Gene Choquette
MCBU, Sr. Environmental Specialist

May 23, 2023

Mr. Nelson Velez
Environmental Specialist
EMNRD - Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

Re: Old Indian Draw Tank Battery
2023 Remediation Summary and Soil Closure Request Report
Incident No. NRM2020935007
Eddy County, New Mexico

Mr. Velez,

Please find enclosed for your files, copies of the following:

- Old Indian Draw Tank Battery - May 2023 Remediation Summary and Soil Closure Request Report

The Report was prepared by Arcadis U.S., Inc. (Arcadis) on behalf of Chevron North America Exploration and Production.

Please do not hesitate to call Scott Foord with Arcadis at 713.953.4853 or myself at 713.372.2100, should you have any questions.

Sincerely,

Gene Choquette

Gene Choquette

Encl. Old Indian Draw Tank Battery Remediation Summary and Soil Closure Request Report

C.C. Amy Barnhill, Chevron/MCBU

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ARCADIS

Chevron U.S.A., Inc.

2023 Remediation Summary and Soil Closure Request Report

Old Indian Tank Battery

Incident ID# NRM2020935007

May 23, 2023

2023 Remediation Summary and Soil Closure Request Report

Old Indian Draw Tank Battery
Incident ID# NRM2020935007

May 23, 2023

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1 Introduction

Arcadis U.S., Inc. (Arcadis) has prepared this Remediation Summary and Soil Closure Request Report (Report), on behalf of Chevron U.S.A., Inc. (Chevron), for the release site known as the Old Indian Draw Tank Battery (Site).

2 Project Summary

The Site is approximately 8 miles southeast from the City of Carlsbad, in Unit J, Section 18, Township 22 South, Range 28 East, Eddy County, New Mexico. As of April 28, 2023, Old Indian Draw Tank Battery is an active tank battery. The Site is located on land owned by the United States Department of the Interior and Administered by the Bureau of Land Management (BLM); the lease is currently operated by Chevron U.S.A., Inc. A Site Location Map is included as **Figure 1**.

On July 20, 2020, an equipment issue caused a release of approximately 9.3 barrels (bbls) of crude oil and 29.54 bbls of produced water, of which 8 bbls of crude oil and 22 bbls of produced water were recovered. The Initial C-141 Form was submitted to the New Mexico Oil Conservation Division (NMOCD) on July 23, 2020, and assigned Incident ID NRM2020935007.

A Delineation Report and Remediation Plan was submitted to the NMOCD by Larson & Associates, Inc. (Larson) on March 15, 2021, summarizing Larson's soil assessment results and proposed remediation activities for the Site. NMOCD approved the remediation plan on July 7, 2021.

Soil remediation activities (excavation) detailed in Larson's Remediation Plan commenced in 2022. Confirmation soil samples were collected from the excavation area, and the excavation was backfilled. A Closure Report dated August 2, 2022, was submitted to the NMOCD and subsequently denied on November 21, 2022.

The Initial C-141 Form is included as **Appendix A,** and the Final C-141 Form associated with the subsequent soil remediation activities detailed in the following report is included in **Appendix B.**

3 Initial Remediation Activities Summary

Larson began initial excavation activities on February 7, 2022. Details from the soil remediation activities are included in the Closure Report dated August 2, 2022, submitted by Larsons. NMOCD denied closure for the Site on November 21, 2022, because depth to groundwater had not been adequately determined.

Soil sample analytical results from the initial soil assessment and remediation activities are shown in **Table 1**.

4 Closure Criteria for Soils Impacted by a Release

The NMOCD classifies the Site at the most stringent regulatory limits due to the depth to groundwater confirmed at approximately 46 feet below ground surface (bgs). Per Table I of New Mexico Administrative Code (NMAC) part 19.15.29.12, the following closure criteria applies to a site with depth to ground water less than 50 feet bgs:

Constituent	Limit (mg/kg)
Chloride	600 mg/kg
TPH (GRO+DRO+MRO)	100 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

5 Subsequent Soil Remediation Activities Summary

Subsequent soil remediation activities for soil remaining in-situ following initial soil remediation activities with contaminants of concern (COC) concentrations determined above the most stringent NMOCD closure criteria were performed by Arcadis and [e]Tech Environmental and Safety ([e]Tech) from February 13 through 20, 2023. Photoionization detector (PID) readings, chloride field screening utilizing Hach® test strip results, and analytical results from the previous assessment activities were evaluated prior to and during remediation activities to determine the horizontal and vertical extent of remaining soil affected by the spill.

