	
890-4931-1 MSD	BES 23-21 0.5'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 58412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4931-1	BES 23-21 0.5'	Total/NA	Solid	8015B NM	58016
890-4931-2	BES 23-22 0.5'	Total/NA	Solid	8015B NM	58016
890-4931-3	BES 23-23 0.5'	Total/NA	Solid	8015B NM	58016
890-4931-4	BES 23-24 0.5'	Total/NA	Solid	8015B NM	58016
890-4931-5	BES 23-25 0.5'	Total/NA	Solid	8015B NM	58016
890-4931-6	BES 23-26 0.5'	Total/NA	Solid	8015B NM	58016
890-4931-7	BES 23-27 0.5'	Total/NA	Solid	8015B NM	58016
890-4931-8	BES 23-28 0.5'	Total/NA	Solid	8015B NM	58016
890-4931-9	BES 23-29 0.5'	Total/NA	Solid	8015B NM	58016
MB 880-58016/1-A	Method Blank	Total/NA	Solid	8015B NM	58016
LCS 880-58016/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	58016
LCSD 880-58016/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	58016
890-4931-1 MS	BES 23-21 0.5'	Total/NA	Solid	8015B NM	58016
890-4931-1 MSD	BES 23-21 0.5'	Total/NA	Solid	8015B NM	58016

Analysis Batch: 58566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4931-1	BES 23-21 0.5'	Total/NA	Solid	8015 NM	
890-4931-2	BES 23-22 0.5'	Total/NA	Solid	8015 NM	
890-4931-3	BES 23-23 0.5'	Total/NA	Solid	8015 NM	
890-4931-4	BES 23-24 0.5'	Total/NA	Solid	8015 NM	
890-4931-5	BES 23-25 0.5'	Total/NA	Solid	8015 NM	
890-4931-6	BES 23-26 0.5'	Total/NA	Solid	8015 NM	
890-4931-7	BES 23-27 0.5'	Total/NA	Solid	8015 NM	
890-4931-8	BES 23-28 0.5'	Total/NA	Solid	8015 NM	
890-4931-9	BES 23-29 0.5'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 57588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4931-1	BES 23-21 0.5'	Soluble	Solid	DI Leach	
890-4931-2	BES 23-22 0.5'	Soluble	Solid	DI Leach	
890-4931-3	BES 23-23 0.5'	Soluble	Solid	DI Leach	
890-4931-4	BES 23-24 0.5'	Soluble	Solid	DI Leach	
890-4931-5	BES 23-25 0.5'	Soluble	Solid	DI Leach	
890-4931-6	BES 23-26 0.5'	Soluble	Solid	DI Leach	

Client: Vertex Job ID: 890-4931-1
Project/Site: Corral Fly SDG: 23E-02502

HPLC/IC (Continued)

Leach Batch: 57588 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4931-7	BES 23-27 0.5'	Soluble	Solid	DI Leach	
890-4931-8	BES 23-28 0.5'	Soluble	Solid	DI Leach	
890-4931-9	BES 23-29 0.5'	Soluble	Solid	DI Leach	
MB 880-57588/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-57588/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-57588/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4931-6 MS	BES 23-26 0.5'	Soluble	Solid	DI Leach	
890-4931-6 MSD	BES 23-26 0.5'	Soluble	Solid	DI Leach	

Analysis Batch: 57721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4931-1	BES 23-21 0.5'	Soluble	Solid	300.0	57588
890-4931-2	BES 23-22 0.5'	Soluble	Solid	300.0	57588
890-4931-3	BES 23-23 0.5'	Soluble	Solid	300.0	57588
890-4931-4	BES 23-24 0.5'	Soluble	Solid	300.0	57588
890-4931-5	BES 23-25 0.5'	Soluble	Solid	300.0	57588
890-4931-6	BES 23-26 0.5'	Soluble	Solid	300.0	57588
890-4931-7	BES 23-27 0.5'	Soluble	Solid	300.0	57588
890-4931-8	BES 23-28 0.5'	Soluble	Solid	300.0	57588
890-4931-9	BES 23-29 0.5'	Soluble	Solid	300.0	57588
MB 880-57588/1-A	Method Blank	Soluble	Solid	300.0	57588
LCS 880-57588/2-A	Lab Control Sample	Soluble	Solid	300.0	57588
LCSD 880-57588/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57588
890-4931-6 MS	BES 23-26 0.5'	Soluble	Solid	300.0	57588
890-4931-6 MSD	BES 23-26 0.5'	Soluble	Solid	300.0	57588

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Project/Site: Corral Fly

Job ID: 890-4931-1

SDG: 23E-02502

Lab Sample ID: 890-4931-1

Matrix: Solid

Date Collected: 07/11/23 10:00

Client Sample ID: BES 23-21 0.5'

Date Received: 07/12/23 09:54

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/15/23 18:08	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57845	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58566	07/26/23 13:31	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	58016	07/19/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58412	07/25/23 17:14	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	57588	07/13/23 10:51	KS	EET MID
Soluble	Analysis	300.0		1			57721	07/14/23 17:13	CH	EET MID

Client Sample ID: BES 23-22 0.5'

Date Collected: 07/11/23 10:05

Date Received: 07/12/23 09:54

Lab Sample ID: 890-4931-2

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/15/23 18:29	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57845	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58566	07/26/23 13:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	58016	07/19/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58412	07/25/23 18:21	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	57588	07/13/23 10:51	KS	EET MID
Soluble	Analysis	300.0		1			57721	07/14/23 17:18	CH	EET MID

Client Sample ID: BES 23-23 0.5'

Date Collected: 07/11/23 10:10

Date Received: 07/12/23 09:54

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035	_		4.99 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/15/23 18:49	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57845	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58566	07/26/23 13:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	58016	07/19/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58412	07/25/23 18:43	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	57588	07/13/23 10:51	KS	EET MID
Soluble	Analysis	300.0		1			57721	07/14/23 17:23	CH	EET MID

Client Sample ID: BES 23-24 0.5'

Date Collected: 07/11/23 10:15

Date Received: 07/12/23 09:54

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/15/23 19:10	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57845	07/17/23 13:55	AJ	EET MID

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Released to Imaging: 8/5/2024 4:13:08 PM

Lab Sample ID: 890-4931-3

Matrix: Solid

Lab Sample ID: 890-4931-4

Matrix: Solid

Project/Site: Corral Fly Client Sample ID: BES 23-24 0.5'

Lab Sample ID: 890-4931-4

Matrix: Solid

EET MID

EET MID

Matrix: Solid

Date Collected: 07/11/23 10:15 Date Received: 07/12/23 09:54

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			58566	07/26/23 13:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	58016	07/19/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58412	07/25/23 19:05	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	57588	07/13/23 10:51	KS	EET MID
Soluble	Analysis	300.0		1			57721	07/14/23 17:28	CH	EET MID

Client Sample ID: BES 23-25 0.5' Lab Sample ID: 890-4931-5 Date Collected: 07/11/23 10:20 **Matrix: Solid**

Date Received: 07/12/23 09:54

Batch Batch Dil Initial Final **Batch** Prepared **Prep Type** Method Amount Amount Number Type Run **Factor** or Analyzed **Analyst** Lab Total/NA Prep 5035 57706 07/14/23 14:36 EL 5.05 g 5 mL **EET MID** Total/NA Analysis 8021B 1 5 mL 5 mL 57752 07/15/23 19:30 AJ **EET MID** Total/NA Total BTEX Analysis 1 57845 07/17/23 13:55 AJ **EET MID** Total/NA 8015 NM 58566 07/26/23 13:31 SM **EET MID** Analysis 1 Total/NA Prep 8015NM Prep 10.09 g 10 mL 58016 07/19/23 10:30 TKC **EET MID** Total/NA 8015B NM 58412 07/25/23 19:27 SM Analysis 1 uL 1 uL **EET MID**

Client Sample ID: BES 23-26 0.5' Lab Sample ID: 890-4931-6

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4.97 g

57588

57721

07/13/23 10:51 KS

07/14/23 17:33 CH

50 mL

Date Collected: 07/11/23 10:25 Date Received: 07/12/23 09:54

Leach

Analysis

DI Leach

300.0

Soluble

Soluble

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/15/23 19:50	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57845	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58566	07/26/23 13:31	SM	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	58016	07/19/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58412	07/25/23 19:49	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	57588	07/13/23 10:51	KS	EET MID
Soluble	Analysis	300.0		1			57721	07/14/23 17:38	CH	EET MID

Client Sample ID: BES 23-27 0.5' Lab Sample ID: 890-4931-7 Date Collected: 07/11/23 10:30

Date Received: 07/12/23 09:54

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/15/23 20:11	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57845	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58566	07/26/23 13:31	SM	EET MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	9.91 g 1 uL	10 mL 1 uL	58016 58412	07/19/23 10:30 07/25/23 20:11	TKC SM	EET MID EET MID

Eurofins Carlsbad

Matrix: Solid

Project/Site: Corral Fly

Job ID: 890-4931-1 SDG: 23E-02502

Client Sample ID: BES 23-27 0.5'

Date Collected: 07/11/23 10:30 Date Received: 07/12/23 09:54 Lab Sample ID: 890-4931-7

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	57588	07/13/23 10:51	KS	EET MID
Soluble	Analysis	300.0		1			57721	07/14/23 17:53	СН	EET MID

Client Sample ID: BES 23-28 0.5' Lab Sample ID: 890-4931-8 Matrix: Solid

Date Collected: 07/11/23 10:35 Date Received: 07/12/23 09:54

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/15/23 20:31	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57845	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58566	07/26/23 13:31	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	58016	07/19/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58412	07/25/23 20:34	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	57588	07/13/23 10:51	KS	EET MID
Soluble	Analysis	300.0		1			57721	07/14/23 17:58	CH	EET MID

Lab Sample ID: 890-4931-9 Client Sample ID: BES 23-29 0.5'

Date Collected: 07/11/23 10:40 Date Received: 07/12/23 09:54

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	57706	07/14/23 14:36	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57752	07/15/23 20:52	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57845	07/17/23 13:55	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58566	07/26/23 13:31	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	58016	07/19/23 10:30	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58412	07/25/23 20:56	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	57588	07/13/23 10:51	KS	EET MID
Soluble	Analysis	300.0		1			57721	07/14/23 18:13	CH	EET MID

Laboratory References:

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

Matrix: Solid

Accreditation/Certification Summary

Client: Vertex Job ID: 890-4931-1
Project/Site: Corral Fly SDG: 23E-02502

Laboratory: Eurofins Midland

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

authority		ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-23-26	06-30-24
The following analyte:	s are included in this rend	ort but the laboratory is r	not certified by the governing authority.	This list may include analytes for w
the agency does not	•	ore, but the laboratory is i	to certified by the governing authority.	This list may include analytes for w
,	•	Matrix	Analyte	This list may include allarytes for w
the agency does not o	offer certification.	•	, , ,	This list may include analytes for w

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Method Summary

Client: Vertex

Method

Total BTEX

8015 NM

8015B NM

8015NM Prep

DI Leach

300.0

5035

8021B

Project/Site: Corral Fly

Job ID: 890-4931-1

SDG: 23E-02502

Protocol	Laboratory
SW846	EET MID
TAL SOP	EET MID
SW846	EET MID
SW846	EET MID
EPA	EET MID

EET MID

EET MID

EET MID

SW846

SW846

ASTM

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

Microextraction

Method Description

Total BTEX Calculation

Volatile Organic Compounds (GC)

Diesel Range Organics (DRO) (GC)

Diesel Range Organics (DRO) (GC)

Deionized Water Leaching Procedure

Anions, Ion Chromatography

Closed System Purge and Trap

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

Eurofins Carlsbad

Released to Imaging: 8/5/2024 4:13:08 PM

Sample Summary

Client: Vertex
Project/Site: Corral Fly

Job ID: 890-4931-1 SDG: 23E-02502

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-4931-1	BES 23-21 0.5'	Solid	07/11/23 10:00	07/12/23 09:54
890-4931-2	BES 23-22 0.5'	Solid	07/11/23 10:05	07/12/23 09:54
890-4931-3	BES 23-23 0.5'	Solid	07/11/23 10:10	07/12/23 09:54
890-4931-4	BES 23-24 0.5'	Solid	07/11/23 10:15	07/12/23 09:54
890-4931-5	BES 23-25 0.5'	Solid	07/11/23 10:20	07/12/23 09:54
890-4931-6	BES 23-26 0.5'	Solid	07/11/23 10:25	07/12/23 09:54
890-4931-7	BES 23-27 0.5'	Solid	07/11/23 10:30	07/12/23 09:54
890-4931-8	BES 23-28 0.5'	Solid	07/11/23 10:35	07/12/23 09:54
890-4931-9	BES 23-29 0.5'	Solid	07/11/23 10:40	07/12/23 09:54

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Circle Method(s) and Metal(s) to be analyzed

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

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

SiO2

Na Sr Tl Sn U V Zn

23-26 23-25 24-28 23-26

23-24

10:25

10.35

ice. Signature of this document and relinquishment of samples constitutes a valid purchase order from cilent company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions

•			s eurotins	
	Xenco	Environment lesting		
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300	Chain of Custody
		Work Order No:		

SAMPLE RECEIPT	PO #:	Sampler's Name:	Project Location:	Project Number:	Project Name:	Phone:	City, State ZIP:	Address:	Company Name:	Project Manager:				« euronns	
Tamp Blank: Yes No		Muster Mein		23E-02502	Conal Fly				Vertex	COXONOVERTEX.	Chance Dixon		Xenco	Environment Testing	
Wet Ice: Yes No	the lab, if received by 4:30pm	TAT starts the day received by	Due Date:	Routine Rush Code	Turn Around	Email: Caixonla	City, State ZIP:	Address:	Company Name:	Bill to: (if different)		Hobbs, NM	EL Paso, TX		
					ANALYSIS REQUEST	Email: cdixona vertex.ca			Solaris	Rob Kirk		Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	Chain of Custody
					EQUEST	Deliverables: EDD ADaPT	Reporting: Level III Level III PST/UST TRRP Level IV	State of Project:	Program: UST/PST PRP Brownfields RRC Superfund	Work Order Comments	www.xenco.com			Work Order No:	
H ₃ PO ₄ : HP	H ₂ SO ₄ : H ₂ NaOH: Na	HCL: HC HNO 3: HN	Cool: Cool MeOH: Me	None: NO DI Water: H ₂ O	Preservative Codes	PT Other:	PST/UST TRRP Level IV		wnfields RRC Superfund	omments	Page of				

Cooler Custody Seals: Samples Received Intact:

mple Custody Seals:

Yes No Yes No

Sample Identification

Matrix

Sampled

Sampled

20.00

10.05

Date

Time

Depth

Comp Grab/

Cont

Corrected Temperature:

DIDI

890-4931 Chain of Custody

Zn Acetate+NaOH: Zn Na₂S₂O₃: NaSO 3 NaHSO 4: NABIS

NaOH+Ascorbic Acid: SAPC

Sample Comments

Paramet

Login Sample Receipt Checklist

Client: Vertex Job Number: 890-4931-1 SDG Number: 23E-02502

Login Number: 4931 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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	

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Login Sample Receipt Checklist

Client: Vertex Job Number: 890-4931-1 SDG Number: 23E-02502

List Source: Eurofins Midland
List Number: 2
List Creation: 07/13/23 11:48 AM

Creator: Rodriguez, Leticia

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	

and

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Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 7/28/2023 11:38:55 AM

JOB DESCRIPTION

Corral Fly SDG NUMBER 23E-02502

JOB NUMBER

890-4938-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

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

Authorization

Generated 7/28/2023 11:38:55 AM

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

Eurofins Carlsbad is a laboratory within Eurofins Environment Testing South Central, LLC, a company within Eurofins Environment Testing Group of Companies

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Client: Vertex Laboratory Job ID: 890-4938-1
Project/Site: Corral Fly SDG: 23E-02502

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Definitions/Glossary

Client: Vertex Job ID: 890-4938-1 Project/Site: Corral Fly

SDG: 23E-02502

Qualifiers

GC	VOA
Qual	ifier

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

Qualifier Description

GC Semi VOA

Quaimer	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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

MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit

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)

RI	Reporting Limit or Requested Limit	(Radiochemietry)
1 \ L	Reporting Limit or Requested Limit	(TradiocileIIIIstry)

RPD	Relative Percent Difference, a measure of the relative difference between two points	ıts

TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Case Narrative

 Client: Vertex
 Job ID: 890-4938-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Job ID: 890-4938-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4938-1

Receipt

The samples were received on 7/12/2023 4:02 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 19.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BES23-30 0.5' (890-4938-1), BES23-31 0.5' (890-4938-2), BES23-32 0.5' (890-4938-3), BES23-33 0.5' (890-4938-4), BES23-34 0.5' (890-4938-5), BES23-35 0.5' (890-4938-6), BES23-36 0.5' (890-4938-7), BES23-37 0.5' (890-4938-8), BES23-38 0.5' (890-4938-9), BES23-39 0.5' (890-4938-10) and BES23-40 0.5' (890-4938-11).

GC VOA

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-57701 recovered above the upper control limit for Benzene, Ethylbenzene, Toluene, m-Xylene & p-Xylene and o-Xylene. 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 880-57701/64).

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-57701 recovered above the upper control limit for Benzene, Ethylbenzene, Toluene, m-Xylene & p-Xylene and o-Xylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: (CCV 880-57701/82) and (CCV 880-57701/95).

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-57703 and analytical batch 880-57701 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-57701 recovered above the upper control limit for Benzene, Ethylbenzene, Toluene, m-Xylene & p-Xylene and o-Xylene. 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 880-57701/113).

Method 8021B: Surrogate recovery for the following samples were outside control limits: BES23-30 0.5' (890-4938-1), (LCS 880-57703/1-A), (LCSD 880-57703/2-A), (MB 880-57655/5-A), (890-4929-A-4-D), (890-4929-A-4-B MS) and (890-4929-A-4-C MSD). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following samples were outside control limits: BES23-32 0.5' (890-4938-3), BES23-33 0.5' (890-4938-4), BES23-34 0.5' (890-4938-5), BES23-37 0.5' (890-4938-8), BES23-38 0.5' (890-4938-9) and BES23-40 0.5' (890-4938-11). 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: Surrogate recovery for the following samples were outside control limits: BES23-30 0.5' (890-4938-1), BES23-32 0.5' (890-4938-3), BES23-34 0.5' (890-4938-5), BES23-36 0.5' (890-4938-7), BES23-37 0.5' (890-4938-8), (MB 880-58171/1-A), (890-4932-A-1-C), (890-4932-A-1-D MS) and (890-4932-A-1-E MSD). 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 880-57699 and analytical batch 880-57705 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.

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Case Narrative

Client: Vertex Job ID: 890-4938-1 Project/Site: Corral Fly SDG: 23E-02502

Job ID: 890-4938-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

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

Lab Sample ID: 890-4938-1

Client: Vertex Job ID: 890-4938-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-30 0.5'

Date Collected: 07/12/23 10:00 Date Received: 07/12/23 16:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/14/23 14:30	07/16/23 14:35	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/14/23 14:30	07/16/23 14:35	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/14/23 14:30	07/16/23 14:35	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/14/23 14:30	07/16/23 14:35	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/14/23 14:30	07/16/23 14:35	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/14/23 14:30	07/16/23 14:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	250	S1+	70 - 130				07/14/23 14:30	07/16/23 14:35	1
1,4-Difluorobenzene (Surr)	102		70 - 130				07/14/23 14:30	07/16/23 14:35	1
- Method: TAL SOP Total BTEX - 1	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/17/23 14:47	1
- Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (0	3C)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			07/28/23 11:50	1
- Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U *-	49.6		mg/Kg		07/20/23 15:49	07/28/23 01:19	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		07/20/23 15:49	07/28/23 01:19	1
Oll Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		07/20/23 15:49	07/28/23 01:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	147	S1+	70 - 130				07/20/23 15:49	07/28/23 01:19	1
o-Terphenyl	131	S1+	70 - 130				07/20/23 15:49	07/28/23 01:19	1
- Method: EPA 300.0 - Anions, Ion	Chromatograp	hv - Soluble	9						

Client Sample ID: BES23-31 0.5'

Date Collected: 07/12/23 10:05

Date Received: 07/12/23 16:02

Sample Depth: 0.5

Chloride

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/17/23 12:42	07/17/23 23:09	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/17/23 12:42	07/17/23 23:09	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/17/23 12:42	07/17/23 23:09	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/17/23 12:42	07/17/23 23:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/17/23 12:42	07/17/23 23:09	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/17/23 12:42	07/17/23 23:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130				07/17/23 12:42	07/17/23 23:09	

50.1

mg/Kg

2940

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07/15/23 01:32

Lab Sample ID: 890-4938-2

Matrix: Solid

Job ID: 890-4938-1

SDG: 23E-02502

Client Sample ID: BES23-31 0.5'

Date Collected: 07/12/23 10:05 Date Received: 07/12/23 16:02

Sample Depth: 0.5

Project/Site: Corral Fly

Lab Sample ID:	890-4938-2
	Matrix: Solid

Lab Sample ID: 890-4938-3

Matrix: Solid

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

Surrogate		alifier Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	76	70 - 130	07/17/23 12:42	07/17/23 23:09	1

Mothod: TAL SOP	Total RTFY - Tota	I BTEX Calculation
Method. TAL OUT	TOTAL DIEX - TOTA	I DIEA Calculation

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			07/18/23 10:31	1

Method: SW846 8015 NM - Diesel Range Organics (DR	
	Organica (DDO) (CC)
	Ordanics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL (Unit	D	Prepared	Analyzed	Dil Fac	
Total TPH	<49.9	U	49.9	r	ma/Ka			07/28/23 11:50	1	

Method: SW846 8015B NM - Diesel Range Organics	(DRO)	(GC)	١
motified. Offerto College Ithin Biodol Rungo Organico	(5.10)	, , , , ,	,

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	49.9		mg/Kg		07/20/23 15:49	07/28/23 02:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		07/20/23 15:49	07/28/23 02:03	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/20/23 15:49	07/28/23 02:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	121	70 - 130	07/20/23 15:49	07/28/23 02:03	1
o-Terphenyl	107	70 - 130	07/20/23 15:49	07/28/23 02:03	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	223	4.99	mg/Kg			07/15/23 01:37	1

Client Sample ID: BES23-32 0.5'

Date Collected: 07/12/23 10:10 Date Received: 07/12/23 16:02

Sample Depth: 0.5

Mothodi CIMOAC 0004D	Valatila Organia Compounda (CC)

momous official source	no organio comp	ounus (SS)	,						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/17/23 12:42	07/17/23 23:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/17/23 12:42	07/17/23 23:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/17/23 12:42	07/17/23 23:29	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/17/23 12:42	07/17/23 23:29	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/17/23 12:42	07/17/23 23:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/17/23 12:42	07/17/23 23:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130				07/17/23 12:42	07/17/23 23:29	1
1 / Diffuorobonzono (Surr)	60	C1	70 120				07/17/22 12:42	07/17/22 22:20	1

١	Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzea	DII Fac
	4-Bromofluorobenzene (Surr)	92	70 - 130	07/17/23 12:42	07/17/23 23:29	1
	1,4-Difluorobenzene (Surr)	68 S1-	70 - 130	07/17/23 12:42	07/17/23 23:29	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			07/18/23 10:31	1

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1220		50.3	mg/Kg			07/28/23 11:50	1

Lab Sample ID: 890-4938-3

Lab Sample ID: 890-4938-4

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-4938-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-32 0.5'

Date Collected: 07/12/23 10:10 Date Received: 07/12/23 16:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U *-	50.3		mg/Kg		07/20/23 15:49	07/28/23 02:25	1
Diesel Range Organics (Over C10-C28)	1220		50.3		mg/Kg		07/20/23 15:49	07/28/23 02:25	1
OII Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		07/20/23 15:49	07/28/23 02:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	134	S1+	70 - 130				07/20/23 15:49	07/28/23 02:25	1
o-Terphenyl	111		70 - 130				07/20/23 15:49	07/28/23 02:25	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: BES23-33 0.5'

Date Collected: 07/12/23 10:15

Date Received: 07/12/23 16:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/17/23 12:42	07/17/23 23:49	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/17/23 12:42	07/17/23 23:49	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/17/23 12:42	07/17/23 23:49	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		07/17/23 12:42	07/17/23 23:49	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		07/17/23 12:42	07/17/23 23:49	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/17/23 12:42	07/17/23 23:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130				07/17/23 12:42	07/17/23 23:49	1
1,4-Difluorobenzene (Surr)	59	S1-	70 - 130				07/17/23 12:42	07/17/23 23:49	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation							
Method: TAL SOP Total BTEX - Analyte Total BTEX		Qualifier		MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 07/18/23 10:31	Dil Fac
Analyte	Result < 0.00403	Qualifier U	0.00403 GC)		mg/Kg	<u>D</u>	Prepared		1
Analyte Total BTEX	Result <0.00403	Qualifier U	0.00403			<u>D</u>	Prepared Prepared		
Analyte Total BTEX Method: SW846 8015 NM - Diese	Result <0.00403	Qualifier U	0.00403 GC)		mg/Kg			07/18/23 10:31	1
Analyte Total BTEX Method: SW846 8015 NM - Diese Analyte	Result <0.00403 Pl Range Organ Result 120	Qualifier U ics (DRO) (Qualifier	0.00403 GC) RL 50.4		mg/Kg			07/18/23 10:31 Analyzed	1 Dil Fac
Analyte Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH	Result <0.00403 el Range Organ Result 120 sel Range Orga	Qualifier U ics (DRO) (Qualifier	0.00403 GC) RL 50.4	MDL	mg/Kg			07/18/23 10:31 Analyzed	Dil Fac
Analyte Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese	Result <0.00403 el Range Organ Result 120 sel Range Orga	Qualifier U ics (DRO) (Qualifier nics (DRO) Qualifier	0.00403 GC) RL 50.4	MDL	mg/Kg Unit mg/Kg	<u>D</u>	Prepared	07/18/23 10:31 Analyzed 07/28/23 11:50	1 Dil Fac
Analyte Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics	Result <0.00403 Pl Range Organ Result 120 sel Range Orga Result Result Result Result Result Result	Qualifier U ics (DRO) (Qualifier nics (DRO) Qualifier	0.00403 GC) RL 50.4 (GC) RL	MDL	mg/Kg Unit mg/Kg Unit	<u>D</u>	Prepared Prepared	07/18/23 10:31 Analyzed 07/28/23 11:50 Analyzed	Dil Fac Dil Fac

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Analyzed

07/28/23 02:46

07/28/23 02:46

Prepared

07/20/23 15:49

07/20/23 15:49

Limits

70 - 130

70 - 130

%Recovery Qualifier

119

102

Dil Fac

Surrogate

o-Terphenyl

1-Chlorooctane

Matrix: Solid

Lab Sample ID: 890-4938-4

Lab Sample ID: 890-4938-5

Client Sample Results

 Client: Vertex
 Job ID: 890-4938-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Client Sample ID: BES23-33 0.5'

Date Collected: 07/12/23 10:15 Date Received: 07/12/23 16:02

Sample Depth: 0.5

 Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Chloride
 767
 F1
 25.0
 mg/Kg
 07/15/23 01:48
 5

Client Sample ID: BES23-34 0.5'

Date Collected: 07/12/23 10:20

Date Received: 07/12/23 16:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/17/23 12:42	07/18/23 00:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/17/23 12:42	07/18/23 00:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/17/23 12:42	07/18/23 00:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/17/23 12:42	07/18/23 00:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/17/23 12:42	07/18/23 00:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/17/23 12:42	07/18/23 00:10	,
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130				07/17/23 12:42	07/18/23 00:10	
1,4-Difluorobenzene (Surr)	64	S1-	70 - 130				07/17/23 12:42	07/18/23 00:10	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/18/23 10:31	1
Method: SW846 8015 NM - Dieso Analyte Total TPH		Qualifier	RL 50.5	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 07/28/23 11:50	Dil Fa
					ilig/Kg			07/20/23 11.30	'
Method: SW846 8015B NM - Die Analyte		nics (DRO) Qualifier	(GC)	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics			50.5		mg/Kg		07/20/23 15:49	07/28/23 03:08	
(GRO)-C6-C10	-00.0	Ü	00.0		mg/rtg		01720720 10.10	01120120 00.00	
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		07/20/23 15:49	07/28/23 03:08	1
Oll Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		07/20/23 15:49	07/28/23 03:08	1
	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Surrogate	7011CCOVCI y						07/20/23 15:49	07/28/23 03:08	
	139	S1+	70 - 130				01/20/23 13.49	01/20/23 03.00	4
1-Chlorooctane		S1+	70 - 130 70 - 130				07/20/23 15:49	07/28/23 03:08	
1-Chlorooctane o-Terphenyl	139 124		70 - 130						1
Surrogate 1-Chlorooctane o-Terphenyl Method: EPA 300.0 - Anions, Ior Analyte	139 124 n Chromatograp		70 - 130	MDL	Unit	D			-

Client: Vertex
Project/Site: Corral Fly

Job ID: 890-4938-1 SDG: 23E-02502

Matrix: Solid

Lab Sample ID: 890-4938-6

07/20/23 15:49

07/28/23 03:30

Client Sample ID: BES23-35 0.5'

Date Collected: 07/12/23 10:25 Date Received: 07/12/23 16:02

Sample Depth: 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC) Analyte Result Qualifier MDL Prepared Analyzed Dil Fac RL Unit D <0.00198 U 0.00198 07/17/23 12:42 07/18/23 00:30 Benzene mg/Kg Ethylbenzene <0.00198 U 0.00198 mg/Kg 07/17/23 12:42 07/18/23 00:30 Toluene <0.00198 U 0.00198 07/17/23 12:42 07/18/23 00:30 mg/Kg <0.00396 U 0.00396 07/17/23 12:42 07/18/23 00:30 Xylenes, Total mg/Kg m-Xylene & p-Xylene <0.00396 U 0.00396 07/17/23 12:42 07/18/23 00:30 mg/Kg <0.00198 U 0.00198 07/17/23 12:42 07/18/23 00:30 o-Xylene mg/Kg

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 4-Bromofluorobenzene (Surr) 07/17/23 12:42 94 70 - 130 07/18/23 00:30 70 - 130 07/17/23 12:42 1,4-Difluorobenzene (Surr) 70 07/18/23 00:30

 Method: TAL SOP Total BTEX - Total BTEX Calculation

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Total BTEX
 <0.00396</td>
 U
 0.00396
 mg/Kg
 07/18/23 10:31
 1

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

 Analyte
 Result TPH
 Qualifier
 RL
 MDL Unit mg/Kg
 D
 Prepared Prepared (D7/28/23 11:50)
 Analyzed (D7/28/23 11:50)
 Dil Factor (D7/28/23 11:50)

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Result Qualifier MDI Analyte RL Unit D Analyzed Dil Fac Prepared <50.4 U *-Gasoline Range Organics 50.4 mg/Kg 07/20/23 15:49 07/28/23 03:30 (GRO)-C6-C10 Diesel Range Organics (Over <50.4 U 50.4 mg/Kg 07/20/23 15:49 07/28/23 03:30

Limits Dil Fac Surrogate %Recovery Qualifier Prepared Analyzed 70 - 130 07/20/23 15:49 07/28/23 03:30 1-Chlorooctane 123 07/20/23 15:49 o-Terphenyl 108 70 - 130 07/28/23 03:30

50 4

mg/Kg

<50.4 U

Method: EPA 300.0 - Anions, Ion Chromatography - SolubleAnalyteResultQualifierRLMDLUnitDPreparedAnalyzedDil FacChloride978099.2mg/Kg07/15/23 02:0820

Client Sample ID: BES23-36 0.5'

Lab Sample ID: 890-4938-7

Date Collected: 07/12/23 10:30 Date Received: 07/12/23 16:02

Oll Range Organics (Over C28-C36)

Sample Depth: 0.5

C10-C28)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/17/23 12:42	07/18/23 00:51	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/17/23 12:42	07/18/23 00:51	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/17/23 12:42	07/18/23 00:51	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/17/23 12:42	07/18/23 00:51	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/17/23 12:42	07/18/23 00:51	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/17/23 12:42	07/18/23 00:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130				07/17/23 12:42	07/18/23 00:51	

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Matrix: Solid

3

6

8

10

12

Lab Sample ID: 890-4938-7

Lab Sample ID: 890-4938-8

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-4938-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-36 0.5'

Date Collected: 07/12/23 10:30 Date Received: 07/12/23 16:02

Sample Depth: 0.5

Method: SW846 8021B	- Volatile Organic	Compounds	(GC)	(Continued)
Michiga. Offord doz 15	- Volutile Organie	Compounds	$(\mathbf{U}\mathbf{U})$	(Oontiniaca)

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1.4-Difluorobenzene (Surr)	70	70 - 130	07/17/23 12:42	07/18/23 00:51	

Method: TAL SOP	Total RTFX - Total	RTFX Calculation
Mictiliou. IAL OOI	TOTAL DIEX - TOTAL	DIEA Galcalation

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402 U	0.00402	ma/Ka			07/18/23 10:31	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	96.2		50.0		mg/Kg			07/28/23 11:50	1

	Mothod: SW046 904ED NM Diocol Dan	go Organico (DBO) (CC)	v
ı	Method: SW846 8015B NM - Diesel Ran	ge 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		07/20/23 15:49	07/28/23 03:51	1
Diesel Range Organics (Over C10-C28)	96.2		50.0		mg/Kg		07/20/23 15:49	07/28/23 03:51	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/20/23 15:49	07/28/23 03:51	1
0	0/ 🗖	O	1 : : 4				D	A l	D# 5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	133	S1+	70 - 130	07/20/23 15:4	9 07/28/23 03:51	1
o-Terphenyl	117		70 - 130	07/20/23 15:4	9 07/28/23 03:51	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2360	25.1	mg/Kg		_	07/15/23 02:23	5

Client Sample ID: BES23-37 0.5'

Date Collected: 07/12/23 10:35 Date Received: 07/12/23 16:02

Sample Depth: 0.5

 Mathad.	CIMO 4C	0024D	Valatila Ossania	Compounds (GC)
viernoa:	SVVA4n	AUZID .	· voiatile Organic	: Compounds (GC)

Michiga. Offoro ouz 1D - Volunic O	rgarne comp	ounus (CC)	,						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/17/23 12:42	07/18/23 01:11	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/17/23 12:42	07/18/23 01:11	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/17/23 12:42	07/18/23 01:11	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/17/23 12:42	07/18/23 01:11	1
m-Xylene & p-Xylene	< 0.00399	U	0.00399		mg/Kg		07/17/23 12:42	07/18/23 01:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/17/23 12:42	07/18/23 01:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130				07/17/23 12:42	07/18/23 01:11	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Anaiyzea	DII Fac
4-Bromofluorobenzene (Surr)	90	70 - 130	07/17/23 12:42	07/18/23 01:11	1
1,4-Difluorobenzene (Surr)	63 S1-	70 - 130	07/17/23 12:42	07/18/23 01:11	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			07/18/23 10:31	1

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

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			07/28/23 11:50	1

Lab Sample ID: 890-4938-8

07/20/23 15:49 07/28/23 04:13

07/17/23 12:42

07/17/23 12:42

07/18/23 01:31

07/18/23 01:31

Client Sample Results

Client: Vertex Job ID: 890-4938-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-37 0.5'

Date Collected: 07/12/23 10:35 Date Received: 07/12/23 16:02

Sample Depth: 0.5									
Method: SW846 8015B NM - Diese	l Range Orga	nics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oline Denne Onnenies	-10 Q	11*	40.0		malka		07/20/22 15:40	07/00/02 04:42	

Analyte	Result	Qualifier	KL	MDL (Jnit	ט	Prepared	Anaiyzed	DII Fac
Gasoline Range Organics	<49.8	U *-	49.8	r	ng/Kg		07/20/23 15:49	07/28/23 04:13	
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.8	U	49.8	r	ng/Kg		07/20/23 15:49	07/28/23 04:13	
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	r	ng/Kg		07/20/23 15:49	07/28/23 04:13	•
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1011		-					07/00/00 15 10	27/22/22 24 42	
1-Chlorooctane	132	S1+	70 ₋ 130				07/20/23 15:49	07/28/23 04:13	

Method: EPA 300.0 - Anions, Ion C	hromatography - Solu	uble					
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	355	4.98	mg/Kg			07/15/23 02:29	1

70 - 130

111

<0.00396 U

<0.00198 U

Client Sample ID: BES23-38 0.5' Lab Sample ID: 890-4938-9 Date Collected: 07/12/23 10:40 **Matrix: Solid**

Date Received: 07/12/23 16:02

Sample Depth: 0.5

m-Xylene & p-Xylene

o-Xylene

o-Terphenyl

Method: SW846 8021B -	Volatile Organic Compo	ounds (GC))						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/17/23 12:42	07/18/23 01:31	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/17/23 12:42	07/18/23 01:31	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/17/23 12:42	07/18/23 01:31	1
Xvlenes. Total	<0.00396	U	0.00396		ma/Ka		07/17/23 12:42	07/18/23 01:31	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91	70 - 130	07/17/23 12:42	07/18/23 01:31	1
1,4-Difluorobenzene (Surr)	68 S1-	70 - 130	07/17/23 12:42	07/18/23 01:31	1

0.00396

0.00198

mg/Kg

mg/Kg

Method: TAL SOP Total BTEX - Total	I BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			07/18/23 10:31	1

Method: SW846 8015 NM - Diesel F	Range Organics (DRO)	(GC)					
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	796	49.6	mg/Kg			07/28/23 11:50	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U *-	49.6		mg/Kg		07/20/23 15:49	07/28/23 04:35	1
Diesel Range Organics (Over C10-C28)	796		49.6		mg/Kg		07/20/23 15:49	07/28/23 04:35	1
Oll Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		07/20/23 15:49	07/28/23 04:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130	07/20/23 15:49	07/28/23 04:35	1
o-Terphenyl	105		70 - 130	07/20/23 15:49	07/28/23 04:35	1

Matrix: Solid

Lab Sample ID: 890-4938-9

Client Sample Results

Client: Vertex Job ID: 890-4938-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-38 0.5'

Date Collected: 07/12/23 10:40 Date Received: 07/12/23 16:02

Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion C	hromatography - S	oluble						
Analyte	Result Qualifi	ier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12300	99.8		mg/Kg			07/15/23 02:34	20

Client Sample ID: BES23-39 0.5'

Lab Sample ID: 890-4938-10

Date Collected: 07/12/23 10:45 Date Received: 07/12/23 16:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00201	U	0.00201		mg/Kg		07/17/23 12:42	07/18/23 01:52	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/17/23 12:42	07/18/23 01:52	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/17/23 12:42	07/18/23 01:52	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/17/23 12:42	07/18/23 01:52	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/17/23 12:42	07/18/23 01:52	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/17/23 12:42	07/18/23 01:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		70 - 130				07/17/23 12:42	07/18/23 01:52	1
1,4-Difluorobenzene (Surr)	84		70 - 130				07/17/23 12:42	07/18/23 01:52	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/18/23 10:31	1
Method: SW846 8015 NM - Diese	I Range Organ	ics (DRO) (0	GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			07/28/23 11:50	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U *-	50.2		mg/Kg		07/20/23 15:49	07/28/23 04:57	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		07/20/23 15:49	07/28/23 04:57	1
Oll Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		07/20/23 15:49	07/28/23 04:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130				07/20/23 15:49	07/28/23 04:57	1
o-Terphenyl	114		70 - 130				07/20/23 15:49	07/28/23 04:57	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client: Ve

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Released to Imaging: 8/5/2024 4:13:08 PM

Lab Sample ID: 890-4938-11

Client Sample Results

Client: Vertex Job ID: 890-4938-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-40 0.5'

Date Collected: 07/12/23 10:50 Date Received: 07/12/23 16:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/17/23 12:42	07/18/23 02:12	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/17/23 12:42	07/18/23 02:12	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/17/23 12:42	07/18/23 02:12	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		07/17/23 12:42	07/18/23 02:12	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		07/17/23 12:42	07/18/23 02:12	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/17/23 12:42	07/18/23 02:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130				07/17/23 12:42	07/18/23 02:12	1
1,4-Difluorobenzene (Surr)	68	S1-	70 - 130				07/17/23 12:42	07/18/23 02:12	1
- Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			07/18/23 10:31	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)						
	•		•			_			D.: E
Method: SW846 8015 NM - Diese Analyte Total TPH	•	Qualifier	GC) RL 50.0	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 07/28/23 11:50	Dil Fac
Analyte	Result	Qualifier	RL	MDL	Unit mg/Kg	<u>D</u>	Prepared		Dil Fac
Analyte	Result < 50.0	Qualifier U	RL 50.0	MDL		<u>D</u>	Prepared		Dil Fac
Analyte Total TPH	Result <50.0 sel Range Orga	Qualifier U	RL 50.0			<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	Result <50.0 sel Range Orga	Qualifier U	RL 50.0		mg/Kg			07/28/23 11:50	1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U *-	8L 50.0		mg/Kg		Prepared	07/28/23 11:50 Analyzed	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	Result <50.0 sel Range Orga Result <50.0	Qualifier U nics (DRO) Qualifier U *-	(GC) RL 50.0		mg/Kg Unit mg/Kg		Prepared 07/20/23 15:49	07/28/23 11:50 Analyzed 07/28/23 05:19	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0	Qualifier U nics (DRO) Qualifier U *- U	RL 50.0 (GC) RL 50.0 50.0		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/20/23 15:49 07/20/23 15:49	07/28/23 11:50 Analyzed 07/28/23 05:19 07/28/23 05:19	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0	Qualifier U nics (DRO) Qualifier U *- U	RL 50.0 (GC) RL 50.0 50.0 50.0		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/20/23 15:49 07/20/23 15:49 07/20/23 15:49	07/28/23 11:50 Analyzed 07/28/23 05:19 07/28/23 05:19 07/28/23 05:19	1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <50.0	Qualifier U nics (DRO) Qualifier U *- U	RL 50.0		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/20/23 15:49 07/20/23 15:49 07/20/23 15:49 Prepared	07/28/23 11:50 Analyzed 07/28/23 05:19 07/28/23 05:19 07/28/23 05:19 Analyzed	Dil Face 1 1 1 Dil Face
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <50.0	Qualifier U nics (DRO) Qualifier U *- U Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/20/23 15:49 07/20/23 15:49 07/20/23 15:49 Prepared 07/20/23 15:49	07/28/23 11:50 Analyzed 07/28/23 05:19 07/28/23 05:19 07/28/23 05:19 Analyzed 07/28/23 05:19	Dil Fac 1 1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result <50.0	Qualifier U nics (DRO) Qualifier U *- U Qualifier	RL 50.0 (GC) RL 50.0 50.0 50.0 Limits 70 - 130 70 - 130	MDL	mg/Kg Unit mg/Kg mg/Kg		Prepared 07/20/23 15:49 07/20/23 15:49 07/20/23 15:49 Prepared 07/20/23 15:49	07/28/23 11:50 Analyzed 07/28/23 05:19 07/28/23 05:19 07/28/23 05:19 Analyzed 07/28/23 05:19	Dil Fac 1 1 Dil Fac

Surrogate Summary

Client: Vertex Job ID: 890-4938-1
Project/Site: Corral Fly SDG: 23E-02502

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)	
390-4929-A-4-B MS	Matrix Spike	272 S1+	76	
90-4929-A-4-C MSD	Matrix Spike Duplicate	218 S1+	70	
90-4938-1	BES23-30 0.5'	250 S1+	102	
390-4938-2	BES23-31 0.5'	88	76	
90-4938-2 MS	BES23-31 0.5'	127	97	
90-4938-2 MSD	BES23-31 0.5'	121	94	
90-4938-3	BES23-32 0.5'	92	68 S1-	
390-4938-4	BES23-33 0.5'	90	59 S1-	
390-4938-5	BES23-34 0.5'	94	64 S1-	
90-4938-6	BES23-35 0.5'	94	70	
90-4938-7	BES23-36 0.5'	95	70	
90-4938-8	BES23-37 0.5'	90	63 S1-	
90-4938-9	BES23-38 0.5'	91	68 S1-	
90-4938-10	BES23-39 0.5'	73	84	
90-4938-11	BES23-40 0.5'	92	68 S1-	
CS 880-57703/1-A	Lab Control Sample	213 S1+	85	
.CS 880-57839/1-A	Lab Control Sample	120	100	
.CSD 880-57703/2-A	Lab Control Sample Dup	223 S1+	63 S1-	
.CSD 880-57839/2-A	Lab Control Sample Dup	120	94	
MB 880-57655/5-A	Method Blank	115	60 S1-	
1B 880-57703/5-A	Method Blank	122	81	
1B 880-57823/5-A	Method Blank	71	90	
MB 880-57839/5-A	Method Blank	76	84	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

		1001	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4932-A-1-D MS	Matrix Spike	134 S1+	105
890-4932-A-1-E MSD	Matrix Spike Duplicate	131 S1+	99
890-4938-1	BES23-30 0.5'	147 S1+	131 S1+
890-4938-2	BES23-31 0.5'	121	107
890-4938-3	BES23-32 0.5'	134 S1+	111
890-4938-4	BES23-33 0.5'	119	102
890-4938-5	BES23-34 0.5'	139 S1+	124
890-4938-6	BES23-35 0.5'	123	108
890-4938-7	BES23-36 0.5'	133 S1+	117
890-4938-8	BES23-37 0.5'	132 S1+	111
890-4938-9	BES23-38 0.5'	127	105
890-4938-10	BES23-39 0.5'	130	114
890-4938-11	BES23-40 0.5'	123	108
LCS 880-58171/2-A	Lab Control Sample	104	98
LCSD 880-58171/3-A	Lab Control Sample Dup	102	93
MB 880-58171/1-A	Method Blank	171 S1+	156 S1+

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Surrogate Summary

Client: Vertex

Project/Site: Corral Fly

Surrogate Legend

1CO = 1-Chlorooctane OTPH = o-Terphenyl

Job ID: 890-4938-1 SDG: 23E-02502

7/28/2023

Client: Vertex Job ID: 890-4938-1 Project/Site: Corral Fly SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-57655/5-A

Matrix: Solid Analysis Batch: 57701 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57655

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/14/23 08:26	07/15/23 21:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/14/23 08:26	07/15/23 21:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/14/23 08:26	07/15/23 21:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/14/23 08:26	07/15/23 21:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/14/23 08:26	07/15/23 21:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/14/23 08:26	07/15/23 21:24	1

MB MB

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130		07/14/23 08:26	07/15/23 21:24	1
1,4-Difluorobenzene (Surr)	60	S1-	70 - 130	(07/14/23 08:26	07/15/23 21:24	1

Lab Sample ID: MB 880-57703/5-A

Client Sample ID: Method Blank

Prep Batch: 57703

Matrix: Solid Prep Type: Total/NA Analysis Batch: 57701 MB MB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/14/23 14:30	07/16/23 10:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/14/23 14:30	07/16/23 10:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/14/23 14:30	07/16/23 10:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/14/23 14:30	07/16/23 10:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/14/23 14:30	07/16/23 10:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/14/23 14:30	07/16/23 10:45	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	07/14/23 14:30	07/16/23 10:45	1
1,4-Difluorobenzene (Surr)	81		70 - 130	07/14/23 14:30	07/16/23 10:45	1

Lab Sample ID: LCS 880-57703/1-A

Matrix: Solid

Analysis Batch: 57701

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 57703

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1186		mg/Kg		119	70 - 130	
Ethylbenzene	0.100	0.1137		mg/Kg		114	70 - 130	
Toluene	0.100	0.1144		mg/Kg		114	70 - 130	
m-Xylene & p-Xylene	0.200	0.2109		mg/Kg		105	70 - 130	
o-Xylene	0.100	0.1174		mg/Kg		117	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	213	S1+	70 - 130
1.4-Difluorobenzene (Surr)	85		70 - 130

Lab Sample ID: LCSD 880-57703/2-A

Matrix: Solid

Analysis Batch: 57701

Client Sample ID: La	ab Control Sample Dup
	Prop Type: Total/NA

Prep Type: Total/NA

Prep Batch: 57703

	Spike	LCSD LCSD				%Rec		RPD	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1148	mg/Kg		115	70 - 130	3	35	

Client: Vertex Job ID: 890-4938-1 Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: LCSD 880-57703/2-A

Matrix: Solid

Analysis Batch: 57701

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 57703

Spike	LCSD	LCSD				%Rec		RPD
Analyte Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Ethylbenzene 0.100	0.1291		mg/Kg		129	70 - 130	13	35
Toluene 0.100	0.1217		mg/Kg		122	70 - 130	6	35
m-Xylene & p-Xylene 0.200	0.2349		mg/Kg		117	70 - 130	11	35
o-Xylene 0.100	0.1225		mg/Kg		123	70 - 130	4	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	223	S1+	70 _ 130
1,4-Difluorobenzene (Surr)	63	S1-	70 - 130

Lab Sample ID: 890-4929-A-4-B MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 57701** Prep Batch: 57703

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U	0.0994	0.1077		mg/Kg		108	70 - 130	
Ethylbenzene	<0.00202	U F2 F1	0.0994	0.04676	F1	mg/Kg		47	70 - 130	
Toluene	<0.00202	U F2 F1	0.0994	0.07130		mg/Kg		72	70 - 130	
m-Xylene & p-Xylene	<0.00404	U F2 F1	0.199	0.08711	F1	mg/Kg		44	70 - 130	
o-Xylene	<0.00202	U F1	0.0994	0.06021	F1	mg/Kg		61	70 - 130	
Toluene m-Xylene & p-Xylene	<0.00202 <0.00404	U F2 F1 U F2 F1	0.0994 0.199	0.07130 0.08711	F1	mg/Kg mg/Kg		72 44	70 - 130 70 - 130	

MS MS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	272	S1+	70 - 130
1,4-Difluorobenzene (Surr)	76		70 - 130

Lab Sample ID: 890-4929-A-4-C MSD

Matrix: Solid

Analysis Batch: 57701

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA Prep Batch: 57703

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U	0.0998	0.07531		mg/Kg		75	70 - 130	35	35
Ethylbenzene	<0.00202	U F2 F1	0.0998	0.03174	F2 F1	mg/Kg		32	70 - 130	38	35
Toluene	<0.00202	U F2 F1	0.0998	0.04510	F2 F1	mg/Kg		45	70 - 130	45	35
m-Xylene & p-Xylene	<0.00404	U F2 F1	0.200	0.05493	F2 F1	mg/Kg		28	70 - 130	45	35
o-Xylene	<0.00202	U F1	0.0998	0.04349	F1	mg/Kg		44	70 - 130	32	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	218	S1+	70 - 130
1,4-Difluorobenzene (Surr)	70		70 - 130

Lab Sample ID: MB 880-57823/5-A

Matrix: Solid

Analysis Batch: 57772

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57823

мв мв

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 11:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 11:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 11:31	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/17/23 08:40	07/17/23 11:31	1

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Client: Vertex Job ID: 890-4938-1 Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: MB 880-57823/5-A

Matrix: Solid

Analysis Batch: 57772

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57823

•	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ne & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/17/23 08:40	07/17/23 11:31	1
e	<0.00200	U	0.00200		mg/Kg		07/17/23 08:40	07/17/23 11:31	1

мв мв

MB MB

Surrogate	%Recovery	Qualifier Lin	nits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71	70 -	_ 130	07/17/23 08:40	07/17/23 11:31	1
1,4-Difluorobenzene (Surr)	90	70 -	- 130	07/17/23 08:40	07/17/23 11:31	1

Lab Sample ID: MB 880-57839/5-A **Client Sample ID: Method Blank**

Matrix: Solid

Analysis Batch: 57772

Prep Type: Total/NA

Prep Batch: 57839

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/17/23 12:42	07/17/23 22:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/17/23 12:42	07/17/23 22:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/17/23 12:42	07/17/23 22:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/17/23 12:42	07/17/23 22:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/17/23 12:42	07/17/23 22:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/17/23 12:42	07/17/23 22:47	1

мв мв

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76	70 - 130	07/17/23 12:42	07/17/23 22:47	1
1,4-Difluorobenzene (Surr)	84	70 - 130	07/17/23 12:42	07/17/23 22:47	1

Lab Sample ID: LCS 880-57839/1-A

Matrix: Solid

Analysis Batch: 57772

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 57839

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1058		mg/Kg		106	70 - 130	
Ethylbenzene	0.100	0.1194		mg/Kg		119	70 - 130	
Toluene	0.100	0.09907		mg/Kg		99	70 - 130	
m-Xylene & p-Xylene	0.200	0.2456		mg/Kg		123	70 - 130	
o-Xylene	0.100	0.1285		mg/Kg		129	70 - 130	
	Benzene Ethylbenzene Toluene m-Xylene & p-Xylene	Analyte Added Benzene 0.100 Ethylbenzene 0.100 Toluene 0.100 m-Xylene & p-Xylene 0.200	Analyte Added Result Benzene 0.100 0.1058 Ethylbenzene 0.100 0.1194 Toluene 0.100 0.09907 m-Xylene & p-Xylene 0.200 0.2456	Analyte Added Result Qualifier Benzene 0.100 0.1058 Ethylbenzene 0.100 0.1194 Toluene 0.100 0.09907 m-Xylene & p-Xylene 0.200 0.2456	Analyte Added Result Qualifier Unit Benzene 0.100 0.1058 mg/Kg Ethylbenzene 0.100 0.1194 mg/Kg Toluene 0.100 0.09907 mg/Kg m-Xylene & p-Xylene 0.200 0.2456 mg/Kg	Analyte Added Result Qualifier Unit Unit D Benzene 0.100 0.1058 mg/Kg Ethylbenzene 0.100 0.1194 mg/Kg Toluene 0.100 0.09907 mg/Kg m-Xylene & p-Xylene 0.200 0.2456 mg/Kg	Analyte Added Result Qualifier Unit D %Rec Benzene 0.100 0.1058 mg/Kg 106 Ethylbenzene 0.100 0.1194 mg/Kg 119 Toluene 0.100 0.09907 mg/Kg 99 m-Xylene & p-Xylene 0.200 0.2456 mg/Kg 123	Analyte Added Result Qualifier Unit D %Rec Limits Benzene 0.100 0.1058 mg/Kg 106 70 - 130 Ethylbenzene 0.100 0.1194 mg/Kg 119 70 - 130 Toluene 0.100 0.09907 mg/Kg 99 70 - 130 m-Xylene & p-Xylene 0.200 0.2456 mg/Kg 123 70 - 130

LCS LCS

Surrogate	%Recovery Qualifi	er Limits
4-Bromofluorobenzene (Surr)	120	70 - 130
1,4-Difluorobenzene (Surr)	100	70 - 130

Lab Sample ID: LCSD 880-57839/2-A

Matrix: Solid

Analysis Batch: 57772

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 57839

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08681		mg/Kg		87	70 - 130	20	35
Ethylbenzene	0.100	0.1026		mg/Kg		103	70 - 130	15	35
Toluene	0.100	0.08343		mg/Kg		83	70 - 130	17	35
m-Xylene & p-Xylene	0.200	0.2130		mg/Kg		106	70 - 130	14	35
o-Xylene	0.100	0.1117		mg/Kg		112	70 - 130	14	35

Client: Vertex Job ID: 890-4938-1 SDG: 23E-02502 Project/Site: Corral Fly

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

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-4938-2 MS Client Sample ID: BES23-31 0.5'

Matrix: Solid Prep Type: Total/NA Prep Batch: 57839 **Analysis Batch: 57772**

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U	0.0994	0.1057		mg/Kg		106	70 - 130	
Ethylbenzene	<0.00199	U	0.0994	0.1224		mg/Kg		123	70 - 130	
Toluene	<0.00199	U	0.0994	0.09839		mg/Kg		99	70 - 130	
m-Xylene & p-Xylene	<0.00398	U	0.199	0.2544		mg/Kg		128	70 - 130	
o-Xylene	< 0.00199	U	0.0994	0.1287		mg/Kg		129	70 - 130	

MS MS %Recovery Qualifier Limits Surrogate 70 - 130 4-Bromofluorobenzene (Surr) 127 1,4-Difluorobenzene (Surr) 97 70 - 130

Lab Sample ID: 890-4938-2 MSD Client Sample ID: BES23-31 0.5'

Matrix: Solid

Analysis Batch: 57772									Prep	Batch:	57839
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.0998	0.1085		mg/Kg		109	70 - 130	3	35
Ethylbenzene	< 0.00199	U	0.0998	0.1237		mg/Kg		124	70 - 130	1	35
Toluene	< 0.00199	U	0.0998	0.1002		mg/Kg		100	70 - 130	2	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2575		mg/Kg		129	70 - 130	1	35
o-Xylene	< 0.00199	U	0.0998	0.1285		mg/Kg		129	70 - 130	0	35

MSD MSD %Recovery Qualifier Surrogate Limits 70 - 130 4-Bromofluorobenzene (Surr) 121 1,4-Difluorobenzene (Surr)

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

Lab Sample ID: MB 880-58171/1-A Client Sample ID: Method Blank

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 58603** Prep Batch: 58171 мв мв

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0		mg/Kg		07/20/23 15:48	07/27/23 20:13	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.0	U	50.0		mg/Kg		07/20/23 15:48	07/27/23 20:13	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/20/23 15:48	07/27/23 20:13	1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	171	S1+	70 - 130	07/20/23 15:48	07/27/23 20:13	1
o-Terphenyl	156	S1+	70 - 130	07/20/23 15:48	07/27/23 20:13	1

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Prep Type: Total/NA

Prep Batch: 58171

Prep Type: Total/NA

Prep Batch: 58171

QC Sample Results

Client: Vertex Job ID: 890-4938-1 SDG: 23E-02502 Project/Site: Corral Fly

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

Lab Sample ID: LCS 880-58171/2-A Client Sample ID: Lab Control Sample Prep Type: Total/NA

Matrix: Solid Analysis Batch: 58603

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	592.9	*_	mg/Kg		59	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	936.9		mg/Kg		94	70 - 130	
C40 C20\								

C10-C28)

LCS LCS %Recovery Qualifier Limits Surrogate 70 - 130 1-Chlorooctane 104 o-Terphenyl 98 70 - 130

Lab Sample ID: LCSD 880-58171/3-A **Client Sample ID: Lab Control Sample Dup**

Matrix: Solid

Analysis Batch: 58603

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	 1000	614.6	*_	mg/Kg		61	70 - 130	4	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	971.0		mg/Kg		97	70 - 130	4	20

C10-C28)

	LUSD	LUSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	93		70 - 130

1000 1000

MS MS

Lab Sample ID: 890-4932-A-1-D MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 58603									Prep	Batch: 58171
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.3	U *-	992	1037		mg/Kg		103	70 - 130	
Diesel Range Organics (Over	53.1		992	1270		mg/Kg		123	70 - 130	

C10-C28)

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	134	S1+	70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: 890-4932-A-1-E MSD

Matrix: Solid

Anal	ysis	Batch:	58603
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Analysis Batch: 58603										Batch:	58171
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.3	U *-	992	991.4		mg/Kg		98	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	53.1		992	1223		mg/Kg		118	70 - 130	4	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	131	S1+	70 - 130								

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Prep Type: Total/NA

Client Sample ID: Matrix Spike Duplicate

Client: Vertex Job ID: 890-4938-1 Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: 890-4932-A-1-E MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 58603

Prep Batch: 58171 MSD MSD

Surrogate %Recovery Qualifier Limits o-Terphenyl 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-57699/1-A Client Sample ID: Method Blank Matrix: Solid **Prep Type: Soluble**

Analysis Batch: 57705

MB MB

Analyte Result Qualifier RL MDL Unit D Analyzed Dil Fac Prepared Chloride <5.00 5.00 07/15/23 00:20 U mg/Kg

Lab Sample ID: LCS 880-57699/2-A Client Sample ID: Lab Control Sample **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 57705

LCS LCS Spike %Rec Added Result Qualifier Analyte Unit %Rec Limits Chloride 250 252.8 mg/Kg 101 90 - 110

Lab Sample ID: LCSD 880-57699/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 57705

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 254.4 90 - 110 mg/Kg 102

Lab Sample ID: 890-4938-4 MS Client Sample ID: BES23-33 0.5'

Matrix: Solid

Analysis Batch: 57705

Sample Sample Spike MS MS %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 767 F1 1250 2201 F1 115 90 - 110 mg/Kg

Lab Sample ID: 890-4938-4 MSD Client Sample ID: BES23-33 0.5' **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 57705

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Added Qualifier RPD Limit Analyte Result Unit %Rec Limits Chloride F1 1250 2198 F1 767 114 90 - 110 20 mg/Kg

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Prep Type: Soluble

 Client: Vertex
 Job ID: 890-4938-1

 Project/Site: Corral Fly
 SDG: 23E-02502

GC VOA

Pre	р Ва	atch	: 57	655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-57655/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 57701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4938-1	BES23-30 0.5'	Total/NA	Solid	8021B	57703
MB 880-57655/5-A	Method Blank	Total/NA	Solid	8021B	57655
MB 880-57703/5-A	Method Blank	Total/NA	Solid	8021B	57703
LCS 880-57703/1-A	Lab Control Sample	Total/NA	Solid	8021B	57703
LCSD 880-57703/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	57703
890-4929-A-4-B MS	Matrix Spike	Total/NA	Solid	8021B	57703
890-4929-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	57703

Prep Batch: 57703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4938-1	BES23-30 0.5'	Total/NA	Solid	5035	_
MB 880-57703/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-57703/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57703/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4929-A-4-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4929-A-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 57772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4938-2	BES23-31 0.5'	Total/NA	Solid	8021B	57839
890-4938-3	BES23-32 0.5'	Total/NA	Solid	8021B	57839
890-4938-4	BES23-33 0.5'	Total/NA	Solid	8021B	57839
890-4938-5	BES23-34 0.5'	Total/NA	Solid	8021B	57839
890-4938-6	BES23-35 0.5'	Total/NA	Solid	8021B	57839
890-4938-7	BES23-36 0.5'	Total/NA	Solid	8021B	57839
890-4938-8	BES23-37 0.5'	Total/NA	Solid	8021B	57839
890-4938-9	BES23-38 0.5'	Total/NA	Solid	8021B	57839
890-4938-10	BES23-39 0.5'	Total/NA	Solid	8021B	57839
890-4938-11	BES23-40 0.5'	Total/NA	Solid	8021B	57839
MB 880-57823/5-A	Method Blank	Total/NA	Solid	8021B	57823
MB 880-57839/5-A	Method Blank	Total/NA	Solid	8021B	57839
LCS 880-57839/1-A	Lab Control Sample	Total/NA	Solid	8021B	57839
LCSD 880-57839/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	57839
890-4938-2 MS	BES23-31 0.5'	Total/NA	Solid	8021B	57839
890-4938-2 MSD	BES23-31 0.5'	Total/NA	Solid	8021B	57839

Prep Batch: 57823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-57823/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 57839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4938-2	BES23-31 0.5'	Total/NA	Solid	5035	<u> </u>
890-4938-3	BES23-32 0.5'	Total/NA	Solid	5035	
890-4938-4	BES23-33 0.5'	Total/NA	Solid	5035	
890-4938-5	BES23-34 0.5'	Total/NA	Solid	5035	
890-4938-6	BES23-35 0.5'	Total/NA	Solid	5035	

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Client: Vertex Job ID: 890-4938-1 Project/Site: Corral Fly SDG: 23E-02502

GC VOA (Continued)

Prep Batch: 57839 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4938-7	BES23-36 0.5'	Total/NA	Solid	5035	
890-4938-8	BES23-37 0.5'	Total/NA	Solid	5035	
890-4938-9	BES23-38 0.5'	Total/NA	Solid	5035	
890-4938-10	BES23-39 0.5'	Total/NA	Solid	5035	
890-4938-11	BES23-40 0.5'	Total/NA	Solid	5035	
MB 880-57839/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-57839/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57839/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4938-2 MS	BES23-31 0.5'	Total/NA	Solid	5035	
890-4938-2 MSD	BES23-31 0.5'	Total/NA	Solid	5035	

Analysis Batch: 57868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4938-1	BES23-30 0.5'	Total/NA	Solid	Total BTEX	
890-4938-2	BES23-31 0.5'	Total/NA	Solid	Total BTEX	
890-4938-3	BES23-32 0.5'	Total/NA	Solid	Total BTEX	
890-4938-4	BES23-33 0.5'	Total/NA	Solid	Total BTEX	
890-4938-5	BES23-34 0.5'	Total/NA	Solid	Total BTEX	
890-4938-6	BES23-35 0.5'	Total/NA	Solid	Total BTEX	
890-4938-7	BES23-36 0.5'	Total/NA	Solid	Total BTEX	
890-4938-8	BES23-37 0.5'	Total/NA	Solid	Total BTEX	
890-4938-9	BES23-38 0.5'	Total/NA	Solid	Total BTEX	
890-4938-10	BES23-39 0.5'	Total/NA	Solid	Total BTEX	
890-4938-11	BES23-40 0.5'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Pren Batch: 58171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4938-1	BES23-30 0.5'	Total/NA	Solid	8015NM Prep	
890-4938-2	BES23-31 0.5'	Total/NA	Solid	8015NM Prep	
890-4938-3	BES23-32 0.5'	Total/NA	Solid	8015NM Prep	
890-4938-4	BES23-33 0.5'	Total/NA	Solid	8015NM Prep	
890-4938-5	BES23-34 0.5'	Total/NA	Solid	8015NM Prep	
890-4938-6	BES23-35 0.5'	Total/NA	Solid	8015NM Prep	
890-4938-7	BES23-36 0.5'	Total/NA	Solid	8015NM Prep	
890-4938-8	BES23-37 0.5'	Total/NA	Solid	8015NM Prep	
890-4938-9	BES23-38 0.5'	Total/NA	Solid	8015NM Prep	
890-4938-10	BES23-39 0.5'	Total/NA	Solid	8015NM Prep	
890-4938-11	BES23-40 0.5'	Total/NA	Solid	8015NM Prep	
MB 880-58171/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-58171/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-58171/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4932-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4932-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 58603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4938-1	BES23-30 0.5'	Total/NA	Solid	8015B NM	58171
890-4938-2	BES23-31 0.5'	Total/NA	Solid	8015B NM	58171
890-4938-3	BES23-32 0.5'	Total/NA	Solid	8015B NM	58171

Client: Vertex Job ID: 890-4938-1 Project/Site: Corral Fly SDG: 23E-02502

GC Semi VOA (Continued)

Analysis Batch: 58603 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4938-4	BES23-33 0.5'	Total/NA	Solid	8015B NM	58171
890-4938-5	BES23-34 0.5'	Total/NA	Solid	8015B NM	58171
890-4938-6	BES23-35 0.5'	Total/NA	Solid	8015B NM	58171
890-4938-7	BES23-36 0.5'	Total/NA	Solid	8015B NM	58171
890-4938-8	BES23-37 0.5'	Total/NA	Solid	8015B NM	58171
890-4938-9	BES23-38 0.5'	Total/NA	Solid	8015B NM	58171
890-4938-10	BES23-39 0.5'	Total/NA	Solid	8015B NM	58171
890-4938-11	BES23-40 0.5'	Total/NA	Solid	8015B NM	58171
MB 880-58171/1-A	Method Blank	Total/NA	Solid	8015B NM	58171
LCS 880-58171/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	58171
LCSD 880-58171/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	58171
890-4932-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	58171
890-4932-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	58171

Analysis Batch: 58722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4938-1	BES23-30 0.5'	Total/NA	Solid	8015 NM	<u> </u>
890-4938-2	BES23-31 0.5'	Total/NA	Solid	8015 NM	
890-4938-3	BES23-32 0.5'	Total/NA	Solid	8015 NM	
890-4938-4	BES23-33 0.5'	Total/NA	Solid	8015 NM	
890-4938-5	BES23-34 0.5'	Total/NA	Solid	8015 NM	
890-4938-6	BES23-35 0.5'	Total/NA	Solid	8015 NM	
890-4938-7	BES23-36 0.5'	Total/NA	Solid	8015 NM	
890-4938-8	BES23-37 0.5'	Total/NA	Solid	8015 NM	
890-4938-9	BES23-38 0.5'	Total/NA	Solid	8015 NM	
890-4938-10	BES23-39 0.5'	Total/NA	Solid	8015 NM	
890-4938-11	BES23-40 0.5'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 57699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4938-1	BES23-30 0.5'	Soluble	Solid	DI Leach	_
890-4938-2	BES23-31 0.5'	Soluble	Solid	DI Leach	
890-4938-3	BES23-32 0.5'	Soluble	Solid	DI Leach	
890-4938-4	BES23-33 0.5'	Soluble	Solid	DI Leach	
890-4938-5	BES23-34 0.5'	Soluble	Solid	DI Leach	
890-4938-6	BES23-35 0.5'	Soluble	Solid	DI Leach	
890-4938-7	BES23-36 0.5'	Soluble	Solid	DI Leach	
890-4938-8	BES23-37 0.5'	Soluble	Solid	DI Leach	
890-4938-9	BES23-38 0.5'	Soluble	Solid	DI Leach	
890-4938-10	BES23-39 0.5'	Soluble	Solid	DI Leach	
890-4938-11	BES23-40 0.5'	Soluble	Solid	DI Leach	
MB 880-57699/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-57699/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-57699/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4938-4 MS	BES23-33 0.5'	Soluble	Solid	DI Leach	
890-4938-4 MSD	BES23-33 0.5'	Soluble	Solid	DI Leach	

 Client: Vertex
 Job ID: 890-4938-1

 Project/Site: Corral Fly
 SDG: 23E-02502

HPLC/IC

Analysis Batch: 57705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4938-1	BES23-30 0.5'	Soluble	Solid	300.0	57699
890-4938-2	BES23-31 0.5'	Soluble	Solid	300.0	57699
890-4938-3	BES23-32 0.5'	Soluble	Solid	300.0	57699
890-4938-4	BES23-33 0.5'	Soluble	Solid	300.0	57699
890-4938-5	BES23-34 0.5'	Soluble	Solid	300.0	57699
890-4938-6	BES23-35 0.5'	Soluble	Solid	300.0	57699
890-4938-7	BES23-36 0.5'	Soluble	Solid	300.0	57699
890-4938-8	BES23-37 0.5'	Soluble	Solid	300.0	57699
890-4938-9	BES23-38 0.5'	Soluble	Solid	300.0	57699
890-4938-10	BES23-39 0.5'	Soluble	Solid	300.0	57699
890-4938-11	BES23-40 0.5'	Soluble	Solid	300.0	57699
MB 880-57699/1-A	Method Blank	Soluble	Solid	300.0	57699
LCS 880-57699/2-A	Lab Control Sample	Soluble	Solid	300.0	57699
LCSD 880-57699/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57699
890-4938-4 MS	BES23-33 0.5'	Soluble	Solid	300.0	57699
890-4938-4 MSD	BES23-33 0.5'	Soluble	Solid	300.0	57699

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Client: Vertex Job ID: 890-4938-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-30 0.5'

Date Collected: 07/12/23 10:00 Date Received: 07/12/23 16:02

Lab Sample ID: 890-4938-1

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	57703	07/14/23 14:30	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57701	07/16/23 14:35	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			57868	07/17/23 14:47	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58722	07/28/23 11:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	58171	07/20/23 15:49	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58603	07/28/23 01:19	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	57699	07/14/23 13:15	KS	EET MID
Soluble	Analysis	300.0		10			57705	07/15/23 01:32	CH	EET MID

Client Sample ID: BES23-31 0.5' Lab Sample ID: 890-4938-2 **Matrix: Solid**

Date Collected: 07/12/23 10:05

Date Received: 07/12/23 16:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	57839	07/17/23 12:42	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/17/23 23:09	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57868	07/18/23 10:31	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58722	07/28/23 11:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	58171	07/20/23 15:49	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58603	07/28/23 02:03	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	57699	07/14/23 13:15	KS	EET MID
Soluble	Analysis	300.0		1			57705	07/15/23 01:37	CH	EET MID

Client Sample ID: BES23-32 0.5'

Date Collected: 07/12/23 10:10

Date Received: 07/12/23 16:02

Prepared		
or Analyzed	Analyst	Lab
07/17/23 12:42	EL	EET MID
07/17/23 23:20	SM.	EET MID

Lab Sample ID: 890-4938-4

Lab Sample ID: 890-4938-3

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	57839	07/17/23 12:42	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/17/23 23:29	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57868	07/18/23 10:31	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58722	07/28/23 11:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	58171	07/20/23 15:49	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58603	07/28/23 02:25	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	57699	07/14/23 13:15	KS	EET MID
Soluble	Analysis	300.0		10			57705	07/15/23 01:42	CH	EET MID

Client Sample ID: BES23-33 0.5'

onone oumpro is		0.0.0						
Date Collected: 07/1	2/23 10:15							Matrix: Solid
Date Received: 07/1	2/23 16:02							
_	Batch	Patah	Dil	Initial	Einel	Batch	Prepared	
	Daton	Batch	Dil	initiai	Final	Daten	Prepared	

Analyst Prep Type Method Amount Number or Analyzed Type Run Factor Amount Lab Total/NA Prep 5035 57839 07/17/23 12:42 EL EET MID 4.96 g 5 mL Total/NA Analysis 8021B 1 5 mL 5 mL 57772 07/17/23 23:49 SM EET MID Total BTEX 57868 07/18/23 10:31 EET MID Total/NA Analysis AJ 1

Lab Chronicle

Client: Vertex Job ID: 890-4938-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-33 0.5'

Date Collected: 07/12/23 10:15 Date Received: 07/12/23 16:02 Lab Sample ID: 890-4938-4

Matrix: Solid

Bato	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			58722	07/28/23 11:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	58171	07/20/23 15:49	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58603	07/28/23 02:46	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	57699	07/14/23 13:15	KS	EET MID
Soluble	Analysis	300.0		5			57705	07/15/23 01:48	CH	EET MID

Client Sample ID: BES23-34 0.5' Lab Sample ID: 890-4938-5

Date Collected: 07/12/23 10:20 Date Received: 07/12/23 16:02 **Matrix: Solid**

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	57839	07/17/23 12:42	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/18/23 00:10	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57868	07/18/23 10:31	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58722	07/28/23 11:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	58171	07/20/23 15:49	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58603	07/28/23 03:08	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	57699	07/14/23 13:15	KS	EET MID
Soluble	Analysis	300.0		20			57705	07/15/23 02:03	CH	EET MID

Client Sample ID: BES23-35 0.5' Lab Sample ID: 890-4938-6

Date Collected: 07/12/23 10:25 Date Received: 07/12/23 16:02 **Matrix: Solid**

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	57839	07/17/23 12:42	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/18/23 00:30	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57868	07/18/23 10:31	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58722	07/28/23 11:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	58171	07/20/23 15:49	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58603	07/28/23 03:30	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	57699	07/14/23 13:15	KS	EET MID
Soluble	Analysis	300.0		20			57705	07/15/23 02:08	CH	EET MID

Client Sample ID: BES23-36 0.5' Lab Sample ID: 890-4938-7

Date Collected: 07/12/23 10:30 Date Received: 07/12/23 16:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	57839	07/17/23 12:42	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/18/23 00:51	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57868	07/18/23 10:31	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58722	07/28/23 11:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	58171	07/20/23 15:49	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58603	07/28/23 03:51	AJ	EET MID

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Matrix: Solid

Released to Imaging: 8/5/2024 4:13:08 PM

Client: Vertex Project/Site: Corral Fly

Job ID: 890-4938-1

SDG: 23E-02502

Client Sample ID: BES23-36 0.5'

Date Collected: 07/12/23 10:30 Date Received: 07/12/23 16:02

Lab Sample ID: 890-4938-7

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	57699	07/14/23 13:15	KS	EET MID
Soluble	Analysis	300.0		5			57705	07/15/23 02:23	CH	EET MID

Client Sample ID: BES23-37 0.5' Lab Sample ID: 890-4938-8

Date Collected: 07/12/23 10:35 Date Received: 07/12/23 16:02

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	57839	07/17/23 12:42	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/18/23 01:11	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57868	07/18/23 10:31	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58722	07/28/23 11:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	58171	07/20/23 15:49	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58603	07/28/23 04:13	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	57699	07/14/23 13:15	KS	EET MID
Soluble	Analysis	300.0		1			57705	07/15/23 02:29	CH	EET MID

Client Sample ID: BES23-38 0.5'

Date Collected: 07/12/23 10:40 Date Received: 07/12/23 16:02 Matrix: Solid

Lab Sample ID: 890-4938-9

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	57839	07/17/23 12:42	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/18/23 01:31	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57868	07/18/23 10:31	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58722	07/28/23 11:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	58171	07/20/23 15:49	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58603	07/28/23 04:35	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	57699	07/14/23 13:15	KS	EET MID
Soluble	Analysis	300.0		20			57705	07/15/23 02:34	CH	EET MID

Client Sample ID: BES23-39 0.5'

Date Collected: 07/12/23 10:45 Date Received: 07/12/23 16:02

Lab Sample ID: 890-4938-10 **Matrix: Solid**

Batch Dil Initial Final Batch Batch Prepared Prep Type Method Run Factor Amount Amount Number or Analyzed Analyst Type Lab 5035 57839 Total/NA Prep 4.98 g 5 mL 07/17/23 12:42 EL **EET MID** Total/NA Analysis 8021B 1 5 mL 5 mL 57772 07/18/23 01:52 SM **EET MID** Total/NA Total BTEX 07/18/23 10:31 Analysis 57868 AJ EET MID 1 Total/NA Analysis 8015 NM 58722 07/28/23 11:50 AJ **EET MID** Prep Total/NA 58171 TKC 8015NM Prep 9.97 g 10 mL 07/20/23 15:49 **EET MID** Total/NA Analysis 8015B NM 1 uL 1 uL 58603 07/28/23 04:57 AJ **EET MID** Soluble Leach DI Leach 50 mL 57699 07/14/23 13:15 KS **EET MID** 4.97 g Soluble Analysis 300.0 5 57705 07/15/23 02:39 CH **EET MID**

Lab Chronicle

Client: Vertex Job ID: 890-4938-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-40 0.5'

Date Collected: 07/12/23 10:50 Date Received: 07/12/23 16:02 Lab Sample ID: 890-4938-11

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	57839	07/17/23 12:42	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57772	07/18/23 02:12	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57868	07/18/23 10:31	AJ	EET MID
Total/NA	Analysis	8015 NM		1			58722	07/28/23 11:50	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	58171	07/20/23 15:49	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58603	07/28/23 05:19	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	57699	07/14/23 13:15	KS	EET MID
Soluble	Analysis	300.0		5			57705	07/15/23 02:44	CH	EET MID

Laboratory References:

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

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Released to Imaging: 8/5/2024 4:13:08 PM

Accreditation/Certification Summary

 Client: Vertex
 Job ID: 890-4938-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	LAP	T104704400-23-26	06-30-24
The following analytes	are included in this report, but	t the laboratory is not certific	ed by the governing authority. This list ma	av include analytes for w
the agency does not of	• •	t the laboratory is not certain	ed by the governing additionty. This list his	ay include analytes for v
the agency does not of Analysis Method	• •	Matrix	Analyte	ay include analytes for v
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Method Summary

Client: Vertex Job ID: 890-4938-1 Project/Site: Corral Fly

SDG: 23E-02502

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: Corral Fly

Job ID: 890-4938-1

SDG: 23E-02502

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4938-1	BES23-30 0.5'	Solid	07/12/23 10:00	07/12/23 16:02	0.5
890-4938-2	BES23-31 0.5'	Solid	07/12/23 10:05	07/12/23 16:02	0.5
890-4938-3	BES23-32 0.5'	Solid	07/12/23 10:10	07/12/23 16:02	0.5
890-4938-4	BES23-33 0.5'	Solid	07/12/23 10:15	07/12/23 16:02	0.5
890-4938-5	BES23-34 0.5'	Solid	07/12/23 10:20	07/12/23 16:02	0.5
890-4938-6	BES23-35 0.5'	Solid	07/12/23 10:25	07/12/23 16:02	0.5
890-4938-7	BES23-36 0.5'	Solid	07/12/23 10:30	07/12/23 16:02	0.5
890-4938-8	BES23-37 0.5'	Solid	07/12/23 10:35	07/12/23 16:02	0.5
890-4938-9	BES23-38 0.5'	Solid	07/12/23 10:40	07/12/23 16:02	0.5
890-4938-10	BES23-39 0.5'	Solid	07/12/23 10:45	07/12/23 16:02	0.5
890-4938-11	BES23-40 0.5'	Solid	07/12/23 10:50	07/12/23 16:02	0.5

6

9

10

13

Relinquished by: (Signature)

Circle Method(s) and Metal(s) to be analyzed

Total 200.7 / 6010

200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd

TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr (

58-26

523-37

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

fins Xenco. A minimum charge of \$65.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzee

'Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

ed Date: 08/25/2020 Rev. 2020.

ike: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subc

13 14

eurofins Xenco **Environment Testing**

Project Manager:

Vertex name

Company Name: Bill to: (if different)

Solaris KOV

City, State ZIP: Address: Company Name:

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Chain of Custody

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

	www.xenco.com	Page 1 of Q
R	Work Order Comments	nments
Program:	am: UST/PST PRP Brownfields	nfields RRC Superfund
State	State of Project:	
Repor	Reporting: Level II Level III PS	PST/UST TRRP Level IV
Delive	Deliverables: EDD ADaPT	Other:
ANALYSIS REQUEST		Preservative Codes
	7	None: NO Di Water: H ₂ O
		Cool: Cool MeOH: Me
		HCL: HC HNO 3: HN
		H ₂ SO ₄ : H ₂ NaOH: Na
		H ₃ PO ₄ : HP
		NaHSO 4: NABIS
		Na ₂ S ₂ O ₃ : NaSO ₃
890-4938 Chain of Custody		Zn Acetate+NaOH: Zn
		NaOH+Ascorbic Acid: SAPC
		Sample Comments
Cr Co Cu Fe Pb Mg Mn Mo I	Ni K Se Ag SiO ₂ Na Sr Hg: 1631/245.1/	71 Sn U V Zn 7470 / 7471
ontractors. It assigns standard terms and conditions	ditions	
losses are due to circumstances beyond the control These terms will be enforced unless previously negotiated.	negotiated.	

SAMPLE RECEIPT

mples Received Intact:

Yes

Thermometer ID:

100m

Parameters

0

p Blank: No

We No

Wet Ice:

Yes

ō

ample Custody Seals: ooler Custody Seals:

Yes No Yes No.

NA

Corrected Temperature: Temperature Reading: Correction Factor:

19.0 19.2

Sample Identification

Matrix

Sampled

Sampled

Depth

of

Grab/

Comp

Date

Time

Sampler's Name:

Hunter Flein

TAT starts the day received by the lab, if received by 4:30pm

ject Location:

roject Number:

23E

Routine

Rush

Code

Turn Around

Email:

City, State ZIP:

Due Date:

roject Name:

Work Order No:

13

		eurotins
Xenco	Environment Testing	

City, State ZIP:

Company Name: Project Manager:

Chain of Custody

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 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Bill to: (If different)

Company Name:

Solaris KOG

たいてん

City, State ZIP:

Reporting: Level II | Level III |

PST/UST TRRP

Level IV

State of Project:

Superfund [nfields RRC	Program: UST/PST PRP Brownfields RRC	Progr
	nments	Work Order Comments	
9	Page	www.xenco.com	

None: NO Cool: Cool HCL: HC H ₂ SO ₄ : H ₂ H ₃ PO ₄ : HP NaHSO ₄ : NABIS Na ₂ S ₂ O ₃ : NaSO ₃ Zn Acetate+NaOH NaOH+Ascorbic Ac Sample Con Hg: 1631 / 245.1 / 7470 / 7471 Se Ag SiO ₂ Na Sr Tl Sn U V Zn Hg: 1631 / 245.1 / 7470 / 7471 Date sceived by: (Signature) Date	Preservative None: NO Cool: Cool HCL: HC H;SO 4: H2 H;PO 4: HP NaHSO 4: NABIS Na 25;O3: NASO 3 Zn Acetate+NaOH NaOH+Ascorbic Ac Sample Con Se Ag SiO ₂ Na Sr TI Sn U V Zn Hg: 1631 / 245.1 / 7470 / 7471 Date	Tum Around ANALYS Tum Around Tomp Around The mark is the day received by 430pm The bus if received by 430pm The second by 540pm				6				
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Tat starts the day received by 4:30pm Tat	ANALYSIS REQUEST Pres. None: NO Cool: Cool: Cool he day received by 4:30pm Cool: Cool H ₂ SO ₄ : H ₂	Turn Around Turn Around Pres. Due Date: TAT starts the day received by 4:30pm Tat starts the day received by 4:30pm	O ₄ : HP	H ₃ PC		neter			Temp Blank:	SAMPLE RECEIPT
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73503 Presutine Rush Rose AND TOTAL OD TOTAL NONE: NO	n Around ANALYSIS REQUEST Preservative Rush Code None: NO	Email: Code		Cool:					١	Project Location:
I'm Aroung	ANALYSIS REQUEST	Email: Turn Around ANALYSIS REQUEST		None		ode.		N	2	Project Number:
ANALYSIS RECUEST			Preservative Codes		ANALYSIS REQUEST		Around	Turn	orral Flu	Project Name:

Work Order No:

7/28/2023

Login Sample Receipt Checklist

Client: Vertex Job Number: 890-4938-1 SDG Number: 23E-02502

Login Number: 4938 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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: 890-4938-1 SDG Number: 23E-02502

Login Number: 4938
List Source: Eurofins Midland
List Number: 2
List Creation: 07/14/23 11:05 AM

Creator: Rodriguez, Leticia

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	N/A	

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14

<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 7/31/2023 3:20:26 PM

JOB DESCRIPTION

Corral Fly

JOB NUMBER

890-4943-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

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

Authorization

Generated 7/31/2023 3:20:26 PM

Authorized for release by Jessica Kramer, Project Manager <u>Jessica.Kramer@et.eurofinsus.com</u> (432)704-5440 Client: Vertex
Laboratory Job ID: 890-4943-1
Project/Site: Corral Fly

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QC Sample Results	20
QC Association Summary	25
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2

3

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14

Definitions/Glossary

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description** F1

MS and/or MSD recovery exceeds control limits.

F2 MS/MSD RPD exceeds control limits

S1-Surrogate recovery exceeds control limits, low biased. S1+ Surrogate recovery exceeds control limits, high biased. 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 Contains No Free Liquid **CNF**

Duplicate Error Ratio (normalized absolute difference) DER

Dil Fac Dilution Factor

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) Limit of Quantitation (DoD/DOE) LOQ

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 MOI Method Quantitation Limit

NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

NEG Negative / Absent POS Positive / Present

Practical Quantitation Limit PQL

PRES Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) **TEQ**

TNTC Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Job ID: 890-4943-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4943-1

Receipt

The samples were received on 7/13/2023 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 15.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BES23-41 0.5' (890-4943-1), BES23-42 0.5' (890-4943-2), BES23-43 0.5' (890-4943-3), BES23-44 0.5' (890-4943-4), BES23-45 0.5' (890-4943-5), BES23-46 0.5' (890-4943-6), BES23-47 0.5' (890-4943-7), BES23-48 0.5' (890-4943-8), BES23-49 0.5' (890-4943-9), BES23-50 0.5' (890-4943-10), BES23-51 0.5' (890-4943-11), BES23-52 0.5' (890-4943-12), BES23-53 0.5' (890-4943-13), BES23-54 0.5' (890-4943-14) and BES23-55 0.5' (890-4943-15).

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-58356 and analytical batch 880-58682 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: Surrogate recovery for the following samples were outside control limits: BES23-48 0.5' (890-4943-8), BES23-50 0.5' (890-4943-10), BES23-51 0.5' (890-4943-11), BES23-53 0.5' (890-4943-13) and (890-4943-A-1-I MSD). 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.