The initial release area covered an approximate 4,244 square foot area east of the tank battery. Excavation activities were conducted to a maximum depth of approximately 5 feet bgs within the release area. Clean backfill material installed during the initial remediation activities was removed to the depths indicated from the initial excavation summary report, field screened, and segregated for reuse prior to removal of additional impacted soil. Approximately 432 cubic yards of impacted soil were excavated, stockpiled on-site adjacent to the release area on 20 mil plastic sheeting, and covered with 20 mil plastic sheeting during remediation activities prior to disposal activities. The limits of the excavation are presented on **Figure 2**.

The stockpiled soil was disposed offsite at the Lea Land Landfill facility located at Mile Marker 64, US Highway 62/180 East, Carlsbad, New Mexico as Class 2 non-hazardous material. [e]Tech transported a total of 21 truckloads of soil directly to the landfill between February 23 through 28, 2023. Copies of disposal manifests can be provided upon request. Photographic documentation of the excavation activities is attached in the **Appendix C**.

5.1 Subsequent Excavation Confirmation Sampling Activities

Arcadis personnel conducted excavation confirmation soil sampling activities on February 13 through 20, 2023 for laboratory analysis within the additional areas subsequently excavated. Analytical results from confirmation soil sampling completed during Larson's initial remediation activities was utilized in conjunction with analytical confirmation soil sampling data collected during the February 2023 remediation activities to confirm the horizontal and vertical extent of chloride; total petroleum hydrocarbon (TPH); and benzene, toluene, ethylbenzene, and xylene (BTEX) impact in soil above NMAC Closure Criteria for a site with depth to groundwater less than 50 feet bgs have been delineated.

A total of 12 additional composite base samples (B-27 through B-38) and 3 additional composite sidewall samples (SW-12 through SW-14) were collected from the excavated areas. All composite soil samples were collected at intervals to maintain an approximate 200 square foot sample space or less.

The soil confirmation soil samples were collected in four-ounce jars provided by Eurofins Environmental Testing (Eurofins) located in Midland, Texas, then placed on ice and shipped to Eurofins to be analyzed for chloride by United States Environmental Protection Agency (USEPA) Method 300; TPH by USEPA Method 8015M for Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and Oil Range Organics (ORO); and BTEX by USEPA Method 8021. Analytical results are shown in **Table 1**. Sidewall composite confirmation sample locations are depicted on **Figure 2** and excavation base composite confirmation sample locations are depicted on **Figure 3**. Laboratory analytical reports are included in **Appendix D**.

5.2 Chloride

All composite confirmation soil samples collected within the excavated area were below the NMAC reclamation limit of 600 mg/kg following remediation activities.

5.3 TPH

Total TPH concentrations were reported below the NMAC screening standard of 100 mg/kg at all composite confirmation soil sample locations following remediation activities.

5.4 BTEX

Benzene concentrations were reported below the NMAC standard of 10 mg/kg at all composite confirmation soil sample locations. BTEX concentrations were reported below the NMAC standard of 50 mg/kg at all composite confirmation soil sample locations.

6 Restoration, Reclamation, and Re-Vegetation Plan

Upon receiving laboratory analytical results from the excavation confirmation soil samples confirming impacted soil over the applicable restoration closure limits had been removed from the facility pad and pasture area, the excavated area was backfilled with locally sourced, non-impacted "like" material placed at or near the original relative positions. The affected area was contoured and compacted to achieve erosion control, stability, and preservation of surface water flow to the extent practicable. The excavated area within the affected pasture was topped with a topsoil similar to native surrounding pasture material and will be reseeded with a BLM-approved seed mixture.