Matrix: Solid

Lab Sample ID: 890-4943-1

Client Sample Results

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Client Sample ID: BES23-41 0.5'

Date Collected: 07/13/23 10:00 Date Received: 07/13/23 16:18

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/17/23 13:15	07/17/23 22:21	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/17/23 13:15	07/17/23 22:21	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/17/23 13:15	07/17/23 22:21	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		07/17/23 13:15	07/17/23 22:21	1
m-Xylene & p-Xylene	< 0.00403	U	0.00403		mg/Kg		07/17/23 13:15	07/17/23 22:21	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/17/23 13:15	07/17/23 22:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130				07/17/23 13:15	07/17/23 22:21	1
1,4-Difluorobenzene (Surr)	103		70 - 130				07/17/23 13:15	07/17/23 22:21	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
	Desuit	Qualifier	RL	MDI	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Qualifier	NL.		•				
Analyte Total BTEX	<0.00403		0.00403		mg/Kg			07/18/23 10:23	1
Total BTEX Method: SW846 8015 NM - Diese	<0.00403	ics (DRO) (0.00403 GC)		mg/Kg			07/18/23 10:23	
Total BTEX Method: SW846 8015 NM - Diese Analyte	<0.00403 el Range Organ Result	U	0.00403 GC)	MDL	mg/Kg	 	Prepared	07/18/23 10:23 Analyzed	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH	<0.00403 el Range Organ Result 51.9	ics (DRO) (0.00403 GC) RL 50.3		mg/Kg			07/18/23 10:23	
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese	<0.00403 el Range Organ Result 51.9 sel Range Orga	ics (DRO) (Qualifier	0.00403 GC) RL 50.3	MDL	mg/Kg Unit mg/Kg	<u>D</u>	Prepared	07/18/23 10:23 Analyzed 07/31/23 16:05	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte	<0.00403 el Range Organ Result 51.9 sel Range Orga Result	ics (DRO) (Qualifier	0.00403 GC) RL 50.3 (GC) RL		mg/Kg Unit mg/Kg Unit		Prepared Prepared	07/18/23 10:23 Analyzed 07/31/23 16:05 Analyzed	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese	<0.00403 el Range Organ Result 51.9 sel Range Orga Result	ics (DRO) (Qualifier	0.00403 GC) RL 50.3	MDL	mg/Kg Unit mg/Kg	<u>D</u>	Prepared	07/18/23 10:23 Analyzed 07/31/23 16:05	Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<0.00403 el Range Organ Result 51.9 sel Range Orga Result	U ics (DRO) (Qualifier unics (DRO) Qualifier U F1 F2	0.00403 GC) RL 50.3 (GC) RL	MDL	mg/Kg Unit mg/Kg Unit	<u>D</u>	Prepared Prepared	07/18/23 10:23 Analyzed 07/31/23 16:05 Analyzed	Dil Fac Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10	<0.00403 el Range Organ Result 51.9 sel Range Orga Result <50.3	U ics (DRO) (Qualifier unics (DRO) Qualifier U F1 F2 F1	0.00403 GC) RL 50.3 (GC) RL 50.3	MDL	mg/Kg Unit mg/Kg Unit mg/Kg	<u>D</u>	Prepared Prepared 07/24/23 12:58	07/18/23 10:23 Analyzed 07/31/23 16:05 Analyzed 07/28/23 10:52	Dil Fac Dil Fac 1
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<0.00403 el Range Organ Result 51.9 sel Range Orga Result <50.3 51.9	ics (DRO) (Qualifier unics (DRO) Qualifier UF1 F2 F1	0.00403 GC) RL 50.3 (GC) RL 50.3	MDL	mg/Kg Unit mg/Kg Unit mg/Kg mg/Kg	<u>D</u>	Prepared Prepared 07/24/23 12:58 07/24/23 12:58	07/18/23 10:23 Analyzed 07/31/23 16:05 Analyzed 07/28/23 10:52 07/28/23 10:52	Dil Fac Dil Fac
Total BTEX Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<0.00403 el Range Organ Result 51.9 sel Range Orga Result <50.3 51.9 <50.3	ics (DRO) (Qualifier unics (DRO) Qualifier UF1 F2 F1	0.00403 GC) RL 50.3 (GC) RL 50.3 50.3	MDL	mg/Kg Unit mg/Kg Unit mg/Kg mg/Kg	<u>D</u>	Prepared 07/24/23 12:58 07/24/23 12:58	07/18/23 10:23 Analyzed 07/31/23 16:05 Analyzed 07/28/23 10:52 07/28/23 10:52 07/28/23 10:52	Dil Fac Dil Fac 1 1 1

Client Sample ID: BES23-42 0.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Result Qualifier

1470

Date Collected: 07/13/23 10:05

Date Received: 07/13/23 16:18

Sample Depth: 0.5

Analyte

Chloride

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/17/23 13:15	07/17/23 22:42	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/17/23 13:15	07/17/23 22:42	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/17/23 13:15	07/17/23 22:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/17/23 13:15	07/17/23 22:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/17/23 13:15	07/17/23 22:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/17/23 13:15	07/17/23 22:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130				07/17/23 13:15	07/17/23 22:42	

RL

25.1

MDL Unit

mg/Kg

D

Prepared

Analyzed

07/17/23 18:10

Lab Sample ID: 890-4943-2

Dil Fac

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-4943-2

Lab Sample ID: 890-4943-3

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Client Sample ID: BES23-42 0.5'

Date Collected: 07/13/23 10:05 Date Received: 07/13/23 16:18

Sample Depth: 0.5

Mothod: CIMOAC 0024D	 Volatile Organic Compound 	le (CC) (Continued)
MELITOU. SYVO40 OUZ ID	- Voiatile Organic Combound	is (GC) (Continued)

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1.4-Difluorobenzene (Surr)	114	70 - 130	07/17/23 13:15	07/17/23 22:42	1

Method: TAL SOP	Total RTFX - Total	RTFX Calculation
Mictiliou. IAL OOI	TOTAL DIEX - TOTAL	DIEA Galcalation

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTFX	<0.00398 U	0.00398	ma/Ka			07/18/23 10:23	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (0	н						
	ı	Mothod: CIMOAC OOAE NIM	Discal Banga	Organica	(DDO)		١.
	н	MELITOU. SYVO40 OUTS INIVI-	· Diesei Kaliue	Organics	IURUI	uu	

Analyte	Result Qualifier	r RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	111	50.2	mg/Kg			07/31/23 16:05	1

Method: SW846 8015B NM - Diesel Range Organics	(DRO)	(GC)	١
motified. Offerto College Ithin Biodol Rungo Organico	(5.10)	, , , , ,	,

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.2	U	50.2		mg/Kg		07/24/23 12:58	07/28/23 11:59	1
(GRO)-C6-C10 Diesel Range Organics (Over	111		50.2		mg/Kg		07/24/23 12:58	07/28/23 11:59	1
C10-C28) Oll Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		07/24/23 12:58	07/28/23 11:59	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	75	70 - 130	07/24/23 12:58	07/28/23 11:59	1
o-Terphenyl	82	70 - 130	07/24/23 12:58	07/28/23 11:59	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	6100		99.6		mg/Kg			07/17/23 18:25	20	

Client Sample ID: BES23-43 0.5'

Date Collected: 07/13/23 10:10

Date Received: 07/13/23 16:18 Sample Depth: 0.5

Mothodi CIMO46 0004D	Valatila Organia Campaunda (C)	~

e Organic Comp	ounds (GC)							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/17/23 23:03	1
<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/17/23 23:03	1
<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/17/23 23:03	1
<0.00399	U	0.00399		mg/Kg		07/17/23 13:15	07/17/23 23:03	1
< 0.00399	U	0.00399		mg/Kg		07/17/23 13:15	07/17/23 23:03	1
<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/17/23 23:03	1
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
92		70 - 130				07/17/23 13:15	07/17/23 23:03	1
113		70 - 130				07/17/23 13:15	07/17/23 23:03	1
	Result <0.00200 <0.00200 <0.00200 <0.00399 <0.00399 <0.00200 <0.00200	Result Qualifier	<0.00200	Result Qualifier RL MDL <0.00200	Result Qualifier RL MDL Unit <0.00200	Result Qualifier RL MDL Unit D <0.00200	Result Qualifier RL MDL Unit D Prepared <0.00200	Result Qualifier RL MDL Unit D Prepared Analyzed <0.00200

Mothod: TAI	SOP Total RTFY	- Total RTFY	Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399	U	0.00399		ma/Ka			07/18/23 10:23	1

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

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	57.0		49.7	mg/Kg			07/31/23 16:05	1

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9

3

4

6

8

11

13

-

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Client Sample ID: BES23-43 0.5'

Date Collected: 07/13/23 10:10 Date Received: 07/13/23 16:18

Sample Depth: 0.5

Lab Sample	ID: 890-4943-3
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Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		07/24/23 12:58	07/28/23 12:21	1
Diesel Range Organics (Over C10-C28)	57.0		49.7		mg/Kg		07/24/23 12:58	07/28/23 12:21	1
Oll Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		07/24/23 12:58	07/28/23 12:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	69	S1-	70 - 130				07/24/23 12:58	07/28/23 12:21	1
o-Terphenyl	77		70 - 130				07/24/23 12:58	07/28/23 12:21	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: BES23-44 0.5' Lab Sample ID: 890-4943-4 Date Collected: 07/13/23 10:15

49.7

mg/Kg

2800

111

83

Date Received: 07/13/23 16:18

Sample Depth: 0.5

1,4-Difluorobenzene (Surr)

Chloride

Matrix: Solid

07/17/23 23:23

07/17/23 13:15

07/24/23 12:58

07/17/23 18:30

Method: SW846 8021B - Volatile Organic Compounds (GC) Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Benzene <0.00201 U 0.00201 07/17/23 13:15 07/17/23 23:23 mg/Kg Ethylbenzene <0.00201 U 0.00201 07/17/23 13:15 07/17/23 23:23 mg/Kg Toluene <0.00201 U 0.00201 07/17/23 13:15 07/17/23 23:23 mg/Kg Xylenes, Total <0.00402 U 0.00402 mg/Kg 07/17/23 13:15 07/17/23 23:23 m-Xylene & p-Xylene <0.00402 U 0.00402 07/17/23 13:15 07/17/23 23:23 mg/Kg o-Xylene <0.00201 U 0.00201 mg/Kg 07/17/23 13:15 07/17/23 23:23 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 4-Bromofluorobenzene (Surr) 96 70 - 130 07/17/23 13:15 07/17/23 23:23

Method: TAL SOP Total BTEX - To	tal BTEX Calc	ulation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/18/23 10:23	1

70 - 130

Method: SW846 8015 NM - Diesel F	Range Organi	ics (DRO) (G	SC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			07/31/23 16:05	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.6	U	49.6		mg/Kg		07/24/23 12:58	07/28/23 12:44	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.6	U	49.6		mg/Kg		07/24/23 12:58	07/28/23 12:44	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		07/24/23 12:58	07/28/23 12:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 130				07/24/23 12:58	07/28/23 12:44	1

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07/28/23 12:44

70 - 130

7/31/2023

o-Terphenyl

Matrix: Solid

Lab Sample ID: 890-4943-4

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Client Sample ID: BES23-44 0.5'

Date Collected: 07/13/23 10:15 Date Received: 07/13/23 16:18

Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion 0	Chromatography - Soluble						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2990	50.2	mg/Kg			07/17/23 18:35	10

Client Sample ID: BES23-45 0.5'

Date Collected: 07/13/23 10:20

Lab Sample ID: 890-4943-5

Matrix: Solid

Date Collected: 07/13/23 10:20 Date Received: 07/13/23 16:18

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/17/23 23:44	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/17/23 23:44	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/17/23 23:44	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/17/23 13:15	07/17/23 23:44	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/17/23 13:15	07/17/23 23:44	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/17/23 23:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130				07/17/23 13:15	07/17/23 23:44	1
1,4-Difluorobenzene (Surr)	110		70 - 130				07/17/23 13:15	07/17/23 23:44	1
Method: TAL SOP Total BTEX - T	otal BTEX Cal	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			07/18/23 10:23	1
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	107		49.5		mg/Kg			07/31/23 16:05	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.5	U	49.5		mg/Kg		07/24/23 12:58	07/28/23 13:06	1
(GRO)-C6-C10									
Diesel Range Organics (Over	107		49.5		mg/Kg		07/24/23 12:58	07/28/23 13:06	1
C10-C28)	<49.5		49.5		m = /1/ =		07/24/23 12:58	07/28/23 13:06	1
Oll Range Organics (Over C28-C36)	<49.5	U	49.5		mg/Kg		01124123 12:58	01/20/23 13.00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130				07/24/23 12:58	07/28/23 13:06	1
o-Terphenyl	105		70 - 130				07/24/23 12:58	07/28/23 13:06	1

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Analyzed 07/17/23 18:40

RL

24.8

MDL Unit

mg/Kg

D

Prepared

5

2

3

4

b

8

10

12

1 /

Dil Fac

Analyte

Chloride

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Result Qualifier

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Sample Depth: 0.5

Client Sample ID: BES23-46 0.5'	Lab Sample ID: 890-4943-6
Pate Collected: 07/13/23 10:25	Matrix: Solid
Date Received: 07/13/23 16:18	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/17/23 13:15	07/18/23 00:05	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		07/17/23 13:15	07/18/23 00:05	1
Toluene	<0.00199	U	0.00199		mg/Kg		07/17/23 13:15	07/18/23 00:05	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/17/23 13:15	07/18/23 00:05	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/17/23 13:15	07/18/23 00:05	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/17/23 13:15	07/18/23 00:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130				07/17/23 13:15	07/18/23 00:05	1
1,4-Difluorobenzene (Surr)	110		70 - 130				07/17/23 13:15	07/18/23 00:05	1
- Method: TAL SOP Total BTEX	- Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/18/23 10:23	1
- Method: SW846 8015 NM - Die	esel Range Organ	ics (DRO) (GC)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

method. Offoro ou to Min - Dieser i	Kange Organ	ics (DitC) (t	30)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			07/31/23 16:05	1
Mothed: CM04C 004ED NM Disco	l Banas Over	nice (DDO)	(00)						

Metilou. 344040 00 13D MM - Dies	ei Kaliye Orga	IIICS (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		07/24/23 12:58	07/28/23 13:28	1
Diesel Range Organics (Over C10-C28)	<50.5	U	50.5		mg/Kg		07/24/23 12:58	07/28/23 13:28	1
Oll Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		07/24/23 12:58	07/28/23 13:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	71		70 - 130				07/24/23 12:58	07/28/23 13:28	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble										
	Analyte Result Qualifier				MDL	MDL Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	1500		25.2		mg/Kg			07/17/23 18:55	5

70 - 130

Client Sample ID: BES23-47 0.5' Lab Sample ID: 890-4943-7

Date Collected: 07/13/23 10:30 Date Received: 07/13/23 16:18

Sample Depth: 0.5

o-Terphenyl

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 00:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 00:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 00:25	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/17/23 13:15	07/18/23 00:25	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/17/23 13:15	07/18/23 00:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 00:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130				07/17/23 13:15	07/18/23 00:25	1

Eurofins Carlsbad

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-4943-7

Lab Sample ID: 890-4943-8

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Client Sample ID: BES23-47 0.5'

Date Collected: 07/13/23 10:30 Date Received: 07/13/23 16:18

Sample Depth: 0.5

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

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	107	70 - 130	07/17/23 13:15	07/18/23 00:25	1

Mothod: TAL SOE	Total DTEV Total	I BTEX Calculation
Wethoa: TAL SUP	' lotal BTEX - lota	II BIEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit)	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399	U	0.00399		mg/Kg		_	07/18/23 10:23	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Р	repared	Analyzed	Dil Fac
Total TPH	76.6		50.5		mg/Kg				07/31/23 16:05	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		07/24/23 12:58	07/28/23 13:50	1
Diesel Range Organics (Over C10-C28)	76.6		50.5		mg/Kg		07/24/23 12:58	07/28/23 13:50	1
Oll Range Organics (Over C28-C36)	<50.5	U	50.5		mg/Kg		07/24/23 12:58	07/28/23 13:50	1
Surrogato	% Pocovory	Qualifier	Limite				Dropared	Analyzod	Dil Esc

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92	70 - 130	07/24/23 12:58	07/28/23 13:50	1
o-Terphenyl	103	70 - 130	07/24/23 12:58	07/28/23 13:50	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2750	25.0	mg/Kg			07/17/23 19:00	5

Client Sample ID: BES23-48 0.5'

Date Collected: 07/13/23 10:35 Date Received: 07/13/23 16:18

Sample Depth: 0.5

 Mathad.	CIMO 4C	0024B	Valatila Ossania	Compounds (GC)
viernoa:	SVVA4n	AUZID .	· voiatile Organic	: Compounds (GC)

			,						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/17/23 13:15	07/18/23 00:46	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/17/23 13:15	07/18/23 00:46	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/17/23 13:15	07/18/23 00:46	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		07/17/23 13:15	07/18/23 00:46	1
m-Xylene & p-Xylene	< 0.00396	U	0.00396		mg/Kg		07/17/23 13:15	07/18/23 00:46	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/17/23 13:15	07/18/23 00:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130				07/17/23 13:15	07/18/23 00:46	1

3					
4-Bromofluorobenzene (Surr)	96	70 - 130	07/17/23 13:15	07/18/23 00:46	1
1,4-Difluorobenzene (Surr)	108	70 - 130	07/17/23 13:15	07/18/23 00:46	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			07/18/23 10:23	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			07/31/23 16:05	1

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Client Sample ID: BES23-48 0.5'

Date Collected: 07/13/23 10:35 Date Received: 07/13/23 16:18

Sample Depth: 0.5

	Lal	b	Sam	ple	ID:	890	-4943	-8
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Lab Sample ID: 890-4943-9

Matrix: Solid

Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL MDL Unit D Dil Fac Prepared Analyzed <50.4 U 50.4 07/24/23 12:58 07/28/23 14:13 Gasoline Range Organics mg/Kg (GRO)-C6-C10 50.4 07/28/23 14:13 Diesel Range Organics (Over <50.4 U mg/Kg 07/24/23 12:58 C10-C28) OII Range Organics (Over C28-C36) <50.4 U 50.4 mg/Kg 07/24/23 12:58 07/28/23 14:13 %Recovery Qualifier Limits Prepared Analyzed Dil Fac Surrogate 63 S1-70 - 130 07/24/23 12:58 07/28/23 14:13 1-Chlorooctane o-Terphenyl 68 S1-70 - 130 07/24/23 12:58 07/28/23 14:13

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble Analyte Result Qualifier RL MDL Unit D Prepared Dil Fac Analyzed Chloride 2470 24.9 mg/Kg 07/17/23 19:05

Client Sample ID: BES23-49 0.5'

Date Collected: 07/13/23 10:40

Date Received: 07/13/23 16:18

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 01:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 01:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 01:06	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/17/23 13:15	07/18/23 01:06	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/17/23 13:15	07/18/23 01:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 01:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130				07/17/23 13:15	07/18/23 01:06	1
1,4-Difluorobenzene (Surr)	111		70 - 130				07/17/23 13:15	07/18/23 01:06	1
Total BTEX Method: SW846 8015 NM - Diese Analyte			0.00400 GC)	MDL	mg/Kg	D	Prepared	07/18/23 10:23 Analyzed	1 Dil Fac
Total TPH	<50.3		50.3		mg/Kg		Tropurou	07/31/23 16:05	1
		,	· /	MDI	Unit	D	Dranavad	Anglyzad	Dil Ess
Method: SW846 8015B NM - Dies	Result	Qualifier	RL	MDL		<u>D</u>	Prepared 07/04/02 42-59	Analyzed	Dil Fac
Analyte Gasoline Range Organics		Qualifier	· /	MDL	Unit mg/Kg	<u>D</u>	Prepared 07/24/23 12:58	Analyzed 07/28/23 14:35	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result	Qualifier U	RL	MDL		<u>D</u>			
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)		Qualifier U	RL 50.3	MDL	mg/Kg	<u>D</u>	07/24/23 12:58	07/28/23 14:35	
Analyte Gasoline Range Organics (GRO)-C6-C10	Result <50.3	Qualifier U U U	RL 50.3	MDL	mg/Kg	<u>D</u>	07/24/23 12:58 07/24/23 12:58	07/28/23 14:35 07/28/23 14:35	1
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.3 <50.3 <50.3	Qualifier U U U	FL 50.3 50.3 50.3	MDL	mg/Kg	<u>D</u>	07/24/23 12:58 07/24/23 12:58 07/24/23 12:58	07/28/23 14:35 07/28/23 14:35 07/28/23 14:35	1 1

Client Sample Results

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Client Sample ID: BES23-49 0.5'

Date Collected: 07/13/23 10:40 Date Received: 07/13/23 16:18

Sample Depth: 0.5

Lab Sample ID: 890-4943-9

Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - SolubleAnalyteResultQualifierRLMDLUnitDPreparedAnalyzedDil FacChloride62624.8mg/Kg07/17/23 19:105

Client Sample ID: BES23-50 0.5'

Date Collected: 07/13/23 10:45

Lab Sample ID: 890-4943-10

Matrix: Solid

Date Collected: 07/13/23 10:45 Date Received: 07/13/23 16:18

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/17/23 13:15	07/18/23 01:27	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/17/23 13:15	07/18/23 01:27	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/17/23 13:15	07/18/23 01:27	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		07/17/23 13:15	07/18/23 01:27	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		07/17/23 13:15	07/18/23 01:27	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/17/23 13:15	07/18/23 01:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130				07/17/23 13:15	07/18/23 01:27	1
1,4-Difluorobenzene (Surr)	110		70 - 130				07/17/23 13:15	07/18/23 01:27	1

Method: TAL SOP Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			07/18/23 10:23	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			07/31/23 16:05	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		07/24/23 12:58	07/28/23 14:57	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		07/24/23 12:58	07/28/23 14:57	1
Oll Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		07/24/23 12:58	07/28/23 14:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	62	S1-	70 - 130				07/24/23 12:58	07/28/23 14:57	1
o-Terphenyl	69	S1-	70 ₋ 130				07/24/23 12:58	07/28/23 14:57	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	499		25.1		mg/Kg			07/17/23 19:15	5

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Matrix: Solid

Lab Sample ID: 890-4943-11

Client Sample Results

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Client Sample ID: BES23-51 0.5'

Date Collected: 07/13/23 10:50 Date Received: 07/13/23 16:18

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/17/23 13:15	07/18/23 02:49	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/17/23 13:15	07/18/23 02:49	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/17/23 13:15	07/18/23 02:49	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/17/23 13:15	07/18/23 02:49	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/17/23 13:15	07/18/23 02:49	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/17/23 13:15	07/18/23 02:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130				07/17/23 13:15	07/18/23 02:49	1
1,4-Difluorobenzene (Surr)	100		70 - 130				07/17/23 13:15	07/18/23 02:49	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/18/23 10:23	1
Analyte Total TPH	Result 51.5	Qualifier	49.6	MDL	mg/Kg	D	Prepared	Analyzed 07/31/23 16:05	Dil Fac
- 1		(DDO)	(00)		5 5				
Method: SW846 8015B NM - Dies Analyte		Qualifier	(GC)	MDI	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics			49.6	- WIDE	mg/Kg	=	07/24/23 12:58	07/28/23 15:41	1
(GRO)-C6-C10	143.0	O	49.0		mg/itg		01/24/25 12.50	07/20/23 13.41	
Diesel Range Organics (Over C10-C28)	51.5		49.6		mg/Kg		07/24/23 12:58	07/28/23 15:41	1
Oll Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		07/24/23 12:58	07/28/23 15:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Surroyale							07/24/23 12:58		Dii i uc
1-Chlorooctane	68	S1-	70 - 130				07/24/23 12.30	07/28/23 15:41	
	68 80	S1-	70 ₋ 130 70 ₋ 130				07/24/23 12:58	07/28/23 15:41 07/28/23 15:41	1
1-Chlorooctane	80		70 - 130						1
1-Chlorooctane o-Terphenyl	80 Chromatograp		70 - 130	MDL	Unit	<u>D</u>			Dil Fac

Client Sample ID: BES23-52 0.5'

Date Collected: 07/13/23 10:55

Date Received: 07/13/23 16:18

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 03:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 03:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 03:10	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/17/23 13:15	07/18/23 03:10	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/17/23 13:15	07/18/23 03:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 03:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130				07/17/23 13:15	07/18/23 03:10	1

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Lab Sample ID: 890-4943-12

Matrix: Solid

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Matrix: Solid

Lab Sample ID: 890-4943-12

Lab Sample ID: 890-4943-13

Matrix: Solid

Client: Vertex

Job ID: 890-4943-1

Project/Site: Corral Fly

Client Sample ID: BES23-52 0.5'

Date Collected: 07/13/23 10:55 Date Received: 07/13/23 16:18

Sample Depth: 0.5

Method: SW846 8021B - Volatile (Organic Compounds	(GC)	(Continued)
modification of the country to the country to	rigariio Compoundo		(Continuou)

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	113	70 - 130	07/17/23 13:15	07/18/23 03:10	1

Method: TAI	SOP Total BTEX	- Total BTFX	Calculation
motilou. IAL	OOI TOTAL DIEN	TOTAL DIEN	Guidalation

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401 U	0.00401	ma/Ka			07/18/23 10:23	1

Analyte	Result	Qualifier	RL	MDL	Unit	ı	D	Prepared	Analyzed	Dil Fac
Total TPH	66.2		49.8		mg/Kg				07/31/23 16:05	1

Method: SW846 8015B NM - Diesel Range Organics	(DRO)	(GC)	١
motified. Offerto College Ithin Biodol Rungo Organico	(5.10)	, , , , ,	,

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.8	U	49.8		mg/Kg		07/24/23 12:58	07/28/23 16:03	1
(GRO)-C6-C10									
Diesel Range Organics (Over	66.2		49.8		mg/Kg		07/24/23 12:58	07/28/23 16:03	1
C10-C28)									
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		07/24/23 12:58	07/28/23 16:03	1
	A / =								

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	75	70 - 130	07/24/23 12:58	07/28/23 16:03	1
o-Terphenyl	80	70 - 130	07/24/23 12:58	07/28/23 16:03	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	348		5.00		mg/Kg			07/17/23 19:34	1

Client Sample ID: BES23-53 0.5'

Date Collected: 07/13/23 11:00 Date Received: 07/13/23 16:18

Sample Depth: 0.5

1,4-Difluorobenzene (Surr)

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

Wethou. 344040 0021D - Volatile	Organic Comp		,						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		07/17/23 13:15	07/18/23 03:31	1
Ethylbenzene	< 0.00199	U	0.00199		mg/Kg		07/17/23 13:15	07/18/23 03:31	1
Toluene	< 0.00199	U	0.00199		mg/Kg		07/17/23 13:15	07/18/23 03:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		07/17/23 13:15	07/18/23 03:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		07/17/23 13:15	07/18/23 03:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		07/17/23 13:15	07/18/23 03:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130				07/17/23 13:15	07/18/23 03:31	1

Method: TAI	SOP Total BTFX	- Total RTFX	Calculation

mothodi me oor rotal bilan	Total Billy Guit	Julution								
Analyte	Result	Qualifier	RL	MDL	Unit	D)	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg				07/18/23 10:23	1

70 - 130

110

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			07/31/23 16:05	1

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Client Sample ID: BES23-53 0.5'

Date Collected: 07/13/23 11:00 Date Received: 07/13/23 16:18

Sample Depth: 0.5

Lab	Samp	le l	D:	890	-4943	3-13
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Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/24/23 12:58	07/28/23 16:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/24/23 12:58	07/28/23 16:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/24/23 12:58	07/28/23 16:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	67	S1-	70 - 130				07/24/23 12:58	07/28/23 16:26	1
o-Terphenyl	71		70 - 130				07/24/23 12:58	07/28/23 16:26	1

Result Qualifier RL MDL Unit Analyte D Prepared Analyzed Dil Fac 4.99 07/17/23 19:39 Chloride 261 mg/Kg Lab Sample ID: 890-4943-14

Client Sample ID: BES23-54 0.5' Date Collected: 07/13/23 11:05

Date Received: 07/13/23 16:18

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 03:51	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 03:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 03:51	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/17/23 13:15	07/18/23 03:51	1
m-Xylene & p-Xylene	< 0.00399	U	0.00399		mg/Kg		07/17/23 13:15	07/18/23 03:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 03:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130				07/17/23 13:15	07/18/23 03:51	1
1,4-Difluorobenzene (Surr)	112		70 - 130				07/17/23 13:15	07/18/23 03:51	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
					-				
Total BTEX	<0.00399	U	0.00399		mg/Kg			07/18/23 10:23	1
Total BTEX Method: SW846 8015 NM - Diese					mg/Kg			07/18/23 10:23	1
- -	l Range Organ			MDL		D	Prepared	07/18/23 10:23 Analyzed	1 Dil Fac
: Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)	MDL		<u>D</u>	Prepared		·
Method: SW846 8015 NM - Diese Analyte	Range Organ Result <50.3	ics (DRO) (Country of the Country of	GC) RL 50.3	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH	Range Organ Result <50.3 sel Range Organ	ics (DRO) (Country of the Country of	GC) RL 50.3	MDL MDL	Unit mg/Kg	<u>D</u>	Prepared Prepared	Analyzed	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Dies	Range Organ Result <50.3 sel Range Organ	Qualifier Unics (DRO) Qualifier	GC) RL 50.3		Unit mg/Kg			Analyzed 07/31/23 16:05	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10	Result sel Range Organ Result <50.3 Seel Range Organ Result <50.3	Qualifier U nics (DRO) Qualifier U	GC) RL 50.3 (GC) RL 50.3		Unit mg/Kg Unit mg/Kg		Prepared 07/24/23 12:58	Analyzed 07/31/23 16:05 Analyzed 07/28/23 16:48	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Range Organ Result <50.3 sel Range Orga Result	Qualifier U nics (DRO) Qualifier U	GC) RL 50.3		Unit mg/Kg		Prepared	Analyzed 07/31/23 16:05	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result sel Range Organ Result <50.3 Seel Range Organ Result <50.3 <50.3	cics (DRO) (On Qualifier Unics (DRO) Qualifier Unics (DRO) Qualifier U	GC) RL 50.3 (GC) RL 50.3 50.3		Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 12:58 07/24/23 12:58	Analyzed 07/31/23 16:05 Analyzed 07/28/23 16:48 07/28/23 16:48	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10	Result sel Range Organ Result <50.3 Seel Range Organ Result <50.3	cics (DRO) (On Qualifier Unics (DRO) Qualifier Unics (DRO) Qualifier U	GC) RL 50.3 (GC) RL 50.3		Unit mg/Kg Unit mg/Kg		Prepared 07/24/23 12:58	Analyzed 07/31/23 16:05 Analyzed 07/28/23 16:48	Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result sel Range Organ Result <50.3 Seel Range Organ Result <50.3 <50.3	cos (DRO) (On Qualifier Unics (DRO) Qualifier Unics (DRO) Qualifier Unics Unic	GC) RL 50.3 (GC) RL 50.3 50.3		Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 12:58 07/24/23 12:58	Analyzed 07/31/23 16:05 Analyzed 07/28/23 16:48 07/28/23 16:48	Dil Fac Dil Fac 1 Dil Fac
Method: SW846 8015 NM - Diese Analyte Total TPH Method: SW846 8015B NM - Diese Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result sel Range Organ Result <50.3 sel Range Organ Result <50.3 <50.3 <50.3	cos (DRO) (Control of the control of	GC) RL 50.3 (GC) RL 50.3 50.3		Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 12:58 07/24/23 12:58 07/24/23 12:58	Analyzed 07/31/23 16:05 Analyzed 07/28/23 16:48 07/28/23 16:48	Dil Fac Dil Fac 1

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Matrix: Solid

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-4943-14

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Client Sample ID: BES23-54 0.5'

Date Collected: 07/13/23 11:05 Date Received: 07/13/23 16:18

Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble								
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	78.3	5.01	ma/l			07/17/23 19:54	1	

Client Sample ID: BES23-55 0.5'

Lab Sample ID: 890-4943-15

Date Collected: 07/13/23 11:10 Date Received: 07/13/23 16:18

Carrella Dantha 0.5

Samp	le De	pth:	0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 04:12	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 04:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 04:12	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/17/23 13:15	07/18/23 04:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/17/23 13:15	07/18/23 04:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/18/23 04:12	,
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130				07/17/23 13:15	07/18/23 04:12	1
1,4-Difluorobenzene (Surr)	109		70 - 130				07/17/23 13:15	07/18/23 04:12	1
Method: TAL SOP Total BTEX - 1	otal BTEX Cal	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			07/18/23 10:23	1
Method: SW846 8015 NM - Diese Analyte	•	ics (DRO) (0 Qualifier	GC)	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	60.4		50.4		mg/Kg			07/31/23 16:05	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (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		07/24/23 12:58	07/28/23 17:10	1
Diesel Range Organics (Over C10-C28)	60.4		50.4		mg/Kg		07/24/23 12:58	07/28/23 17:10	1
Oll Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		07/24/23 12:58	07/28/23 17:10	1
		Ovalifian	Limits				Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier							
	%Recovery 76	Quaimer	70 - 130				07/24/23 12:58	07/28/23 17:10	1
Surrogate 1-Chlorooctane o-Terphenyl	_ 	Quaimer	70 - 130 70 - 130				07/24/23 12:58 07/24/23 12:58	07/28/23 17:10 07/28/23 17:10	
1-Chlorooctane	76 90		70 - 130						•
1-Chlorooctane o-Terphenyl	76 90 Chromatograp		70 - 130	MDL	Unit	D			1 Dil Fac

Surrogate Summary

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		DED4	DED 74	Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-4943-1	BES23-41 0.5'	92	103	
390-4943-1 MS	BES23-41 0.5'	98	104	
890-4943-1 MSD	BES23-41 0.5'	106	107	
390-4943-2	BES23-42 0.5'	93	114	
390-4943-3	BES23-43 0.5'	92	113	
390-4943-4	BES23-44 0.5'	96	111	
390-4943-5	BES23-45 0.5'	104	110	
390-4943-6	BES23-46 0.5'	94	110	
390-4943-7	BES23-47 0.5'	101	107	
390-4943-8	BES23-48 0.5'	96	108	
390-4943-9	BES23-49 0.5'	97	111	
390-4943-10	BES23-50 0.5'	95	110	
390-4943-11	BES23-51 0.5'	97	100	
390-4943-12	BES23-52 0.5'	97	113	
390-4943-13	BES23-53 0.5'	100	110	
390-4943-14	BES23-54 0.5'	104	112	
390-4943-15	BES23-55 0.5'	99	109	
_CS 880-57841/1-A	Lab Control Sample	102	101	
_CSD 880-57841/2-A	Lab Control Sample Dup	103	103	
MB 880-57657/5-A	Method Blank	78	96	
MB 880-57841/5-A	Method Blank	79	95	

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surro
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-4943-1	BES23-41 0.5'	72	86	
890-4943-1 MS	BES23-41 0.5'	72	74	
890-4943-1 MSD	BES23-41 0.5'	62 S1-	64 S1-	
890-4943-2	BES23-42 0.5'	75	82	
890-4943-3	BES23-43 0.5'	69 S1-	77	
890-4943-4	BES23-44 0.5'	70	83	
890-4943-5	BES23-45 0.5'	84	105	
890-4943-6	BES23-46 0.5'	71	85	
890-4943-7	BES23-47 0.5'	92	103	
890-4943-8	BES23-48 0.5'	63 S1-	68 S1-	
890-4943-9	BES23-49 0.5'	72	76	
890-4943-10	BES23-50 0.5'	62 S1-	69 S1-	
890-4943-11	BES23-51 0.5'	68 S1-	80	
890-4943-12	BES23-52 0.5'	75	80	
890-4943-13	BES23-53 0.5'	67 S1-	71	
890-4943-14	BES23-54 0.5'	82	93	
890-4943-15	BES23-55 0.5'	76	90	
LCS 880-58356/2-A	Lab Control Sample	100	123	

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10

12

Surrogate Summary

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

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)	
LCSD 880-58356/3-A	Lab Control Sample Dup	95	119	
MB 880-58356/1-A	Method Blank	141 S1+	176 S1+	

1CO = 1-Chlorooctane OTPH = o-Terphenyl

QC Sample Results

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-57657/5-A

Analysis Batch: 57773

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57657

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/14/23 08:31	07/17/23 11:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/14/23 08:31	07/17/23 11:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/14/23 08:31	07/17/23 11:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/14/23 08:31	07/17/23 11:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/14/23 08:31	07/17/23 11:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/14/23 08:31	07/17/23 11:18	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepar	ed Analy	zed Dil Fac
4-Bromofluorobenzene (Surr)	78		70 - 130	07/14/23	08:31 07/17/23	3 11:18
1,4-Difluorobenzene (Surr)	96		70 - 130	07/14/23	08:31 07/17/23	3 11:18 1

Lab Sample ID: MB 880-57841/5-A

Client Sample ID: Method Blank

Prep Batch: 57841

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 57773** мв мв

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/17/23 22:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/17/23 22:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/17/23 13:15	07/17/23 22:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/17/23 13:15	07/17/23 22:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/17/23 13:15	07/17/23 22:00	1
o-Xvlene	<0.00200	U	0.00200		ma/Ka		07/17/23 13:15	07/17/23 22:00	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	79		70 - 130	07/17/23 13:15	07/17/23 22:00	1
1,4-Difluorobenzene (Surr)	95		70 - 130	07/17/23 13:15	07/17/23 22:00	1

Lab Sample ID: LCS 880-57841/1-A

Matrix: Solid

Analysis Batch: 57773

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 57841

l		Spike	LCS	LCS				%Rec	
l	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
l	Benzene	0.100	0.09886		mg/Kg		99	70 - 130	
١	Ethylbenzene	0.100	0.1002		mg/Kg		100	70 - 130	
l	Toluene	0.100	0.1073		mg/Kg		107	70 - 130	
İ	m-Xylene & p-Xylene	0.200	0.2012		mg/Kg		101	70 - 130	
١	o-Xylene	0.100	0.09839		mg/Kg		98	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	102	70 - 130
1.4-Difluorobenzene (Surr)	101	70 - 130

Lab Sample ID: LCSD 880-57841/2-A

Matrix: Solid

Analyte

Benzene

Analysis Batch: 57773

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

Prep Batch: 57841

Spike LCSD LCSD RPD %Rec Result Qualifier Added Unit %Rec Limits RPD Limit 0.100 0.09211 mg/Kg 92 70 - 130

Prep Batch: 57841

Prep Type: Total/NA

Prep Type: Total/NA

QC Sample Results

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

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

Lab Sample ID: LCSD 880-57841/2-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 57773

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Ethylbenzene	0.100	0.09647		mg/Kg		96	70 - 130	4	35
Toluene	0.100	0.1024		mg/Kg		102	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1936		mg/Kg		97	70 - 130	4	35
o-Xylene	0.100	0.09761		mg/Kg		98	70 - 130	1	35

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

Lab Sample ID: 890-4943-1 MS Client Sample ID: BES23-41 0.5'

Matrix: Solid

Analysis Batch: 57773									Prep I	Batch: 57841
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U	0.0996	0.08300		mg/Kg		83	70 - 130	
Ethylbenzene	<0.00202	U	0.0996	0.08444		mg/Kg		85	70 - 130	
Toluene	<0.00202	U	0.0996	0.09080		mg/Kg		91	70 - 130	
m-Xylene & p-Xylene	<0.00403	U	0.199	0.1649		mg/Kg		83	70 - 130	
o-Xylene	<0.00202	U	0.0996	0.08324		mg/Kg		84	70 - 130	

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 4-Bromofluorobenzene (Surr) 98 1,4-Difluorobenzene (Surr) 104 70 - 130

Lab Sample ID: 890-4943-1 MSD Client Sample ID: BES23-41 0.5'

Matrix: Solid

								Prep	Batch:	57841
Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
<0.00202	U	0.0990	0.09234	-	mg/Kg		93	70 - 130	11	35
<0.00202	U	0.0990	0.09316		mg/Kg		94	70 - 130	10	35
<0.00202	U	0.0990	0.1002		mg/Kg		101	70 - 130	10	35
<0.00403	U	0.198	0.1819		mg/Kg		92	70 - 130	10	35
<0.00202	U	0.0990	0.09131		mg/Kg		92	70 - 130	9	35
	Result <0.00202 <0.00202 <0.00202 <0.00202 <0.00403	Sample Sample	Result Qualifier Added <0.00202	Result Qualifier Added Result <0.00202	Result Qualifier Added Result Qualifier <0.00202	Result Qualifier Added Result Qualifier Unit <0.00202	Result Qualifier Added Result Qualifier Unit D <0.00202	Result Qualifier Added Result Qualifier Unit D %Rec <0.00202	Sample Result Sample Qualifier Spike Added Result MSD Qualifier Unit Unit Unit Unit Unit Unit Unit Unit	Result Qualifier Added Result Qualifier Unit D %Rec Limits RPD <0.00202

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

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

Lab Sample ID: MB 880-58356/1-A

Matrix: Solid

Analysis Batch: 58682

	MB	MB	MB									
Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac				
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		07/24/23 12:58	07/28/23 08:15	1				

(GRO)-C6-C10

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Prep Type: Total/NA

Prep Batch: 58356

Client Sample ID: Method Blank

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

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

Lab Sample ID: MB 880-58356/1-A **Matrix: Solid**

Lab Sample ID: LCS 880-58356/2-A

Matrix: Solid

Analysis Batch: 58682

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

Prep Batch: 58356

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		07/24/23 12:58	07/28/23 08:15	1
C10-C28) OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/24/23 12:58	07/28/23 08:15	1

MB MB

MB MB

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctane	141	S1+	70 - 130	07/24/23 12:58	07/28/23 08:15	1
l	o-Terphenyl	176	S1+	70 - 130	07/24/23 12:58	07/28/23 08:15	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 58356

Analysis Batch: 58682 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 867.5 87 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 947.8 mg/Kg 95 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery C	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	123		70 - 130

Lab Sample ID: LCSD 880-58356/3-A

Analysis Batch: 58682

Matrix: Solid

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

Prep Batch: 58356

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	907.7		mg/Kg		91	70 - 130	5	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	959.6		mg/Kg		96	70 - 130	1	20
C10-C28)									

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

Lab Sample ID: 890-4943-1 MS Client Sample ID: BES23-41 0.5'

Matrix: Solid

Analysis Batch: 58682

Prep Type: Total/NA

Prep Batch: 58356

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.3	U F1 F2	999	753.2		mg/Kg		71	70 - 130	
Diesel Range Organics (Over	51.9	F1	999	688.2	F1	mg/Kg		64	70 - 130	

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	72		70 - 130
o-Terphenyl	74		70 - 130

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

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

Lab Sample ID: 890-4943-1 MSD Client Sample ID: BES23-41 0.5'

Matrix: Solid Analysis Batch: 58682 Prep Type: Total/NA Prep Batch: 58356

Client Sample ID: Lab Control Sample Dup

Client Sample ID: BES23-41 0.5'

Client Sample ID: BES23-41 0.5'

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Sample Sample Spike MSD MSD RPD Result Qualifier Analyte babbA Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics <50.3 U F1 F2 999 587.3 F1 F2 mg/Kg 55 70 - 130 25 20 (GRO)-C6-C10 Diesel Range Organics (Over 51.9 F1 999 598.6 F1 55 70 - 130 mg/Kg 14

C10-C28)

MSD MSD %Recovery Qualifier Limits Surrogate 62 S1-1-Chlorooctane 70 - 130 o-Terphenyl 64 S1-70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-57836/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 57909

MB MB

MDL Unit Result Qualifier Analyte RL Prepared Analyzed Dil Fac Chloride <5.00 5.00 07/17/23 17:55 mg/Kg

Lab Sample ID: LCS 880-57836/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 57909

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Chloride 250 249.9 90 - 110 mg/Kg 100

Lab Sample ID: LCSD 880-57836/3-A

Matrix: Solid

Analysis Batch: 57909

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	250.3		mg/Kg	_	100	90 - 110	0	20

Lab Sample ID: 890-4943-1 MS

Matrix: Solid

Analysis Batch: 57909

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	1470		1250	2771		ma/Ka		104	90 - 110	

Lab Sample ID: 890-4943-1 MSD

Matrix: Solid

Analysis Batch: 57909

Alialysis Datcil. 31303											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	1470		1250	2778		mg/Kg		104	90 - 110	0	20

QC Sample Results

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4943-11 MS Client Sample ID: BES23-51 0.5'

Matrix: Solid Prep Type: Soluble

Analysis Batch: 57909

Sample Sample Spike MS MS %Rec Result Qualifier Added Analyte Result Qualifier Unit %Rec Limits Chloride 141 249 383.0 mg/Kg 97 90 - 110

Lab Sample ID: 890-4943-11 MSD Client Sample ID: BES23-51 0.5'

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 57909

Sample Sample Spike MSD MSD %Rec RPD RPD Result Qualifier Added Result Qualifier Limits Limit Analyte Unit D %Rec Chloride 141 249 383.1 mg/Kg 97 90 - 110 0 20

QC Association Summary

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

GC VOA

Prep Batch: 57657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-57657/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 57773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4943-1	BES23-41 0.5'	Total/NA	Solid	8021B	57841
890-4943-2	BES23-42 0.5'	Total/NA	Solid	8021B	57841
890-4943-3	BES23-43 0.5'	Total/NA	Solid	8021B	57841
890-4943-4	BES23-44 0.5'	Total/NA	Solid	8021B	57841
890-4943-5	BES23-45 0.5'	Total/NA	Solid	8021B	57841
890-4943-6	BES23-46 0.5'	Total/NA	Solid	8021B	57841
890-4943-7	BES23-47 0.5'	Total/NA	Solid	8021B	57841
890-4943-8	BES23-48 0.5'	Total/NA	Solid	8021B	57841
890-4943-9	BES23-49 0.5'	Total/NA	Solid	8021B	57841
390-4943-10	BES23-50 0.5'	Total/NA	Solid	8021B	57841
390-4943-11	BES23-51 0.5'	Total/NA	Solid	8021B	57841
390-4943-12	BES23-52 0.5'	Total/NA	Solid	8021B	57841
390-4943-13	BES23-53 0.5'	Total/NA	Solid	8021B	57841
390-4943-14	BES23-54 0.5'	Total/NA	Solid	8021B	57841
890-4943-15	BES23-55 0.5'	Total/NA	Solid	8021B	57841
MB 880-57657/5-A	Method Blank	Total/NA	Solid	8021B	57657
MB 880-57841/5-A	Method Blank	Total/NA	Solid	8021B	57841
LCS 880-57841/1-A	Lab Control Sample	Total/NA	Solid	8021B	57841
LCSD 880-57841/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	57841
890-4943-1 MS	BES23-41 0.5'	Total/NA	Solid	8021B	57841
890-4943-1 MSD	BES23-41 0.5'	Total/NA	Solid	8021B	57841

Prep Batch: 57841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4943-1	BES23-41 0.5'	Total/NA	Solid	5035	
890-4943-2	BES23-42 0.5'	Total/NA	Solid	5035	
890-4943-3	BES23-43 0.5'	Total/NA	Solid	5035	
390-4943-4	BES23-44 0.5'	Total/NA	Solid	5035	
390-4943-5	BES23-45 0.5'	Total/NA	Solid	5035	
890-4943-6	BES23-46 0.5'	Total/NA	Solid	5035	
890-4943-7	BES23-47 0.5'	Total/NA	Solid	5035	
390-4943-8	BES23-48 0.5'	Total/NA	Solid	5035	
390-4943-9	BES23-49 0.5'	Total/NA	Solid	5035	
390-4943-10	BES23-50 0.5'	Total/NA	Solid	5035	
390-4943-11	BES23-51 0.5'	Total/NA	Solid	5035	
390-4943-12	BES23-52 0.5'	Total/NA	Solid	5035	
390-4943-13	BES23-53 0.5'	Total/NA	Solid	5035	
390-4943-14	BES23-54 0.5'	Total/NA	Solid	5035	
390-4943-15	BES23-55 0.5'	Total/NA	Solid	5035	
MB 880-57841/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-57841/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-57841/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
390-4943-1 MS	BES23-41 0.5'	Total/NA	Solid	5035	
890-4943-1 MSD	BES23-41 0.5'	Total/NA	Solid	5035	

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QC Association Summary

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

GC VOA

Analysis Batch: 57930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4943-1	BES23-41 0.5'	Total/NA	Solid	Total BTEX	
890-4943-2	BES23-42 0.5'	Total/NA	Solid	Total BTEX	
890-4943-3	BES23-43 0.5'	Total/NA	Solid	Total BTEX	
890-4943-4	BES23-44 0.5'	Total/NA	Solid	Total BTEX	
890-4943-5	BES23-45 0.5'	Total/NA	Solid	Total BTEX	
890-4943-6	BES23-46 0.5'	Total/NA	Solid	Total BTEX	
890-4943-7	BES23-47 0.5'	Total/NA	Solid	Total BTEX	
890-4943-8	BES23-48 0.5'	Total/NA	Solid	Total BTEX	
890-4943-9	BES23-49 0.5'	Total/NA	Solid	Total BTEX	
890-4943-10	BES23-50 0.5'	Total/NA	Solid	Total BTEX	
890-4943-11	BES23-51 0.5'	Total/NA	Solid	Total BTEX	
890-4943-12	BES23-52 0.5'	Total/NA	Solid	Total BTEX	
890-4943-13	BES23-53 0.5'	Total/NA	Solid	Total BTEX	
890-4943-14	BES23-54 0.5'	Total/NA	Solid	Total BTEX	
890-4943-15	BES23-55 0.5'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 58356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4943-1	BES23-41 0.5'	Total/NA	Solid	8015NM Prep	
890-4943-2	BES23-42 0.5'	Total/NA	Solid	8015NM Prep	
890-4943-3	BES23-43 0.5'	Total/NA	Solid	8015NM Prep	
890-4943-4	BES23-44 0.5'	Total/NA	Solid	8015NM Prep	
890-4943-5	BES23-45 0.5'	Total/NA	Solid	8015NM Prep	
890-4943-6	BES23-46 0.5'	Total/NA	Solid	8015NM Prep	
890-4943-7	BES23-47 0.5'	Total/NA	Solid	8015NM Prep	
890-4943-8	BES23-48 0.5'	Total/NA	Solid	8015NM Prep	
890-4943-9	BES23-49 0.5'	Total/NA	Solid	8015NM Prep	
890-4943-10	BES23-50 0.5'	Total/NA	Solid	8015NM Prep	
890-4943-11	BES23-51 0.5'	Total/NA	Solid	8015NM Prep	
890-4943-12	BES23-52 0.5'	Total/NA	Solid	8015NM Prep	
890-4943-13	BES23-53 0.5'	Total/NA	Solid	8015NM Prep	
890-4943-14	BES23-54 0.5'	Total/NA	Solid	8015NM Prep	
890-4943-15	BES23-55 0.5'	Total/NA	Solid	8015NM Prep	
MB 880-58356/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-58356/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-58356/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4943-1 MS	BES23-41 0.5'	Total/NA	Solid	8015NM Prep	
890-4943-1 MSD	BES23-41 0.5'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 58682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4943-1	BES23-41 0.5'	Total/NA	Solid	8015B NM	58356
890-4943-2	BES23-42 0.5'	Total/NA	Solid	8015B NM	58356
890-4943-3	BES23-43 0.5'	Total/NA	Solid	8015B NM	58356
890-4943-4	BES23-44 0.5'	Total/NA	Solid	8015B NM	58356
890-4943-5	BES23-45 0.5'	Total/NA	Solid	8015B NM	58356
890-4943-6	BES23-46 0.5'	Total/NA	Solid	8015B NM	58356
890-4943-7	BES23-47 0.5'	Total/NA	Solid	8015B NM	58356
890-4943-8	BES23-48 0.5'	Total/NA	Solid	8015B NM	58356

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QC Association Summary

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

GC Semi VOA (Continued)

Analysis Batch: 58682 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-4943-9	BES23-49 0.5'	Total/NA	Solid	8015B NM	58356	
890-4943-10	BES23-50 0.5'	Total/NA	Solid	8015B NM	58356	
890-4943-11	BES23-51 0.5'	Total/NA	Solid	8015B NM	58356	
890-4943-12	BES23-52 0.5'	Total/NA	Solid	8015B NM	58356	
890-4943-13	BES23-53 0.5'	Total/NA	Solid	8015B NM	58356	
890-4943-14	BES23-54 0.5'	Total/NA	Solid	8015B NM	58356	
890-4943-15	BES23-55 0.5'	Total/NA	Solid	8015B NM	58356	
MB 880-58356/1-A	Method Blank	Total/NA	Solid	8015B NM	58356	
LCS 880-58356/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	58356	
LCSD 880-58356/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	58356	
890-4943-1 MS	BES23-41 0.5'	Total/NA	Solid	8015B NM	58356	
890-4943-1 MSD	BES23-41 0.5'	Total/NA	Solid	8015B NM	58356	

Analysis Batch: 58923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
890-4943-1	BES23-41 0.5'	Total/NA	Solid	8015 NM	_
890-4943-2	BES23-42 0.5'	Total/NA	Solid	8015 NM	
890-4943-3	BES23-43 0.5'	Total/NA	Solid	8015 NM	
890-4943-4	BES23-44 0.5'	Total/NA	Solid	8015 NM	
890-4943-5	BES23-45 0.5'	Total/NA	Solid	8015 NM	
890-4943-6	BES23-46 0.5'	Total/NA	Solid	8015 NM	
890-4943-7	BES23-47 0.5'	Total/NA	Solid	8015 NM	
890-4943-8	BES23-48 0.5'	Total/NA	Solid	8015 NM	
890-4943-9	BES23-49 0.5'	Total/NA	Solid	8015 NM	
890-4943-10	BES23-50 0.5'	Total/NA	Solid	8015 NM	
890-4943-11	BES23-51 0.5'	Total/NA	Solid	8015 NM	
890-4943-12	BES23-52 0.5'	Total/NA	Solid	8015 NM	
890-4943-13	BES23-53 0.5'	Total/NA	Solid	8015 NM	
890-4943-14	BES23-54 0.5'	Total/NA	Solid	8015 NM	
890-4943-15	BES23-55 0.5'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 57836

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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
890-4943-1	BES23-41 0.5'	Soluble	Solid	DI Leach	_
890-4943-2	BES23-42 0.5'	Soluble	Solid	DI Leach	
890-4943-3	BES23-43 0.5'	Soluble	Solid	DI Leach	
890-4943-4	BES23-44 0.5'	Soluble	Solid	DI Leach	
890-4943-5	BES23-45 0.5'	Soluble	Solid	DI Leach	
890-4943-6	BES23-46 0.5'	Soluble	Solid	DI Leach	
890-4943-7	BES23-47 0.5'	Soluble	Solid	DI Leach	
890-4943-8	BES23-48 0.5'	Soluble	Solid	DI Leach	
890-4943-9	BES23-49 0.5'	Soluble	Solid	DI Leach	
890-4943-10	BES23-50 0.5'	Soluble	Solid	DI Leach	
890-4943-11	BES23-51 0.5'	Soluble	Solid	DI Leach	
890-4943-12	BES23-52 0.5'	Soluble	Solid	DI Leach	
890-4943-13	BES23-53 0.5'	Soluble	Solid	DI Leach	
890-4943-14	BES23-54 0.5'	Soluble	Solid	DI Leach	
890-4943-15	BES23-55 0.5'	Soluble	Solid	DI Leach	
MB 880-57836/1-A	Method Blank	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

HPLC/IC (Continued)

Leach Batch: 57836 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-57836/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-57836/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4943-1 MS	BES23-41 0.5'	Soluble	Solid	DI Leach	
890-4943-1 MSD	BES23-41 0.5'	Soluble	Solid	DI Leach	
890-4943-11 MS	BES23-51 0.5'	Soluble	Solid	DI Leach	
890-4943-11 MSD	BES23-51 0.5'	Soluble	Solid	DI Leach	

Analysis Batch: 57909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4943-1	BES23-41 0.5'	Soluble	Solid	300.0	57836
890-4943-2	BES23-42 0.5'	Soluble	Solid	300.0	57836
890-4943-3	BES23-43 0.5'	Soluble	Solid	300.0	57836
890-4943-4	BES23-44 0.5'	Soluble	Solid	300.0	57836
890-4943-5	BES23-45 0.5'	Soluble	Solid	300.0	57836
890-4943-6	BES23-46 0.5'	Soluble	Solid	300.0	57836
890-4943-7	BES23-47 0.5'	Soluble	Solid	300.0	57836
890-4943-8	BES23-48 0.5'	Soluble	Solid	300.0	57836
890-4943-9	BES23-49 0.5'	Soluble	Solid	300.0	57836
890-4943-10	BES23-50 0.5'	Soluble	Solid	300.0	57836
890-4943-11	BES23-51 0.5'	Soluble	Solid	300.0	57836
890-4943-12	BES23-52 0.5'	Soluble	Solid	300.0	57836
890-4943-13	BES23-53 0.5'	Soluble	Solid	300.0	57836
890-4943-14	BES23-54 0.5'	Soluble	Solid	300.0	57836
890-4943-15	BES23-55 0.5'	Soluble	Solid	300.0	57836
MB 880-57836/1-A	Method Blank	Soluble	Solid	300.0	57836
LCS 880-57836/2-A	Lab Control Sample	Soluble	Solid	300.0	57836
LCSD 880-57836/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57836
890-4943-1 MS	BES23-41 0.5'	Soluble	Solid	300.0	57836
890-4943-1 MSD	BES23-41 0.5'	Soluble	Solid	300.0	57836
890-4943-11 MS	BES23-51 0.5'	Soluble	Solid	300.0	57836
890-4943-11 MSD	BES23-51 0.5'	Soluble	Solid	300.0	57836

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Project/Site: Corral Fly

Client Sample ID: BES23-41 0.5'

Analysis

Analysis

Leach

8015B NM

DI Leach

300.0

Date Collected: 07/13/23 10:00 Date Received: 07/13/23 16:18

Lab Sample ID: 890-4943-1

Matrix: Solid

EET MID

EET MID

EET MID

Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab 5035 57841 Total/NA Prep 4.96 g 5 mL 07/17/23 13:15 EL **EET MID** 8021B Total/NA Analysis 1 5 mL 5 mL 57773 07/17/23 22:21 SM **EET MID** Total/NA Analysis Total BTEX 57930 07/18/23 10:23 SM EET MID Total/NA 8015 NM 58923 07/31/23 16:05 **EET MID** Analysis 1 ΑJ Total/NA 8015NM Prep 9.94 g 58356 07/24/23 12:58 TKC EET MID Prep 10 mL

Client Sample ID: BES23-42 0.5' Lab Sample ID: 890-4943-2

5

1 uL

4.99 g

1 uL

50 mL

58682

57836

57909

07/28/23 10:52

07/17/23 11:13

07/17/23 18:10

ΑJ

KS

СН

Date Collected: 07/13/23 10:05

Total/NA

Soluble

Soluble

Date Received: 07/13/23 16:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	57841	07/17/23 13:15	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57773	07/17/23 22:42	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57930	07/18/23 10:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			58923	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 11:59	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	57836	07/17/23 11:13	KS	EET MID
Soluble	Analysis	300.0		20			57909	07/17/23 18:25	CH	EET MID

Client Sample ID: BES23-43 0.5'

Date Collected: 07/13/23 10:10

Date Received: 07/13/23 16:18

Lab	Sample	ID:	890-4943-3	
			Matrice Callel	

Lab Sample ID: 890-4943-4

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	57841	07/17/23 13:15	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57773	07/17/23 23:03	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57930	07/18/23 10:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			58923	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 12:21	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	57836	07/17/23 11:13	KS	EET MID
Soluble	Analysis	300.0		10			57909	07/17/23 18:30	CH	EET MID

Client Sample ID: BES23-44 0.5'

Date Collected: 07/13/23 10:15

Date Received: 07/13/23 16:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	57841	07/17/23 13:15	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57773	07/17/23 23:23	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57930	07/18/23 10:23	SM	EET MID

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Matrix: Solid

Project/Site: Corral Fly

Client: Vertex

Client Sample ID: BES23-44 0.5'

Date Collected: 07/13/23 10:15 Date Received: 07/13/23 16:18 Lab Sample ID: 890-4943-4

Lab Sample ID: 890-4943-6

Lab Sample ID: 890-4943-7

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			58923	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 12:44	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	57836	07/17/23 11:13	KS	EET MID
Soluble	Analysis	300.0		10			57909	07/17/23 18:35	CH	EET MID

Client Sample ID: BES23-45 0.5'

Lab Sample ID: 890-4943-5

Date Collected: 07/13/23 10:20

Date Received: 07/13/23 16:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	57841	07/17/23 13:15	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57773	07/17/23 23:44	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57930	07/18/23 10:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			58923	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 13:06	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	57836	07/17/23 11:13	KS	EET MID
Soluble	Analysis	300.0		5			57909	07/17/23 18:40	CH	EET MID

Client Sample ID: BES23-46 0.5'

Date Collected: 07/13/23 10:25

Date Received: 07/13/23 16:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	57841	07/17/23 13:15	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57773	07/18/23 00:05	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57930	07/18/23 10:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			58923	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 13:28	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	57836	07/17/23 11:13	KS	EET MID
Soluble	Analysis	300.0		5			57909	07/17/23 18:55	CH	EET MID

Client Sample ID: BES23-47 0.5'

Date Collected: 07/13/23 10:30

Date Received: 07/13/23 16:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	57841	07/17/23 13:15	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57773	07/18/23 00:25	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57930	07/18/23 10:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			58923	07/31/23 16:05	AJ	EET MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	9.90 g 1 uL	10 mL 1 uL	58356 58682	07/24/23 12:58 07/28/23 13:50	TKC AJ	EET MID EET MID

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Matrix: Solid

Matrix: Solid

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Matrix: Solid

Client: Vertex

Project/Site: Corral Fly

Client Sample ID: BES23-47 0.5' Lab Sample ID: 890-4943-7

Date Collected: 07/13/23 10:30 Date Received: 07/13/23 16:18

Matrix: Solid

Job ID: 890-4943-1

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	57836	07/17/23 11:13	KS	EET MID
Soluble	Analysis	300.0		5			57909	07/17/23 19:00	CH	EET MID

Client Sample ID: BES23-48 0.5' Lab Sample ID: 890-4943-8

Date Collected: 07/13/23 10:35 Date Received: 07/13/23 16:18

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	57841	07/17/23 13:15	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57773	07/18/23 00:46	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57930	07/18/23 10:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			58923	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 14:13	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	57836	07/17/23 11:13	KS	EET MID
Soluble	Analysis	300.0		5			57909	07/17/23 19:05	CH	EET MID

Client Sample ID: BES23-49 0.5'

Date Collected: 07/13/23 10:40

Date Received: 07/13/23 16:18

Lab Sample ID: 890-4943-9

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	57841	07/17/23 13:15	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57773	07/18/23 01:06	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57930	07/18/23 10:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			58923	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 14:35	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	57836	07/17/23 11:13	KS	EET MID
Soluble	Analysis	300.0		5			57909	07/17/23 19:10	CH	EET MID

Client Sample ID: BES23-50 0.5'

Date Collected: 07/13/23 10:45

Date Received: 07/13/23 16:18

Lab Sample ID: 890-4943-10 **Matrix: Solid**

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	57841	07/17/23 13:15	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57773	07/18/23 01:27	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57930	07/18/23 10:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			58923	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 14:57	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	57836	07/17/23 11:13	KS	EET MID
Soluble	Analysis	300.0		5			57909	07/17/23 19:15	CH	EET MID

Job ID: 890-4943-1

Client Sample ID: BES23-51 0.5'

Lab Sample ID: 890-4943-11 Date Collected: 07/13/23 10:50

Matrix: Solid

Date Received: 07/13/23 16:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	57841	07/17/23 13:15	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57773	07/18/23 02:49	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57930	07/18/23 10:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			58923	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 15:41	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	57836	07/17/23 11:13	KS	EET MID
Soluble	Analysis	300.0		1			57909	07/18/23 11:15	CH	EET MID

Client Sample ID: BES23-52 0.5'

Lab Sample ID: 890-4943-12 Date Collected: 07/13/23 10:55

Matrix: Solid

Date Received: 07/13/23 16:18

Batch Dil Initial Final Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 Total/NA 4.99 g 5 mL 57841 07/17/23 13:15 EL EET MID Total/NA 8021B 5 mL 07/18/23 03:10 **EET MID** Analysis 1 5 mL 57773 SM Total/NA Total BTEX 57930 07/18/23 10:23 SM Analysis 1 **EET MID** Total/NA Analysis 8015 NM 58923 07/31/23 16:05 ΑJ **EET MID** Total/NA 10.04 g 58356 07/24/23 12:58 TKC EET MID Prep 8015NM Prep 10 mL Total/NA Analysis 8015B NM 1 uL 1 uL 58682 07/28/23 16:03 ΑJ **EET MID** Soluble 07/17/23 11:13 KS Leach DI Leach 5 g 50 mL 57836 **EET MID** Soluble Analysis 300.0 57909 07/17/23 19:34 СН **EET MID**

Client Sample ID: BES23-53 0.5'

Lab Sample ID: 890-4943-13 Date Collected: 07/13/23 11:00 **Matrix: Solid**

Date Received: 07/13/23 16:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	57841	07/17/23 13:15	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57773	07/18/23 03:31	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57930	07/18/23 10:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			58923	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 16:26	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	57836	07/17/23 11:13	KS	EET MID
Soluble	Analysis	300.0		1			57909	07/17/23 19:39	CH	EET MID

Client Sample ID: BES23-54 0.5'

Lab Sample ID: 890-4943-14 Date Collected: 07/13/23 11:05 **Matrix: Solid**

Date Received: 07/13/23 16:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	57841	07/17/23 13:15	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57773	07/18/23 03:51	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57930	07/18/23 10:23	SM	EET MID

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Lab Chronicle

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Client Sample ID: BES23-54 0.5'

Date Collected: 07/13/23 11:05 Date Received: 07/13/23 16:18 Lab Sample ID: 890-4943-14

Matrix: Solid

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			58923	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 16:48	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	57836	07/17/23 11:13	KS	EET MID
Soluble	Analysis	300.0		1			57909	07/17/23 19:54	CH	EET MID

Client Sample ID: BES23-55 0.5'

Lab Sample ID: 890-4943-15

Date Collected: 07/13/23 11:10

Date Received: 07/13/23 16:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	57841	07/17/23 13:15	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	57773	07/18/23 04:12	SM	EET MID
Total/NA	Analysis	Total BTEX		1			57930	07/18/23 10:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			58923	07/31/23 16:05	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	58356	07/24/23 12:58	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58682	07/28/23 17:10	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	57836	07/17/23 11:13	KS	EET MID
Soluble	Analysis	300.0		10			57909	07/17/23 19:59	CH	EET MID

Laboratory References:

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

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Accreditation/Certification Summary

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

Laboratory: Eurofins Midland

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

Authority	P	rogram	Identification Number	Expiration Date
Texas	N	ELAP	T104704400-23-26	06-30-24
The following analytes the agency does not of	' '	ut the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes for which
Analysis Method	Prep Method	Matrix	Analyte	
8015 NM		Solid	Total TPH	
Total BTEX		Solid	Total BTEX	

Method Summary

Client: Vertex Job ID: 890-4943-1

Project/Site: Corral Fly

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

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Sample Summary

Client: Vertex

Project/Site: Corral Fly

Job ID: 890-4943-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4943-1	BES23-41 0.5'	Solid	07/13/23 10:00	07/13/23 16:18	0.5
890-4943-2	BES23-42 0.5'	Solid	07/13/23 10:05	07/13/23 16:18	0.5
890-4943-3	BES23-43 0.5'	Solid	07/13/23 10:10	07/13/23 16:18	0.5
890-4943-4	BES23-44 0.5'	Solid	07/13/23 10:15	07/13/23 16:18	0.5
890-4943-5	BES23-45 0.5'	Solid	07/13/23 10:20	07/13/23 16:18	0.5
890-4943-6	BES23-46 0.5'	Solid	07/13/23 10:25	07/13/23 16:18	0.5
890-4943-7	BES23-47 0.5'	Solid	07/13/23 10:30	07/13/23 16:18	0.5
890-4943-8	BES23-48 0.5'	Solid	07/13/23 10:35	07/13/23 16:18	0.5
890-4943-9	BES23-49 0.5'	Solid	07/13/23 10:40	07/13/23 16:18	0.5
890-4943-10	BES23-50 0.5'	Solid	07/13/23 10:45	07/13/23 16:18	0.5
890-4943-11	BES23-51 0.5'	Solid	07/13/23 10:50	07/13/23 16:18	0.5
890-4943-12	BES23-52 0.5'	Solid	07/13/23 10:55	07/13/23 16:18	0.5
890-4943-13	BES23-53 0.5'	Solid	07/13/23 11:00	07/13/23 16:18	0.5
890-4943-14	BES23-54 0.5'	Solid	07/13/23 11:05	07/13/23 16:18	0.5
890-4943-15	BES23-55 0.5'	Solid	07/13/23 11:10	07/13/23 16:18	0.5

7/31/2023

Work Order No:	www.xenco.com Page of O	Work Order Comments	Program: UST/PST PRP Brownfields RRC Superfund	•	Reporting: Level Level PST/UST TRRP Level V	Deliverables: EDD ADaPT Other:	QUEST Preservative Codes	None: NO DI Water: H ₂ O	Cool: Cool MeOH: Me		INTERPORTED FOR THE PROPERTY OF THE PROPERTY O	H ₃ PO ₄ : HP	NaHSO 4: NABIS	890-4944 Chain of Contact.			Sample Comments											Se Ag SiO ₂	Hg: 1631 / 245.1 / 7470	terms and conditions is beyond the control unless previously negotiated.	nature) Received by: (Signature) Date/Time	
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	ROB Hirk	Salaris			vertexoca	ANALYSIS REQUEST	Pres. Code			- S.	leter	meie	X	(1) H	ころえ	#of		A A A							2	477		N SB As Ba Be Cd Cr Co Cu Pb Min Mo Ni Se Ag II U	Eurofins Xenco, its affiliates and subcontractors. It assigns standard spenses incurred by the client if such losses are due to circumstanct to Eurofins Xenco, but not analyzed. These terms will be enforced	Date/Time Relinquished by: (Signature)	1-13-23 16/8
	Hobbs, NN	Bill to: (If different)		Address:	City, State ZIP:	Email: Cdixona	Turn Around	sh	Due Date:	TAT starts the day received by	7	Wet ice: Yes No	MMOOT	O M	Corrected Temperature:		Time Grab/ # Sampled Comp Co	3 26.00	10.05	20.30	30.75	16:30	10:25	20:30	20.35	10.40	10:45	8RCRA 13PPM Texas 11 Al	TCLP / SPLP 6010 : BRCKA	a valid purchase order from client company to E ot assume any responsibility for any losses or ex t and a charge of \$5 for each sample submitted	Received by (Signature)	
eurofins Environment Testing Xenco		Project Manager: Charite Dixon	Vertex	Address:	City, State ZIP:	Phone:	Project Name: Costs Flu	oer:	Project Location:	Sampler's Name: Hunter Mein	PO #:	SAMPLE RECEIPT Temp Blank: es No	Samples Received Intact: (Yes No Thermometer ID:	Yes No ATA	Sample Custody Seals: Yes No MA Temperatu Total Containers: Corrected		Sample Identification Matrix Sampled	RF523-41 (D.5' Sol 7113133	l .	26533-43 0,51	86533-44 10,5		25535- 46 B, 5'	8E533-47 0.51	9	BESSY-40 0.51	84533-50 0.51 2		Circle Method(s) and Metal(s) to be analyzed	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, By the client if such losses are due to circumstances beyond the control of Eurofins Xenco, and minimum chance of S85,000 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)	

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300 Chain of Custody

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eurotins		Houston, TX (281) 240-4200, Dallas, TX (214
	Environment Testing	Midland, TX (432) 704-5440, San Antonio, TX (2
	Xenco	EL Paso, TX (915) 585-3443, Lubbock, TX (806
		Hobbs, NM (575) 392-7550, Carlsbad, NM (57

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 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Work Order No:

							www.xenco.com	om Page C of C	_1
Project Manager:	muce. Dixon		Bill to: (if different)	0	Rob Kirk	7	Work Orde	Work Order Comments	
>	X		Company Name:		Solaris		Program: UST/PST	Brownfields ☐ RRC ☐ Superfund ☐	<u>_</u>
Address:			Address:				State of Project:		
City, State ZIP:			City, State ZIP:			Rep	orting: Level II 🗌 Level III 📗	Reporting: Level III Level III PST/UST TRRP Level IV	
Phone:		Email:	Cdixon	B	vertex.ca		Deliverables: EDD A	ADaPT ☐ Other:	
Project Name:	ornal Flu	Tum	Tum Around			ANALYSIS REQUEST		Preservative Codes	
er:		Routine	Rush	Pres. Code				None: NO DI Water: H ₂ O	1,0
Project Location:		Due Date:						Cool: Cool	
	Hunter Mein	TAT starts the	TAT starts the day received by						
PO #:		the lab, if rec	the lab, if received by 4:30pm	s				H ₂ S0 ₄ : H ₂ NaOH: Na	
SAMPLE RECEIPT	Temp Blank: Yes No	Wet Ice:	Yes No	ıeter				H ₃ PO ₄ : HP	Ī
Samples Received Intact:	Yes No Thermometer ID:	er ID:		rien				NaHSO 4: NABIS	
Cooler Custody Seals:	Yes No N/A Correction Kactor	actor!		ьq	X			Na ₂ S ₂ O ₃ : NaSO ₃	1
Sample Custody Seals:	Yes No N/A Temperature Reading:	Reading:		1	=			Zn Acetate+NaOH: Zn	
Total Containers:		emperature:			T. 11			NaOH+Ascorbic Acid: SAPC	
		Tlme		# of	(R			of a common of a c	
Sample Identification	Matrix	Sampled	Depth Comp)					Sample Comments	
4493-61 0	5,5' (1) 7/3/2	35,012)	3	トナナ				T
PES33-52 6	2.51 1 1	10:55		/ /	447				T
AF532-53 0	7.5	900h	00:1						
- ならなったみ /	12,47	20,27			7				
. REG22 . GE C	12.21	77-75		7	7				
		1		>					
Total 200.7 / 6010 200.8 / 6020:		8RCRA 13PPM TCIP/SPLI	PM Texas 11	Al Sb As	Ba Be B Cd Ca	A 13PPM Texas 11 AI Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr TI Sn U V Zn TCIP/SPLP6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U Hg: 1631/245.1/7470 /7471	Mo Ni K Se Ag SiO ₂ Na Sr Tl Sn Tl U Hg: 1631/245.1/7470	Sr Tl Sn U V Zn 5.1 / 7470 / 7471	
Notice: Signature of this document and of service, Eurofins Xenco will be liable of Eurofing Vanco, & entirement of services of an entirement of services.	d relinquishment of samples constitutes a vie only for the cost of samples and shall not see the cost of samples and shall not see the cost of sampled to each profect a	valid purchase ord assume any respond a charge of \$5	der from client companionsibility for any losses for each sample submi	y to Eurofins X or expenses in	enco, its affiliates and sub curred by the client if such	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 used in 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 service. Eurofins Xenco will be able 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 service. Such in the control of the contro	nditions control sly negatiated.		
	Povinose C	Decoined by Constino		Ĉ	Jate/Time	Relinguished by: (Signature)	Received by: (Signature)	ture) Date/Time	
ed by. (31g				1.13	23 11				
· Marvara		1		1	7				

Login Sample Receipt Checklist

Client: Vertex Job Number: 890-4943-1

Login Number: 4943 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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	

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Login Sample Receipt Checklist

Client: Vertex Job Number: 890-4943-1

Login Number: 4943 **List Source: Eurofins Midland** List Number: 2 List Creation: 07/17/23 10:06 AM

Creator: Rodriguez, Leticia

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

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 7/31/2023 3:24:18 PM

JOB DESCRIPTION

Corral Fly SDG NUMBER 23E-02502

JOB NUMBER

890-4951-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

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

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

Authorization

Generated 7/31/2023 3:24:18 PM

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

Client: Vertex Laboratory Job ID: 890-4951-1 Project/Site: Corral Fly

SDG: 23E-02502

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Definitions/Glossary

Client: Vertex Job ID: 890-4951-1 Project/Site: Corral Fly

SDG: 23E-02502

Qualifiers

GC VOA Qualifier

LCS and/or LCSD is outside acceptance limits, low biased.

*1 LCS/LCSD RPD exceeds control limits.

Qualifier Description

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

GC Semi VOA

Qualifier **Qualifier Description** S1+ Surrogate recovery exceeds control limits, high biased.

Indicates the analyte was analyzed for but not detected.

HPLC/IC

U

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)

Estimated Detection Limit (Dioxin) **EDL** LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

EPA recommended "Maximum Contaminant Level" MCL Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit MI 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

Practical Quantitation Limit **PQL**

PRES Presumptive **Quality Control** QC

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

Job ID: 890-4951-1 Client: Vertex Project/Site: Corral Fly SDG: 23E-02502

Job ID: 890-4951-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-4951-1

Receipt

The samples were received on 7/14/2023 3:02 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 11.0°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BES23-56 0.5' (890-4951-1), BES23-57 0.5' (890-4951-2), BES23-58 0.5' (890-4951-3), BES23-59 0.5' (890-4951-4), BES23-60 0.5' (890-4951-5), BES23-61 0.5' (890-4951-6), BES23-62 0.5' (890-4951-7), BES23-63 0.5' (890-4951-8), BES23-64 0.5' (890-4951-9), WES23-01 0.5' (890-4951-10), WES23-02 0.5' (890-4951-11), WES23-03 0.5' (890-4951-12), WES23-04 0.5' (890-4951-13), WES23-05 0.5' (890-4951-14) and WES23-06 0.5' (890-4951-15).

GC VOA

Method 8021B: LCSD biased low. Since only an acceptable LCS is required per the method, the data has been qualified and reported. (LCSD 880-58151/2-A)

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-58151 and analytical batch 880-58250 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 samples were outside control limits: (890-4951-A-1-B MS) and (890-4951-A-1-C MSD). 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 880-58285 recovered above the upper control limit for m-Xylene & p-Xylene. 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 880-58285/2).

Method 8021B: The matrix spike (MS) recoveries for preparation batch 880-58056 and analytical batch 880-58285 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.

GC Semi VOA

Method 8015MOD_NM: The CCV was biased low for gasoline range hydrocarbons. Another CCV was analyzed and acceptable within 12 hours; therefore, the data was qualified and reported.(CCV 880-58792/20)

Method 8015MOD NM: Surrogate recovery for the following samples were outside control limits: BES23-58 0.5' (890-4951-3), WES23-05 0.5' (890-4951-14), (MB 880-58406/1-A) and (890-4950-A-41-D). 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.

Method 300 ORGFM 28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-57875 and analytical batch 880-58007 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.

Lab Sample ID: 890-4951-1

Client Sample Results

 Client: Vertex
 Job ID: 890-4951-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Client Sample ID: BES23-56 0.5'

Date Collected: 07/14/23 10:00 Date Received: 07/14/23 15:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U F1	0.00202		mg/Kg		07/19/23 15:10	07/24/23 02:10	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/19/23 15:10	07/24/23 02:10	1
Toluene	<0.00202	U F1	0.00202		mg/Kg		07/19/23 15:10	07/24/23 02:10	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		07/19/23 15:10	07/24/23 02:10	1
m-Xylene & p-Xylene	< 0.00404	U	0.00404		mg/Kg		07/19/23 15:10	07/24/23 02:10	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/19/23 15:10	07/24/23 02:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130				07/19/23 15:10	07/24/23 02:10	1
1,4-Difluorobenzene (Surr)	94		70 - 130				07/19/23 15:10	07/24/23 02:10	1
Method: TAL SOP Total BTEX -	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			07/24/23 11:25	1
Method: SW846 8015 NM - Diese	ei Range Organ	ICS (DRO) (I	GC)						
Analyte		Qualifier	RL	MDL		<u>D</u>	Prepared	Analyzed	
Analyte Total TPH	Result 87.0	Qualifier	•	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 07/31/23 16:01	
	87.0	<u> </u>		MDL		<u>D</u>	Prepared		
Total TPH	87.0 sel Range Orga	<u> </u>		MDL	mg/Kg	<u>D</u>	Prepared Prepared		1
Total TPH Method: SW846 8015B NM - Die	87.0 sel Range Orga	nics (DRO) Qualifier	RL 50.1		mg/Kg			07/31/23 16:01	Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics	87.0 sel Range Orga Result	nics (DRO) Qualifier	RL 50.1 (GC)		mg/Kg		Prepared	07/31/23 16:01 Analyzed	Dil Fac
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	sel Range Orga Result <50.1	nics (DRO) Qualifier U	RL 50.1 (GC) RL 50.1		mg/Kg Unit mg/Kg		Prepared 07/24/23 17:37	07/31/23 16:01 Analyzed 07/30/23 16:04	Dil Fac
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	sel Range Orga Result <50.1 87.0	nics (DRO) Qualifier U	RL 50.1 (GC) RL 50.1 50.1		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 17:37 07/24/23 17:37	07/31/23 16:01 Analyzed 07/30/23 16:04 07/30/23 16:04	Dil Fac
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	87.0 sel Range Orga Result <50.1 87.0 <50.1	nics (DRO) Qualifier U	RL 50.1 (GC) RL 50.1 50.1 50.1		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 17:37 07/24/23 17:37 07/24/23 17:37	07/31/23 16:01 Analyzed 07/30/23 16:04 07/30/23 16:04	Dil Face 1 1 1 Dil Face
Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	87.0 sel Range Orga Result <50.1 87.0 <50.1 %Recovery	nics (DRO) Qualifier U	RL 50.1		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 17:37 07/24/23 17:37 07/24/23 17:37 Prepared	07/31/23 16:01 Analyzed 07/30/23 16:04 07/30/23 16:04 07/30/23 16:04 Analyzed	Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	87.0	U Qualifier	RL 50.1 (GC) RL 50.1 50.1 50.1 Limits 70 - 130 70 - 130		mg/Kg Unit mg/Kg mg/Kg		Prepared 07/24/23 17:37 07/24/23 17:37 07/24/23 17:37 Prepared 07/24/23 17:37	07/31/23 16:01 Analyzed 07/30/23 16:04 07/30/23 16:04 Analyzed 07/30/23 16:04	Dil Fac
Total TPH Method: SW846 8015B NM - Die Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Sel Range Orga Result	U Qualifier	RL 50.1 (GC) RL 50.1 50.1 50.1 Limits 70 - 130 70 - 130		mg/Kg Unit mg/Kg mg/Kg mg/Kg		Prepared 07/24/23 17:37 07/24/23 17:37 07/24/23 17:37 Prepared 07/24/23 17:37	07/31/23 16:01 Analyzed 07/30/23 16:04 07/30/23 16:04 Analyzed 07/30/23 16:04	Dil Fac 1 Dil Fac 1 1 Dil Fac 1 Dil Fac 1 Dil Fac

Client Sample ID: BES23-57 0.5'

Date Collected: 07/14/23 10:05

Date Received: 07/14/23 15:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 02:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 02:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 02:31	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/19/23 15:10	07/24/23 02:31	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/19/23 15:10	07/24/23 02:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 02:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130				07/19/23 15:10	07/24/23 02:31	1

Eurofins Carlsbad

Lab Sample ID: 890-4951-2

Matrix: Solid

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Lab Sample ID: 890-4951-2

Lab Sample ID: 890-4951-3

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-4951-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-57 0.5'

Date Collected: 07/14/23 10:05 Date Received: 07/14/23 15:02

Sample Depth: 0.5

Method: SW846 8021B	- Volatile Organic	Compounds (GC	(Continued)
Method. 344040 002 1D	- voiatile Organic	Compounds (GC)	(Continueu)

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	103	70 - 130	07/19/23 15:10	07/24/23 02:31	1

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			07/24/23 11:25	1

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/Kg			07/31/23 16:01	1

Method: SW846 8015B	NM - Diesel Rand	ge Organics	(DRO)	(GC)
Michiga. Offord out ob	ININ - Diesel Itali	ge Organics	(DitO)	(00)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		07/24/23 17:37	07/30/23 16:26	1
Diesel Range Organics (Over C10-C28)	<50.3	U	50.3		mg/Kg		07/24/23 17:37	07/30/23 16:26	1
Oll Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		07/24/23 17:37	07/30/23 16:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116	70 - 130	07/24/23 17:3	7 07/30/23 16:26	1
o-Terphenyl	111	70 - 130	07/24/23 17:3	7 07/30/23 16:26	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	544		49.6		mg/Kg			07/19/23 10:36	10	

Client Sample ID: BES23-58 0.5'

Date Collected: 07/14/23 10:10 Date Received: 07/14/23 15:02

Sample Depth: 0.5

Mothodi CIMO46 0004D	Valatila Organia Campaunda (CC)

Analyte	Result	Qualifier	RL	MDL (Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	r	mg/Kg		07/19/23 15:10	07/24/23 02:51	1
Ethylbenzene	<0.00200	U	0.00200	r	mg/Kg		07/19/23 15:10	07/24/23 02:51	1
Toluene	<0.00200	U	0.00200	r	mg/Kg		07/19/23 15:10	07/24/23 02:51	1
Xylenes, Total	<0.00399	U	0.00399	r	mg/Kg		07/19/23 15:10	07/24/23 02:51	1
m-Xylene & p-Xylene	< 0.00399	U	0.00399	r	mg/Kg		07/19/23 15:10	07/24/23 02:51	1
o-Xylene	<0.00200	U	0.00200	r	mg/Kg		07/19/23 15:10	07/24/23 02:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130				07/19/23 15:10	07/24/23 02:51	1
4.4.Diff	00		70 400				07/40/02 45:40	07/04/00 00:54	

4-Bromofluorobenzene (Surr)	89	70 - 130	07/19/23 15:10	07/24/23 02:51	1
1,4-Difluorobenzene (Surr)	99	70 - 130	07/19/23 15:10	07/24/23 02:51	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
l	Total BTEX	<0.00399		0.00399		mg/Kg			07/24/23 11:25	1

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	60.5	49.9	mg/Kg			07/31/23 16:01	1

Lab Sample ID: 890-4951-3

Lab Sample ID: 890-4951-4

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-4951-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-58 0.5'

Date Collected: 07/14/23 10:10 Date Received: 07/14/23 15:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		07/24/23 17:37	07/30/23 16:48	1
Diesel Range Organics (Over C10-C28)	60.5		49.9		mg/Kg		07/24/23 17:37	07/30/23 16:48	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/24/23 17:37	07/30/23 16:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130				07/24/23 17:37	07/30/23 16:48	1
o-Terphenyl -	129		70 - 130				07/24/23 17:37	07/30/23 16:48	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	le						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: BES23-59 0.5'

Date Collected: 07/14/23 10:15

Date Received: 07/14/23 15:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/19/23 15:10	07/24/23 03:12	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/19/23 15:10	07/24/23 03:12	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/19/23 15:10	07/24/23 03:12	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		07/19/23 15:10	07/24/23 03:12	1
m-Xylene & p-Xylene	< 0.00397	U	0.00397		mg/Kg		07/19/23 15:10	07/24/23 03:12	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/19/23 15:10	07/24/23 03:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130				07/19/23 15:10	07/24/23 03:12	1
1,4-Difluorobenzene (Surr)	106		70 - 130				07/19/23 15:10	07/24/23 03:12	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			07/24/23 11:25	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	73.0		50.1		mg/Kg			07/31/23 16:01	1
Method: SW846 8015B NM - Die:	sel Range Orga	nics (DRO)	(GC)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	50.1		mg/Kg		07/24/23 17:37	07/30/23 17:10	1
Diesel Range Organics (Over C10-C28)	73.0		50.1		mg/Kg		07/24/23 17:37	07/30/23 17:10	1
Oll Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		07/24/23 17:37	07/30/23 17:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane			70 - 130				07/24/23 17:37	07/30/23 17:10	1

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7/31/2023

Lab Sample ID: 890-4951-4

Client Sample Results

Client: Vertex Job ID: 890-4951-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-59 0.5'

Date Collected: 07/14/23 10:15 Date Received: 07/14/23 15:02

Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	3040		50.2		mg/Kg			07/19/23 10:46	10		

Client Sample ID: BES23-60 0.5' Lab Sample ID: 890-4951-5 Matrix: Solid

Date Collected: 07/14/23 10:20 Date Received: 07/14/23 15:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 03:32	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 03:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 03:32	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/19/23 15:10	07/24/23 03:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/19/23 15:10	07/24/23 03:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 03:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130				07/19/23 15:10	07/24/23 03:32	1
1,4-Difluorobenzene (Surr)	105		70 - 130				07/19/23 15:10	07/24/23 03:32	1
· Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			07/24/23 11:25	1
Method: SW846 8015 NM - Diese Analyte Total TPH	•	Qualifier	RL 50.0	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 07/31/23 16:01	Dil Fac
					3 3				
Method: SW846 8015B NM - Dies			• •			_			5.1.5
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/24/23 17:37	07/30/23 17:32	1
Diesel Range Organics (Over C10-C28)	182		50.0		mg/Kg		07/24/23 17:37	07/30/23 17:32	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/24/23 17:37	07/30/23 17:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130				07/24/23 17:37	07/30/23 17:32	1
o-Terphenyl	115		70 - 130				07/24/23 17:37	07/30/23 17:32	1
Method: EPA 300.0 - Anions, Ion	• •	•							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	583		25.1		mg/Kg			07/19/23 11:28	5

Lab Sample ID: 890-4951-6

Client Sample Results

 Client: Vertex
 Job ID: 890-4951-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Client Sample ID: BES23-61 0.5'

Date Collected: 07/14/23 10:25 Date Received: 07/14/23 15:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/19/23 15:10	07/24/23 03:53	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/19/23 15:10	07/24/23 03:53	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/19/23 15:10	07/24/23 03:53	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/19/23 15:10	07/24/23 03:53	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/19/23 15:10	07/24/23 03:53	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/19/23 15:10	07/24/23 03:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130				07/19/23 15:10	07/24/23 03:53	1
1,4-Difluorobenzene (Surr)	97		70 - 130				07/19/23 15:10	07/24/23 03:53	1
- Method: TAL SOP Total BTEX - 1	Total BTEX Calc	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			07/24/23 11:25	1
Analyte		Qualifier	, RL	MDL		<u>D</u>	Prepared	Analyzed	Dil Fac
Total TPH	341		49.5		mg/Kg			07/31/23 16:01	1
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)						
Analyte	Result	Qualifier	D.		Unit	_			
		Qualifier	RL	MDL	Offic	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.5		49.5	MDL	mg/Kg	о	07/24/23 17:37	Analyzed 07/30/23 17:55	Dil Fac
(GRO)-C6-C10 Diesel Range Organics (Over				MDL					
(GRO)-C6-C10	<49.5	U	49.5	MDL	mg/Kg		07/24/23 17:37	07/30/23 17:55	1
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.5 341	U	49.5	MDL	mg/Kg	Б	07/24/23 17:37 07/24/23 17:37	07/30/23 17:55 07/30/23 17:55	1 1
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.5 341 <49.5	U	49.5 49.5 49.5	MDL	mg/Kg	Б	07/24/23 17:37 07/24/23 17:37 07/24/23 17:37	07/30/23 17:55 07/30/23 17:55 07/30/23 17:55	1 1 1 Dil Fac
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<49.5 341 <49.5 %Recovery	U	49.5 49.5 49.5 Limits	MDL	mg/Kg		07/24/23 17:37 07/24/23 17:37 07/24/23 17:37 Prepared	07/30/23 17:55 07/30/23 17:55 07/30/23 17:55 Analyzed	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
(GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<49.5 341 <49.5 **Recovery 126 114	U Qualifier	49.5 49.5 49.5 Limits 70 - 130 70 - 130	MDL	mg/Kg		07/24/23 17:37 07/24/23 17:37 07/24/23 17:37 Prepared 07/24/23 17:37	07/30/23 17:55 07/30/23 17:55 07/30/23 17:55 Analyzed 07/30/23 17:55	1

Client Sample ID: BES23-62 0.5'

Date Collected: 07/14/23 10:30

Date Received: 07/14/23 15:02

Sample Depth: 0.5

Chloride

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 04:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 04:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 04:13	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/19/23 15:10	07/24/23 04:13	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/19/23 15:10	07/24/23 04:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 04:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130				07/19/23 15:10	07/24/23 04:13	1

49.8

mg/Kg

1540

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Matrix: Solid

07/19/23 11:43

Lab Sample ID: 890-4951-7

Lab Sample ID: 890-4951-7

Lab Sample ID: 890-4951-8

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-4951-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: BES23-62 0.5'

Date Collected: 07/14/23 10:30 Date Received: 07/14/23 15:02

Sample Depth: 0.5

Method: SW846 8021B	- Volatile Organic	Compounds (GC)	(Continued)
Michiga. Strotto duz i B	- Voiatile Organic	Compounds (901	Continueu

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	98	70 - 130	07/19/23 15:10	07/24/23 04:13	1

Method: TAI	SOP Tota	I BTEX - Total	BTFX	Calculation
Mictilou. IAL	. 001 10ta	I DIEA - IOLAI		Calculation

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			07/24/23 11:25	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	111		49.5		mg/Kg			07/31/23 16:01	1

	Mothod: SW046 904ED NM Diocol Dan	go Organico (DBO) (CC)	v
ı	Method: SW846 8015B NM - Diesel Ran	ge Organics (DRO) (GC)	,

		()	\ - - /					
Analyte	Result	Qualifier	RL	MDL Unit	. D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.5	U	49.5	mg/l	Kg	07/24/23 17:37	07/30/23 18:17	1
Diesel Range Organics (Over C10-C28)	111		49.5	mg/l	Kg	07/24/23 17:37	07/30/23 18:17	1
OII Range Organics (Over C28-C36)	<49.5	U	49.5	mg/l	Kg	07/24/23 17:37	07/30/23 18:17	1
Surrogate	%Pecovery	Qualifier	l imite			Propared	Analyzod	Dil Eac

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117	70 - 130	07/24/23 17:37	07/30/23 18:17	1
o-Terphenyl	108	70 - 130	07/24/23 17:37	07/30/23 18:17	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifie		MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1480	24.9	mg/Kg			07/19/23 11:48	5

Client Sample ID: BES23-63 0.5'

Date Collected: 07/14/23 10:35

Date Received: 07/14/23 15:02

Sample Depth: 0.5

metrica. 3770-70 0021B Volutile Organio Compoundo (CC)								
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00201	U	0.00201		mg/Kg		07/19/23 15:10	07/24/23 04:33	1
<0.00201	U	0.00201		mg/Kg		07/19/23 15:10	07/24/23 04:33	1
<0.00201	U	0.00201		mg/Kg		07/19/23 15:10	07/24/23 04:33	1
<0.00402	U	0.00402		mg/Kg		07/19/23 15:10	07/24/23 04:33	1
<0.00402	U	0.00402		mg/Kg		07/19/23 15:10	07/24/23 04:33	1
<0.00201	U	0.00201		mg/Kg		07/19/23 15:10	07/24/23 04:33	1
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
104		70 - 130				07/19/23 15:10	07/24/23 04:33	1
100		70 - 130				07/19/23 15:10	07/24/23 04:33	1
	Result <0.00201 <0.00201 <0.00201 <0.00201 <0.00402 <0.00402 <0.00201 %Recovery 104	Result Qualifier	Result Qualifier RL <0.00201	Result Qualifier RL MDL <0.00201	Result Qualifier RL MDL Unit <0.00201	Result Qualifier RL MDL Unit D <0.00201	Result Qualifier RL MDL Unit D Prepared <0.00201	Result Qualifier RL MDL Unit D Prepared Analyzed <0.00201