7 Summary

Analytical results associated with subsequent remediation activities conducted in 2023 indicate that the horizontal and vertical extent of chloride, TPH, and BTEX impact in soil above NMAC Closure Criteria for a site with depth to groundwater less than 50 feet bgs have been delineated both horizontally and vertically, and impacted soil above the applicable NMAC Closure Criteria has been excavated from the release area.

8 Soil Closure Request

Remediation activities were conducted in accordance with the NMOCD regulatory guidelines stipulated in NMAC 19.15.29. Impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard was excavated and transported to an NMOCD-approved disposal facility. Laboratory analytical results from confirmation soil samples indicate concentrations of BTEX, TPH and chloride are below the NMOCD Closure Criteria in each of the submitted soil samples collected from the remediated areas.

Based on laboratory analytical results and field activities conducted to date, no additional soil assessment or remediation activities are recommended at this time for the Site. Arcadis requests closure be granted to the Old Indian Draw Tank Battery site for Incident ID number NRM2020935007. The Final C-141 Form is included as **Appendix B.**

Tables

Table 1
2023 Soil Sample Analytical Results
Old Indian Draw Tank Battery
Chevron
Eddy County, New Mexico

ARCADIS

					BTEX		TPH				Cl Method
Location ID	Depth (Feet)	Date Collected	Sample Name	Soil Status	Benzene mg/kg	Total BTEX mg/kg	Gasoline Range Organics (GRO)-C6-C10 mg/kg	Diesel Range Organics (Over C10-C28) mg/kg	Oil Range Organics (Over C28-C36) mg/kg	Total TPH mg/kg	Chloride, Dissolved mg/kg
NMOCD					10	50	- -	- -	- -	100	600
S-1	0.5	8/19/2020	S-1	Removed	<0.0401	4.83	923	10,800	1,630	**13,400**	**2,270**
	1	10/22/2020		Removed	0.0699	5.52	643	6,910	923	**8,840**	**3,280**
	1.5	10/22/2020		Removed	--	--	166	1,260	156	**1,580**	**2,520**
	5	1/25/2021		In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	197
	10	1/25/2021		In-Situ	--	--	<49.9	<49.9	<49.9	<49.9	124
S-2	0.5	8/19/2020	S-2	Removed	<0.00129	0.00129	<50.0	102	<50.0	**102**	**4,340**
	1	10/22/2020		Removed	<0.00199	<0.00199	<250	5,190	925	**6,120**	**6,180**
	1.5	10/22/2020		Removed	--	--	<49.9	<49.9	<49.9	<49.9	**4,700**
	5	1/25/2021		In-Situ	--	--	--	--	--	--	403
	10	1/25/2021		In-Situ	--	--	--	--	--	--	72.6
S-3	0.5	8/19/2020	S-3	Removed	0.286	37.1	4,050	24,000	2,440	**30,500**	**2,360**
	1	10/22/2020		Removed	<0.00200	0.179	74.6	1,540	297	**1,910**	**8,220**
	3	10/22/2020		In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	362
S-4	0.5	8/19/2020	S-4	Removed	0.0233	1.58	303	9,860	1,510	**9,960**	22.4
	1	10/23/2020		Removed	<0.00202	<0.00202	<250	3,560	735	**4,300**	**4,340**
	3	10/23/2020		In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	41.1
S-5	0.5	8/19/2020	S-5	Removed	<0.00199	0.00200	<249	8,160	1,800	**9,960**	22.4
	1	10/23/2020		Removed	<0.00199	<0.00199	<50.0	1,090	273	**1,360**	11.7
	3	10/23/2020		In-Situ	--	--	<49.9	<49.9	<49.9	<49.9	--
S-6	0.5	8/19/2020	S-6	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	41.0
S-7	0.5	8/19/2020	S-7	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	9.49
S-8	0.5	8/19/2020	S-8	In-Situ	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	10.3
S-9	0.5	8/19/2020	S-9	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	10.3
S-10	0.5	8/19/2020	S-10	Removed	<0.00201	<0.00201	<49.9	113	<49.9	**113**	**1,200**
	1	10/23/2020		Removed	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	**943**
	3	10/23/2020		In-Situ	--	--	<50.0	<50.0	<50.0	<50.0	43.5
BH-1	1.5	2/17/2022	BH-1	In-Situ	<0.00199	<0.00398	<50.0	56.8	<50.0	56.8	159
BH-2	1.5	2/17/2022	BH-2	Removed	<0.00200	<0.00400	<50.0	176	<50.0	**176**	565
	3	4/13/2022		In-Situ	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	166
BH-3	1.5	2/17/2022	BH-3	Removed	<0.00198	<0.00396	<49.9	131	<49.9	**131**	359
	3	4/13/2022		In-Situ	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	94.5
BH-4	1.5	2/17/2022	BH-4	In-Situ	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	391
BH-5	1.5	2/17/2022	BH-5	Removed	<0.00202	<0.00403	<50.0	408	<50.0	**408**	**1,110**
	4.1	4/18/2022		In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	1,140
BH-6	1.5	2/17/2022	BH-6	Removed	<0.00199	<0.00398	<50.0	126	<50.0	**126**	**611**
	4.1	4/18/2022		In-Situ	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	1,290
BH-7	1.5	2/17/2022	BH-7	Removed	<0.00201	<0.00402	<49.9	114	<49.9	**114**	**1,440**
	4.1	4/19/2022		In-Situ	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	781
BH-8	1.5	2/17/2022	BH-8	Removed	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	**989**
	4.1	4/18/2022		In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	1,930