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			07/24/23 11:25	1

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.3	U	50.3	mg/K			07/31/23 16:01	1

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Lab Sample ID: 890-4951-8

Lab Sample ID: 890-4951-9

Matrix: Solid

 Client: Vertex
 Job ID: 890-4951-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Client Sample ID: BES23-63 0.5'

Date Collected: 07/14/23 10:35 Date Received: 07/14/23 15:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.3	U	50.3		mg/Kg		07/24/23 17:37	07/30/23 18:39	1
(GRO)-C6-C10									
Diesel Range Organics (Over	<50.3	U	50.3		mg/Kg		07/24/23 17:37	07/30/23 18:39	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		07/24/23 17:37	07/30/23 18:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130				07/24/23 17:37	07/30/23 18:39	1
o-Terphenvl	102		70 - 130				07/24/23 17:37	07/30/23 18:39	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble										
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	355		5.02		mg/Kg			07/19/23 11:54	1

Client Sample ID: BES23-64 0.5'

Date Collected: 07/14/23 10:40 Date Received: 07/14/23 15:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 04:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 04:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 04:54	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		07/19/23 15:10	07/24/23 04:54	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		07/19/23 15:10	07/24/23 04:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 04:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		70 - 130				07/19/23 15:10	07/24/23 04:54	1
1,4-Difluorobenzene (Surr)	110		70 - 130				07/19/23 15:10	07/24/23 04:54	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			07/24/23 11:25	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			07/31/23 16:01	1

	sel Range Orga	nics (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		07/24/23 17:37	07/30/23 19:02	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		07/24/23 17:37	07/30/23 19:02	1
OII Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		07/24/23 17:37	07/30/23 19:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130				07/24/23 17:37	07/30/23 19:02	1
o-Terphenyl	109		70 - 130				07/24/23 17:37	07/30/23 19:02	1

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Client Sample ID: BES23-64 0.5'

Job ID: 890-4951-1 SDG: 23E-02502

Project/Site: Corral Fly

Lab Sample ID: 890-4951-9

Date Collected: 07/14/23 10:40 Date Received: 07/14/23 15:02 Matrix: Solid

Sample Depth: 0.5

Client: Vertex

١	Method: EPA 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	188		4.95		mg/Kg			07/19/23 11:59	1

Client Sample ID: WES23-01 0.5'

Lab Sample ID: 890-4951-10

Date Collected: 07/14/23 10:45 Matrix: Solid

Date Received: 07/14/23 15:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/19/23 15:10	07/24/23 05:14	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/19/23 15:10	07/24/23 05:14	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/19/23 15:10	07/24/23 05:14	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		07/19/23 15:10	07/24/23 05:14	1
m-Xylene & p-Xylene	< 0.00397	U	0.00397		mg/Kg		07/19/23 15:10	07/24/23 05:14	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/19/23 15:10	07/24/23 05:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130				07/19/23 15:10	07/24/23 05:14	1
1,4-Difluorobenzene (Surr)	78		70 - 130				07/19/23 15:10	07/24/23 05:14	1
Method: TAL SOP Total BTEX - T	Total BTEX Cald	ulation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			07/24/23 11:25	1
Analyte Total TPH	Result	Qualifier		MIDL	mg/Kg	D	Prepared	Analyzed 07/31/23 16:01	Dil Fac
- -					mg/itg			07/31/23 10.01	'
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	ICC\						
	• •		•						
Analyte	Result	Qualifier	RL	MDL		<u>D</u>	Prepared	Analyzed	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10	• •	Qualifier	•	MDL	Unit mg/Kg	<u>D</u>	Prepared 07/24/23 17:42	Analyzed 07/30/23 22:01	Dil Fac
Gasoline Range Organics	Result	Qualifier	RL	MDL		<u>D</u>	<u>.</u>		
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.6	Qualifier U	RL 49.6	MDL	mg/Kg	<u>D</u>	07/24/23 17:42	07/30/23 22:01	1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <49.6 118	Qualifier U	49.6 49.6	MDL	mg/Kg	<u>D</u>	07/24/23 17:42 07/24/23 17:42	07/30/23 22:01	1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.6 118 <49.6	Qualifier U	RL 49.6 49.6 49.6	MDL	mg/Kg	<u>D</u>	07/24/23 17:42 07/24/23 17:42 07/24/23 17:42	07/30/23 22:01 07/30/23 22:01 07/30/23 22:01	1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <49.6 118 <49.6 %Recovery	Qualifier U	### ### ### ### #### #################	MDL	mg/Kg	<u>D</u>	07/24/23 17:42 07/24/23 17:42 07/24/23 17:42 Prepared	07/30/23 22:01 07/30/23 22:01 07/30/23 22:01 Analyzed	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <49.6 118 <49.6 %Recovery 100 93	Qualifier U Qualifier	RL 49.6 49.6 49.6 Limits 70 - 130 70 - 130	MDL	mg/Kg	<u> </u>	07/24/23 17:42 07/24/23 17:42 07/24/23 17:42 Prepared 07/24/23 17:42	07/30/23 22:01 07/30/23 22:01 07/30/23 22:01 Analyzed 07/30/23 22:01	1 1 1 <i>Dil Fac</i>
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier U Qualifier	RL 49.6 49.6 49.6 Limits 70 - 130 70 - 130	MDL	mg/Kg mg/Kg mg/Kg	<u>D</u>	07/24/23 17:42 07/24/23 17:42 07/24/23 17:42 Prepared 07/24/23 17:42	07/30/23 22:01 07/30/23 22:01 07/30/23 22:01 Analyzed 07/30/23 22:01	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Lab Sample ID: 890-4951-11

07/24/23 17:42

07/30/23 22:23

Lab Sample ID: 890-4951-12

Client: Vertex Job ID: 890-4951-1
Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: WES23-02 0.5'

Date Collected: 07/14/23 10:50 Date Received: 07/14/23 15:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *1	0.00201		mg/Kg		07/20/23 13:55	07/22/23 18:02	1
Ethylbenzene	<0.00201	U *- *1	0.00201		mg/Kg		07/20/23 13:55	07/22/23 18:02	1
Toluene	<0.00201	U *- *1	0.00201		mg/Kg		07/20/23 13:55	07/22/23 18:02	1
Xylenes, Total	<0.00402	U *- *1	0.00402		mg/Kg		07/20/23 13:55	07/22/23 18:02	1
m-Xylene & p-Xylene	<0.00402	U *- *1	0.00402		mg/Kg		07/20/23 13:55	07/22/23 18:02	1
o-Xylene	<0.00201	U *- *1	0.00201		mg/Kg		07/20/23 13:55	07/22/23 18:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130				07/20/23 13:55	07/22/23 18:02	1
1,4-Difluorobenzene (Surr)	93		70 - 130				07/20/23 13:55	07/22/23 18:02	1
Method: TAL SOP Total BTEX	- Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	П	0.00402		mg/Kg			07/24/23 09:06	

Method: SW846 8015 NM - Diesei Rai	nge Organics (DRO) (GC	•)					
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	71.0	50.0	mg/Kg			07/31/23 16:01	1
Method: SW846 8015B NM - Diesel R	ange Organics (DRO) (G	SC)					

		(=:::=)	()						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/24/23 17:42	07/30/23 22:23	1
Diesel Range Organics (Over	71.0		50.0		mg/Kg		07/24/23 17:42	07/30/23 22:23	1
C10-C28) OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/24/23 17:42	07/30/23 22:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane			70 - 130				07/24/23 17:42	07/30/23 22:23	1

Method: EPA 300.0 - Anions, Ion C	hromatograph	hy - Soluble	•						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	170		4.99		mg/Kg			07/19/23 12:40	1

70 - 130

112

Client Sample ID: WES23-03 0.5'

Date Collected: 07/14/23 10:55 Date Received: 07/14/23 15:02

Sample Depth: 0.5

o-Terphenyl

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200		mg/Kg		07/20/23 13:55	07/22/23 18:22	1
Ethylbenzene	<0.00200	U *- *1	0.00200		mg/Kg		07/20/23 13:55	07/22/23 18:22	1
Toluene	<0.00200	U *- *1	0.00200		mg/Kg		07/20/23 13:55	07/22/23 18:22	1
Xylenes, Total	<0.00399	U *- *1	0.00399		mg/Kg		07/20/23 13:55	07/22/23 18:22	1
m-Xylene & p-Xylene	<0.00399	U *- *1	0.00399		mg/Kg		07/20/23 13:55	07/22/23 18:22	1
o-Xylene	<0.00200	U *- *1	0.00200		mg/Kg		07/20/23 13:55	07/22/23 18:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130				07/20/23 13:55	07/22/23 18:22	

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Matrix: Solid

Lab Sample ID: 890-4951-12

Lab Sample ID: 890-4951-13

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-4951-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: WES23-03 0.5'

Date Collected: 07/14/23 10:55 Date Received: 07/14/23 15:02

Sample Depth: 0.5

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

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	94	70 - 130	07/20/23 13:55	07/22/23 18:22	1

Mothod: TAL SOP	Total RTFY - Tota	I BTEX Calculation
Method. IAL JOI	TOTAL DIEX - TOTA	I DIEA Calculation

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399 U	0.00399	ma/Ka			07/24/23 09:06	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	255		50.3		mg/Kg			07/31/23 16:01	1

Method: SW846 8015B	NM - Diesel Range	Organics (DRO) (G	C)
Michiga. Offoto ou lob	THIN - Dicaci Italige	organics (bito) (c	, – ,

		, ,	· /						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	50.3		mg/Kg		07/24/23 17:42	07/30/23 20:55	1
Diesel Range Organics (Over C10-C28)	255		50.3		mg/Kg		07/24/23 17:42	07/30/23 20:55	1
Oll Range Organics (Over C28-C36)	<50.3	U	50.3		mg/Kg		07/24/23 17:42	07/30/23 20:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	109		70 - 130

1-Chlorooctane	117	70 - 130	07/24/23 17:42	07/30/23 20:55	1
o-Terphenyl	109	70 - 130	07/24/23 17:42	07/30/23 20:55	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qua	alifier RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1520	24.9	mg/Kg			07/19/23 12:45	5

Client Sample ID: WES23-04 0.5'

Date Collected: 07/14/23 11:00

Date Received: 07/14/23 15:02

Sample Depth: 0.5

Method: SW846 8021B -	Volatile Organic	Compounds (GC)
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Analyte	Result	Qualifier	RL	MDL Unit		D Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *1	0.00198	mg/k	 Kg	07/20/23 13:55	07/22/23 18:43	1
Ethylbenzene	<0.00198	U *- *1	0.00198	mg/k	K g	07/20/23 13:55	07/22/23 18:43	1
Toluene	<0.00198	U *- *1	0.00198	mg/k	K g	07/20/23 13:55	07/22/23 18:43	1
Xylenes, Total	<0.00396	U *- *1	0.00396	mg/k	⟨g	07/20/23 13:55	07/22/23 18:43	1
m-Xylene & p-Xylene	< 0.00396	U *- *1	0.00396	mg/k	K g	07/20/23 13:55	07/22/23 18:43	1
o-Xylene	<0.00198	U *- *1	0.00198	mg/k	K g	07/20/23 13:55	07/22/23 18:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130			07/20/23 13:55	07/22/23 18:43	1
4.4.Diff	0.7		70 400			07/00/02 42:55	07/00/00 40:40	

4-Bromonuorobenzene (Surr)	97	70 - 130	07/20/23 13.55	07/22/23 10.43	ı
1,4-Difluorobenzene (Surr)	97	70 - 130	07/20/23 13:55	07/22/23 18:43	1

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL (Unit	D	Prepared	Analyzed	DII Fac
Total BTEX	<0.00396	U	0.00396	r	mg/Kg		_	07/24/23 09:06	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.5	U	50.5		mg/Kg			07/31/23 16:01	1

Client: Vertex

Job ID: 890-4951-1 SDG: 23E-02502

Client Sample ID: WES23-04 0.5'

Date Collected: 07/14/23 11:00 Date Received: 07/14/23 15:02

Sample Depth: 0.5

Project/Site: Corral Fly

Lab Sample ID: 890-4951-13

Lab Sample ID: 890-4951-14

Matrix: Solid

. Matrix: Solid

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL MDL Unit Analyzed Dil Fac D Prepared <50.5 U 50.5 07/24/23 17:42 07/30/23 22:46 Gasoline Range Organics mg/Kg (GRO)-C6-C10 50.5 07/30/23 22:46 Diesel Range Organics (Over <50.5 U mg/Kg 07/24/23 17:42 C10-C28) Oll Range Organics (Over C28-C36) <50.5 U 50.5 mg/Kg 07/24/23 17:42 07/30/23 22:46 %Recovery Qualifier Limits Prepared Analyzed Dil Fac Surrogate 1-Chlorooctane 70 - 130 07/24/23 17:42 07/30/23 22:46 123 o-Terphenyl 112 70 - 130 07/24/23 17:42 07/30/23 22:46 Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

 Analyte
 Result Qualifier
 RL MDL Unit
 D Prepared
 Analyzed
 Dil Fac

 Chloride
 4240
 49.6
 mg/Kg
 07/19/23 12:50
 10

Client Sample ID: WES23-05 0.5'

Date Collected: 07/14/23 11:05 Date Received: 07/14/23 15:02

Cample Death: 0.5

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200		mg/Kg		07/20/23 13:55	07/22/23 19:03	1
Ethylbenzene	<0.00200	U *- *1	0.00200		mg/Kg		07/20/23 13:55	07/22/23 19:03	1
Toluene	<0.00200	U *- *1	0.00200		mg/Kg		07/20/23 13:55	07/22/23 19:03	1
Xylenes, Total	<0.00400	U *- *1	0.00400		mg/Kg		07/20/23 13:55	07/22/23 19:03	1
m-Xylene & p-Xylene	< 0.00400	U *- *1	0.00400		mg/Kg		07/20/23 13:55	07/22/23 19:03	1
o-Xylene	<0.00200	U *- *1	0.00200		mg/Kg		07/20/23 13:55	07/22/23 19:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130				07/20/23 13:55	07/22/23 19:03	1
1,4-Difluorobenzene (Surr)	100		70 - 130				07/20/23 13:55	07/22/23 19:03	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			07/24/23 09:06	1
Method: SW846 8015 NM - Diese	Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.2	U	50.2		mg/Kg			07/31/23 16:01	1
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	50.2		mg/Kg		07/24/23 17:42	07/30/23 23:08	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		07/24/23 17:42	07/30/23 23:08	1
Oll Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		07/24/23 17:42	07/30/23 23:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	140	S1+	70 - 130				07/24/23 17:42	07/30/23 23:08	1

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Client: Vertex

Job ID: 890-4951-1

SDG: 23E-02502

Client Sample ID: WES23-05 0.5'

Date Collected: 07/14/23 11:05 Date Received: 07/14/23 15:02

Sample Depth: 0.5

Project/Site: Corral Fly

Lab Sample ID: 890-4951-14

Matrix: Solid

Method: EPA 300.0 - Anions, Ion C	hromatography - Soluble						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	140	5.02	mg/Kg			07/19/23 12:55	1

Client Sample ID: WES23-06 0.5' Lab Sample ID: 890-4951-15 Matrix: Solid

Date Collected: 07/14/23 11:10

Date Received: 07/14/23 15:02

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U *1	0.00199		mg/Kg		07/20/23 13:55	07/22/23 19:24	
Ethylbenzene	<0.00199	U *- *1	0.00199		mg/Kg		07/20/23 13:55	07/22/23 19:24	
Toluene	< 0.00199	U *- *1	0.00199		mg/Kg		07/20/23 13:55	07/22/23 19:24	
Xylenes, Total	<0.00398	U *- *1	0.00398		mg/Kg		07/20/23 13:55	07/22/23 19:24	
m-Xylene & p-Xylene	<0.00398	U *- *1	0.00398		mg/Kg		07/20/23 13:55	07/22/23 19:24	
o-Xylene	<0.00199	U *- *1	0.00199		mg/Kg		07/20/23 13:55	07/22/23 19:24	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	101		70 - 130				07/20/23 13:55	07/22/23 19:24	
1,4-Difluorobenzene (Surr)	97		70 - 130				07/20/23 13:55	07/22/23 19:24	
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398		mg/Kg			07/24/23 09:06	
Method: SW846 8015 NM - Diese			•			_	_		
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<50.4	U	50.4		mg/Kg			07/31/23 16:01	
Method: SW846 8015B NM - Dies	• •								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		07/24/23 17:42	07/30/23 23:30	
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		07/24/23 17:42	07/30/23 23:30	
Oll Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		07/24/23 17:42	07/30/23 23:30	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1-Chlorooctane	126		70 - 130				07/24/23 17:42	07/30/23 23:30	
o-Terphenyl	116		70 - 130				07/24/23 17:42	07/30/23 23:30	
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	е						
Method: EPA 300.0 - Anions, Ion Analyte		hy - Solubl Qualifier	e RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fa

Surrogate Summary

Client: Vertex Job ID: 890-4951-1
Project/Site: Corral Fly SDG: 23E-02502

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

		BFB1	DFBZ1	Percent Surrogate Recovery (Acceptance Limit
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
80-30968-A-3-A MS	Matrix Spike	124	88	
80-30968-A-3-B MSD	Matrix Spike Duplicate	114	96	
00-4951-1	BES23-56 0.5'	83	94	
0-4951-1 MS	BES23-56 0.5'	54 S1-	94	
0-4951-1 MSD	BES23-56 0.5'	41 S1-	9 4 78	
00-4951-1 MSD	BES23-57 0.5'	90	103	
)-4951-2)-4951-3	BES23-58 0.5'		99	
0-4951-3 0-4951-4	BES23-59 0.5'	89 89	99 106	
0-4951-4 0-4951-5	BES23-60 0.5'	89 94	105	
0-4951-6	BES23-61 0.5'	96	97	
0-4951-7 0-4951-8	BES23-62 0.5'	93	98	
	BES23-63 0.5'	104	100	
-4951-9	BES23-64 0.5'	87	110	
)-4951-10	WES23-01 0.5'	105	78	
-4951-11	WES23-02 0.5'	100	93	
-4951-12	WES23-03 0.5'	94	94	
-4951-13	WES23-04 0.5'	97	97	
4951-14	WES23-05 0.5'	93	100	
)-4951-15	WES23-06 0.5'	101	97	
S 880-58056/1-A	Lab Control Sample	89	98	
S 880-58151/1-A	Lab Control Sample	98	96	
SD 880-58056/2-A	Lab Control Sample Dup	91	96	
SD 880-58151/2-A	Lab Control Sample Dup	105	98	
3 880-57974/5-A	Method Blank	104	130	
3 880-58056/5-A	Method Blank	102	121	
880-58151/5-A	Method Blank	97	112	

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
		1001	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-4950-A-41-E MS	Matrix Spike	122	103	
90-4950-A-41-F MSD	Matrix Spike Duplicate	123	102	
90-4951-1	BES23-56 0.5'	116	106	
390-4951-2	BES23-57 0.5'	116	111	
390-4951-3	BES23-58 0.5'	136 S1+	129	
390-4951-4	BES23-59 0.5'	114	105	
390-4951-5	BES23-60 0.5'	124	115	
390-4951-6	BES23-61 0.5'	126	114	
390-4951-7	BES23-62 0.5'	117	108	
390-4951-8	BES23-63 0.5'	112	102	
390-4951-9	BES23-64 0.5'	120	109	
390-4951-10	WES23-01 0.5'	100	93	
390-4951-11	WES23-02 0.5'	121	112	

Surrogate Summary

 Client: Vertex
 Job ID: 890-4951-1

 Project/Site: Corral Fly
 SDG: 23E-02502

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)	
890-4951-12	WES23-03 0.5'	117	109	
890-4951-12 MS	WES23-03 0.5'	113	93	
890-4951-12 MSD	WES23-03 0.5'	115	95	
890-4951-13	WES23-04 0.5'	123	112	
890-4951-14	WES23-05 0.5'	140 S1+	126	
390-4951-15	WES23-06 0.5'	126	116	
LCS 880-58405/2-A	Lab Control Sample	114	116	
_CS 880-58406/2-A	Lab Control Sample	100	109	
_CSD 880-58405/3-A	Lab Control Sample Dup	114	119	
_CSD 880-58406/3-A	Lab Control Sample Dup	100	107	
MB 880-58405/1-A	Method Blank	163 S1+	155 S1+	
MB 880-58406/1-A	Method Blank	162 S1+	155 S1+	

1CO = 1-Chlorooctane OTPH = o-Terphenyl

QC Sample Results

Client: Vertex Job ID: 890-4951-1 SDG: 23E-02502 Project/Site: Corral Fly

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-57974/5-A

Matrix: Solid

Analysis Batch: 58285

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57974

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/18/23 16:31	07/23/23 14:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/18/23 16:31	07/23/23 14:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/18/23 16:31	07/23/23 14:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/18/23 16:31	07/23/23 14:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/18/23 16:31	07/23/23 14:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/18/23 16:31	07/23/23 14:04	1

мв мв

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

07/18/23 16:31 07/23/23 14:04 07/18/23 16:31 07/23/23 14:04

Analyzed

Prepared

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 58056

Matrix: Solid Analysis Batch: 58285

Lab Sample ID: MB 880-58056/5-A

мв мв

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 01:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 01:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 01:42	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/19/23 15:10	07/24/23 01:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/19/23 15:10	07/24/23 01:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/19/23 15:10	07/24/23 01:42	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepare	d Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	07/19/23 18	5:10 07/24/23 01:4	2 1
1,4-Difluorobenzene (Surr)	121		70 - 130	07/19/23 1	5:10 07/24/23 01:4	2 1

Lab Sample ID: LCS 880-58056/1-A

Matrix: Solid

Analysis Batch: 58285

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 58056

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1000		mg/Kg		100	70 - 130	
Ethylbenzene	0.100	0.08983		mg/Kg		90	70 - 130	
Toluene	0.100	0.09678		mg/Kg		97	70 - 130	
m-Xylene & p-Xylene	0.200	0.1925		mg/Kg		96	70 - 130	
o-Xylene	0.100	0.09408		mg/Kg		94	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	89	70 _ 130
1,4-Difluorobenzene (Surr)	98	70 - 130

Lab Sample ID: LCSD 880-58056/2-A

Matrix: Solid

Analysis Batch: 58285

Client Sample II	D: Lab Control	Sample Dup
	Danie T	T-4-1/NIA

Prep Type: Total/NA

Prep Batch: 58056

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1004		mg/Kg		100	70 - 130	0	35

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Dil Fac

QC Sample Results

Client: Vertex Job ID: 890-4951-1 Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: LCSD 880-58056/2-A **Matrix: Solid**

Analysis Batch: 58285

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 58056

Spike	LCSD	LCSD				%Rec		RPD
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
0.100	0.09049		mg/Kg		90	70 - 130	1	35
0.100	0.09518		mg/Kg		95	70 - 130	2	35
0.200	0.1982		mg/Kg		99	70 - 130	3	35
0.100	0.09666		mg/Kg		97	70 - 130	3	35
	0.100 0.100 0.200	Added Result 0.100 0.09049 0.100 0.09518 0.200 0.1982	Added Result Qualifier 0.100 0.09049 0.100 0.09518 0.200 0.1982	Added Result 0.100 Qualifier 0.9049 Unit mg/Kg mg/Kg 0.100 0.09518 mg/Kg 0.200 0.1982 mg/Kg	Added Result Qualifier Unit D 0.100 0.09049 mg/Kg 0.100 0.09518 mg/Kg 0.200 0.1982 mg/Kg	Added Result Qualifier Unit D %Rec 0.100 0.09049 mg/Kg 90 0.100 0.09518 mg/Kg 95 0.200 0.1982 mg/Kg 99	Added Result Qualifier Unit D %Rec Limits 0.100 0.09049 mg/Kg 90 70 - 130 0.100 0.09518 mg/Kg 95 70 - 130 0.200 0.1982 mg/Kg 99 70 - 130	Added Result Qualifier Unit D %Rec Limits RPD 0.100 0.09049 mg/Kg 90 70 - 130 1 0.100 0.09518 mg/Kg 95 70 - 130 2 0.200 0.1982 mg/Kg 99 70 - 130 3

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	91	70 - 130
1,4-Difluorobenzene (Surr)	96	70 - 130

Lab Sample ID: 890-4951-1 MS Client Sample ID: BES23-56 0.5'

Matrix: Solid

Analysis Batch: 58285

Prep Type: Total/NA

Prep Batch: 58056

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U F1	0.0994	0.06481	F1	mg/Kg		65	70 - 130	
Ethylbenzene	<0.00202	U	0.0994	0.07629		mg/Kg		77	70 - 130	
Toluene	<0.00202	U F1	0.0994	0.06718	F1	mg/Kg		67	70 - 130	
m-Xylene & p-Xylene	<0.00404	U	0.199	0.1584		mg/Kg		80	70 - 130	
o-Xylene	<0.00202	U	0.0994	0.07646		mg/Kg		77	70 - 130	

MS MS

Surrogate	%Recovery	Qualifier	Limits		
4-Bromofluorobenzene (Surr)	54	S1-	70 - 130		
1,4-Difluorobenzene (Surr)	94		70 - 130		

Lab Sample ID: 890-4951-1 MSD

Matrix: Solid

Analysis Batch: 58285

Client Sample ID: BES23-56 0.5' Prep Type: Total/NA

Prep Batch: 58056

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	<0.00202	U F1	0.0990	0.07502		mg/Kg		76	70 - 130	15	35	
Ethylbenzene	<0.00202	U	0.0990	0.07566		mg/Kg		76	70 - 130	1	35	
Toluene	<0.00202	U F1	0.0990	0.07520		mg/Kg		75	70 - 130	11	35	
m-Xylene & p-Xylene	<0.00404	U	0.198	0.1456		mg/Kg		74	70 - 130	8	35	
o-Xylene	<0.00202	U	0.0990	0.07642		mg/Kg		77	70 - 130	0	35	

MSD MSD

Surrogate	%Recovery	Qualifier	Limits		
4-Bromofluorobenzene (Surr)	41	S1-	70 - 130		
1,4-Difluorobenzene (Surr)	78		70 - 130		

Lab Sample ID: MB 880-58151/5-A

Matrix: Solid

Analysis Batch: 58250

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 58151

мв мв

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/20/23 13:55	07/22/23 10:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/20/23 13:55	07/22/23 10:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/20/23 13:55	07/22/23 10:55	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/20/23 13:55	07/22/23 10:55	1

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Client: Vertex Project/Site: Corral Fly

Job ID: 890-4951-1

SDG: 23E-02502

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

Lab Sample ID: MB 880-58151/5-A **Matrix: Solid**

Analysis Batch: 58250

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 58151

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/20/23 13:55	07/22/23 10:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/20/23 13:55	07/22/23 10:55	1

мв мв

мв мв

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97	70 - 130	07/20/23 13:55	07/22/23 10:55	1
1,4-Difluorobenzene (Surr)	112	70 - 130	07/20/23 13:55	07/22/23 10:55	1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 880-58151/1-A **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 58250 Prep Batch: 58151

	Spike	LCS	LCS			%Rec	
Analyte	Added	Result	Qualifier	Unit I	D %Rec	Limits	
Benzene	0.100	0.1198		mg/Kg	120	70 - 130	
Ethylbenzene	0.100	0.1136		mg/Kg	114	70 - 130	
Toluene	0.100	0.1100		mg/Kg	110	70 - 130	
m-Xylene & p-Xylene	0.200	0.2347		mg/Kg	117	70 - 130	
o-Xylene	0.100	0.1087		mg/Kg	109	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	98	70 - 130
1.4-Difluorobenzene (Surr)	96	70 - 130

Lab Sample ID: LCSD 880-58151/2-A

Matrix: Solid

Analysis Batch: 58250

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 58151

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.08046	*1	mg/Kg		80	70 - 130	39	35	
Ethylbenzene	0.100	0.05791	*- *1	mg/Kg		58	70 - 130	65	35	
Toluene	0.100	0.06307	*- *1	mg/Kg		63	70 - 130	54	35	
m-Xylene & p-Xylene	0.200	0.1105	*- *1	mg/Kg		55	70 - 130	72	35	
o-Xylene	0.100	0.05644	*- *1	mg/Kg		56	70 - 130	63	35	

LCSD LCSD

Surrogate	%Recovery Qua	alifier Limits	
4-Bromofluorobenzene (Surr)	105	70 - 130	
1.4-Difluorobenzene (Surr)	98	70 - 130	

Client Sample ID: Matrix Spike Lab Sample ID: 880-30968-A-3-A MS

Matrix: Solid Prep Type: Total/NA Analysis Batch: 58250 Prep Batch: 58151

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00198	U *1 F1	0.0994	0.1430	F1	mg/Kg		144	70 - 130	
Ethylbenzene	0.00282	*- *1 F1	0.0994	0.1454	F1	mg/Kg		143	70 - 130	
Toluene	0.00242	*- *1 F1	0.0994	0.1488	F1	mg/Kg		147	70 - 130	
m-Xylene & p-Xylene	0.00541	*- *1 F1	0.199	0.2656	F1	mg/Kg		131	70 - 130	
o-Xylene	0.00493	*- *1	0.0994	0.1193		mg/Kg		115	70 - 130	

Client: Vertex Job ID: 890-4951-1
Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: 880-30968-A-3-A MS

Matrix: Solid

Analysis Batch: 58250

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 58151

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 124
 70 - 130

 1,4-Difluorobenzene (Surr)
 88
 70 - 130

Lab Sample ID: 880-30968-A-3-B MSD

Matrix: Solid

Analysis Batch: 58250

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 58151

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00198	U *1 F1	0.0998	0.1273		mg/Kg		128	70 - 130	12	35
Ethylbenzene	0.00282	*- *1 F1	0.0998	0.1262		mg/Kg		124	70 - 130	14	35
Toluene	0.00242	*- *1 F1	0.0998	0.1137		mg/Kg		112	70 - 130	27	35
m-Xylene & p-Xylene	0.00541	*- *1 F1	0.200	0.2500		mg/Kg		123	70 - 130	6	35
o-Xylene	0.00493	*- *1	0.0998	0.1125		mg/Kg		108	70 - 130	6	35

MSD MSD

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene (Surr)
 114
 70 - 130

 1,4-Difluorobenzene (Surr)
 96
 70 - 130

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

Lab Sample ID: MB 880-58405/1-A

Matrix: Solid

Analysis Batch: 58792

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 58405

MB MB Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Gasoline Range Organics <50.0 U 50.0 07/24/23 17:37 07/30/23 08:16 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg 07/24/23 17:37 07/30/23 08:16 C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 07/24/23 17:37 07/30/23 08:16

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	163	S1+	70 - 130	07/24/23 17:37	07/30/23 08:16	1
o-Terphenyl	155	S1+	70 - 130	07/24/23 17:37	07/30/23 08:16	1

Lab Sample ID: LCS 880-58405/2-A

Matrix: Solid

Analysis Batch: 58792

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 58405

	Spike	LCS LCS				%Rec	
Analyte	Added	Result Qualit	fier Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	973.8	mg/Kg		97	70 - 130	
(GRO)-C6-C10							
Diesel Range Organics (Over	1000	1043	mg/Kg		104	70 - 130	

C10-C28)

	LUS	LUS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	116		70 - 130

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Client: Vertex Job ID: 890-4951-1 SDG: 23E-02502 Project/Site: Corral Fly

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

Lab Sample ID: LCSD 880-58405/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 58792

Prep Batch: 58405

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	965.4		mg/Kg		97	70 - 130	1	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1058		mg/Kg		106	70 - 130	1	20
C10-C28)									

Surrogate

o-Terphenyl

1-Chlorooctane

LCSD LCSD %Recovery Qualifier Limits 70 - 130 114 119 70 - 130

Client Sample ID: Matrix Spike

Lab Sample ID: 890-4950-A-41-E MS Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 58792

Prep Batch: 58405

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.2	U	998	865.6		mg/Kg	_	87	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.2	U	998	1257		mg/Kg		124	70 - 130	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	122		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 890-4950-A-41-F MSD

Matrix: Solid

Lab Sample ID: MB 880-58406/1-A

Matrix: Solid

Analysis Batch: 58792

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

Analysis Batch: 58792

Prep Batch: 58405

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	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<50.2	U	998	863.9		mg/Kg		87	70 - 130	0	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<50.2	U	998	1249		mg/Kg		123	70 - 130	1	20
C10-C28)											

MSD MSD Surrogate %Recovery Qualifier Limits

MB MB

1-Chlorooctane 123 70 - 130 102 70 - 130 o-Terphenyl

Client Sample ID: Method Blank

Prep Type: Total/NA Prep Batch: 58406

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0		mg/Kg		07/24/23 17:42	07/30/23 19:47	1
(GRO)-C6-C10	450.0		50.0				07/04/00 47:40	07/20/02 40:47	4
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/24/23 17:42	07/30/23 19:47	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/24/23 17:42	07/30/23 19:47	1

Job ID: 890-4951-1

Prepared

SDG: 23E-02502

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

MB MB

%Recovery Qualifier

LCS LCS

Lab Sample ID: MB 880-58406/1-A

Matrix: Solid

Surrogate

1-Chlorooctane o-Terphenyl

Client: Vertex

Project/Site: Corral Fly

Analysis Batch: 58792

Client Sample ID: Method Blank

Analyzed

Prep Type: Total/NA

Prep Batch: 58406

Dil Fac

162 S1+	70 - 130	07/24/23 17:42	07/30/23 19:47	1
155 S1+	70 - 130	07/24/23 17:42	07/30/23 19:47	1

Lab Sample ID: LCS 880-58406/2-A **Client Sample ID: Lab Control Sample**

Limits

Matrix: Solid Prep Type: Total/NA

Analysis Batch: 58792 Prep Batch: 58406

	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics	1000	869.2		mg/Kg		87	70 - 130
(GRO)-C6-C10							
Diesel Range Organics (Over	1000	938.4		mg/Kg		94	70 - 130
C10-C28)							

Surrogate %Recovery Qualifier Limits 100 70 - 130 1-Chlorooctane 109 70 - 130 o-Terphenyl

Lab Sample ID: LCSD 880-58406/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 58792** Prep Batch: 58406

Spike LCSD LCSD Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Gasoline Range Organics 1000 864.3 mg/Kg 86 70 - 130 20 (GRO)-C6-C10

Diesel Range Organics (Over 1000 921.7 mg/Kg 92 70 - 130 2 20 C10-C28)

LCSD LCSD Qualifier Surrogate %Recovery Limits 70 - 130 1-Chlorooctane 100 o-Terphenyl 107 70 - 130

Lab Sample ID: 890-4951-12 MS Client Sample ID: WES23-03 0.5'

Matrix: Solid Prep Type: Total/NA Analysis Batch: 58792 Prep Batch: 58406

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	Sample	Sample	Spike	IVIO	IVIO				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.3	U	1010	748.0		mg/Kg		74	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	255		1010	1047		mg/Kg		79	70 - 130	
C10-C28)										

MS MS Qualifier %Recovery Surrogate Limits 1-Chlorooctane 113 70 - 130 93 70 - 130 o-Terphenyl

Prep Batch: 58406

Client: Vertex Job ID: 890-4951-1 Project/Site: Corral Fly SDG: 23E-02502

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

Lab Sample ID: 890-4951-12 MSD Client Sample ID: WES23-03 0.5' **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 58792

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.3	U	1010	755.1		mg/Kg		75	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	255		1010	1061		mg/Kg		80	70 - 130	1	20

MSD MSD Surrogate %Recovery Qualifier Limits 70 - 130 1-Chlorooctane 115 o-Terphenyl 95 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-57875/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 58007

мв мв MDL Unit Result Qualifier Analyte RL Prepared Analyzed Dil Fac Chloride <5.00 5.00 07/19/23 08:12 mg/Kg

Lab Sample ID: LCS 880-57875/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 58007

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Chloride 250 238.8 90 - 110 mg/Kg

Lab Sample ID: LCSD 880-57875/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 58007

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	234.9		mg/Kg		94	90 - 110	2	20	

Lab Sample ID: 890-4950-A-46-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 58007

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	18400	F1	12400	28570	F1	ma/Ka	_	82	90 110	

Lab Sample ID: 890-4950-A-46-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 58007

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	18400	F1	12400	28280	F1	mg/Kg		80	90 - 110	1	20

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Prep Type: Soluble

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Client Sample ID: BES23-60 0.5'

Client Sample ID: BES23-60 0.5'

Client Sample ID: WES23-06 0.5'

Client Sample ID: WES23-06 0.5'

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

QC Sample Results

 Client: Vertex
 Job ID: 890-4951-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-57911/1-A

Matrix: Solid

Analysis Batch: 58043

MB MB

 Analyte
 Result
 Qualifier
 RL
 MDL mg/Kg
 Unit
 D mg/Kg
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 Chloride
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 U
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 07/19/23 11:12
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Lab Sample ID: LCS 880-57911/2-A

Analysis Batch: 58043

Allalysis Balcii. 30043

Matrix: Solid

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 239.4 mg/Kg 96 90 - 110

Lab Sample ID: LCSD 880-57911/3-A

Matrix: Solid

Analysis Batch: 58043

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 240.3 mg/Kg 90 - 110

Lab Sample ID: 890-4951-5 MS

Matrix: Solid

Analysis Batch: 58043

MS MS Sample Sample Spike %Rec Added %Rec Analyte Result Qualifier Result Qualifier Unit Limits Chloride 583 1250 1777 90 - 110 mg/Kg

Lab Sample ID: 890-4951-5 MSD

Matrix: Solid

Analysis Batch: 58043

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 1250 Chloride 583 1780 mg/Kg 96 90 - 110

Lab Sample ID: 890-4951-15 MS

Matrix: Solid

Analysis Batch: 58043

Sample Sample Spike MS MS %Rec Result Qualifier Added Analyte Result Qualifier Unit D %Rec Limits Chloride 351 249 581.5 mg/Kg 90 - 110

Lab Sample ID: 890-4951-15 MSD

Matrix: Solid

Analysis Batch: 58043

MSD MSD %Rec RPD Sample Sample Spike Result Qualifier Added Analyte Result Qualifier Limits RPD Limit Unit %Rec Chloride 351 249 583.3 mg/Kg 93 90 - 110 20

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 Client: Vertex
 Job ID: 890-4951-1

 Project/Site: Corral Fly
 SDG: 23E-02502

GC VOA

Prep Batch: 57974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-57974/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 58056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4951-1	BES23-56 0.5'	Total/NA	Solid	5035	_
890-4951-2	BES23-57 0.5'	Total/NA	Solid	5035	
890-4951-3	BES23-58 0.5'	Total/NA	Solid	5035	
890-4951-4	BES23-59 0.5'	Total/NA	Solid	5035	
890-4951-5	BES23-60 0.5'	Total/NA	Solid	5035	
890-4951-6	BES23-61 0.5'	Total/NA	Solid	5035	
890-4951-7	BES23-62 0.5'	Total/NA	Solid	5035	
890-4951-8	BES23-63 0.5'	Total/NA	Solid	5035	
890-4951-9	BES23-64 0.5'	Total/NA	Solid	5035	
890-4951-10	WES23-01 0.5'	Total/NA	Solid	5035	
MB 880-58056/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-58056/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-58056/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4951-1 MS	BES23-56 0.5'	Total/NA	Solid	5035	
890-4951-1 MSD	BES23-56 0.5'	Total/NA	Solid	5035	

Prep Batch: 58151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-4951-11	WES23-02 0.5'	Total/NA	Solid	5035	
890-4951-12	WES23-03 0.5'	Total/NA	Solid	5035	
890-4951-13	WES23-04 0.5'	Total/NA	Solid	5035	
890-4951-14	WES23-05 0.5'	Total/NA	Solid	5035	
890-4951-15	WES23-06 0.5'	Total/NA	Solid	5035	
MB 880-58151/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-58151/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-58151/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-30968-A-3-A MS	Matrix Spike	Total/NA	Solid	5035	
880-30968-A-3-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 58250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4951-11	WES23-02 0.5'	Total/NA	Solid	8021B	58151
890-4951-12	WES23-03 0.5'	Total/NA	Solid	8021B	58151
890-4951-13	WES23-04 0.5'	Total/NA	Solid	8021B	58151
890-4951-14	WES23-05 0.5'	Total/NA	Solid	8021B	58151
890-4951-15	WES23-06 0.5'	Total/NA	Solid	8021B	58151
MB 880-58151/5-A	Method Blank	Total/NA	Solid	8021B	58151
LCS 880-58151/1-A	Lab Control Sample	Total/NA	Solid	8021B	58151
LCSD 880-58151/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	58151
880-30968-A-3-A MS	Matrix Spike	Total/NA	Solid	8021B	58151
880-30968-A-3-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	58151

Analysis Batch: 58285

Lab Sample ID 890-4951-1	Client Sample ID BES23-56 0.5'	Prep Type Total/NA	Matrix Solid	Method 8021B	Prep Batch 58056
890-4951-2	BES23-57 0.5'	Total/NA	Solid	8021B	58056
890-4951-3	BES23-58 0.5'	Total/NA	Solid	8021B	58056

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Client: Vertex Job ID: 890-4951-1 Project/Site: Corral Fly SDG: 23E-02502

GC VOA (Continued)

Analysis Batch: 58285 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4951-4	BES23-59 0.5'	Total/NA	Solid	8021B	58056
890-4951-5	BES23-60 0.5'	Total/NA	Solid	8021B	58056
890-4951-6	BES23-61 0.5'	Total/NA	Solid	8021B	58056
890-4951-7	BES23-62 0.5'	Total/NA	Solid	8021B	58056
890-4951-8	BES23-63 0.5'	Total/NA	Solid	8021B	58056
890-4951-9	BES23-64 0.5'	Total/NA	Solid	8021B	58056
890-4951-10	WES23-01 0.5'	Total/NA	Solid	8021B	58056
MB 880-57974/5-A	Method Blank	Total/NA	Solid	8021B	57974
MB 880-58056/5-A	Method Blank	Total/NA	Solid	8021B	58056
LCS 880-58056/1-A	Lab Control Sample	Total/NA	Solid	8021B	58056
LCSD 880-58056/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	58056
890-4951-1 MS	BES23-56 0.5'	Total/NA	Solid	8021B	58056
890-4951-1 MSD	BES23-56 0.5'	Total/NA	Solid	8021B	58056

Analysis Batch: 58312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4951-1	BES23-56 0.5'	Total/NA	Solid	Total BTEX	
890-4951-2	BES23-57 0.5'	Total/NA	Solid	Total BTEX	
890-4951-3	BES23-58 0.5'	Total/NA	Solid	Total BTEX	
890-4951-4	BES23-59 0.5'	Total/NA	Solid	Total BTEX	
890-4951-5	BES23-60 0.5'	Total/NA	Solid	Total BTEX	
890-4951-6	BES23-61 0.5'	Total/NA	Solid	Total BTEX	
890-4951-7	BES23-62 0.5'	Total/NA	Solid	Total BTEX	
890-4951-8	BES23-63 0.5'	Total/NA	Solid	Total BTEX	
890-4951-9	BES23-64 0.5'	Total/NA	Solid	Total BTEX	
890-4951-10	WES23-01 0.5'	Total/NA	Solid	Total BTEX	
890-4951-11	WES23-02 0.5'	Total/NA	Solid	Total BTEX	
890-4951-12	WES23-03 0.5'	Total/NA	Solid	Total BTEX	
890-4951-13	WES23-04 0.5'	Total/NA	Solid	Total BTEX	
890-4951-14	WES23-05 0.5'	Total/NA	Solid	Total BTEX	
890-4951-15	WES23-06 0.5'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 58405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-4951-1	BES23-56 0.5'	Total/NA	Solid	8015NM Prep	
890-4951-2	BES23-57 0.5'	Total/NA	Solid	8015NM Prep	
890-4951-3	BES23-58 0.5'	Total/NA	Solid	8015NM Prep	
890-4951-4	BES23-59 0.5'	Total/NA	Solid	8015NM Prep	
890-4951-5	BES23-60 0.5'	Total/NA	Solid	8015NM Prep	
890-4951-6	BES23-61 0.5'	Total/NA	Solid	8015NM Prep	
890-4951-7	BES23-62 0.5'	Total/NA	Solid	8015NM Prep	
890-4951-8	BES23-63 0.5'	Total/NA	Solid	8015NM Prep	
890-4951-9	BES23-64 0.5'	Total/NA	Solid	8015NM Prep	
MB 880-58405/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-58405/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-58405/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4950-A-41-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4950-A-41-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Client: Vertex Job ID: 890-4951-1
Project/Site: Corral Fly SDG: 23E-02502

GC Semi VOA

Prep Batch: 58406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4951-10	WES23-01 0.5'	Total/NA	Solid	8015NM Prep	
890-4951-11	WES23-02 0.5'	Total/NA	Solid	8015NM Prep	
890-4951-12	WES23-03 0.5'	Total/NA	Solid	8015NM Prep	
890-4951-13	WES23-04 0.5'	Total/NA	Solid	8015NM Prep	
890-4951-14	WES23-05 0.5'	Total/NA	Solid	8015NM Prep	
890-4951-15	WES23-06 0.5'	Total/NA	Solid	8015NM Prep	
MB 880-58406/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-58406/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-58406/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4951-12 MS	WES23-03 0.5'	Total/NA	Solid	8015NM Prep	
890-4951-12 MSD	WES23-03 0.5'	Total/NA	Solid	8015NM Prep	