Table 1
2023 Soil Sample Analytical Results
Old Indian Draw Tank Battery
Chevron
Eddy County, New Mexico

ARCADIS

					BTEX		TPH				Cl Method
Location ID	Depth (Feet)	Date Collected	Sample Name	Soil Status	Benzene mg/kg	Total BTEX mg/kg	Gasoline Range Organics (GRO)-C6-C10 mg/kg	Diesel Range Organics (Over C10-C28) mg/kg	Oil Range Organics (Over C28-C36) mg/kg	Total TPH mg/kg	Chloride, Dissolved mg/kg
BH-9	1.5	2/17/2022	BH-9	Removed	<0.00200	<0.00401	<50.0	494	<50.0	**494**	**1,470**
	4.1	4/18/2022		In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	1,670
BH-10	1.5	2/17/2022	BH-10	Removed	<0.00200	<0.00401	<50.0	469	<50.0	**469**	219
	4.1	4/12/2022		In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	1,470
BH-11	3	2/17/2022	BH-11	Removed	<0.00200	<0.00401	77.2	1,360	<49.9	**1,440**	**1,490**
	4.1	4/12/2022		In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	1,180
BH-12	3	2/17/2022	BH-12	Removed	<0.00200	<0.00399	<50.0	308	<50.0	**308**	464
	4.1	4/12/2022		In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	2,710
BH-13	3	2/17/2022	BH-13	Removed	<0.00201	<0.00402	72.9	1,250	<50.0	**1,320**	**1,510**
	4.1	4/12/2022		In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	816
BH-14	3	2/17/2022	BH-14	Removed	<0.00199	<0.00398	<50.0	481	<50.0	**481**	**600**
	4.1	4/12/2022		In-Situ	<0.00199	<0.00398	<49.8	61.9	<49.9	61.9	179
BH-15	3	2/17/2022	BH-15	Removed	<0.00200	<0.00400	<50.0	217	<50.0	**217**	534
	4.1	4/12/2022		In-Situ	<0.00200	<0.00399	<50.0	390	<50.0	390	539
BH-16	3	2/17/2022	BH-16	In-Situ	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	290
BH-17	3	2/17/2022	BH-17	Removed	<0.00198	<0.00397	<49.9	1,110	<49.9	**1,110**	**815**
	4.1	4/12/2022		In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	78.0
BH-18	3	2/17/2022	BH-18	Removed	<0.00199	<0.00398	<49.9	1,040	<49.9	**1,040**	587
	4.1	4/12/2022		In-Situ	<0.00199	<0.00398	<49.9	212	<49.9	212	930
BH-19	1.5	2/17/2022	BH-19	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	248
BH-20	1.5	2/17/2022	BH-20	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	302
BH-21	1.5	2/17/2022	BH-21	Removed	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	**621**
	2.5	4/19/2022		In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	320
BH-22	1.5	2/17/2022	BH-22	Removed	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	**841**
	2.5	4/19/2022		In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	92.3
BH-23	1.5	2/17/2022	BH-23	Removed	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	**1,270**
	2.5	4/19/2022		In-Situ	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	153
BH-24	1.5	2/17/2022	BH-24	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	425
BH-25	4.1	4/19/2022	BH-25	In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	1,000
BH-26	4.1	4/19/2022	BH-26	In-Situ	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	1,300
BH-27-5	4.5	02/13/2023	BH-27-5-4.5'-20231302	In-Situ	<0.000388	<0.00102	34.4J B *1	<15.0	<15.0	34.4J	<0.397
BH-28-5	4.5	02/13/2023	BH-28-5-4.5'-20231302	In-Situ	<0.000383	<0.00101	33.8J B *1	<15.0	<15.0	33.8J	<3.94
BH-29-5	4.5	02/20/2023	BH-29-5-4.5'-20230220	In-Situ	<0.000387	<0.00101	21.8J B	17.4J B *1	<15.0	39.2J	128
BH-30-5	4.5	02/20/2023	BH-30-5-4.5'-20230220	In-Situ	<0.000383	<0.00101	16.9J B	<15.0	<15.0	16.9J	226
BH-31-5	4.5	02/20/2023	BH-31-5-4.5'-20230220	In-Situ	<0.000383	<0.00100	25.1J B	26.8J B *1	<15.0	51.9	269
BH-32-5	5	02/20/2023	BH-32-5-5'-20230220	In-Situ	0.000632J	0.00252J	36.0J B	<15.0	<15.0	36.0J	146
BH-33-5	5	02/20/2023	BH-33-5-5'-20230220	In-Situ	<0.000387	<0.00102	29.7J B	<15.0	<15.0	29.7J	334
BH-34-5	5	02/20/2023	BH-34-5-5'-20230220	In-Situ	<0.000386	0.00161J	41.8J B	37.0J B *1	<15.0	78.8	548
BH-35-5	6	02/20/2023	BH-35-5-6'-20230220	In-Situ	<0.000383	<0.00101	27.4J B	55.5B *1	<15.0	82.9	611
BH-36-5	5	02/20/2023	BH-36-5-5'-20230220	In-Situ	<0.000383	<0.00100	28.2J B	<15.0	<15.0	28.2J	79.9
BH-37-5	5	02/20/2023	BH-37-5-5'-20230220	In-Situ	<0.000383	<0.00101	35.7J B	<15.0	<15.0	35.7J	149
BH-38-5	3	02/20/2023	BH-38-5-3'-20230220	In-Situ	<0.000383	<0.00100	36.5J B	<15.0	<15.0	36.5J	48.5

Table 1
2023 Soil Sample Analytical Results
Old Indian Draw Tank Battery
Chevron
Eddy County, New Mexico

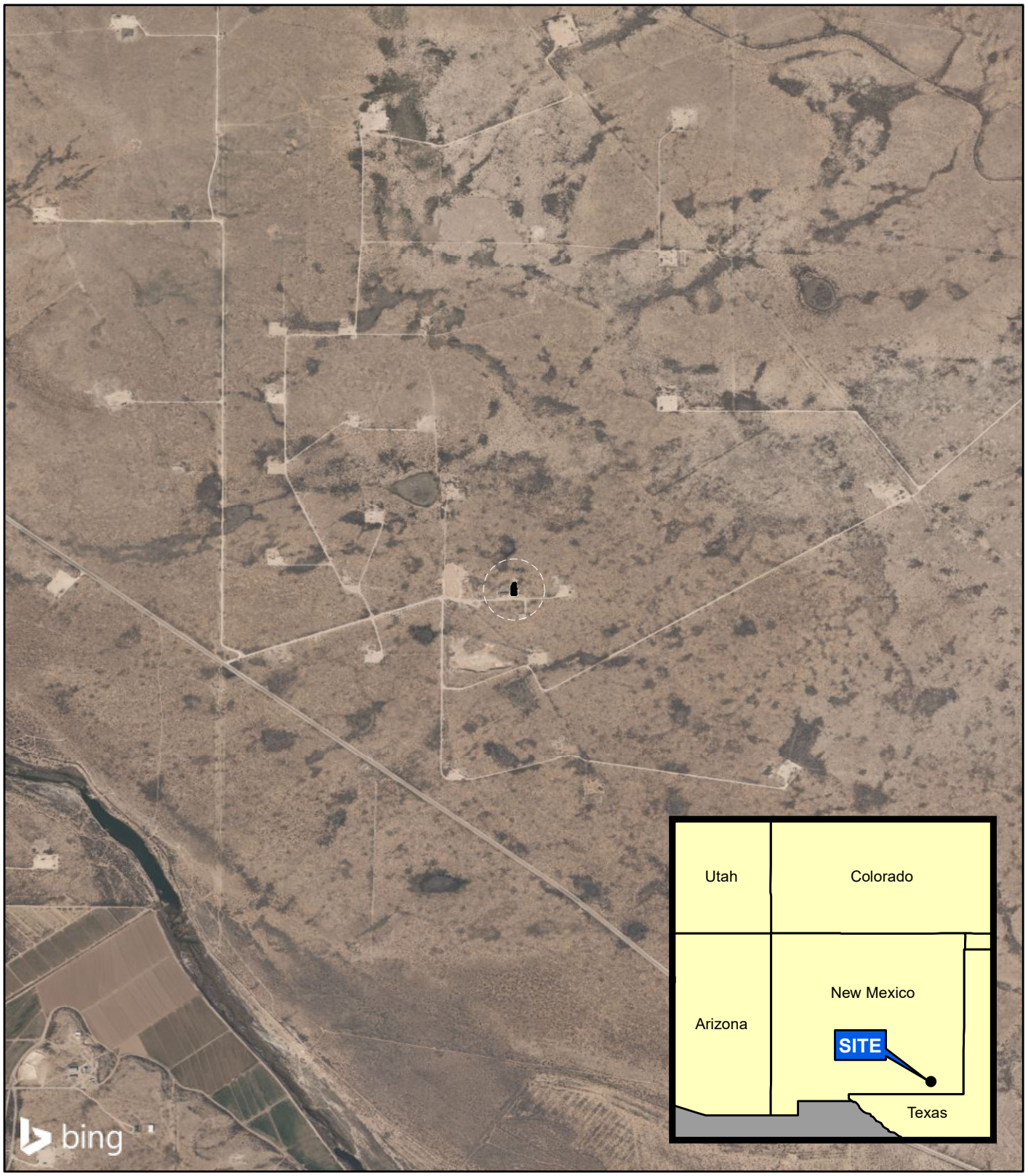
ARCADIS

					BTEX		TPH				Cl Method
Location ID	Depth (Feet)	Date Collected	Sample Name	Soil Status	Benzene mg/kg	Total BTEX mg/kg	Gasoline Range Organics (GRO)-C6-C10 mg/kg	Diesel Range Organics (Over C10-C28) mg/kg	Oil Range Organics (Over C28-C36) mg/kg	Total TPH mg/kg	Chloride, Dissolved mg/kg
SW-1	0 - 1.5	2/17/2022	SW-1	Removed	<0.00199	<0.00398	<50.0	226	<50.0	**226**	27.5
		4/18/2022		In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	20.1
SW-2	0 - 1.5	2/17/2022	SW-2	Removed	<0.00200	<0.00401	<49.9	316	<49.9	**316**	35.3
	0 - 3.5	4/13/2022		In-Situ	<0.00199	<0.00398	<50.0	72.1	<50.0	72.1	16.9
SW-3	0 - 3	2/17/2022	SW-3	Removed	<0.00200	<0.00399	<50.0	989	<50.0	**989**	**758**
		4/19/2022		In-Situ	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	517
SW-4	0 - 3	2/17/2022	SW-4	Removed	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	**741**
	0 - 4.2	4/18/2022		In-Situ	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	182
SW-5	0 - 1.5	2/17/2022	SW-5	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	297
SW-6	0 - 1.5	2/17/2022	SW-6	In-Situ	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	128
SW-7	0 - 1.5	2/17/2022	SW-7	In-Situ	<0.00199	<0.00398	<50.0	75.5	<50.0	75.5	360
SW-8	0 - 3	2/17/2022	SW-8	Removed	<0.00202	<0.00404	<49.9	3,790	<49.9	**3,790**	**605**
	0 - 4.1	4/18/2022		In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	347
SW-9	0 - 3	2/17/2022	SW-9	Removed	<0.00201	<0.00402	<49.9	408	<49.9	**408**	**862**
	0 - 4.1	4/18/2022		Removed	<0.00200	<0.00401	<50.0	486	<50.0	**486**	**867**
		6/6/2022		Removed	<0.00201	<0.00402	<49.9	62.4	<49.9	62.4	**684**
		6/24/2022		In-Situ	<0.00104	<0.00208	<26.0	<26.0	<26.0	<26.0	410
SW-10	0 - 3	2/17/2022	SW-10	Removed	<0.00200	<0.00399	<50.0	722	<50.0	**722**	**1,080**
	0 - 4.1	4/19/2022		Removed	<0.00200	<0.00399	<50.0	1,500	<50.0	**1,500**	**1,690**