Analysis Batch: 58792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4951-1	BES23-56 0.5'	Total/NA	Solid	8015B NM	58405
890-4951-2	BES23-57 0.5'	Total/NA	Solid	8015B NM	58405
890-4951-3	BES23-58 0.5'	Total/NA	Solid	8015B NM	58405
890-4951-4	BES23-59 0.5'	Total/NA	Solid	8015B NM	58405
890-4951-5	BES23-60 0.5'	Total/NA	Solid	8015B NM	58405
890-4951-6	BES23-61 0.5'	Total/NA	Solid	8015B NM	58405
890-4951-7	BES23-62 0.5'	Total/NA	Solid	8015B NM	58405
890-4951-8	BES23-63 0.5'	Total/NA	Solid	8015B NM	58405
890-4951-9	BES23-64 0.5'	Total/NA	Solid	8015B NM	58405
890-4951-10	WES23-01 0.5'	Total/NA	Solid	8015B NM	58406
890-4951-11	WES23-02 0.5'	Total/NA	Solid	8015B NM	58406
890-4951-12	WES23-03 0.5'	Total/NA	Solid	8015B NM	58406
890-4951-13	WES23-04 0.5'	Total/NA	Solid	8015B NM	58406
890-4951-14	WES23-05 0.5'	Total/NA	Solid	8015B NM	58406
890-4951-15	WES23-06 0.5'	Total/NA	Solid	8015B NM	58406
MB 880-58405/1-A	Method Blank	Total/NA	Solid	8015B NM	58405
MB 880-58406/1-A	Method Blank	Total/NA	Solid	8015B NM	58406
LCS 880-58405/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	58405
LCS 880-58406/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	58406
LCSD 880-58405/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	58405
LCSD 880-58406/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	58406
890-4950-A-41-E MS	Matrix Spike	Total/NA	Solid	8015B NM	58405
890-4950-A-41-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	58405
890-4951-12 MS	WES23-03 0.5'	Total/NA	Solid	8015B NM	58406
890-4951-12 MSD	WES23-03 0.5'	Total/NA	Solid	8015B NM	58406

Analysis Batch: 58919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-4951-1	BES23-56 0.5'	Total/NA	Solid	8015 NM	_
890-4951-2	BES23-57 0.5'	Total/NA	Solid	8015 NM	
890-4951-3	BES23-58 0.5'	Total/NA	Solid	8015 NM	
890-4951-4	BES23-59 0.5'	Total/NA	Solid	8015 NM	
890-4951-5	BES23-60 0.5'	Total/NA	Solid	8015 NM	
890-4951-6	BES23-61 0.5'	Total/NA	Solid	8015 NM	
890-4951-7	BES23-62 0.5'	Total/NA	Solid	8015 NM	
890-4951-8	BES23-63 0.5'	Total/NA	Solid	8015 NM	
890-4951-9	BES23-64 0.5'	Total/NA	Solid	8015 NM	

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Client: Vertex Job ID: 890-4951-1
Project/Site: Corral Fly SDG: 23E-02502

GC Semi VOA (Continued)

Analysis Batch: 58919 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4951-10	WES23-01 0.5'	Total/NA	Solid	8015 NM	
890-4951-11	WES23-02 0.5'	Total/NA	Solid	8015 NM	
890-4951-12	WES23-03 0.5'	Total/NA	Solid	8015 NM	
890-4951-13	WES23-04 0.5'	Total/NA	Solid	8015 NM	
890-4951-14	WES23-05 0.5'	Total/NA	Solid	8015 NM	
890-4951-15	WES23-06 0.5'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 57875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4951-1	BES23-56 0.5'	Soluble	Solid	DI Leach	
890-4951-2	BES23-57 0.5'	Soluble	Solid	DI Leach	
890-4951-3	BES23-58 0.5'	Soluble	Solid	DI Leach	
890-4951-4	BES23-59 0.5'	Soluble	Solid	DI Leach	
MB 880-57875/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-57875/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-57875/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4950-A-46-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4950-A-46-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 57911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4951-5	BES23-60 0.5'	Soluble	Solid	DI Leach	
890-4951-6	BES23-61 0.5'	Soluble	Solid	DI Leach	
890-4951-7	BES23-62 0.5'	Soluble	Solid	DI Leach	
890-4951-8	BES23-63 0.5'	Soluble	Solid	DI Leach	
890-4951-9	BES23-64 0.5'	Soluble	Solid	DI Leach	
890-4951-10	WES23-01 0.5'	Soluble	Solid	DI Leach	
890-4951-11	WES23-02 0.5'	Soluble	Solid	DI Leach	
890-4951-12	WES23-03 0.5'	Soluble	Solid	DI Leach	
890-4951-13	WES23-04 0.5'	Soluble	Solid	DI Leach	
890-4951-14	WES23-05 0.5'	Soluble	Solid	DI Leach	
890-4951-15	WES23-06 0.5'	Soluble	Solid	DI Leach	
MB 880-57911/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-57911/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-57911/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4951-5 MS	BES23-60 0.5'	Soluble	Solid	DI Leach	
890-4951-5 MSD	BES23-60 0.5'	Soluble	Solid	DI Leach	
890-4951-15 MS	WES23-06 0.5'	Soluble	Solid	DI Leach	
890-4951-15 MSD	WES23-06 0.5'	Soluble	Solid	DI Leach	

Analysis Batch: 58007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4951-1	BES23-56 0.5'	Soluble	Solid	300.0	57875
890-4951-2	BES23-57 0.5'	Soluble	Solid	300.0	57875
890-4951-3	BES23-58 0.5'	Soluble	Solid	300.0	57875
890-4951-4	BES23-59 0.5'	Soluble	Solid	300.0	57875
MB 880-57875/1-A	Method Blank	Soluble	Solid	300.0	57875
LCS 880-57875/2-A	Lab Control Sample	Soluble	Solid	300.0	57875
LCSD 880-57875/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57875

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 Client: Vertex
 Job ID: 890-4951-1

 Project/Site: Corral Fly
 SDG: 23E-02502

HPLC/IC (Continued)

Analysis Batch: 58007 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4950-A-46-B MS	Matrix Spike	Soluble	Solid	300.0	57875
890-4950-A-46-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	57875

Analysis Batch: 58043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4951-5	BES23-60 0.5'	Soluble	Solid	300.0	57911
890-4951-6	BES23-61 0.5'	Soluble	Solid	300.0	57911
890-4951-7	BES23-62 0.5'	Soluble	Solid	300.0	57911
890-4951-8	BES23-63 0.5'	Soluble	Solid	300.0	57911
890-4951-9	BES23-64 0.5'	Soluble	Solid	300.0	57911
890-4951-10	WES23-01 0.5'	Soluble	Solid	300.0	57911
890-4951-11	WES23-02 0.5'	Soluble	Solid	300.0	57911
890-4951-12	WES23-03 0.5'	Soluble	Solid	300.0	57911
890-4951-13	WES23-04 0.5'	Soluble	Solid	300.0	57911
890-4951-14	WES23-05 0.5'	Soluble	Solid	300.0	57911
890-4951-15	WES23-06 0.5'	Soluble	Solid	300.0	57911
MB 880-57911/1-A	Method Blank	Soluble	Solid	300.0	57911
LCS 880-57911/2-A	Lab Control Sample	Soluble	Solid	300.0	57911
LCSD 880-57911/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	57911
890-4951-5 MS	BES23-60 0.5'	Soluble	Solid	300.0	57911
890-4951-5 MSD	BES23-60 0.5'	Soluble	Solid	300.0	57911
890-4951-15 MS	WES23-06 0.5'	Soluble	Solid	300.0	57911
890-4951-15 MSD	WES23-06 0.5'	Soluble	Solid	300.0	57911

Client: Vertex Project/Site: Corral Fly

Client Sample ID: BES23-56 0.5'

Date Collected: 07/14/23 10:00 Date Received: 07/14/23 15:02 Lab Sample ID: 890-4951-1

Matrix: Solid

Matrix: Solid

Matrix: Solid

Job ID: 890-4951-1

SDG: 23E-02502

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	58056	07/19/23 15:10	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58285	07/24/23 02:10	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58312	07/24/23 11:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			58919	07/31/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	58405	07/24/23 17:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58792	07/30/23 16:04	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	57875	07/17/23 15:01	KS	EET MID
Soluble	Analysis	300.0		5			58007	07/19/23 10:31	CH	EET MID

Client Sample ID: BES23-57 0.5' Lab Sample ID: 890-4951-2

Date Collected: 07/14/23 10:05

Date Received: 07/14/23 15:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	58056	07/19/23 15:10	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58285	07/24/23 02:31	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58312	07/24/23 11:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			58919	07/31/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	58405	07/24/23 17:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58792	07/30/23 16:26	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	57875	07/17/23 15:01	KS	EET MID
Soluble	Analysis	300.0		10			58007	07/19/23 10:36	CH	EET MID

Client Sample ID: BES23-58 0.5' Lab Sample ID: 890-4951-3

Date Collected: 07/14/23 10:10

Date Received: 07/14/23 15:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	58056	07/19/23 15:10	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58285	07/24/23 02:51	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58312	07/24/23 11:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			58919	07/31/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	58405	07/24/23 17:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58792	07/30/23 16:48	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	57875	07/17/23 15:01	KS	EET MID
Soluble	Analysis	300.0		10			58007	07/19/23 10:41	CH	EET MID

Client Sample ID: BES23-59 0.5'

Date Collected: 07/14/23 10:15

Date Received: 07/14/23 15:02

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	58056	07/19/23 15:10	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58285	07/24/23 03:12	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58312	07/24/23 11:25	SM	EET MID

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Lab Sample ID: 890-4951-4

Matrix: Solid

Matrix: Solid

Matrix: Solid

Matrix: Solid

Client: Vertex
Project/Site: Corral Fly

Job ID: 890-4951-1 SDG: 23E-02502

Lab Sample ID: 890-4951-4

Client Sample ID: BES23-59 0.5'

Date Collected: 07/14/23 10:15 Date Received: 07/14/23 15:02

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 8015 NM 58919 07/31/23 16:01 AJ **EET MID** Analysis Total/NA Prep 8015NM Prep 9.98 g 10 mL 58405 07/24/23 17:37 TKC **EET MID**

Total/NA Analysis 8015B NM 1 uL 1 uL 58792 07/30/23 17:10 ΑJ **EET MID** 07/17/23 15:01 Soluble Leach DI Leach 4.98 g 50 mL 57875 KS **EET MID** Soluble Analysis 300.0 10 58007 07/19/23 10:46 СН **EET MID**

Client Sample ID: BES23-60 0.5'

Lab Sample ID: 890-4951-5

Date Collected: 07/14/23 10:20 Date Received: 07/14/23 15:02

Batch Batch Dil Initial Final Batch Prepared Method Amount Amount Number or Analyzed **Prep Type** Type Run Factor Analyst Lab Prep 5035 07/19/23 15:10 Total/NA 5.00 g 5 mL 58056 EL **EET MID** Analysis Total/NA 8021B 5 mL 5 mL 58285 07/24/23 03:32 SM **EET MID** 1 Total/NA Analysis Total BTEX 1 58312 07/24/23 11:25 SM **EET MID** Total/NA 8015 NM 58919 07/31/23 16:01 **EET MID** Analysis AJ1 Total/NA Prep 8015NM Prep 10.01 g 10 mL 58405 07/24/23 17:37 TKC **EET MID** Total/NA 8015B NM 1 uL 58792 07/30/23 17:32 **EET MID** Analysis 1 uL AJ Soluble Leach DI Leach 4.99 g 50 mL 57911 07/18/23 09:24 KS **EET MID** Soluble Analysis 300.0 5 58043 07/19/23 11:28 СН **EET MID**

Client Sample ID: BES23-61 0.5'

Lab Sample ID: 890-4951-6

Date Collected: 07/14/23 10:25 Date Received: 07/14/23 15:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	58056	07/19/23 15:10	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58285	07/24/23 03:53	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58312	07/24/23 11:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			58919	07/31/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	58405	07/24/23 17:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58792	07/30/23 17:55	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	57911	07/18/23 09:24	KS	EET MID
Soluble	Analysis	300.0		10			58043	07/19/23 11:43	CH	EET MID

Client Sample ID: BES23-62 0.5'

Lab Sample ID: 890-4951-7

Date Collected: 07/14/23 10:30 Date Received: 07/14/23 15:02

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	58056	07/19/23 15:10	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58285	07/24/23 04:13	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58312	07/24/23 11:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			58919	07/31/23 16:01	AJ	EET MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.10 g 1 uL	10 mL 1 uL	58405 58792	07/24/23 17:37 07/30/23 18:17	TKC AJ	EET MID EET MID

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Lab Chronicle

 Client: Vertex
 Job ID: 890-4951-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Client Sample ID: BES23-62 0.5'

Date Collected: 07/14/23 10:30 Date Received: 07/14/23 15:02 Lab Sample ID: 890-4951-7

Matrix: Solid

		Batch	Batch		Dil	Initial	Final	Batch	Prepared		
	Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
	Soluble	Leach	DI Leach			5.03 g	50 mL	57911	07/18/23 09:24	KS	EET MID
l	Soluble	Analysis	300.0		5			58043	07/19/23 11:48	CH	EET MID

Client Sample ID: BES23-63 0.5'

Lab Sample ID: 890-4951-8

Date Collected: 07/14/23 10:35 Date Received: 07/14/23 15:02 Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	58056	07/19/23 15:10	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58285	07/24/23 04:33	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58312	07/24/23 11:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			58919	07/31/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.94 g	10 mL	58405	07/24/23 17:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58792	07/30/23 18:39	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	57911	07/18/23 09:24	KS	EET MID
Soluble	Analysis	300.0		1			58043	07/19/23 11:54	CH	EET MID

Client Sample ID: BES23-64 0.5'

Date Collected: 07/14/23 10:40

Date Received: 07/14/23 15:02

Lab Sample ID: 890-4951-9

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	58056	07/19/23 15:10	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58285	07/24/23 04:54	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58312	07/24/23 11:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			58919	07/31/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	58405	07/24/23 17:37	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58792	07/30/23 19:02	AJ	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	57911	07/18/23 09:24	KS	EET MID
Soluble	Analysis	300.0		1			58043	07/19/23 11:59	CH	EET MID

Client Sample ID: WES23-01 0.5'

Date Collected: 07/14/23 10:45

Date Received: 07/14/23 15:02

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	58056	07/19/23 15:10	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58285	07/24/23 05:14	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58312	07/24/23 11:25	SM	EET MID
Total/NA	Analysis	8015 NM		1			58919	07/31/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	58406	07/24/23 17:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58792	07/30/23 22:01	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	57911	07/18/23 09:24	KS	EET MID
Soluble	Analysis	300.0		10			58043	07/19/23 12:35	CH	EET MID

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Client: Vertex Job ID: 890-4951-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: WES23-02 0.5'

Date Collected: 07/14/23 10:50 Date Received: 07/14/23 15:02

Lab Sample ID: 890-4951-11

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	58151	07/20/23 13:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58250	07/22/23 18:02	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58312	07/24/23 09:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			58919	07/31/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	58406	07/24/23 17:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58792	07/30/23 22:23	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	57911	07/18/23 09:24	KS	EET MID
Soluble	Analysis	300.0		1			58043	07/19/23 12:40	CH	EET MID

Client Sample ID: WES23-03 0.5' Lab Sample ID: 890-4951-12

Date Collected: 07/14/23 10:55

Date Received: 07/14/23 15:02

Batch Dil Initial Final Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 Total/NA 5.01 g 5 mL 58151 07/20/23 13:55 EL EET MID Total/NA 8021B 5 mL 58250 07/22/23 18:22 **EET MID** Analysis 1 5 mL SM Total/NA Total BTEX 58312 07/24/23 09:06 SM Analysis **EET MID** 1 Total/NA Analysis 8015 NM 58919 07/31/23 16:01 ΑJ **EET MID** Total/NA 58406 07/24/23 17:42 TKC Prep 8015NM Prep 9.94 g 10 mL EET MID Total/NA Analysis 8015B NM 1 uL 1 uL 58792 07/30/23 20:55 ΑJ **EET MID** 57911 Soluble 07/18/23 09:24 KS Leach DI Leach 5.02 g 50 mL **EET MID** Soluble Analysis 300.0 5 58043 07/19/23 12:45 СН **EET MID**

Client Sample ID: WES23-04 0.5'

Date Collected: 07/14/23 11:00

Date Received: 07/14/23 15:02

Lab Sample ID: 890-4951-13

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	58151	07/20/23 13:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58250	07/22/23 18:43	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58312	07/24/23 09:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			58919	07/31/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.91 g	10 mL	58406	07/24/23 17:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58792	07/30/23 22:46	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	57911	07/18/23 09:24	KS	EET MID
Soluble	Analysis	300.0		10			58043	07/19/23 12:50	CH	EET MID

Client Sample ID: WES23-05 0.5'

Date Collected: 07/14/23 11:05

Date Received: 07/14/23 15:02

Lab Sample ID:	890-4951-14
	Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	58151	07/20/23 13:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58250	07/22/23 19:03	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58312	07/24/23 09:06	SM	EET MID

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Matrix: Solid

Lab Chronicle

Client: Vertex Job ID: 890-4951-1 Project/Site: Corral Fly SDG: 23E-02502

Client Sample ID: WES23-05 0.5'

Date Collected: 07/14/23 11:05 Date Received: 07/14/23 15:02 Lab Sample ID: 890-4951-14

Matrix: Solid

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			58919	07/31/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	58406	07/24/23 17:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58792	07/30/23 23:08	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	57911	07/18/23 09:24	KS	EET MID
Soluble	Analysis	300.0		1			58043	07/19/23 12:55	CH	EET MID

Client Sample ID: WES23-06 0.5' Lab Sample ID: 890-4951-15

Date Collected: 07/14/23 11:10

Date Received: 07/14/23 15:02

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	58151	07/20/23 13:55	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	58250	07/22/23 19:24	SM	EET MID
Total/NA	Analysis	Total BTEX		1			58312	07/24/23 09:06	SM	EET MID
Total/NA	Analysis	8015 NM		1			58919	07/31/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	58406	07/24/23 17:42	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	58792	07/30/23 23:30	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	57911	07/18/23 09:24	KS	EET MID
Soluble	Analysis	300.0		1			58043	07/19/23 13:00	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
 Job ID: 890-4951-1

 Project/Site: Corral Fly
 SDG: 23E-02502

Laboratory: Eurofins Midland

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

Authority Texas		ogram	Identification Number	Expiration Date
		ELAP	T104704400-23-26	06-30-24
The following analytes	and the almost and the Alaba management has			
the agency does not of	• '	it the laboratory is not certifi	ied by the governing authority. This list ma	ay include analytes for
,	• '	Matrix	led by the governing authority. I his list ma	ay include analytes for
the agency does not of	fer certification.	•	, , ,	ay include analytes for

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Method Summary

Client: Vertex Job ID: 890-4951-1 Project/Site: Corral Fly

SDG: 23E-02502

Method	Method Description	Protocol	Laboratory
3021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
3015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
3015B 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
I 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

WES23-06 0.5'

Sample Summary

Client: Vertex

890-4951-15

Project/Site: Corral Fly

Job ID: 890-4951-1 SDG: 23E-02502

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4951-1	BES23-56 0.5'	Solid	07/14/23 10:00	07/14/23 15:02	0.5
890-4951-2	BES23-57 0.5'	Solid	07/14/23 10:05	07/14/23 15:02	0.5
890-4951-3	BES23-58 0.5'	Solid	07/14/23 10:10	07/14/23 15:02	0.5
890-4951-4	BES23-59 0.5'	Solid	07/14/23 10:15	07/14/23 15:02	0.5
890-4951-5	BES23-60 0.5'	Solid	07/14/23 10:20	07/14/23 15:02	0.5
890-4951-6	BES23-61 0.5'	Solid	07/14/23 10:25	07/14/23 15:02	0.5
890-4951-7	BES23-62 0.5'	Solid	07/14/23 10:30	07/14/23 15:02	0.5
890-4951-8	BES23-63 0.5'	Solid	07/14/23 10:35	07/14/23 15:02	0.5
890-4951-9	BES23-64 0.5'	Solid	07/14/23 10:40	07/14/23 15:02	0.5
890-4951-10	WES23-01 0.5'	Solid	07/14/23 10:45	07/14/23 15:02	0.5
890-4951-11	WES23-02 0.5'	Solid	07/14/23 10:50	07/14/23 15:02	0.5
890-4951-12	WES23-03 0.5'	Solid	07/14/23 10:55	07/14/23 15:02	0.5
890-4951-13	WES23-04 0.5'	Solid	07/14/23 11:00	07/14/23 15:02	0.5
890-4951-14	WES23-05 0.5'	Solid	07/14/23 11:05	07/14/23 15:02	0.5

Solid

07/14/23 11:10 07/14/23 15:02 0.5

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Total 200.7 / 6010

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Eurofins Xenco. A minimum charg tice: Signature of this document a

Relinquished by: (Sign

eurofins : Xenco **Environment Testing**

City, State ZIP:

Project Name:

roject Number:

Address:

SAMPLE RECEIPT

samples Received Intact:

ooler Custody Seals:

ample Custody Seals:

Total Containers:

Sample Identificatio

Sampler's Name:

oject Location:

Company Name:

Vertex Mance

Address:

Bill to: (if different) Company Name

Sclavis Kob

State of Project: Program:

UST/PST PRP Brownfields

RRC _

Superfund

Work Order Comments

www.xenco.com

0)

Project Manager:

Chain of Custody

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

ANALYSIS REQUEST ANALYSIS REQ		Email: City, state ZIF:	TONG VECTOX CO	Deliverables:	EDD C	ADaPT Other:
Se Ag Hg:	orral Elu	Around		ANALYSIS REQUEST		Preservative Codes
Se Ag	235-02502		Pres.			None: NO DI Water: H ₂ O
Se Ag		Due Date:				
Se Ag Hg:		TAT starts the day received by			_	
Se Ag Hg:		the lab, if received by 4:30pm				H ₂ SO ₄ : H ₂ NaOH: Na
Se Ag	<u></u>	(Y)	eters			H ₃ PO ₄ : HP
Se Ag	(Yes) No		ram			NaHSO .: NABIS
Se Ag Hg:	No NA		Pa			Na ₂ S ₂ O ₃ : NaSO ₃
Se Ag	NO NIA	are Reading:		890-4951 Chain of Custon	dy	Zn Acetate+NaOH: Zn
Se Ag	Corrected 7	Temperature: 11.0	7/ E		-	NaOH+Ascorbic Acid: SAPC
Se Ag Hg:	Matrix	Depth	cont T			Sample Comments
Se Ag Hg:	CHELL 195, 5.0	350:00	7 × × 6			
Se Ag Hg:	0.5	10:05				
Se Ag Hg:	0,5/	JO: 10				
Se Ag Hg:	0.5	10:35				
Se Ag Hg:	0,5%	10:30				
Se Ag Hg:	0.5	26.35				
Se Ag Hg:	0,57	103:30				
Se Ag Hg:	0,51	25.05				
Se Ag Hg:	0.5	JO, NO				
Se Ag Hg:	6,5,1 W	20:45				
eceived		Texas 11		Co Cu Fe Pb Mg Mn Mo N	K Se Ag	SiO ₂ Na Sr Tl Sn U V Zn
eceived						
eceived	t and relinquishment of samples constitutes a lable only for the cost of samples and shall no arge of \$85.00 will be applied to each project:	a valid purchase order from client company ot assume any responsibility for any losses or and a charge of \$5 for each sample submit	to Eurofins Xenco, its affiliates and subcontract expenses incurred by the client if such losses a leaf to Eurofins Xenco, but not analyzed. These	ors. It assigns standard terms and conditions re due to circumstances beyond the control erms will be enforced unless previously negot	lated.	
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Work Order No:

	B C	Cont of	Depth Comp	Time Sampled	Date Sampled	Matrix	fication	Sample Identification
		7:		mperature:	Corrected Temperature:			Total Containers:
	EX	1		Reading:	Temperature Reading:	No N/A	Yes	Sample Custody Seals:
		Pa		actor:	Correction actor:	Yes No N/A	Yes	Cooler Custody Seals:
		aran		r ID:	Thermometer ID:	Yes No		Samples Received Intact:
		neter	Yes No	Wet ice:	Yes No	Temp Blank:	Te	SAMPLE RECEIPT
		s	the lab, if received by 4:30pm	the lab, if rece				PO #:
			TAT starts the day received by	TAT starts the	Mesky		HIMMHEW	Sampler's Name:
				Due Date:				Project Location:
		Code	Rush	Routine	707	250,	33E	Project Number:
QUEST	ANALYSIS REQUEST		Turn Around	Turn /		1 1	Cosso	Project Name:
Deliverables: EDD AL	cdixonte vertex, ca	6 Ver	Cdixon	Email:				Phone:
ev			City, State ZIP:					City, State ZIP:
State of Project:		-	Address:					Address:
Program: UST/PST PRP B	Sclacis		Company Name:			ertex	Ver	Company Name:
Work Order	Rob Kirk	2	Bill to: (if different)		MOX	ice D	Charic	Project Manager:
Work Order No	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	Cha ton, Tx (281 I, Tx (432) 7/ o, Tx (915) 5 s, NM (575) ;	Hous Midlanc EL Pas Hobb	sting	Environment Testing Xenco	Enviror Xenco	fins	eurofins

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e) Received by: (Signature) Date/Time	Date/Time Relinquished by: (Signature)	Relinquished by (Signature) / Received by: (Signature)	Relinquish
and conditions nd the control neviously negotiated.	ofins Xenco, its affiliates and subcontractors. It assigns standard terms in nses incurred by the client if such losses are due to circumstances beyon Eurofins Xenco, but not analyzed. These terms will be enforced unless p	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	Notice: Signature o of service. Eurofins of Eurofins Xenco.
Mn Mo Ni K Se Ag SiO ₂ Na Sr Tl Sn U V Zn 9 Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471	Ba Be B Cd Ca Cr Co Cu Fe Pb Mg s Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se	Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb A	Total 200. Circle Meth
	e e	3- 06 6.51 V V 12.00 V	WK33
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		3-03 0.51 10:55	£531
	**	3-02 0.5.8"111/11/13/20 20 -56	2853M
Sample Comments	TF B CJ	Sample Identification Matrix Sampled Sampled Depth Comp Cont	Samp
NaOH+Ascorbic Acid: SAPC)H)E	tainers: Corrected Temperature:	Total Containers:
Zn Acetate+NaOH: Zn	EX	ustody Seals: Yes No N/A Temperature Reading:	Sample Custody Seals:
Na ₂ S ₂ O ₃ ; NaSO ₃		Yes No WA Correction actor:	Cooler Custody Seals:
NaHSO 4: NABIS		Temp f	SAMPLE RECEIPT
H ₂ SO ₄ :H ₂ NaOH:Na		the lab, if received by 4:30pm	PO #:
HCL: HC HNO 3: HN		Hunter Mein	Sampler's Name:
Cool: Cool MeOH: Me		Due Date:	Project Location:
None: NO DI Water: H ₂ O		lumber: 33E - 03G0A Deputine Rush Pres.	Project Number:
Preservative Codes	ANALYSIS REQUEST	ame: COSSO YW Turn Around	Project Name:
Deliverables: EDD ADaPT Other:	ertex.ca	Email: Cd/XON & VENTEX.	Phone:
Reporting: Level III Level III PST/UST TRRP Level IV			City, State ZIP:
State of Project:		Address:	Address:
Program: UST/PST PRP Brownfields RRC Superfund		Vertex	Company Name:
Work Order Comments	Rob Birk	anager: Charice Dixon Bill to: (if different)	Project Manager:
www.xenco.com Page of Q	Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	Hobbs, NM (S	
	EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296		
Work Order No:	Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	Environment Testing	
	Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300		- C

Login Sample Receipt Checklist

 Client: Vertex
 Job Number: 890-4951-1

 SDG Number: 23E-02502

Login Number: 4951 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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	

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Login Sample Receipt Checklist

Client: Vertex Job Number: 890-4951-1 SDG Number: 23E-02502

Login Number: 4951 **List Source: Eurofins Midland** List Number: 2 List Creation: 07/18/23 11:21 AM

Creator: Rodriguez, Leticia

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	N/A	

<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 8/10/2023 3:08:04 PM

JOB DESCRIPTION

Corral Fly SWD SDG NUMBER 23E-02502

JOB NUMBER

890-5046-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220

Eurofins Carlsbad

Job Notes

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

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

Authorization

Generated 8/10/2023 3:08:04 PM

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

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Client: Vertex Laboratory Job ID: 890-5046-1
Project/Site: Corral Fly SWD SDG: 23E-02502

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Sample Summary	21
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Definitions/Glossary

Client: Vertex Job ID: 890-5046-1 Project/Site: Corral Fly SWD

SDG: 23E-02502

Qualifiers

GC VOA

Qualifier **Qualifier Description** LCS and/or LCSD is outside acceptance limits, high biased. S1-Surrogate recovery exceeds control limits, low biased. Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC Qualifier

Indicates the analyte was analyzed for but not detected.

Qualifier Description

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

DFR 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

Decision Level Concentration (Radiochemistry) DLC **EDL** Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE) EPA recommended "Maximum Contaminant Level" MCL

MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

Method Detection Limit MDL 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

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) TEQ

TNTC Too Numerous To Count

Case Narrative

Client: Vertex Project/Site: Corral Fly SWD

Job ID: 890-5046-1

SDG: 23E-02502

Job ID: 890-5046-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-5046-1

Receipt

The samples were received on 8/7/2023 4:12 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 3.8°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BS23-15 1FT (890-5046-1), BS23-19 1FT (890-5046-2), BS23-32 1FT (890-5046-3), BS23-34 1FT (890-5046-4) and BS23-38 1FT (890-5046-5).

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: BS23-15 1FT (890-5046-1), BS23-19 1FT (890-5046-2), BS23-32 1FT (890-5046-3), BS23-34 1FT (890-5046-4) and BS23-38 1FT (890-5046-5). Evidence of matrix interferences is not obvious.

Method 8021B: CCV was biased high for ethylbenzene, o-xylene, and m,p xylenes. Another CCV was analyzed and acceptable within 12 hours; therefore, the data was qualified and reported.(CCV 880-59696/51)

Method 8021B: The continuing calibration verification (CCV) associated with batch 880-59696 recovered above the upper control limit for Benzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-59696/33).

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

GC Semi VOA

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.

Lab Sample ID: 890-5046-1

Client Sample Results

Client: Vertex Job ID: 890-5046-1
Project/Site: Corral Fly SWD SDG: 23E-02502

Client Sample ID: BS23-15 1FT

Date Collected: 08/07/23 10:00 Date Received: 08/07/23 16:12

Sample Depth: 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *+	0.00201		mg/Kg		08/09/23 13:14	08/09/23 23:48	1
Ethylbenzene	<0.00201	U *+	0.00201		mg/Kg		08/09/23 13:14	08/09/23 23:48	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/09/23 13:14	08/09/23 23:48	1
Xylenes, Total	<0.00402	U *+	0.00402		mg/Kg		08/09/23 13:14	08/09/23 23:48	1
m-Xylene & p-Xylene	<0.00402	U *+	0.00402		mg/Kg		08/09/23 13:14	08/09/23 23:48	1
o-Xylene	<0.00201	U *+	0.00201		mg/Kg		08/09/23 13:14	08/09/23 23:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130				08/09/23 13:14	08/09/23 23:48	1
1,4-Difluorobenzene (Surr)	69	S1-	70 - 130				08/09/23 13:14	08/09/23 23:48	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			08/10/23 10:23	1
: Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (•		3 3				
Method: SW846 8015 NM - Diese Analyte		ics (DRO) (C	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
			•	MDL		<u>D</u>	Prepared	Analyzed 08/10/23 15:56	Dil Fac
Analyte Total TPH	Result 52.2	Qualifier	RL	MDL	Unit	<u> </u>	Prepared		
Analyte	Result 52.2 sel Range Orga	Qualifier	RL		Unit	<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: SW846 8015B NM - Dies	Result 52.2 sel Range Orga	Qualifier nics (DRO) Qualifier	RL 50.4		Unit mg/Kg		<u> </u>	08/10/23 15:56	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	Result 52.2 sel Range Orga	Qualifier nics (DRO) Qualifier	RL 50.4 (GC)		Unit mg/Kg Unit mg/Kg	<u> </u>	Prepared	08/10/23 15:56 Analyzed	1
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 52.2 sel Range Orga	Qualifier nics (DRO) Qualifier	RL 50.4 (GC)		Unit mg/Kg Unit	<u> </u>	Prepared	08/10/23 15:56 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 52.2 sel Range Orga Result <50.4 52.2	Qualifier nics (DRO) Qualifier U	RL 50.4 (GC) RL 50.4 50.4		Unit mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 08/07/23 18:03	08/10/23 15:56 Analyzed 08/10/23 12:40 08/10/23 12:40	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result 52.2 sel Range Orga Result < 50.4	Qualifier nics (DRO) Qualifier U	RL 50.4 (GC) RL 50.4		Unit mg/Kg Unit mg/Kg	<u> </u>	Prepared 08/07/23 18:03	08/10/23 15:56 Analyzed 08/10/23 12:40	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result 52.2 sel Range Orga Result <50.4 52.2	Qualifier nics (DRO) Qualifier U	RL 50.4 (GC) RL 50.4 50.4		Unit mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 08/07/23 18:03	08/10/23 15:56 Analyzed 08/10/23 12:40 08/10/23 12:40	1 Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier nics (DRO) Qualifier U	RL 50.4 (GC) RL 50.4 50.4		Unit mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 08/07/23 18:03 08/07/23 18:03	08/10/23 15:56 Analyzed 08/10/23 12:40 08/10/23 12:40 08/10/23 12:40	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result	Qualifier nics (DRO) Qualifier U	RL 50.4		Unit mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 08/07/23 18:03 08/07/23 18:03 08/07/23 18:03 Prepared	08/10/23 15:56 Analyzed 08/10/23 12:40 08/10/23 12:40 08/10/23 12:40 Analyzed	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result	Qualifier nics (DRO) Qualifier U Qualifier	RL 50.4 (GC) RL 50.4 50.4 50.4 Limits 70 - 130 70 - 130		Unit mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 08/07/23 18:03 08/07/23 18:03 08/07/23 18:03 Prepared 08/07/23 18:03	08/10/23 15:56 Analyzed 08/10/23 12:40 08/10/23 12:40 08/10/23 12:40 Analyzed 08/10/23 12:40	Dil Fac
Analyte Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier nics (DRO) Qualifier U Qualifier	RL 50.4 (GC) RL 50.4 50.4 50.4 Limits 70 - 130 70 - 130		Unit mg/Kg Unit mg/Kg mg/Kg mg/Kg	<u> </u>	Prepared 08/07/23 18:03 08/07/23 18:03 08/07/23 18:03 Prepared 08/07/23 18:03	08/10/23 15:56 Analyzed 08/10/23 12:40 08/10/23 12:40 08/10/23 12:40 Analyzed 08/10/23 12:40	Dil Fac 1 1 Dil Fac Dil Fac

Client Sample ID: BS23-19 1FT

Date Collected: 08/07/23 10:05

Date Received: 08/07/23 16:12

Sample Depth: 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		08/09/23 13:14	08/10/23 00:09	1
Ethylbenzene	<0.00200	U *+	0.00200		mg/Kg		08/09/23 13:14	08/10/23 00:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/09/23 13:14	08/10/23 00:09	1
Xylenes, Total	<0.00401	U *+	0.00401		mg/Kg		08/09/23 13:14	08/10/23 00:09	1
m-Xylene & p-Xylene	<0.00401	U *+	0.00401		mg/Kg		08/09/23 13:14	08/10/23 00:09	1
o-Xylene	<0.00200	U *+	0.00200		mg/Kg		08/09/23 13:14	08/10/23 00:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130				08/09/23 13:14	08/10/23 00:09	1

Eurofins Carlsbad

Lab Sample ID: 890-5046-2

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Matrix: Solid

Lab Sample ID: 890-5046-2

Lab Sample ID: 890-5046-3

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-5046-1 Project/Site: Corral Fly SWD SDG: 23E-02502

Client Sample ID: BS23-19 1FT

Date Collected: 08/07/23 10:05 Date Received: 08/07/23 16:12

Sample Depth: 1

Method: SW846 8021B - Volatile (Organic Compounds	(GC)	(Continued)
modification of the country to the country to	rigariio Compoundo		(Continuou)

Surrogate	%Recovery Qualit	ier Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	52 S1-	70 - 130	08/09/23 13:14	08/10/23 00:09	1

Mathad: TAI	COD Total DTEV	Total DTCV	Calaulatian
Wethod: IAL	SOP Total BTEX	- IOIAI DIEA	Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			08/10/23 10:23	1

Analyte	Result	Qualifier	RL	MDL	Unit)	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			08/10/23 15:56	1

Method: SW846 8015B NM - Diesel Range Organics	(DRO)	(GC)	١
motified. Offerto College Ithin Biodol Rungo Organico	(5.10)	, , , , ,	,

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		08/07/23 18:03	08/10/23 13:02	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		08/07/23 18:03	08/10/23 13:02	1
OII Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		08/07/23 18:03	08/10/23 13:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	144	S1+	70 - 130	08/07/23 18	:03 08/10/23 13:02	1
o-Terphenyl	118		70 - 130	08/07/23 18	:03 08/10/23 13:02	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qual	lifier RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	352	5.00	mg/K			08/09/23 17:35	1

Client Sample ID: BS23-32 1FT

Date Collected: 08/07/23 10:10 Date Received: 08/07/23 16:12

Sample Depth: 1

Method: SW846 8021B -	M-1-4!1- O	0 (00)

mothod. Offort our in	no Organio Comp	ounas (SS)	,						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199		mg/Kg		08/09/23 13:14	08/10/23 00:29	1
Ethylbenzene	<0.00199	U *+	0.00199		mg/Kg		08/09/23 13:14	08/10/23 00:29	1
Toluene	< 0.00199	U	0.00199		mg/Kg		08/09/23 13:14	08/10/23 00:29	1
Xylenes, Total	<0.00398	U *+	0.00398		mg/Kg		08/09/23 13:14	08/10/23 00:29	1
m-Xylene & p-Xylene	< 0.00398	U *+	0.00398		mg/Kg		08/09/23 13:14	08/10/23 00:29	1
o-Xylene	<0.00199	U *+	0.00199		mg/Kg		08/09/23 13:14	08/10/23 00:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130				08/09/23 13:14	08/10/23 00:29	1
1 / Diffuorobenzene (Surr)	52	C1	70 120				08/00/22 12:14	08/10/22 00:20	1

4-Bromofluorobenzene (Surr)	90	70 - 130	08/09/23 13:14		Ċ
1,4-Difluorobenzene (Surr)	52 S1-	70 - 130	08/09/23 13:14	08/10/23 00:29	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			08/10/23 10:23	1

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			08/10/23 15:56	1

Lab Sample ID: 890-5046-3

08/09/23 17:41

Lab Sample ID: 890-5046-4

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-5046-1 Project/Site: Corral Fly SWD SDG: 23E-02502

Client Sample ID: BS23-32 1FT

Date Collected: 08/07/23 10:10 Date Received: 08/07/23 16:12

Sample Depth: 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		08/07/23 18:03	08/10/23 13:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/07/23 18:03	08/10/23 13:24	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/07/23 18:03	08/10/23 13:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130				08/07/23 18:03	08/10/23 13:24	1
o-Terphenyl	96		70 - 130				08/07/23 18:03	08/10/23 13:24	1
- Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

24.8

3250

mg/Kg

Client Sample ID: BS23-34 1FT

Date Collected: 08/07/23 10:15

Date Received: 08/07/23 16:12

Sample Depth: 1

Chloride

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		08/09/23 13:14	08/10/23 00:50	1
Ethylbenzene	<0.00200	U *+	0.00200		mg/Kg		08/09/23 13:14	08/10/23 00:50	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/09/23 13:14	08/10/23 00:50	1
Xylenes, Total	<0.00400	U *+	0.00400		mg/Kg		08/09/23 13:14	08/10/23 00:50	1
m-Xylene & p-Xylene	<0.00400	U *+	0.00400		mg/Kg		08/09/23 13:14	08/10/23 00:50	1
o-Xylene	<0.00200	U *+	0.00200		mg/Kg		08/09/23 13:14	08/10/23 00:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130				08/09/23 13:14	08/10/23 00:50	1
1,4-Difluorobenzene (Surr)	65	S1-	70 - 130				08/09/23 13:14	08/10/23 00:50	1
Method: TAL SOP Total BTEX - T	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			08/10/23 10:23	1
Method: SW846 8015 NM - Diese	l Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.6	U	49.6		mg/Kg			08/10/23 15:56	1
Method: SW846 8015B NM - Dies	el Range Orga	nics (DRO)	(GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.6	U	49.6		mg/Kg		08/07/23 18:03	08/10/23 13:46	1
Diesel Range Organics (Over C10-C28)	<49.6	U	49.6		mg/Kg		08/07/23 18:03	08/10/23 13:46	1
Oll Range Organics (Over C28-C36)	<49.6	U	49.6		mg/Kg		08/07/23 18:03	08/10/23 13:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130				08/07/23 18:03	08/10/23 13:46	1
	98		70 ₋ 130				08/07/23 18:03	08/10/23 13:46	

Eurofins Carlsbad

8/10/2023

Lab Sample ID: 890-5046-4

Client Sample Results

Client: Vertex Job ID: 890-5046-1 Project/Site: Corral Fly SWD SDG: 23E-02502

Client Sample ID: BS23-34 1FT

Date Collected: 08/07/23 10:15 Date Received: 08/07/23 16:12

Sample Depth: 1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble												
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac			
Chloride	3660		25.1		mg/Kg			08/09/23 17:46	5			

Lab Sample ID: 890-5046-5 Client Sample ID: BS23-38 1FT **Matrix: Solid**

Date Collected: 08/07/23 10:20 Date Received: 08/07/23 16:12

Sample Depth: 1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U *+	0.00198		mg/Kg		08/09/23 13:14	08/10/23 01:10	1
Ethylbenzene	<0.00198	U *+	0.00198		mg/Kg		08/09/23 13:14	08/10/23 01:10	,
Toluene	<0.00198	U	0.00198		mg/Kg		08/09/23 13:14	08/10/23 01:10	1
Xylenes, Total	<0.00396	U *+	0.00396		mg/Kg		08/09/23 13:14	08/10/23 01:10	1
m-Xylene & p-Xylene	< 0.00396	U *+	0.00396		mg/Kg		08/09/23 13:14	08/10/23 01:10	1
o-Xylene	<0.00198	U *+	0.00198		mg/Kg		08/09/23 13:14	08/10/23 01:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		70 - 130				08/09/23 13:14	08/10/23 01:10	1
1,4-Difluorobenzene (Surr)	64	S1-	70 - 130				08/09/23 13:14	08/10/23 01:10	1
Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			08/10/23 10:23	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte Total TPH	Result	Qualifier	RL 49.7	MDL	Unit mg/Kg	D	Prepared	Analyzed 08/10/23 15:56	Dil Fac
	272		49.7	MDL		<u>D</u>	Prepared		
Total TPH Method: SW846 8015B NM - Dies	272 sel Range Orga		49.7			<u>D</u>	Prepared Prepared		
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics	272 sel Range Orga	nics (DRO) Qualifier	49.7 (GC)		mg/Kg	_ =	<u> </u>	08/10/23 15:56	1
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10	272 sel Range Orga Result	nics (DRO) Qualifier	49.7 (GC)		mg/Kg	_ =	Prepared	08/10/23 15:56 Analyzed	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	sel Range Orga Result < 49.7	nics (DRO) Qualifier U	49.7 (GC) RL 49.7		mg/Kg Unit mg/Kg	_ =	Prepared 08/07/23 18:03	08/10/23 15:56 Analyzed 08/10/23 14:08	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	sel Range Orga Result <49.7 272	nics (DRO) Qualifier U	49.7 (GC) RL 49.7 49.7		mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 08/07/23 18:03 08/07/23 18:03	08/10/23 15:56 Analyzed 08/10/23 14:08 08/10/23 14:08	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	272 sel Range Orga Result <49.7 272 <49.7	nics (DRO) Qualifier U	49.7 (GC) RL 49.7 49.7 49.7		mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 08/07/23 18:03 08/07/23 18:03	08/10/23 15:56 Analyzed 08/10/23 14:08 08/10/23 14:08	Dil Face 1 1 1 1 Dil Face
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	272 sel Range Orga Result <49.7 272 <49.7 %Recovery	nics (DRO) Qualifier U	49.7 (GC) RL 49.7 49.7 49.7 Limits		mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 08/07/23 18:03 08/07/23 18:03 08/07/23 18:03 Prepared	08/10/23 15:56 Analyzed 08/10/23 14:08 08/10/23 14:08 08/10/23 14:08 Analyzed	Dil Fac
Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	272 sel Range Orga Result <49.7 272 <49.7 %Recovery 116 94	U Qualifier	49.7 (GC) RL 49.7 49.7 49.7 Limits 70 - 130 70 - 130		mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 08/07/23 18:03 08/07/23 18:03 08/07/23 18:03 Prepared 08/07/23 18:03	08/10/23 15:56 Analyzed 08/10/23 14:08 08/10/23 14:08 Analyzed 08/10/23 14:08	Dil Fac
Total TPH Method: SW846 8015B NM - Dies Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	272 sel Range Orga Result <49.7 272 <49.7 %Recovery 116 94 Chromatograp	U Qualifier	49.7 (GC) RL 49.7 49.7 49.7 Limits 70 - 130 70 - 130	MDL	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 08/07/23 18:03 08/07/23 18:03 08/07/23 18:03 Prepared 08/07/23 18:03	08/10/23 15:56 Analyzed 08/10/23 14:08 08/10/23 14:08 Analyzed 08/10/23 14:08	Dil Fac

Surrogate Summary

Client: Vertex Job ID: 890-5046-1
Project/Site: Corral Fly SWD SDG: 23E-02502

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)	
890-5046-1	BS23-15 1FT	83	69 S1-	
890-5046-1 MS	BS23-15 1FT	122	106	
890-5046-1 MSD	BS23-15 1FT	125	106	
890-5046-2	BS23-19 1FT	89	52 S1-	
890-5046-3	BS23-32 1FT	90	52 S1-	
890-5046-4	BS23-34 1FT	85	65 S1-	
890-5046-5	BS23-38 1FT	85	64 S1-	
LCS 880-59759/1-A	Lab Control Sample	122	108	
LCSD 880-59759/2-A	Lab Control Sample Dup	129	105	
MB 880-59705/5-A	Method Blank	72	81	
MB 880-59759/5-A	Method Blank	70	84	
Surrogate Legend				

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)	
880-31731-A-1-F MS	Matrix Spike	104	83	
880-31731-A-1-G MSD	Matrix Spike Duplicate	103	83	
890-5046-1	BS23-15 1FT	123	102	
890-5046-2	BS23-19 1FT	144 S1+	118	
890-5046-3	BS23-32 1FT	113	96	
890-5046-4	BS23-34 1FT	114	98	
890-5046-5	BS23-38 1FT	116	94	
LCS 880-59575/2-A	Lab Control Sample	140 S1+	123	
LCSD 880-59575/3-A	Lab Control Sample Dup	153 S1+	135 S1+	
MB 880-59575/1-A	Method Blank	155 S1+	141 S1+	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Vertex Job ID: 890-5046-1 SDG: 23E-02502 Project/Site: Corral Fly SWD

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-59705/5-A

Matrix: Solid Analysis Batch: 59696

Analyte Benzene Ethylbenzene Toluene Xylenes, Total

o-Xylene

Client Sample ID: Method Blank

08/09/23 09:11

08/09/23 09:11

Prep Type: Total/NA

Prep Batch: 59705

MB	MB							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.00200	U	0.00200		mg/Kg		08/09/23 09:11	08/09/23 12:49	1
<0.00200	U	0.00200		mg/Kg		08/09/23 09:11	08/09/23 12:49	1
<0.00200	U	0.00200		mg/Kg		08/09/23 09:11	08/09/23 12:49	1
<0.00400	U	0.00400		mg/Kg		08/09/23 09:11	08/09/23 12:49	1

mg/Kg

mg/Kg

MB MB

<0.00400 U

<0.00200 U

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72	70 - 130	08/09/23 09:11	08/09/23 12:49	1
1,4-Difluorobenzene (Surr)	81	70 - 130	08/09/23 09:11	08/09/23 12:49	1

0.00400

0.00200

Lab Sample ID: MB 880-59759/5-A

m-Xylene & p-Xylene

Client Sample ID: Method Blank

08/09/23 12:49

08/09/23 12:49

Matrix: Solid Analysis Batch: 59696								Prep Type: 1 Prep Batch	
-	МВ	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Renzene	<0.00200	П	0.00200	,	ma/Ka		08/09/23 13:14	08/09/23 23:27	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/09/23 13:14	08/09/23 23:27	1
Ethylbenzene	< 0.00200	U	0.00200		mg/Kg		08/09/23 13:14	08/09/23 23:27	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/09/23 13:14	08/09/23 23:27	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/09/23 13:14	08/09/23 23:27	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/09/23 13:14	08/09/23 23:27	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/09/23 13:14	08/09/23 23:27	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	70		70 - 130	08/09/23 13:14	08/09/23 23:27	1
1,4-Difluorobenzene (Surr)	84		70 - 130	08/09/23 13:14	08/09/23 23:27	1

Lab Sample ID: LCS 880-59759/1-A

Matrix: Solid

Analysis Batch: 59696

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 59759

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1443	*+	mg/Kg		144	70 - 130	
Ethylbenzene	0.100	0.1419	*+	mg/Kg		142	70 - 130	
Toluene	0.100	0.1244		mg/Kg		124	70 - 130	
m-Xylene & p-Xylene	0.200	0.3079	*+	mg/Kg		154	70 - 130	
o-Xylene	0.100	0.1488	*+	mg/Kg		149	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	122	70 - 130
1,4-Difluorobenzene (Surr)	108	70 - 130

Lab Sample ID: LCSD 880-59759/2-A

Matrix: Solid

Analysis Batch: 59696

Client Sample ID: Lab	Control Sample Dup
	Dunn Times Tetal/NIA

Prep Type: Total/NA

Prep Batch: 59759

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1358	*+	mg/Kg		136	70 - 130	6	35	

QC Sample Results

Client: Vertex Job ID: 890-5046-1
Project/Site: Corral Fly SWD SDG: 23E-02502

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

Lab Sample ID: LCSD 880-59759/2-A

Matrix: Solid Analysis Batch: 59696 Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 59759

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Ethylbenzene	0.100	0.1210		mg/Kg		121	70 - 130	16	35
Toluene	0.100	0.1220		mg/Kg		122	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2533		mg/Kg		127	70 - 130	19	35
o-Xylene	0.100	0.1252		mg/Kg		125	70 - 130	17	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	129		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 890-5046-1 MS Client Sample ID: BS23-15 1FT

Matrix: Solid

Analysis Batch: 59696

Prep Type: Total/NA

Prep Batch: 59759

MS MS %Rec Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Benzene <0.00201 U*+ 0.0996 0.1079 108 mg/Kg 70 - 130 Ethylbenzene <0.00201 U*+ 0.0996 0.1041 105 70 - 130 mg/Kg <0.00201 U 0.0996 0.09455 95 70 - 130 Toluene mg/Kg m-Xylene & p-Xylene <0.00402 U*+ 0.199 0.2186 70 - 130 mg/Kg 110 o-Xylene <0.00201 U*+ 0.0996 0.1056 mg/Kg 106 70 - 130

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	122	70 - 130
1,4-Difluorobenzene (Surr)	106	70 - 130

Lab Sample ID: 890-5046-1 MSD Client Sample ID: BS23-15 1FT

Matrix: Solid

Analysis Batch: 59696

Prep Type: Total/NA

Prep Batch: 59759

_	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U *+	0.0998	0.1212		mg/Kg		121	70 - 130	12	35
Ethylbenzene	<0.00201	U *+	0.0998	0.1165		mg/Kg		117	70 - 130	11	35
Toluene	<0.00201	U	0.0998	0.1036		mg/Kg		104	70 - 130	9	35
m-Xylene & p-Xylene	<0.00402	U *+	0.200	0.2462		mg/Kg		123	70 - 130	12	35
o-Xylene	<0.00201	U *+	0.0998	0.1187		mg/Kg		119	70 - 130	12	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	125		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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

Lab Sample ID: MB 880-59575/1-A

Matrix: Solid

Analysis Batch: 59807

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

Prep Batch: 59575

 MB
 MB

 Analyte
 Result
 Qualifier
 RL
 MDL
 Unit
 D
 Prepared
 Analyzed
 Dil Fa

 Gasoline Range Organics
 <50.0</td>
 U
 50.0
 mg/Kg
 08/07/23 18:03
 08/10/23 07:26

(GRO)-C6-C10

Client: Vertex

Job ID: 890-5046-1

SDG: 23E-02502

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

Lab Sample ID: MB 880-59575/1-A

Lab Sample ID: LCS 880-59575/2-A

Matrix: Solid

Matrix: Solid

Analysis Batch: 59807

Analysis Batch: 59807

Project/Site: Corral Fly SWD

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 59575

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/07/23 18:03	08/10/23 07:26	1
C10-C28) Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/07/23 18:03	08/10/23 07:26	1
oago ogaoo (0.00. 020 000)	55.5		30.0	9/9		00/01/20 10:00	00/.0/20 020	

MB MB

MR MR

	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	1-Chlorooctane	155	S1+	70 - 130	08/07/23 18:03	08/10/23 07:26	1
l	o-Terphenyl	141	S1+	70 - 130	08/07/23 18:03	08/10/23 07:26	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 59575

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 922.3 92 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 954.2 mg/Kg 95 70 - 130 C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	140	S1+	70 - 130
o-Terphenyl	123		70 - 130

Lab Sample ID: LCSD 880-59575/3-A

Matrix: Solid

Analysis Batch: 59807

Client	Sample	ID: I	Lab	Control	Sample Dup	

Prep Type: Total/NA

Prep Batch: 59575

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	876.4		mg/Kg		88	70 - 130	5	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	946.5		mg/Kg		95	70 - 130	1	20
C10-C28)									

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 153 S1+ 70 - 130 o-Terphenyl 135 S1+ 70 - 130

Lab Sample ID: 880-31731-A-1-F MS

Matrix: Solid

Analysis Batch: 59807

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 59575

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	995	1234		mg/Kg		122	70 - 130	
Diesel Range Organics (Over	<50.0	U	995	1023		mg/Kg		100	70 - 130	

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	83		70 - 130

Client: Vertex Job ID: 890-5046-1 Project/Site: Corral Fly SWD SDG: 23E-02502

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

MSD MSD

Lab Sample ID: 880-31731-A-1-G MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Analysis Batch: 59807 Prep Type: Total/NA Prep Batch: 59575

Sample Sample Spike MSD MSD RPD Result Qualifier RPD Limit Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics <50.0 U 995 1230 mg/Kg 122 70 - 130 0 (GRO)-C6-C10

Diesel Range Organics (Over <50.0 U 995 1014 mg/Kg 99 70 - 130 C10-C28)

%Recovery Qualifier Limits Surrogate 1-Chlorooctane 70 - 130 103 o-Terphenyl 83 70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-59730/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 59784

мв мв

MDL Unit Result Qualifier Analyte RL Prepared Analyzed Dil Fac Chloride <5.00 5.00 mg/Kg 08/09/23 17:01

Lab Sample ID: LCS 880-59730/2-A **Client Sample ID: Lab Control Sample Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 59784

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	227.2		mg/Kg		91	90 - 110	

Lab Sample ID: LCSD 880-59730/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 59784

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	230.5		mg/Kg		92	90 - 110	1	20	

Lab Sample ID: 890-5046-1 MS Client Sample ID: BS23-15 1FT **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 59784

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	1380		1250	2750		mg/Kg		110	90 - 110	

Lab Sample ID: 890-5046-1 MSD Client Sample ID: BS23-15 1FT

Matrix: Solid

Analysis Batch: 59784

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	1380		1250	2749		mg/Kg	_	109	90 - 110	0	20

Eurofins Carlsbad

Prep Type: Soluble

Client: Vertex Job ID: 890-5046-1
Project/Site: Corral Fly SWD SDG: 23E-02502

GC VOA

Analysis Batch: 59696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5046-1	BS23-15 1FT	Total/NA	Solid	8021B	59759
890-5046-2	BS23-19 1FT	Total/NA	Solid	8021B	59759
890-5046-3	BS23-32 1FT	Total/NA	Solid	8021B	59759
890-5046-4	BS23-34 1FT	Total/NA	Solid	8021B	59759
890-5046-5	BS23-38 1FT	Total/NA	Solid	8021B	59759
MB 880-59705/5-A	Method Blank	Total/NA	Solid	8021B	59705
MB 880-59759/5-A	Method Blank	Total/NA	Solid	8021B	59759
LCS 880-59759/1-A	Lab Control Sample	Total/NA	Solid	8021B	59759
LCSD 880-59759/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	59759
890-5046-1 MS	BS23-15 1FT	Total/NA	Solid	8021B	59759
890-5046-1 MSD	BS23-15 1FT	Total/NA	Solid	8021B	59759

Prep Batch: 59705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-59705/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 59759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5046-1	BS23-15 1FT	Total/NA	Solid	5035	
890-5046-2	BS23-19 1FT	Total/NA	Solid	5035	
890-5046-3	BS23-32 1FT	Total/NA	Solid	5035	
890-5046-4	BS23-34 1FT	Total/NA	Solid	5035	
890-5046-5	BS23-38 1FT	Total/NA	Solid	5035	
MB 880-59759/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-59759/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-59759/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5046-1 MS	BS23-15 1FT	Total/NA	Solid	5035	
890-5046-1 MSD	BS23-15 1FT	Total/NA	Solid	5035	

Analysis Batch: 59840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5046-1	BS23-15 1FT	Total/NA	Solid	Total BTEX	
890-5046-2	BS23-19 1FT	Total/NA	Solid	Total BTEX	
890-5046-3	BS23-32 1FT	Total/NA	Solid	Total BTEX	
890-5046-4	BS23-34 1FT	Total/NA	Solid	Total BTEX	
890-5046-5	BS23-38 1FT	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 59575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5046-1	BS23-15 1FT	Total/NA	Solid	8015NM Prep	
890-5046-2	BS23-19 1FT	Total/NA	Solid	8015NM Prep	
890-5046-3	BS23-32 1FT	Total/NA	Solid	8015NM Prep	
890-5046-4	BS23-34 1FT	Total/NA	Solid	8015NM Prep	
890-5046-5	BS23-38 1FT	Total/NA	Solid	8015NM Prep	
MB 880-59575/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-59575/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-59575/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-31731-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-31731-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

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Client: Vertex

Project/Site: Corral Fly SWD

Job ID: 890-5046-1

SDG: 23E-02502

GC Semi VOA

Analysis Batch: 59807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5046-1	BS23-15 1FT	Total/NA	Solid	8015B NM	59575
890-5046-2	BS23-19 1FT	Total/NA	Solid	8015B NM	59575
890-5046-3	BS23-32 1FT	Total/NA	Solid	8015B NM	59575
890-5046-4	BS23-34 1FT	Total/NA	Solid	8015B NM	59575
890-5046-5	BS23-38 1FT	Total/NA	Solid	8015B NM	59575
MB 880-59575/1-A	Method Blank	Total/NA	Solid	8015B NM	59575
LCS 880-59575/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	59575
LCSD 880-59575/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	59575
880-31731-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	59575
880-31731-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	59575

Analysis Batch: 59879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5046-1	BS23-15 1FT	Total/NA	Solid	8015 NM	
890-5046-2	BS23-19 1FT	Total/NA	Solid	8015 NM	
890-5046-3	BS23-32 1FT	Total/NA	Solid	8015 NM	
890-5046-4	BS23-34 1FT	Total/NA	Solid	8015 NM	
890-5046-5	BS23-38 1FT	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 59730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5046-1	BS23-15 1FT	Soluble	Solid	DI Leach	
890-5046-2	BS23-19 1FT	Soluble	Solid	DI Leach	
890-5046-3	BS23-32 1FT	Soluble	Solid	DI Leach	
890-5046-4	BS23-34 1FT	Soluble	Solid	DI Leach	
890-5046-5	BS23-38 1FT	Soluble	Solid	DI Leach	
MB 880-59730/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-59730/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-59730/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5046-1 MS	BS23-15 1FT	Soluble	Solid	DI Leach	
890-5046-1 MSD	BS23-15 1FT	Soluble	Solid	DI Leach	

Analysis Batch: 59784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5046-1	BS23-15 1FT	Soluble	Solid	300.0	59730
890-5046-2	BS23-19 1FT	Soluble	Solid	300.0	59730
890-5046-3	BS23-32 1FT	Soluble	Solid	300.0	59730
890-5046-4	BS23-34 1FT	Soluble	Solid	300.0	59730
890-5046-5	BS23-38 1FT	Soluble	Solid	300.0	59730
MB 880-59730/1-A	Method Blank	Soluble	Solid	300.0	59730
LCS 880-59730/2-A	Lab Control Sample	Soluble	Solid	300.0	59730
LCSD 880-59730/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	59730
890-5046-1 MS	BS23-15 1FT	Soluble	Solid	300.0	59730
890-5046-1 MSD	BS23-15 1FT	Soluble	Solid	300.0	59730

Client: Vertex

Project/Site: Corral Fly SWD

Job ID: 890-5046-1 SDG: 23E-02502

3DG. 23E-02302

Lab Sample ID: 890-5046-1

Lab Sample ID: 890-5046-2

Lab Sample ID: 890-5046-3

Lab Sample ID: 890-5046-4

Matrix: Solid

Matrix: Solid

Matrix: Solid

Client Sample ID: BS23-15 1FT Date Collected: 08/07/23 10:00

Date Received: 08/07/23 16:12

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	59759	08/09/23 13:14	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59696	08/09/23 23:48	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59840	08/10/23 10:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			59879	08/10/23 15:56	AJ	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	59575	08/07/23 18:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	59807	08/10/23 12:40	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	59730	08/09/23 09:46	KS	EET MID
Soluble	Analysis	300.0		5			59784	08/09/23 17:18	CH	EET MID

Client Sample ID: BS23-19 1FT

Date Collected: 08/07/23 10:05

Date Received: 08/07/23 16:12

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	59759	08/09/23 13:14	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59696	08/10/23 00:09	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59840	08/10/23 10:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			59879	08/10/23 15:56	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	59575	08/07/23 18:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	59807	08/10/23 13:02	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	59730	08/09/23 09:46	KS	EET MID
Soluble	Analysis	300.0		1			59784	08/09/23 17:35	CH	EET MID

Client Sample ID: BS23-32 1FT

Date Collected: 08/07/23 10:10

Date Received: 08/07/23 16:12

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035		·	5.02 g	5 mL	59759	08/09/23 13:14	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59696	08/10/23 00:29	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59840	08/10/23 10:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			59879	08/10/23 15:56	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	59575	08/07/23 18:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	59807	08/10/23 13:24	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	59730	08/09/23 09:46	KS	EET MID
Soluble	Analysis	300.0		5			59784	08/09/23 17:41	CH	EET MID

Client Sample ID: BS23-34 1FT

Date Collected: 08/07/23 10:15

Date Received: 08/07/23 16:12

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	59759	08/09/23 13:14	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59696	08/10/23 00:50	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59840	08/10/23 10:23	AJ	EET MID

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Matrix: Solid

Page 17 of 24

Client: Vertex Project/Site: Corral Fly SWD

Job ID: 890-5046-1 SDG: 23E-02502

Client Sample ID: BS23-34 1FT Lab Sample ID: 890-5046-4 Date Collected: 08/07/23 10:15

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			59879	08/10/23 15:56	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	59575	08/07/23 18:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	59807	08/10/23 13:46	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	59730	08/09/23 09:46	KS	EET MID
Soluble	Analysis	300.0		5			59784	08/09/23 17:46	CH	EET MID

Client Sample ID: BS23-38 1FT Lab Sample ID: 890-5046-5

Date Collected: 08/07/23 10:20 Matrix: Solid

Date Received: 08/07/23 16:12

Date Received: 08/07/23 16:12

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	59759	08/09/23 13:14	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	59696	08/10/23 01:10	SM	EET MID
Total/NA	Analysis	Total BTEX		1			59840	08/10/23 10:23	AJ	EET MID
Total/NA	Analysis	8015 NM		1			59879	08/10/23 15:56	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	59575	08/07/23 18:03	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	59807	08/10/23 14:08	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	59730	08/09/23 09:46	KS	EET MID
Soluble	Analysis	300.0		10			59784	08/09/23 17:52	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 Job ID: 890-5046-1
Project/Site: Corral Fly SWD SDG: 23E-02502

Laboratory: Eurofins Midland

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

Program	Identification Number	Expiration Date
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	

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Method Summary

Client: Vertex

Job ID: 890-5046-1 Project/Site: Corral Fly SWD SDG: 23E-02502

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: Corral Fly SWD

Job ID: 890-5046-1

SDG: 23E-02502

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5046-1	BS23-15 1FT	Solid	08/07/23 10:00	08/07/23 16:12	1
890-5046-2	BS23-19 1FT	Solid	08/07/23 10:05	08/07/23 16:12	1
890-5046-3	BS23-32 1FT	Solid	08/07/23 10:10	08/07/23 16:12	1
890-5046-4	BS23-34 1FT	Solid	08/07/23 10:15	08/07/23 16:12	1
890-5046-5	BS23-38 1FT	Solid	08/07/23 10:20	08/07/23 16:12	1

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Total 200.7 / 6010

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eurofins Xenco **Environment Testing**

Chain of Custody

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 Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300

Work Order No:

Se Ag SiO ₂ Na Sr Hg: 1631 / 245.1	LUC 5-1-23 1612	Signature) Received by: (Signature) 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo N nd Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U mentand relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions to the control of conditions and the first secure and subcontractors. It assigns standard terms and conditions to the control of conditions and the first secure and	W 16:70 W W V V V	10:10	Soil 8/7 10:00 18+ 5p+1 VVV	Matrix Sampled Sampled Depth Comp Cont	ature: 3.2	S No ATA Correction Factor: A Parameter SO	TAT starts the day received by 3 the lab, if received by 4:30pm	1	2 □Rout	ANALYSIS REQUEST	
		nature) Received by: (Signature)	li K Se Ag Hg:					890-5046 Chain of Custody Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC	NaHSO 4: NABIS NaHSO 5 20 3: NASO 3	H ₂ SO ₄ :H ₂	Cool: Cool	None: NO	QUEST

SAMPLE RECEIPT

amples Received Intact

27-20

537-32

Total Containers: sample Custody Seals: Cooler Custody Seals:

Sample Identific

Sampler's Name:

roject Location:

Project Number:

roject Name:

City, State ZIP:

ddress: ompany Name:

Herries

Address: Company Name: Bill to: (if different)

Tolovis Midsterum

Program: State of Project:

UST/PST PRP Brownfields

RRC

Superfund |

Work Order Comments

www.xenco.com

Pob Kirk

Chance Dixon

Login Sample Receipt Checklist

Client: Vertex Job Number: 890-5046-1 SDG Number: 23E-02502

Login Number: 5046 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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: 890-5046-1 SDG Number: 23E-02502

List Source: Eurofins Midland
List Number: 2
List Creation: 08/09/23 11:11 AM

Creator: Rodriguez, Leticia

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	N/A	

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<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 2/29/2024 12:04:38 PM

JOB DESCRIPTION

COPPAL FIG 23C02502

JOB NUMBER

890-6244-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



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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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Client: Vertex Laboratory Job ID: 890-6244-1 Project/Site: COPPAL FIG SDG: 23C02502

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Definitions/Glossary

Client: Vertex Job ID: 890-6244-1 Project/Site: COPPAL FIG

SDG: 23C02502

Qualifiers

GC VOA Qualifier

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

Qualifier Description

GC Semi VOA

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

Glossary

DLC

Abbreviation	These commonly used abbreviations may or may not be present in this report.					
n	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)					
DI RA RE IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample					

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

EPA recommended "Maximum Contaminant Level" MCL MDA Minimum Detectable Activity (Radiochemistry) Minimum Detectable Concentration (Radiochemistry) MDC

Decision Level Concentration (Radiochemistry)

MDL Method Detection Limit MI 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)

Negative / Absent NEG POS Positive / Present Practical Quantitation Limit PQL

PRES Presumptive QC **Quality Control**

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 890-6244-1

Project: COPPAL FIG

Job ID: 890-6244-1 Eurofins Carlsbad

Job Narrative 890-6244-1

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

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

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

Receipt

The samples were received on 2/22/2024 8:36 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C.

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BH 24 - 15 (890-6244-1), BH 24 - 15 (890-6244-2), BH 24 - 16 (890-6244-3), BH 24 - 17 (890-6244-4), BH 24 - 17 (890-6244-5) and BH 24 - 16 (890-6244-6).

GC VOA

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-74061 and 880-74074 and analytical batch 880-74252 was outside the upper control limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-6244-A-1-C MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Spike compounds were inadvertently omitted during the extraction process for the matrix spike duplicate (MSD); therefore, matrix spike recoveries are unavailable for preparation batch 880-74074 and analytical batch 880-74252. The associated laboratory control sample (LCS) met acceptance criteria.

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 880-74099 and analytical batch 880-74227 was outside the upper control limits.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-74099 and analytical batch 880-74227 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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

HPLC/IC

Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-73906 and 880-73906 and analytical batch 880-74077 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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Matrix: Solid

Lab Sample ID: 890-6244-1

Client Sample Results

 Client: Vertex
 Job ID: 890-6244-1

 Project/Site: COPPAL FIG
 SDG: 23C02502

Client Sample ID: BH 24 - 15

Date Collected: 02/21/24 11:00 Date Received: 02/22/24 08:36

Sample Depth: 0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F1	0.00199		mg/Kg		02/26/24 14:24	02/29/24 02:50	
Ethylbenzene	<0.00199	U F1 F2	0.00199		mg/Kg		02/26/24 14:24	02/29/24 02:50	
Toluene	<0.00199	U F1	0.00199		mg/Kg		02/26/24 14:24	02/29/24 02:50	•
Xylenes, Total	<0.00398	U F1	0.00398		mg/Kg		02/26/24 14:24	02/29/24 02:50	
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.00398		mg/Kg		02/26/24 14:24	02/29/24 02:50	•
o-Xylene	<0.00199	U F1 F2	0.00199		mg/Kg		02/26/24 14:24	02/29/24 02:50	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	87		70 - 130				02/26/24 14:24	02/29/24 02:50	
1,4-Difluorobenzene (Surr)	106		70 - 130				02/26/24 14:24	02/29/24 02:50	
Method: TAL SOP Total BTEX - 1	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398		mg/Kg			02/29/24 02:50	
Analyte Total TPH	<49.7	Qualifier U	RL 49.7	MDL	mg/Kg	D	Prepared	Analyzed 02/28/24 16:42	Dil Fa
- - 		(DDO)	(00)		5 5				
Method: SW846 8015B NM - Dies Analyte		Qualifier	(GC)	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics			49.7	MIDL	mg/Kg		02/26/24 17:14	02/28/24 16:42	DII Fa
(GRO)-C6-C10	\45. <i>1</i>	U	49.7		mg/Rg		02/20/24 17.14	02/20/24 10.42	
Diesel Range Organics (Over	<49.7	U *1	49.7		mg/Kg		02/26/24 17:14	02/28/24 16:42	
C10-C28)									
Oll Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		02/26/24 17:14	02/28/24 16:42	•
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1-Chlorooctane	101		70 - 130				02/26/24 17:14	02/28/24 16:42	
o-Terphenyl	83		70 - 130				02/26/24 17:14	02/28/24 16:42	
Method: EPA 300.0 - Anions, Ion		•							
Method: EPA 300.0 - Anions, Ion Analyte		Ohy - Solubl Qualifier	RL	MDL	Unit mg/Kg	D	Prepared	Analyzed 02/26/24 22:51	Dil Fac

Client Sample ID: BH 24 - 15

Date Collected: 02/21/24 11:15

Date Received: 02/22/24 08:36

Sample Depth: 2'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		02/26/24 14:24	02/29/24 03:10	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/26/24 14:24	02/29/24 03:10	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/26/24 14:24	02/29/24 03:10	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		02/26/24 14:24	02/29/24 03:10	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		02/26/24 14:24	02/29/24 03:10	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/26/24 14:24	02/29/24 03:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130				02/26/24 14:24	02/29/24 03:10	1

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Lab Sample ID: 890-6244-2

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-6244-2

Lab Sample ID: 890-6244-3

Matrix: Solid

Client Sample Results

Client: Vertex Job ID: 890-6244-1 Project/Site: COPPAL FIG SDG: 23C02502

Client Sample ID: BH 24 - 15

Date Collected: 02/21/24 11:15 Date Received: 02/22/24 08:36

Sample Depth: 2'

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

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	107	70 - 130	02/26/24 14:24	02/29/24 03:10	1

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402 U	0.00402	ma/Ka			02/29/24 03:10	1

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/28/24 17:03	1

	Mothod: SW046 904ED NM Diocol Dan	go Organico (DBO) (CC)	v
ı	Method: SW846 8015B NM - Diesel Ran	ge 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		02/26/24 17:14	02/28/24 17:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		02/26/24 17:14	02/28/24 17:03	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/26/24 17:14	02/28/24 17:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery Quality	lifier Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	119	70 - 130	02/26/24 17:14	02/28/24 17:03	1
o-Terphenyl	99	70 - 130	02/26/24 17:14	02/28/24 17:03	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	623	F1	4.99		mg/Kg			02/26/24 22:55	1

Client Sample ID: BH 24 - 16

Date Collected: 02/21/24 11:30 Date Received: 02/22/24 08:36

Sample Depth: 2'

Mothodi CIMOAC 0004D	Valatila Organia Campaunda //	CCI

Method: SW846 8021B - Volat	ietnod: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00202	U	0.00202		mg/Kg		02/26/24 14:24	02/29/24 03:30	1	
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/26/24 14:24	02/29/24 03:30	1	
Toluene	<0.00202	U	0.00202		mg/Kg		02/26/24 14:24	02/29/24 03:30	1	
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/26/24 14:24	02/29/24 03:30	1	
m-Xylene & p-Xylene	< 0.00403	U	0.00403		mg/Kg		02/26/24 14:24	02/29/24 03:30	1	
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/26/24 14:24	02/29/24 03:30	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	103		70 - 130				02/26/24 14:24	02/29/24 03:30	1	
1,4-Difluorobenzene (Surr)	104		70 - 130				02/26/24 14:24	02/29/24 03:30	1	

Method: TAI	SOP Total RTFY	- Total RTFY	Calculation

Analyte	Result	Qualifier	RL	MDL Ur	nit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00403	U	0.00403	m	g/Kg			02/29/24 03:30	1

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/28/24 17:25	1

Client: Vertex

Job ID: 890-6244-1 Project/Site: COPPAL FIG SDG: 23C02502

Client Sample ID: BH 24 - 16 Lab Sample ID: 890-6244-3

Date Collected: 02/21/24 11:30 Matrix: Solid Date Received: 02/22/24 08:36

Sample Depth: 2'

Method: SW846 8015B NM - Dies	el Range Orga	nics (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		02/26/24 17:14	02/28/24 17:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		02/26/24 17:14	02/28/24 17:25	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/26/24 17:14	02/28/24 17:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130				02/26/24 17:14	02/28/24 17:25	1
o-Terphenyl	92		70 - 130				02/26/24 17:14	02/28/24 17:25	1
Method: EPA 300.0 - Anions, Ion	Chromatograp	hy - Solubl	e						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	151	-	4.95		mg/Kg			02/26/24 23:09	1

Client Sample ID: BH 24 - 17 Lab Sample ID: 890-6244-4 Date Collected: 02/21/24 11:45 Matrix: Solid

Date Received: 02/22/24 08:36

Sample Depth: 0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/26/24 14:24	02/29/24 03:51	1
Ethylbenzene	< 0.00199	U	0.00199		mg/Kg		02/26/24 14:24	02/29/24 03:51	1
Toluene	< 0.00199	U	0.00199		mg/Kg		02/26/24 14:24	02/29/24 03:51	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/26/24 14:24	02/29/24 03:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/26/24 14:24	02/29/24 03:51	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/26/24 14:24	02/29/24 03:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130				02/26/24 14:24	02/29/24 03:51	1
1,4-Difluorobenzene (Surr)	113		70 - 130				02/26/24 14:24	02/29/24 03:51	1
Method: TAL SOP Total BTEX - T	otal BTEX Cal	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg	<u></u>		02/29/24 03:51	1
Method: SW846 8015 NM - Diese	Range Organ	ics (DRO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.1	U	50.1		mg/Kg			02/28/24 17:46	1
Method: SW846 8015B NM - Dies	el Range Orga	nics (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		02/26/24 17:14	02/28/24 17:46	1
Diesel Range Organics (Over C10-C28)	<50.1	U *1	50.1		mg/Kg		02/26/24 17:14	02/28/24 17:46	1
Oll Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		02/26/24 17:14	02/28/24 17:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130				02/26/24 17:14	02/28/24 17:46	1
o-Terphenyl	79		70 - 130				02/26/24 17:14	02/28/24 17:46	1

Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-6244-4

Client Sample Results

Job ID: 890-6244-1 Client: Vertex Project/Site: COPPAL FIG SDG: 23C02502

Client Sample ID: BH 24 - 17

Date Collected: 02/21/24 11:45 Date Received: 02/22/24 08:36

Sample Depth: 0

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble											
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	67.9		5.03		mg/Kg			02/26/24 23:14	1		

Client Sample ID: BH 24 - 17 Lab Sample ID: 890-6244-5

Date Collected: 02/21/24 12:00 Date Received: 02/22/24 08:36

Sample Depth: 2'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200		mg/Kg		02/26/24 14:24	02/29/24 04:11	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/26/24 14:24	02/29/24 04:11	,
Toluene	<0.00200	U	0.00200		mg/Kg		02/26/24 14:24	02/29/24 04:11	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/26/24 14:24	02/29/24 04:11	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/26/24 14:24	02/29/24 04:11	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/26/24 14:24	02/29/24 04:11	•
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	104		70 - 130				02/26/24 14:24	02/29/24 04:11	1
1,4-Difluorobenzene (Surr)	105		70 - 130				02/26/24 14:24	02/29/24 04:11	1
Method: TAL SOP Total BTEX - T	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			02/29/24 04:11	1
Method: SW846 8015 NM - Diese	•		•			_			5".5
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4		mg/Kg			02/28/24 18:08	1
Method: SW846 8015B NM - Dies									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.4	U	50.4		mg/Kg		02/26/24 17:14	02/28/24 18:08	1
Diesel Range Organics (Over C10-C28)	<50.4	U *1	50.4		mg/Kg		02/26/24 17:14	02/28/24 18:08	1
Oll Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		02/26/24 17:14	02/28/24 18:08	1
	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Surrogate							02/26/24 17:14	02/28/24 18:08	1
	103		70 - 130				02/20/21 11:11	02/20/24 10:00	
Surrogate 1-Chlorooctane o-Terphenyl			70 - 130 70 - 130				02/26/24 17:14	02/28/24 18:08	
	103 80	ohy - Solubl	70 - 130						1
1-Chlorooctane o-Terphenyl	103 80 Chromatograp	ohy - Solubl Qualifier	70 - 130	MDL	Unit	D			Dil Fac

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2/29/2024

Matrix: Solid

Lab Sample ID: 890-6244-6

Client Sample Results

Client: Vertex Job ID: 890-6244-1
Project/Site: COPPAL FIG SDG: 23C02502

Client Sample ID: BH 24 - 16

Date Collected: 02/21/24 12:15 Date Received: 02/22/24 08:36

Sample Depth: 2'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00198	U	0.00198		mg/Kg		02/26/24 14:24	02/29/24 04:32	
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/26/24 14:24	02/29/24 04:32	
Toluene	<0.00198	U	0.00198		mg/Kg		02/26/24 14:24	02/29/24 04:32	
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		02/26/24 14:24	02/29/24 04:32	
m-Xylene & p-Xylene	< 0.00396	U	0.00396		mg/Kg		02/26/24 14:24	02/29/24 04:32	
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/26/24 14:24	02/29/24 04:32	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	101		70 - 130				02/26/24 14:24	02/29/24 04:32	
1,4-Difluorobenzene (Surr)	99		70 - 130				02/26/24 14:24	02/29/24 04:32	
Method: TAL SOP Total BTEX - 1	otal BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Method: SW846 8015 NM - Diese			•			_			
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<50.5	U	50.5		mg/Kg			02/28/24 18:30	
Method: SW846 8015B NM - Dies	sel Range Orga	nics (DRO)	(GC)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<50.5	U	50.5		mg/Kg		02/26/24 17:14	02/28/24 18:30	
Diesel Range Organics (Over	<50.5	U *1	50.5		mg/Kg		02/26/24 17:14	02/28/24 18:30	
C10-C28)									
•	<50.5	U	50.5		mg/Kg		02/26/24 17:14	02/28/24 18:30	
Oll Range Organics (Over C28-C36)	<50.5 %Recovery		Limits		mg/Kg		02/26/24 17:14 Prepared	02/28/24 18:30 Analyzed	
Oll Range Organics (Over C28-C36) Surrogate					mg/Kg				Dil Fa
C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	%Recovery		Limits		mg/Kg		Prepared	Analyzed	Dil Fa
Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl Method: EPA 300.0 - Anions, Ion	%Recovery 114 92 Chromatograp	Qualifier	Limits 70 - 130 70 - 130				Prepared 02/26/24 17:14 02/26/24 17:14	Analyzed 02/28/24 18:30 02/28/24 18:30	Dil Fa
Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	%Recovery 114 92 Chromatograp	Qualifier	Limits 70 - 130 70 - 130	MDL		<u>D</u>	Prepared 02/26/24 17:14	Analyzed 02/28/24 18:30	Dil Fa

Surrogate Summary

Client: Vertex Job ID: 890-6244-1 Project/Site: COPPAL FIG SDG: 23C02502

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Lim
		BFB1	DFBZ1	
_ab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-6244-1	BH 24 - 15	87	106	
390-6244-1 MS	BH 24 - 15	104	90	
390-6244-1 MSD	BH 24 - 15	140 S1+	133 S1+	
390-6244-2	BH 24 - 15	100	107	
390-6244-3	BH 24 - 16	103	104	
390-6244-4	BH 24 - 17	106	113	
390-6244-5	BH 24 - 17	104	105	
390-6244-6	BH 24 - 16	101	99	
.CS 880-74074/1-A	Lab Control Sample	99	98	
CSD 880-74074/2-A	Lab Control Sample Dup	95	91	
MB 880-74061/5-A	Method Blank	144 S1+	138 S1+	
MB 880-74074/5-A	Method Blank	140 S1+	143 S1+	
Surrogate Legend				
BFB = 4-Bromofluorobe	nzene (Surr)			
DFBZ = 1,4-Difluoroben	zene (Surr)			

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
b Sample ID	Client Sample ID	(70-130)	(70-130)	
0-39711-A-21-H MS	Matrix Spike	96	75	
0-39711-A-21-I MSD	Matrix Spike Duplicate	95	72	
0-6244-1	BH 24 - 15	101	83	
0-6244-2	BH 24 - 15	119	99	
0-6244-3	BH 24 - 16	109	92	
0-6244-4	BH 24 - 17	98	79	
0-6244-5	BH 24 - 17	103	80	
-6244-6	BH 24 - 16	114	92	
S 880-74099/2-A	Lab Control Sample	117	118	
SD 880-74099/3-A	Lab Control Sample Dup	95	90	
880-74099/1-A	Method Blank	194 S1+	173 S1+	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Vertex Job ID: 890-6244-1 SDG: 23C02502 Project/Site: COPPAL FIG

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-74061/5-A

Matrix: Solid Analysis Batch: 74252 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 74061

ı		МВ	мв							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Benzene	<0.00200	U	0.00200		mg/Kg		02/26/24 14:11	02/28/24 14:43	1
	Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/26/24 14:11	02/28/24 14:43	1
	Toluene	<0.00200	U	0.00200		mg/Kg		02/26/24 14:11	02/28/24 14:43	1
I	Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/26/24 14:11	02/28/24 14:43	1
	m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/26/24 14:11	02/28/24 14:43	1
	o-Xylene	<0.00200	U	0.00200		mg/Kg		02/26/24 14:11	02/28/24 14:43	1
ı										

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prep	ared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	144	S1+	70 - 130	02/26/2	4 14:11	02/28/24 14:43	1
1,4-Difluorobenzene (Surr)	138	S1+	70 - 130	02/26/2	4 14:11	02/28/24 14:43	1

Lab Sample ID: MB 880-74074/5-A

Matrix: Solid

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 74074

Analysis Batch: 74252

		MB	MB							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Benzene	<0.00200	U	0.00200		mg/Kg		02/26/24 14:24	02/29/24 02:21	1
	Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/26/24 14:24	02/29/24 02:21	1
	Toluene	<0.00200	U	0.00200		mg/Kg		02/26/24 14:24	02/29/24 02:21	1
ĺ	Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/26/24 14:24	02/29/24 02:21	1
	m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/26/24 14:24	02/29/24 02:21	1
	o-Xylene	<0.00200	U	0.00200		mg/Kg		02/26/24 14:24	02/29/24 02:21	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	140	S1+	70 - 130	02/26/24 14:24	02/29/24 02:21	1
1,4-Difluorobenzene (Surr)	143	S1+	70 - 130	02/26/24 14:24	02/29/24 02:21	1

Lab Sample ID: LCS 880-74074/1-A

Matrix: Solid

Analysis Batch: 74252

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 74074

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09934		mg/Kg		99	70 - 130	
Ethylbenzene	0.100	0.1104		mg/Kg		110	70 - 130	
Toluene	0.100	0.09681		mg/Kg		97	70 - 130	
m-Xylene & p-Xylene	0.200	0.1948		mg/Kg		97	70 - 130	
o-Xylene	0.100	0.09535		mg/Kg		95	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	99	70 - 130
1.4-Difluorobenzene (Surr)	98	70 - 130

Lab Sample ID: LCSD 880-74074/2-A

Matrix: Solid

Analysis Batch: 74252

Client Sample ID: Lab	Control Sample Dup
	Dunn Times Tetal/NIA

Prep Type: Total/NA Prep Batch: 74074

RPD

Spike LCSD LCSD %Rec Result Qualifier Analyte Added Unit %Rec Limits RPD Limit Benzene 0.100 0.09453 mg/Kg 95 70 - 130 5

QC Sample Results

Client: Vertex Job ID: 890-6244-1 Project/Site: COPPAL FIG SDG: 23C02502

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

Lab Sample ID: LCSD 880-74074/2-A

Matrix: Solid Analysis Batch: 74252 Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 74074

Spike LCSD LCSD %Rec **RPD** Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit D Ethylbenzene 0.100 0.09475 95 70 - 130 35 mg/Kg 15 Toluene 0.100 0.09113 mg/Kg 91 70 - 130 6 35 0.200 m-Xylene & p-Xylene 0.1717 mg/Kg 86 70 - 130 35 13 o-Xylene 0.100 0.07965 mg/Kg 80 70 - 130 18 35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Client Sample ID: BH 24 - 15 Lab Sample ID: 890-6244-1 MS Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 74252									Prep B	atch: 74074
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U F1	0.101	0.09856		mg/Kg		98	70 - 130	
Ethylbenzene	<0.00199	U F1 F2	0.101	0.09831		mg/Kg		98	70 - 130	
Toluene	<0.00199	U F1	0.101	0.09690		mg/Kg		96	70 - 130	
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.202	0.1797		mg/Kg		89	70 - 130	
o-Xylene	<0.00199	U F1 F2	0.101	0.09583		mg/Kg		95	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	104	70 - 130
1,4-Difluorobenzene (Surr)	90	70 - 130

Lab Sample ID: 890-6244-1 MSD

Matrix: Solid

Analysis Batch: 74252

Client Sample ID: BH 24 - 15

Prep Type: Total/NA Prep Batch: 74074

%Rec Spike MSD MSD RPD Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Benzene <0.00199 U F1 0.100 <0.00200 U F1 0 70 - 130 NC 35 mg/Kg Ethylbenzene <0.00199 U F1 F2 0.100 <0.00200 UF1F2 mg/Kg 8.0 70 - 130 197 35 Toluene <0.00199 UF1 0.100 <0.00200 UF1 mg/Kg 0 70 - 130 NC 35 0.200 <0.00398 UF1F2 <0.00400 U F1 F2 70 - 130 194 35 m-Xylene & p-Xylene mg/Kg 0.100 o-Xylene <0.00199 U F1 F2 <0.00200 U F1 F2 mg/Kg 70 - 130 193 35

MSD MSD

Surrogate	76Recovery	Qualifier	LIIIIII
4-Bromofluorobenzene (Surr)	140	S1+	70 - 130
1,4-Difluorobenzene (Surr)	133	S1+	70 - 130

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

Lab Sample ID: MB 880-74099/1-A

Matrix: Solid

Analysis Batch: 74227

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

Prep Batch: 74099

мв мв Analyte Result Qualifier RL MDL Unit Prepared Analyzed <50.0 U 50.0 02/26/24 17:13 02/28/24 08:25 Gasoline Range Organics mg/Kg

(GRO)-C6-C10

Client: Vertex Job ID: 890-6244-1 Project/Site: COPPAL FIG SDG: 23C02502

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

Lab Sample ID: MB 880-74099/1-A

Lab Sample ID: LCS 880-74099/2-A

Matrix: Solid

Matrix: Solid

Analysis Batch: 74227

Analysis Batch: 74227

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 74099

ı									
	Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
	Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		02/26/24 17:13	02/28/24 08:25	1
	C10-C28) OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/26/24 17:13	02/28/24 08:25	1
ı									

MB MB

MR MR

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	194	S1+	70 - 130	02/26/24 17:13	02/28/24 08:25	1
o-Terphenyl	173	S1+	70 - 130	02/26/24 17:13	02/28/24 08:25	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 74099

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 825.1 83 70 - 130 mg/Kg (GRO)-C6-C10 1000 991.3 Diesel Range Organics (Over mg/Kg 99 70 - 130C10-C28)

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	118		70 - 130

Lab Sample ID: LCSD 880-74099/3-A

Matrix: Solid Analysis Batch: 74227 Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Prep Batch: 74099

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier %Rec Limits RPD Limit Unit D Gasoline Range Organics 1000 1012 mg/Kg 101 70 - 130 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 784.6 *1 mg/Kg 78 70 - 130 23 20 C10-C28)

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 95 70 - 130 o-Terphenyl 90 70 - 130

Lab Sample ID: 880-39711-A-21-H MS

Matrix: Solid

Analysis Batch: 74227

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 74099

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.1	U	1010	844.3		mg/Kg		81	70 - 130	
Diesel Range Organics (Over	<50.1	U *1	1010	969.2		mg/Kg		94	70 - 130	

C10-C28)

	MS	WS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	75		70 - 130

Client: Vertex Job ID: 890-6244-1 Project/Site: COPPAL FIG SDG: 23C02502

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

Lab Sample ID: 880-39711-A-21-I MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Analysis Batch: 74227 Prep Type: Total/NA Prep Batch: 74099

Sample Sample Spike MSD MSD RPD Limit Result Qualifier RPD Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics <50.1 U 1010 890.2 mg/Kg 86 70 - 130 5 20 (GRO)-C6-C10 1010 937.9 Diesel Range Organics (Over <50.1 U *1 mg/Kg 91 70 - 130 3

C10-C28)

MSD MSD

Surrogate	%Recovery G	Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	72		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73906/1-A Client Sample ID: Method Blank

Matrix: Solid Prep Type: Soluble

Analysis Batch: 74077

мв мв

Analyte	Result	Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/26/24 21:37	1

Lab Sample ID: LCS 880-73906/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 74077

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	 250	253.5	-	mg/Kg		101	90 - 110	

Lab Sample ID: LCSD 880-73906/3-A Client Sample ID: Lab Control Sample Dup **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 74077

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	254.8		mg/Kg		102	90 - 110	1	20	

Lab Sample ID: 890-6244-2 MS Client Sample ID: BH 24 - 15 **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 74077