	0 - 4.1	6/6/2022		In-Situ	<0.00201	<0.00402	<50.0	97.0	<50.0	97.0	321
SW-11	0 - 1.5	2/17/2022	SW-11	Removed	<0.00199	<0.00398	<50.0	131	<50.0	**131**	38.7
	0 - 3.7	4/19/2022		Removed	<0.00199	<0.00398	<49.8	112	<49.8	**112**	49.0
	0-3.7	6/6/2022		In-Situ	<0.00202	<0.00404	<50.0	<50.0	<50.0	**<50.0**	21.5
SW-12	5	02/20/2023	SW-12-S-0-5'-20230220	In-Situ	<0.000384	0.00262J	<15.0	15.4J	<15.0	15.4J	319
SW-13	5	02/20/2023	SW-13-S-0-5'-20230220	In-Situ	<0.000387	<0.00102	17.6J	<15.0	<15.0	17.6J	250
SW-14	5	02/20/2023	SW-14-S-0-5'-20230220	In-Situ	<0.000386	<0.00101	29.8J	15.4J	<15.0	45.2J	153
D-1	0 - 2.5	4/19/2022	D-1	In-Situ	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	292
D-2	0 - 2.5	4/19/2022	D-2	Removed	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	**1,190**
D-3	0 - 4.1	4/19/2022	D-3	Removed	<0.00201	<0.00402	<50.0	71.1	<50.0	71.1	**855**
D-4	0 - 4.1	4/19/2022	D-4	Removed	<0.00199	<0.00398	<49.9	556	<49.9	**556**	**3,350**
Topsoil-1	--	4/19/2022	Topsoil-1	In-Situ	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	13.2
Caliche-1	--	4/19/2022	Caliche-1	In-Situ	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	358
Caliche-2	--	4/19/2022	Caliche-2	In-Situ	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	273
Caliche-3	--	4/19/2022	Caliche-3	In-Situ	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	185

Legend:
J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate valu
B: Compound was found in the blank and the sample
Analytes exceeding New Mexico Adminstration Code Standards are indicated in **bold**
'<' indicates the analyte was not detected at or above the Method Detection Limit (MDL
NA : Not Analyzed
mg/kg: Milligram per Kilogram
' : Indicates one foot
" : Indicated inches

Notes:
1. Chloride analyzed by EPA Method 300
2. TPH analyzed by EPA Method 8015 M
3. BTEX analyzed by EPA Method 8260B
4. Closure Criteria New Mexico Administrative Code 19.15.29.12.E(2)

Figures



LEGEND:

Site Boundary

NOTES:
Datum: D_WGS_1984
Source: Bing Map
Site Location: 32.390730°, -104.122559°