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	623	F1	250	827 4	F1	ma/Ka		82	90 110	

Lab Sample ID: 890-6244-2 MSD Client Sample ID: BH 24 - 15

Matrix: Solid

Analysis Batch: 74077

Alialysis Datcil. 14011											
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	623	F1	250	829.3	F1	mg/Kg		83	90 - 110		20

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Prep Type: Soluble

Client: Vertex

Project/Site: COPPAL FIG

Job ID: 890-6244-1 SDG: 23C02502

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GC VOA

Prep Batch: 74061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-74061/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 74074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6244-1	BH 24 - 15	Total/NA	Solid	5035	
890-6244-2	BH 24 - 15	Total/NA	Solid	5035	
890-6244-3	BH 24 - 16	Total/NA	Solid	5035	
890-6244-4	BH 24 - 17	Total/NA	Solid	5035	
890-6244-5	BH 24 - 17	Total/NA	Solid	5035	
890-6244-6	BH 24 - 16	Total/NA	Solid	5035	
MB 880-74074/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-74074/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-74074/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-6244-1 MS	BH 24 - 15	Total/NA	Solid	5035	
890-6244-1 MSD	BH 24 - 15	Total/NA	Solid	5035	

Analysis Batch: 74252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6244-1	BH 24 - 15	Total/NA	Solid	8021B	74074
890-6244-2	BH 24 - 15	Total/NA	Solid	8021B	74074
890-6244-3	BH 24 - 16	Total/NA	Solid	8021B	74074
890-6244-4	BH 24 - 17	Total/NA	Solid	8021B	74074
890-6244-5	BH 24 - 17	Total/NA	Solid	8021B	74074
890-6244-6	BH 24 - 16	Total/NA	Solid	8021B	74074
MB 880-74061/5-A	Method Blank	Total/NA	Solid	8021B	74061
MB 880-74074/5-A	Method Blank	Total/NA	Solid	8021B	74074
LCS 880-74074/1-A	Lab Control Sample	Total/NA	Solid	8021B	74074
LCSD 880-74074/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	74074
890-6244-1 MS	BH 24 - 15	Total/NA	Solid	8021B	74074
890-6244-1 MSD	BH 24 - 15	Total/NA	Solid	8021B	74074

Analysis Batch: 74372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6244-1	BH 24 - 15	Total/NA	Solid	Total BTEX	-
890-6244-2	BH 24 - 15	Total/NA	Solid	Total BTEX	
890-6244-3	BH 24 - 16	Total/NA	Solid	Total BTEX	
890-6244-4	BH 24 - 17	Total/NA	Solid	Total BTEX	
890-6244-5	BH 24 - 17	Total/NA	Solid	Total BTEX	
890-6244-6	BH 24 - 16	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 74099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6244-1	BH 24 - 15	Total/NA	Solid	8015NM Prep	
890-6244-2	BH 24 - 15	Total/NA	Solid	8015NM Prep	
890-6244-3	BH 24 - 16	Total/NA	Solid	8015NM Prep	
890-6244-4	BH 24 - 17	Total/NA	Solid	8015NM Prep	
890-6244-5	BH 24 - 17	Total/NA	Solid	8015NM Prep	
890-6244-6	BH 24 - 16	Total/NA	Solid	8015NM Prep	
MB 880-74099/1-A	Method Blank	Total/NA	Solid	8015NM Prep	

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Client: Vertex

Job ID: 890-6244-1 Project/Site: COPPAL FIG SDG: 23C02502

GC Semi VOA (Continued)

Prep Batch: 74099 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-74099/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-74099/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39711-A-21-H MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-39711-A-21-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 74227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6244-1	BH 24 - 15	Total/NA	Solid	8015B NM	74099
890-6244-2	BH 24 - 15	Total/NA	Solid	8015B NM	74099
890-6244-3	BH 24 - 16	Total/NA	Solid	8015B NM	74099
890-6244-4	BH 24 - 17	Total/NA	Solid	8015B NM	74099
890-6244-5	BH 24 - 17	Total/NA	Solid	8015B NM	74099
890-6244-6	BH 24 - 16	Total/NA	Solid	8015B NM	74099
MB 880-74099/1-A	Method Blank	Total/NA	Solid	8015B NM	74099
LCS 880-74099/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	74099
LCSD 880-74099/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	74099
880-39711-A-21-H MS	Matrix Spike	Total/NA	Solid	8015B NM	74099
880-39711-A-21-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	74099

Analysis Batch: 74354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6244-1	BH 24 - 15	Total/NA	Solid	8015 NM	
890-6244-2	BH 24 - 15	Total/NA	Solid	8015 NM	
890-6244-3	BH 24 - 16	Total/NA	Solid	8015 NM	
890-6244-4	BH 24 - 17	Total/NA	Solid	8015 NM	
890-6244-5	BH 24 - 17	Total/NA	Solid	8015 NM	
890-6244-6	BH 24 - 16	Total/NA	Solid	8015 NM	

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Leach Batch: 73906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
890-6244-1	BH 24 - 15	Soluble	Solid	DI Leach	
890-6244-2	BH 24 - 15	Soluble	Solid	DI Leach	
890-6244-3	BH 24 - 16	Soluble	Solid	DI Leach	
890-6244-4	BH 24 - 17	Soluble	Solid	DI Leach	
890-6244-5	BH 24 - 17	Soluble	Solid	DI Leach	
890-6244-6	BH 24 - 16	Soluble	Solid	DI Leach	
MB 880-73906/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73906/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73906/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-6244-2 MS	BH 24 - 15	Soluble	Solid	DI Leach	
890-6244-2 MSD	BH 24 - 15	Soluble	Solid	DI Leach	

Analysis Batch: 74077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6244-1	BH 24 - 15	Soluble	Solid	300.0	73906
890-6244-2	BH 24 - 15	Soluble	Solid	300.0	73906
890-6244-3	BH 24 - 16	Soluble	Solid	300.0	73906
890-6244-4	BH 24 - 17	Soluble	Solid	300.0	73906
890-6244-5	BH 24 - 17	Soluble	Solid	300.0	73906

Eurofins Carlsbad

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Client: Vertex Job ID: 890-6244-1 Project/Site: COPPAL FIG

SDG: 23C02502

HPLC/IC (Continued)

Analysis Batch: 74077 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6244-6	BH 24 - 16	Soluble	Solid	300.0	73906
MB 880-73906/1-A	Method Blank	Soluble	Solid	300.0	73906
LCS 880-73906/2-A	Lab Control Sample	Soluble	Solid	300.0	73906
LCSD 880-73906/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73906
890-6244-2 MS	BH 24 - 15	Soluble	Solid	300.0	73906
890-6244-2 MSD	BH 24 - 15	Soluble	Solid	300.0	73906

Client: Vertex

Project/Site: COPPAL FIG

Job ID: 890-6244-1

SDG: 23C02502

Client Sample ID: BH 24 - 15

Date Collected: 02/21/24 11:00 Date Received: 02/22/24 08:36 Lab Sample ID: 890-6244-1

Matrix: Solid

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	74074	02/26/24 14:24	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74252	02/29/24 02:50	SM	EET MID
Total/NA	Analysis	Total BTEX		1			74372	02/29/24 02:50	SM	EET MID
Total/NA	Analysis	8015 NM		1			74354	02/28/24 16:42	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	74099	02/26/24 17:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74227	02/28/24 16:42	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	73906	02/23/24 07:57	SA	EET MID
Soluble	Analysis	300.0		5			74077	02/26/24 22:51	CH	EET MID

Client Sample ID: BH 24 - 15 Lab Sample ID: 890-6244-2

Date Collected: 02/21/24 11:15

Date Received: 02/22/24 08:36

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	74074	02/26/24 14:24	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74252	02/29/24 03:10	SM	EET MID
Total/NA	Analysis	Total BTEX		1			74372	02/29/24 03:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			74354	02/28/24 17:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	74099	02/26/24 17:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74227	02/28/24 17:03	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	73906	02/23/24 07:57	SA	EET MID
Soluble	Analysis	300.0		1			74077	02/26/24 22:55	CH	EET MID

Client Sample ID: BH 24 - 16

Date Collected: 02/21/24 11:30

Date Received: 02/22/24 08:36

Lab	Sample	ID:	89	0-6	244	-3	
					_		

Lab Sample ID: 890-6244-4

SM

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	74074	02/26/24 14:24	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74252	02/29/24 03:30	SM	EET MID
Total/NA	Analysis	Total BTEX		1			74372	02/29/24 03:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			74354	02/28/24 17:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	74099	02/26/24 17:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74227	02/28/24 17:25	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	73906	02/23/24 07:57	SA	EET MID
Soluble	Analysis	300.0		1			74077	02/26/24 23:09	CH	EET MID

Client Sample ID: BH 24 - 17

D

Total/NA

Total/NA

Date Collected	: 02/21/24 11:4	1 5								Matrix: Solid	l i
Date Received	: 02/22/24 08:3	36									-
	Batch	Batch		Dil	Initial	Final	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab	
Total/NA	Prep	5035			5.03 a	5 mL	74074	02/26/24 14:24	MNR	EET MID	

5 mL

5 mL

74252

74372

02/29/24 03:51

02/29/24 03:51

Eurofins Carlsbad

EET MID

EET MID

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Analysis

Analysis

8021B

Total BTEX

Lab Chronicle

Client: Vertex Job ID: 890-6244-1
Project/Site: COPPAL FIG SDG: 23C02502

Client Sample ID: BH 24 - 17

Date Collected: 02/21/24 11:45
Date Received: 02/22/24 08:36

Lab Sample ID: 890-6244-4

Matrix: Solid

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			74354	02/28/24 17:46	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	74099	02/26/24 17:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74227	02/28/24 17:46	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	73906	02/23/24 07:57	SA	EET MID
Soluble	Analysis	300.0		1			74077	02/26/24 23:14	CH	EET MID

Client Sample ID: BH 24 - 17 Lab Sample ID: 890-6244-5

Date Collected: 02/21/24 12:00 Date Received: 02/22/24 08:36

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	74074	02/26/24 14:24	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74252	02/29/24 04:11	SM	EET MID
Total/NA	Analysis	Total BTEX		1			74372	02/29/24 04:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			74354	02/28/24 18:08	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	74099	02/26/24 17:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74227	02/28/24 18:08	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	73906	02/23/24 07:57	SA	EET MID
Soluble	Analysis	300.0		1			74077	02/26/24 23:28	CH	EET MID

Client Sample ID: BH 24 - 16

Date Collected: 02/21/24 12:15

Lab Sample ID: 890-6244-6

Matrix: Solid

Date Received: 02/22/24 08:36

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	74074	02/26/24 14:24	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	74252	02/29/24 04:32	SM	EET MID
Total/NA	Analysis	Total BTEX		1			74372	02/29/24 04:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			74354	02/28/24 18:30	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	74099	02/26/24 17:14	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	74227	02/28/24 18:30	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73906	02/23/24 07:57	SA	EET MID
Soluble	Analysis	300.0		1			74077	02/26/24 23:32	CH	EET MID

Laboratory References:

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

Eurofins Carlsbad

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Accreditation/Certification Summary

Client: Vertex Job ID: 890-6244-1 Project/Site: COPPAL FIG

SDG: 23C02502

Laboratory: Eurofins Midland

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

Authority	Progra	am	Identification Number	Expiration Date	
Texas	NELAF)	T104704400-23-26	06-30-24	
,	are included in this report, bu	t the laboratory is not certif	fied by the governing authority. This lis	t may include analytes	
Analysis Method	Prep Method	Matrix	Analyte		
8015 NM		Solid	Total TPH		
Total BTEX		Solid	Total BTEX		

Method Summary

Client: Vertex Job ID: 890-6244-1 Project/Site: COPPAL FIG

SDG: 23C02502

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: COPPAL FIG

Job ID: 890-6244-1 SDG: 23C02502

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-6244-1	BH 24 - 15	Solid	02/21/24 11:00	02/22/24 08:36	0
890-6244-2	BH 24 - 15	Solid	02/21/24 11:15	02/22/24 08:36	2'
890-6244-3	BH 24 - 16	Solid	02/21/24 11:30	02/22/24 08:36	2'
890-6244-4	BH 24 - 17	Solid	02/21/24 11:45	02/22/24 08:36	0
890-6244-5	BH 24 - 17	Solid	02/21/24 12:00	02/22/24 08:36	2'
890-6244-6	BH 24 - 16	Solid	02/21/24 12:15	02/22/24 08:36	2'

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Login Sample Receipt Checklist

 Client: Vertex
 Job Number: 890-6244-1

 SDG Number: 23C02502

Login Number: 6244 List Source: Eurofins Carlsbad

List Number: 1

Creator: Bruns, Shannon

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	

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Login Sample Receipt Checklist

Client: Vertex Job Number: 890-6244-1 SDG Number: 23C02502

Login Number: 6244 **List Source: Eurofins Midland** List Number: 2 List Creation: 02/23/24 10:47 AM

Creator: Rodriguez, Leticia

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	N/A	

<6mm (1/4").

Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 3/14/2024 12:33:50 PM

JOB DESCRIPTION

CORRAL FLY SWD 23 E - 02502

JOB NUMBER

890-6333-1

Eurofins Carlsbad 1089 N Canal St. Carlsbad NM 88220



Eurofins Carlsbad

Job Notes

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

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

Authorization

Generated 3/14/2024 12:33:50 PM

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

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Client: Vertex Laboratory Job ID: 890-6333-1 Project/Site: CORRAL FLY SWD SDG: 23 E - 02502

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Definitions/Glossary

Client: Vertex Job ID: 890-6333-1 Project/Site: CORRAL FLY SWD SDG: 23 E - 02502

Qualifiers

GC VOA

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

U Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description** *1

LCS/LCSD RPD exceeds control limits.

S1+ Surrogate recovery exceeds control limits, high biased. 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 Contains No Free Liquid **CNF**

Duplicate Error Ratio (normalized absolute difference) DER

Dil Fac Dilution Factor

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) Limit of Quantitation (DoD/DOE) LOQ

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 MOI Method Quantitation Limit

NC Not Calculated

Not Detected at the reporting limit (or MDL or EDL if shown) ND

NEG Negative / Absent POS Positive / Present

Practical Quantitation Limit PQL

PRES Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) **TEQ**

TNTC Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 890-6333-1

Project: CORRAL FLY SWD

Eurofins Carlsbad Job ID: 890-6333-1

Job Narrative 890-6333-1

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
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

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

Receipt

The samples were received on 3/11/2024 11:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C.

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: BH 24 - 18 0' (890-6333-1) and BH 24 - 18 2' (890-6333-2).

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-75372 and analytical batch 880-75421 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

GC Semi VOA

Method 8015MOD NM: The surrogate recovery for the blank associated with preparation batch 880-75426 and analytical batch 880-75449 was outside the upper control limits.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-75426 and analytical batch 880-75449 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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

HPLC/IC

Released to Imaging: 8/5/2024 4:13:08 PM

Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-75402 and analytical batch 880-75466 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.

Matrix: Solid

Lab Sample ID: 890-6333-1

Client Sample Results

Client: Vertex Job ID: 890-6333-1
Project/Site: CORRAL FLY SWD SDG: 23 E - 02502

Client Sample ID: BH 24 - 18 0'

Date Collected: 03/06/24 13:35 Date Received: 03/11/24 11:35

Sample Depth: 0'

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/12/24 12:34	03/13/24 00:44	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/12/24 12:34	03/13/24 00:44	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/12/24 12:34	03/13/24 00:44	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		03/12/24 12:34	03/13/24 00:44	1
m-Xylene & p-Xylene	< 0.00397	U	0.00397		mg/Kg		03/12/24 12:34	03/13/24 00:44	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/12/24 12:34	03/13/24 00:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130				03/12/24 12:34	03/13/24 00:44	1
1,4-Difluorobenzene (Surr)	86		70 - 130				03/12/24 12:34	03/13/24 00:44	1
- Method: TAL SOP Total BTEX - 1	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			03/13/24 00:44	1
Method: SW846 8015 NM - Diese	al Range Organ	ice (DRO) ((SC)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0		50.0		mg/Kg	— <u>-</u>		03/13/24 16:36	1
- -					0 0				
Method: SW846 8015B NM - Dies	sel Range Orga	nics (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		03/12/24 15:19	03/13/24 16:36	1
Diesel Range Organics (Over	<50.0	U *1	50.0		mg/Kg		03/12/24 15:19	03/13/24 16:36	1
C10-C28)									
Oll Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/12/24 15:19	03/13/24 16:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane			70 - 130				03/12/24 15:19	03/13/24 16:36	1
o-Terphenyl	84		70 - 130				03/12/24 15:19	03/13/24 16:36	1
-									
Method: EPA 300.0 - Anions, Ion	ı Chromatograr	hv - Soluhl	e						

Client Sample ID: BH 24 - 18 2'

Date Collected: 03/06/24 13:45

Date Received: 03/11/24 11:35

Sample Depth: 2'

Chloride

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/12/24 12:34	03/13/24 01:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/12/24 12:34	03/13/24 01:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/12/24 12:34	03/13/24 01:10	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/12/24 12:34	03/13/24 01:10	1
m-Xylene & p-Xylene	< 0.00399	U	0.00399		mg/Kg		03/12/24 12:34	03/13/24 01:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/12/24 12:34	03/13/24 01:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130				03/12/24 12:34	03/13/24 01:10	1

5.00

77.1

mg/Kg

Eurofins Carlsbad

03/14/24 04:07

Lab Sample ID: 890-6333-2

Matrix: Solid

2

3

5

2 2

10

12

13

Matrix: Solid

Lab Sample ID: 890-6333-2

Client Sample Results

Client: Vertex Job ID: 890-6333-1 Project/Site: CORRAL FLY SWD SDG: 23 E - 02502

Client Sample ID: BH 24 - 18 2'

Date Collected: 03/06/24 13:45 Date Received: 03/11/24 11:35

Analyte

Chloride

Method: SW846 8021B - Volatile	Organic Comp	ounds (GC) (Continued)						
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	82		70 - 130				03/12/24 12:34	03/13/24 01:10	1
Method: TAL SOP Total BTEX - T	Total BTEX Cald	culation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			03/13/24 01:10	1
Method: SW846 8015 NM - Diese	el Range Organ	ics (DRO) (GC)						
Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			03/13/24 16:57	1
Method: SW846 8015B NM - Dies Analyte		nics (DRO) Qualifier	(GC)	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/12/24 15:19	03/13/24 16:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		03/12/24 15:19	03/13/24 16:57	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/12/24 15:19	03/13/24 16:57	1
	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Surrogate			70 - 130				03/12/24 15:19	03/13/24 16:57	1
Surrogate 1-Chlorooctane	109		10 - 130						

4.99

MDL Unit

mg/Kg

D

Prepared

Analyzed

03/13/24 16:46

Dil Fac

Result Qualifier

59.1

Surrogate Summary

Client: Vertex Job ID: 890-6333-1
Project/Site: CORRAL FLY SWD SDG: 23 E - 02502

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Re
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-40563-A-1-B MS	Matrix Spike	129	101	
880-40563-A-1-C MSD	Matrix Spike Duplicate	126	102	
890-6333-1	BH 24 - 18 0'	127	86	
890-6333-2	BH 24 - 18 2'	122	82	
LCS 880-75372/1-A	Lab Control Sample	107	93	
LCSD 880-75372/2-A	Lab Control Sample Dup	124	100	
MB 880-75372/5-A	Method Blank	71	81	

BFB = 4-Bromofluorobenzene (Surr) DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

_			
		1001	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-40636-A-1-B MS	Matrix Spike	112	87
880-40636-A-1-C MSD	Matrix Spike Duplicate	116	88
890-6333-1	BH 24 - 18 0'	101	84
890-6333-2	BH 24 - 18 2'	109	88
LCS 880-75426/2-A	Lab Control Sample	113	122
LCSD 880-75426/3-A	Lab Control Sample Dup	88	92
MB 880-75426/1-A	Method Blank	153 S1+	140 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Vertex Job ID: 890-6333-1 Project/Site: CORRAL FLY SWD SDG: 23 E - 02502

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-75372/5-A

Matrix: Solid

Analysis Batch: 75421

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 75372

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/12/24 08:34	03/12/24 17:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/12/24 08:34	03/12/24 17:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/12/24 08:34	03/12/24 17:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/12/24 08:34	03/12/24 17:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/12/24 08:34	03/12/24 17:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/12/24 08:34	03/12/24 17:28	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	03/12/24 08:34	03/12/24 17:28	1
1,4-Difluorobenzene (Surr)	81		70 - 130	03/12/24 08:34	03/12/24 17:28	1

Lab Sample ID: LCS 880-75372/1-A

Matrix: Solid

Analysis Batch: 75421

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 75372

	Бріке	LCS	LUS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1271	-	mg/Kg		127	70 - 130	
Ethylbenzene	0.100	0.1242		mg/Kg		124	70 - 130	
Toluene	0.100	0.1295		mg/Kg		130	70 - 130	
m-Xylene & p-Xylene	0.200	0.2502		mg/Kg		125	70 - 130	
o-Xylene	0.100	0.1254		mg/Kg		125	70 - 130	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: LCSD 880-75372/2-A

Matrix: Solid

Analysis Batch: 75421

Client Sample ID: Lab Control Sample Dup	Client Sam	ple ID: Lab	Control Sam	ple Dup
--	------------	-------------	--------------------	---------

Prep Type: Total/NA

Prep Batch: 75372

•	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1294		mg/Kg		129	70 - 130	2	35
Ethylbenzene	0.100	0.1228		mg/Kg		123	70 - 130	1	35
Toluene	0.100	0.1248		mg/Kg		125	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2485		mg/Kg		124	70 - 130	1	35
o-Xylene	0.100	0.1269		mg/Kg		127	70 - 130	1	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	124		70 - 130
1.4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 880-40563-A-1-B MS

Matrix: Solid

Analysis Batch: 75421

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

Prep Batch: 75372

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U	0.0996	0.1153		mg/Kg		116	70 - 130	
Ethylbenzene	< 0.00199	U	0.0996	0.1052		mg/Kg		104	70 - 130	

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QC Sample Results

Job ID: 890-6333-1 Client: Vertex Project/Site: CORRAL FLY SWD SDG: 23 E - 02502

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

Lab Sample ID: 880-40563-A-1-B MS **Matrix: Solid**

Analysis Batch: 75421

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 75372

	Sample	Sample	Spike	IVIS	M2				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Toluene	0.175	F1	0.0996	0.1635	F1	mg/Kg		-11	70 - 130	
m-Xylene & p-Xylene	0.00716		0.199	0.2126		mg/Kg		103	70 - 130	
o-Xylene	0.00215		0.0996	0.1062		mg/Kg		104	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	129	70 - 130
1,4-Difluorobenzene (Surr)	101	70 - 130

Client Sample ID: Matrix Spike Duplicate

70 - 130

108

Prep Type: Total/NA

Prep Batch: 75372

Matrix: Solid Analysis Batch: 75421

Lab Sample ID: 880-40563-A-1-C MSD

Sample Sample Spike MSD MSD RPD Result Qualifier Added Result Qualifier %Rec RPD Limit Analyte Unit Limits 0.101 Benzene <0.00199 U 0.1200 mg/Kg 119 70 - 130 4 35 <0.00199 U 0.1096 Ethylbenzene 0.101 mg/Kg 107 70 - 130 4 35 Toluene 0.101 0.1473 F1 -27 70 - 130 35 0.175 F1 mg/Kg 10 0.202 105 70 - 130 35 m-Xylene & p-Xylene 0.00716 0.2193 mg/Kg 3

0.1107

mg/Kg

0.101

MSD MSD

0.00215

Surrogate Qualifier Limits %Recovery 70 - 130 4-Bromofluorobenzene (Surr) 126 1,4-Difluorobenzene (Surr) 102 70 - 130

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

Lab Sample ID: MB 880-75426/1-A

Matrix: Solid

o-Xylene

Analysis Batch: 75449

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 75426

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/12/24 15:18	03/13/24 07:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/12/24 15:18	03/13/24 07:48	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/12/24 15:18	03/13/24 07:48	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	153	S1+	70 - 130	03/12/24 15:18	03/13/24 07:48	1
o-Terphenyl	140	S1+	70 - 130	03/12/24 15:18	03/13/24 07:48	1

Lab Sample ID: LCS 880-75426/2-A

Matrix: Solid

Analysis Batch: 75449

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 75426

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	939.4		mg/Kg		94	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	1106		mg/Kg		111	70 - 130	
C10-C28)								

Job ID: 890-6333-1

SDG: 23 E - 02502 Project/Site: CORRAL FLY SWD

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

Lab Sample ID: LCS 880-75426/2-A **Client Sample ID: Lab Control Sample**

Matrix: Solid

Client: Vertex

Analysis Batch: 75449

Prep Type: Total/NA
Prep Batch: 75426

LCS LCS %Recovery Qualifier Surrogate Limits 1-Chlorooctane 113 70 - 130 o-Terphenyl 122 70 - 130

Lab Sample ID: LCSD 880-75426/3-A Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 75449							Prep	Batch:	75426
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	903.6		mg/Kg		90	70 - 130	4	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	866.4	*1	mg/Kg		87	70 - 130	24	20

C10-C28)

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	92		70 - 130

Lab Sample ID: 880-40636-A-1-B MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 75449									Prep	Batch: 75426
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	1000	1183		mg/Kg		118	70 - 130	
Diesel Range Organics (Over	<49.7	U *1	1000	1082		mg/Kg		105	70 - 130	

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	87		70 - 130

Lab Sample ID: 880-40636-A-1-C MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 75449

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	1000	1189		mg/Kg		119	70 - 130	0	20
Diesel Range Organics (Over	<49.7	U *1	1000	1115		mg/Kg		108	70 - 130	3	20

C10-C28)

	พรบ	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	116		70 - 130
o-Terphenyl	88		70 - 130

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Prep Batch: 75426

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Client Sample ID: Matrix Spike Duplicate

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: Matrix Spike

Client: Vertex Job ID: 890-6333-1 Project/Site: CORRAL FLY SWD SDG: 23 E - 02502

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-75402/1-A

Matrix: Solid

Analysis Batch: 75466

MB MB

Analyte Result Qualifier RLMDL Unit D Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 03/14/24 01:27

Lab Sample ID: LCS 880-75402/2-A

Matrix: Solid

Analysis Batch: 75466

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 259.6 mg/Kg 104 90 - 110

Lab Sample ID: LCSD 880-75402/3-A

Matrix: Solid

Analysis Batch: 75466

LCSD LCSD RPD Spike %Rec Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 259.9 250 mg/Kg 104 90 - 110

Lab Sample ID: 880-40648-A-4-B MS

Matrix: Solid

Analysis Batch: 75466

Sample Sample MS MS Spike %Rec Result Qualifier Added Analyte Result Qualifier Unit %Rec Limits Chloride 16500 5050 22130 F1 112 90 - 110 mg/Kg

Lab Sample ID: 880-40648-A-4-C MSD

Matrix: Solid

Analysis Batch: 75466

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit 16500 F1 22110 F1 Chloride 5050 mg/Kg 112 90 - 110

Lab Sample ID: MB 880-75425/1-A

Matrix: Solid

Analysis Batch: 75526

мв мв

Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Chloride <5.00 5.00 mg/Kg 03/13/24 14:10

Lab Sample ID: LCS 880-75425/2-A

Matrix: Solid

Analysis Batch: 75526

LCS LCS %Rec Spike Added Result Qualifier Limits Analyte Unit %Rec Chloride 250 252.6 mg/Kg 101 90 - 110

Lab Sample ID: LCSD 880-75425/3-A

Matrix: Solid

Analysis Batch: 75526

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Chloride 250 254.3 mg/Kg 102 90 - 110 20

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3/14/2024

QC Sample Results

Client: Vertex Job ID: 890-6333-1 Project/Site: CORRAL FLY SWD

SDG: 23 E - 02502

Method: 300.0 - Anions, Ion Chromatography

221

Lab Sample ID: 880-40675-A-8-B MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Soluble Analysis Batch: 75526

Sample Sample Spike MS MS %Rec Result Qualifier Added Analyte Result Qualifier Unit %Rec Limits Chloride 248

Lab Sample ID: 880-40675-A-8-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Soluble

458.6

mg/Kg

96

90 - 110

Analysis Batch: 75526

Sample Sample Spike MSD MSD %Rec RPD Result Qualifier Added Result Qualifier Limits RPD Limit Analyte Unit D %Rec Chloride 221 248 457.9 mg/Kg 95 90 - 110 0 20

QC Association Summary

Client: Vertex

Project/Site: CORRAL FLY SWD

Job ID: 890-6333-1 SDG: 23 E - 02502

502

GC VOA

Prep Batch: 75372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6333-1	BH 24 - 18 0'	Total/NA	Solid	5035	
890-6333-2	BH 24 - 18 2'	Total/NA	Solid	5035	
MB 880-75372/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-75372/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-75372/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-40563-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-40563-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 75421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6333-1	BH 24 - 18 0'	Total/NA	Solid	8021B	75372
890-6333-2	BH 24 - 18 2'	Total/NA	Solid	8021B	75372
MB 880-75372/5-A	Method Blank	Total/NA	Solid	8021B	75372
LCS 880-75372/1-A	Lab Control Sample	Total/NA	Solid	8021B	75372
LCSD 880-75372/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	75372
880-40563-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	75372
880-40563-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	75372

Analysis Batch: 75515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6333-1	BH 24 - 18 0'	Total/NA	Solid	Total BTEX	
890-6333-2	BH 24 - 18 2'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 75426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6333-1	BH 24 - 18 0'	Total/NA	Solid	8015NM Prep	
890-6333-2	BH 24 - 18 2'	Total/NA	Solid	8015NM Prep	
MB 880-75426/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-75426/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-75426/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-40636-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-40636-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 75449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6333-1	BH 24 - 18 0'	Total/NA	Solid	8015B NM	75426
890-6333-2	BH 24 - 18 2'	Total/NA	Solid	8015B NM	75426
MB 880-75426/1-A	Method Blank	Total/NA	Solid	8015B NM	75426
LCS 880-75426/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	75426
LCSD 880-75426/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	75426
880-40636-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	75426
880-40636-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	75426

Analysis Batch: 75588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6333-1	BH 24 - 18 0'	Total/NA	Solid	8015 NM	
890-6333-2	BH 24 - 18 2'	Total/NA	Solid	8015 NM	

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2

3

4

6

8

10

12

13

14

QC Association Summary

Client: Vertex

Project/Site: CORRAL FLY SWD

Job ID: 890-6333-1

SDG: 23 E - 02502

HPLC/IC

Leach Batch: 75402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6333-1	BH 24 - 18 0'	Soluble	Solid	DI Leach	
MB 880-75402/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-75402/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-75402/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-40648-A-4-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-40648-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 75425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6333-2	BH 24 - 18 2'	Soluble	Solid	DI Leach	_
MB 880-75425/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-75425/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-75425/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-40675-A-8-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-40675-A-8-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 75466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-6333-1	BH 24 - 18 0'	Soluble	Solid	300.0	75402
MB 880-75402/1-A	Method Blank	Soluble	Solid	300.0	75402
LCS 880-75402/2-A	Lab Control Sample	Soluble	Solid	300.0	75402
LCSD 880-75402/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	75402
880-40648-A-4-B MS	Matrix Spike	Soluble	Solid	300.0	75402
880-40648-A-4-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	75402

Analysis Batch: 75526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-6333-2	BH 24 - 18 2'	Soluble	Solid	300.0	75425	
MB 880-75425/1-A	Method Blank	Soluble	Solid	300.0	75425	
LCS 880-75425/2-A	Lab Control Sample	Soluble	Solid	300.0	75425	
LCSD 880-75425/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	75425	
880-40675-A-8-B MS	Matrix Spike	Soluble	Solid	300.0	75425	
880-40675-A-8-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	75425	

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Released to Imaging: 8/5/2024 4:13:08 PM

Lab Chronicle

Client: Vertex Job ID: 890-6333-1
Project/Site: CORRAL FLY SWD SDG: 23 E - 02502

Client Sample ID: BH 24 - 18 0'

Date Collected: 03/06/24 13:35 Date Received: 03/11/24 11:35 Lab Sample ID: 890-6333-1

Lab Sample ID: 890-6333-2

03/13/24 12:00

03/13/24 16:46

SA

SMC

Matrix: Solid

Matrix: Solid

EET MID

EET MID

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	75372	03/12/24 12:34	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	75421	03/13/24 00:44	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			75515	03/13/24 00:44	SM	EET MID
Total/NA	Analysis	8015 NM		1			75588	03/13/24 16:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	75426	03/12/24 15:19	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	75449	03/13/24 16:36	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	75402	03/12/24 11:47	SA	EET MID
Soluble	Analysis	300.0		1			75466	03/14/24 04:07	CH	EET MID

Client Sample ID: BH 24 - 18 2'

Leach

Analysis

Date Collected: 03/06/24 13:45

Date Received: 03/11/24 11:35

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	75372	03/12/24 12:34	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	75421	03/13/24 01:10	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			75515	03/13/24 01:10	SM	EET MID
Total/NA	Analysis	8015 NM		1			75588	03/13/24 16:57	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	75426	03/12/24 15:19	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	75449	03/13/24 16:57	SM	EET MID

5.01 g

50 mL

50 mL

50 mL

75425

75526

Laboratory References:

Soluble

Soluble

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

DI Leach

300.0

Eurofins Carlsbad

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Accreditation/Certification Summary

Client: Vertex Job ID: 890-6333-1 Project/Site: CORRAL FLY SWD

SDG: 23 E - 02502

Laboratory: Eurofins Midland

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

Authority	Progr	am	Identification Number	Expiration Date		
Texas	NELA	P	T104704400-23-26	06-30-24		
,	are included in this report, but	it the laboratory is not certif	fied by the governing authority. This lis	t may include analytes		
Analysis Method	Prep Method	Matrix	Analyte			
8015 NM	8015 NM		Total TPH			
Total BTEX		Solid	Total BTEX			

Method Summary

Client: Vertex

Project/Site: CORRAL FLY SWD

Job ID: 890-6333-1

SDG: 23 E - 02502

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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: CORRAL FLY SWD

Job ID: 890-6333-1

SDG: 23 E - 02502

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depti
890-6333-1	BH 24 - 18 0'	Solid	03/06/24 13:35	03/11/24 11:35	0'
890-6333-2	BH 24 - 18 2'	Solid	03/06/24 13:45	03/11/24 11:35	2'

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			Pageof	ments	Brownfields ☐ RRC ☐ Superfund ☐	DCT///CT TRRP	Other:	Dro	None: NO DI Water: H ₂ O	Cool: Cool MeOH: Me HCL: HC HNO 3: HN H,SO 4: H, NaOH: Na	H ₃ PO 4: HP	Na ₂ S ₂ O ₃ : NaSO ₃	Zn Acetate+NaOH: Zn	NAOH+ASCORDIC ACID: SAPC	Sample Comments					TI Sn U V Zn 7470 /7471		Date/Time		Revised Date: 08/25/2020 Rev. 2020.2
	Work Order No:		www.xenco.com	Work Order Comments	T/PST	State of Project:	Q		Ž			<u>Z</u> Z	ZZ	2						li K Se Ag SiO ₂ Na Sr ⁻ Hg: 1631 / 245.1 /	litions nntrol r negotiated.	Received by: (Signature)		
	Houston, J. 7 (26) - 240 4200 - Pallas, 17 (219) 502-0500 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		ROB KITK	SOLATIS Program:	State	Deliv	ANALYCIC DECLIECT			902 - 333 Chain of Custody) H	16 16 16	B L C					A 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag TCLP/SPLP6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg:	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 enforced unless previously negotiated.	Date/Time Relinquished by: (Signature)	3/1/2	9
	mment Testing			Bill to: (if different)	Company Name:	Address:	City, State ZIP:		Moutine Rush Code	Due Date: TAT starts the day received by the lab, if received by 4:30pm	Yes No Wet Ice:	Thermometer ID: 1/2/2007	N/A Temperature Reading: 3, 0	d Temp		D	1 13:45 2' G			O: 8RCRA 13PPM Texas 11 Al Sb. e analyzed TCLP / SPLP6010 : 8RCRA Sb	of samples constitutes a valid purchase order from client company to Eurofin of samples and shall not assume any responsibility for any losses or expense applied to each project and a charge of \$5 for each sample submitted to Eur	Paceived y: (Signature)	Chury 11	
Purofine	+	Xenco		Project Manager: C.DixOV	Company Name: KCKR	Address: On file	City, State ZIP:		Project Number: 23F-025		LE RECEIPT TEMO B	Samples Received Intact: Yes No Cooler Custody Seals: Yes No N/A	: Yes Nd	Total Containers:	Sample Identification M	الا الا	8H 24-18 2'			Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	Notice: Signature of this document and relinquishment of service. Eurofins Xenco will be liable only for the cost of Eurofins Xenco. A minimum charge of \$85.00 will be a	Relinduished by: (Signature)	1 2 2	ın

Chain of Custody

Carlsbad, NM 88220 Phone 575-988-3199 Fax: 575-988-3199

Eurofins Carlsbad

1089 N Canal St.

13 14

Chain of Custody Record



eurofins |

Environment Testing

State Zip: TX 79701 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 BH 24 - 18 2' (890-6333-2) BH 24 - 18 0' (890-6333-1) Midland Sample Identification - Client ID (Lab ID) Eurofins-Environment-Testing-South-Centre Relinquished by CORRAL FLY SWD 432-704-5440(Tel) elinquished by Deliverable Requested 1, II, III, IV, Other (specify) 211 W Florida Ave, mpty Kit Relinquished by Custody Seals Intact. linquished by oject Name lient Information ipping/Receiving Ύes 8 (Sub Contract Lab) Custody Seal No Primary Deliverable Rank 2 Project #: 89000162 Date/Time Date/Time # OM Due Date Requested 3/15/2024 TAT Requested (days) SSOW# Sample Date 3/6/24 3/6/24 Date Mountain 13 45 Mountain Sample 13 35 (C=comp, Sample G=grab) Preservation Code: Type Company Company (W=water S=solid, Matrix Solid Solid Lab PM Jessica Kramer@et.eurofinsus com
Accreditations Required (See note) E-Mail Kramer, Jessica l ime) NELAP - Texas Field Filtered Sample (Yes or No) Special Instructions/QC Requirements Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Clent Disposal Ret Lab Archive For Month Perform MS/MSD (Yes or No) Received by: Cooler Temperature(s) °C and Other Remarks × 8015MOD_NM/8015NM_S_Prep (MOD) Full TPH × Return To Client × × 300_ORGFM_28D/DI_LEACH Chloride × × 8021B/5035FP_Calc BTEX - LL × Total_BTEX_GCV × Analysis Requested 8015MOD_Calc × Disposal By Lab State of Origin.
New Mexico Carrier Tracking No(s): lethod of Shipment: Date/Time Date/Time Date/Time Archive For Total Number of containers A - HCL
B - NaOH
C - TA Acetate
D - Nitric Acid
E - NaHSQ4
F - MeOH
G - Amchlor
H - Ascorbic Acid Page: Page 1 of 1 COC No: 890-2680 1 J - Di Water K - EDTA L - EDA Preservation Codes: 890-6333-1 Special Instructions/Note: M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3 V - MCAA W - pH 4-5 S - H2SO4 T - TSP Dodecahydrate U - Acetone Company Company

Ver: 06/08/2021

Login Sample Receipt Checklist

 Client: Vertex
 Job Number: 890-6333-1

 SDG Number: 23 E - 02502

Login Number: 6333 List Source: Eurofins Carlsbad

List Number: 1

Creator: Bruns, Shannon

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	

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Login Sample Receipt Checklist

 Client: Vertex
 Job Number: 890-6333-1

 SDG Number: 23 E - 02502

List Source: Eurofins Midland List Creation: 03/12/24 11:23 AM

Login Number: 6333 List Number: 2 Creator: Teel, Brianna

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	True	

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<6mm (1/4").

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

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

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

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 369227

QUESTIONS

Operator:	OGRID:				
SOLARIS WATER MIDSTREAM, LLC	371643				
9651 Katy Fwy	Action Number:				
Houston, TX 77024	369227				
	Action Type:				
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)				

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2311343030
Incident Name	NAPP2311343030 CORRAL FLY SWD @ 30-015-44626
Incident Type	Produced Water Release
Incident Status	Remediation Closure Report Received
Incident Well	[30-015-44626] CORRAL FLY STATE SWD #001

Location of Release Source	
Please answer all the questions in this group.	
Site Name	CORRAL FLY SWD
Date Release Discovered	04/22/2023
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 Pipeline (Any) Produced Water Released: 300 BBL Recovered: 80 BBL Lost: 220 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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1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

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

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

QUESTIONS, Page 2

Action 369227

Phone: (505) 476-3470 Fax: (505) 476-3462		
QUESTI	IONS (continued)	
Operator:	OGRID:	
SOLARIS WATER MIDSTREAM, LLC	371643	
9651 Katy Fwy	Action Number:	
Houston, TX 77024	369227	
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)	
QUESTIONS		
Nature and Volume of Release (continued)		
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.	
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes	
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.	
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e.	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 s	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.	
	iation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of ted or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of evaluation in the follow-up C-141 submission.	
to report and/or file certain release notifications and perform corrective actions for releate the OCD does not relieve the operator of liability should their operations have failed to	knowledge and understand that pursuant to OCD rules and regulations all operators are required asses which may endanger public health or the environment. The acceptance of a C-141 report by adequately investigate and remediate contamination that pose a threat to groundwater, surface t does not relieve the operator of responsibility for compliance with any other federal, state, or	
I hereby agree and sign off to the above statement	Name: Julian Romero Title: Environmental Advisor Email: julian.romero@ariswater.com	

Date: 08/01/2024

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

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 District III 1000 Rio Brazos Rd., Aztec, NM 87410

Phone:(505) 334-6178 Fax:(505) 334-6170 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, Page 3

Action 369227

QUESTIONS (continued)

Operator:	OGRID:
SOLARIS WATER MIDSTREAM, LLC	371643
9651 Katy Fwy	Action Number:
Houston, TX 77024	369227
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release ar	nd the following surface areas:
A continuously flowing watercourse or any other significant watercourse	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Between 1 and 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between ½ and 1 (mi.)
Any other fresh water well or spring	Between ½ and 1 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between ½ and 1 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between ½ and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan		
Please answer all the questions that apply or are indica	ted. 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 latera	al 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 contan	nination been fully delineated	Yes
Was this release entirely contained within a li	ned containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)		lligrams per kilograms.)
Chloride (EPA 300.0	or SM4500 Cl B)	12300
TPH (GRO+DRO+MRO) (EPA SW-846	Method 8015M)	1220
GRO+DRO (EPA SW-8	46 Method 8015M)	1220
BTEX (EPA SW-8	46 Method 8021B or 8260B)	0
Benzene (EPA SW-8	46 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site which includes the anticipated timelines for beginning a		d efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC,
On what estimated date will the remediation	commence	07/06/2023
On what date will (or did) the final sampling o	r liner inspection occur	08/07/2023
On what date will (or was) the remediation co	mplete(d)	08/07/2023
What is the estimated surface area (in square	e feet) that will be reclaimed	12943
What is the estimated volume (in cubic yards)	that will be reclaimed	300
What is the estimated surface area (in square	e feet) that will be remediated	12943
What is the estimated volume (in cubic yards)	that will be remediated	300
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 measu	res may have to be minimally adjusted in a	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.

District I

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

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720 **District III** 1000 Rio Brazos Rd., Aztec, NM 87410

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

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462 State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS, Page 4

Action 369227

QUESTIONS (continued)

Operator:	OGRID:
SOLARIS WATER MIDSTREAM, LLC	371643
9651 Katy Fwy	Action Number:
Houston, TX 77024	369227
	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	LEA LAND LANDFILL [fEEM0112342028]	
OR which OCD approved well (API) will be used for off-site disposal	Not answered.	
OR is the off-site disposal site, to be used, out-of-state	No	
OR is the off-site disposal site, to be used, an NMED facility	No	
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	No	
(In Situ) Soil Vapor Extraction	No	
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No	
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No	
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No	
Ground Water Abatement pursuant to 19.15.30 NMAC	No	
OTHER (Non-listed remedial process)	No	

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: Julian Romero Title: Environmental Advisor Email: julian.romero@ariswater.com

Date: 08/01/2024

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

Released to Imaging: 8/5/2024 4:13:08 PM

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

QUESTIONS, Page 5

Action 369227

QUESTIONS (continued)

Operator:	OGRID:
SOLARIS WATER MIDSTREAM, LLC	371643
9651 Katy Fwy	Action Number:
Houston, TX 77024	369227
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

OUESTIONS

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

District I

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

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

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170 **District IV** 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462 State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS, Page 6

Action 369227

QUESTIONS (continued)

Operator:	OGRID:
SOLARIS WATER MIDSTREAM, LLC	371643
9651 Katy Fwy	Action Number:
Houston, TX 77024	369227
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information		
Last sampling notification (C-141N) recorded	319505	
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	03/06/2024	
What was the (estimated) number of samples that were to be gathered	2	
What was the sampling surface area in square feet	200	

Remediation Closure Request				
Only answer the questions in this group if seeking remediation closure for this release because all 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	12943			
What was the total volume (cubic yards) remediated	300			
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	12943			
What was the total volume (in cubic yards) reclaimed	300			
Summarize any additional remediation activities not included by answers (above)	Site was scraped to meet NMOCD's 51-100 feet on-pad criteria.			

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.

Name: Julian Romero
Title: Environmental Advisor
Email: julian.romero@ariswater.com
Date: 08/01/2024

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

QUESTIONS, Page 7

Action 369227

QUESTIONS (continued)

Operator:	OGRID:
SOLARIS WATER MIDSTREAM, LLC	371643
9651 Katy Fwy	Action Number:
Houston, TX 77024	369227
	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 369227

CONDITIONS

Operator:	OGRID:
, ,	371643
	Action Number:
Houston, TX 77024	369227
	Action Type:
	[C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	/ Condition	Condition Date
scwells	None	8/5/2024