0 2,000 4,000 Feet

GRAPHIC SCALE

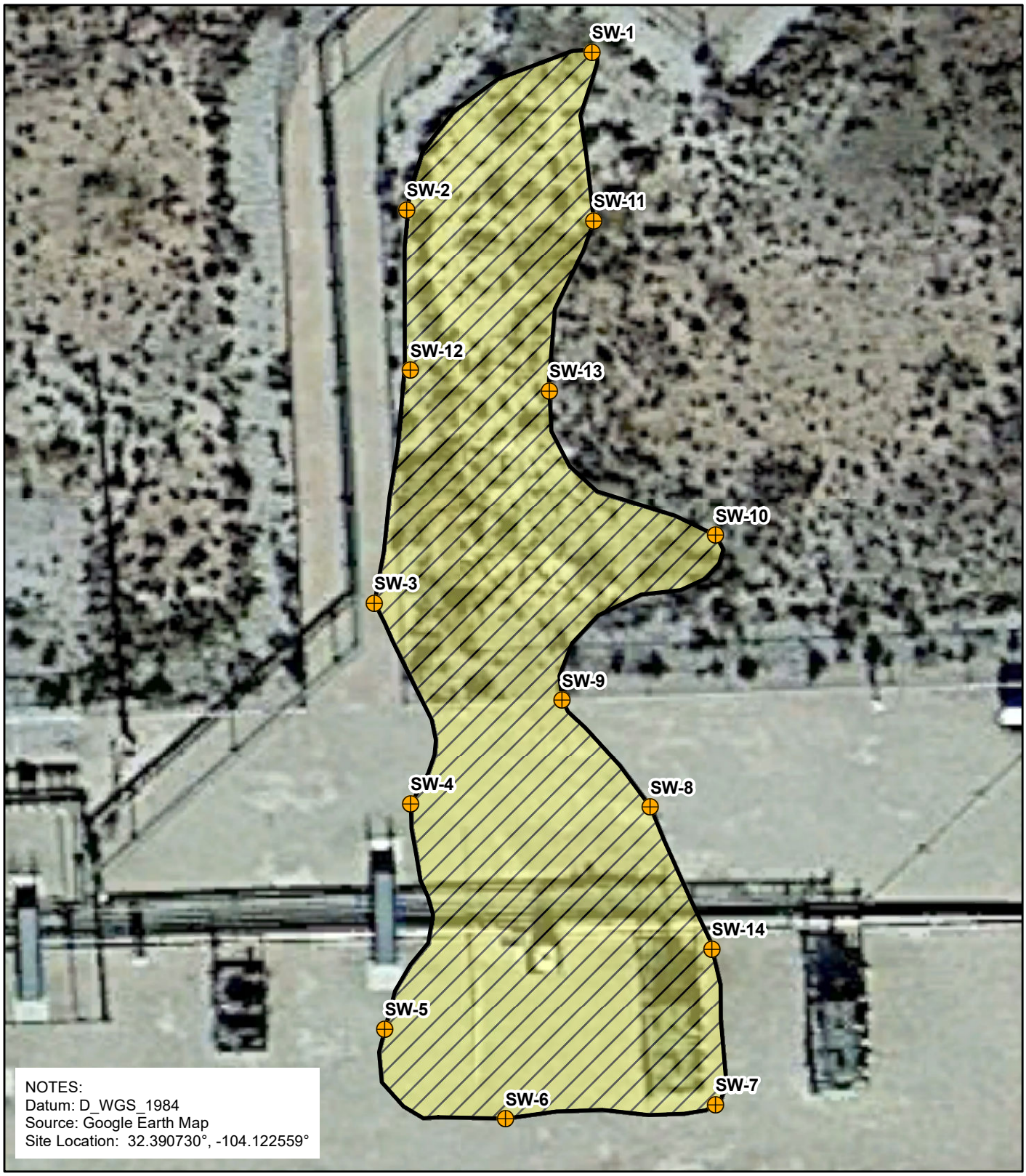
MCBU
OLD INDIAN DRAW ~ TANK BATTERY
INCIDENT NUMBER: nRM2020935007
EDDY COUNTY, NEW MEXICO

SITE LOCATION MAP

ARCADIS

FIGURE 1

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: wberry ; Client (Project #)
D:_Arcadis\Land Services\Chevron\Old_Indian_Draw\GIS\MXD_Confirmation\OID Tank Battery_Fig1.mxd 3/10/2023 12:30:13 PM



LEGEND:

- SIDEWALL SAMPLE LOCATION
- EXCAVATED AREA

0 20 40 Feet

GRAPHIC SCALE

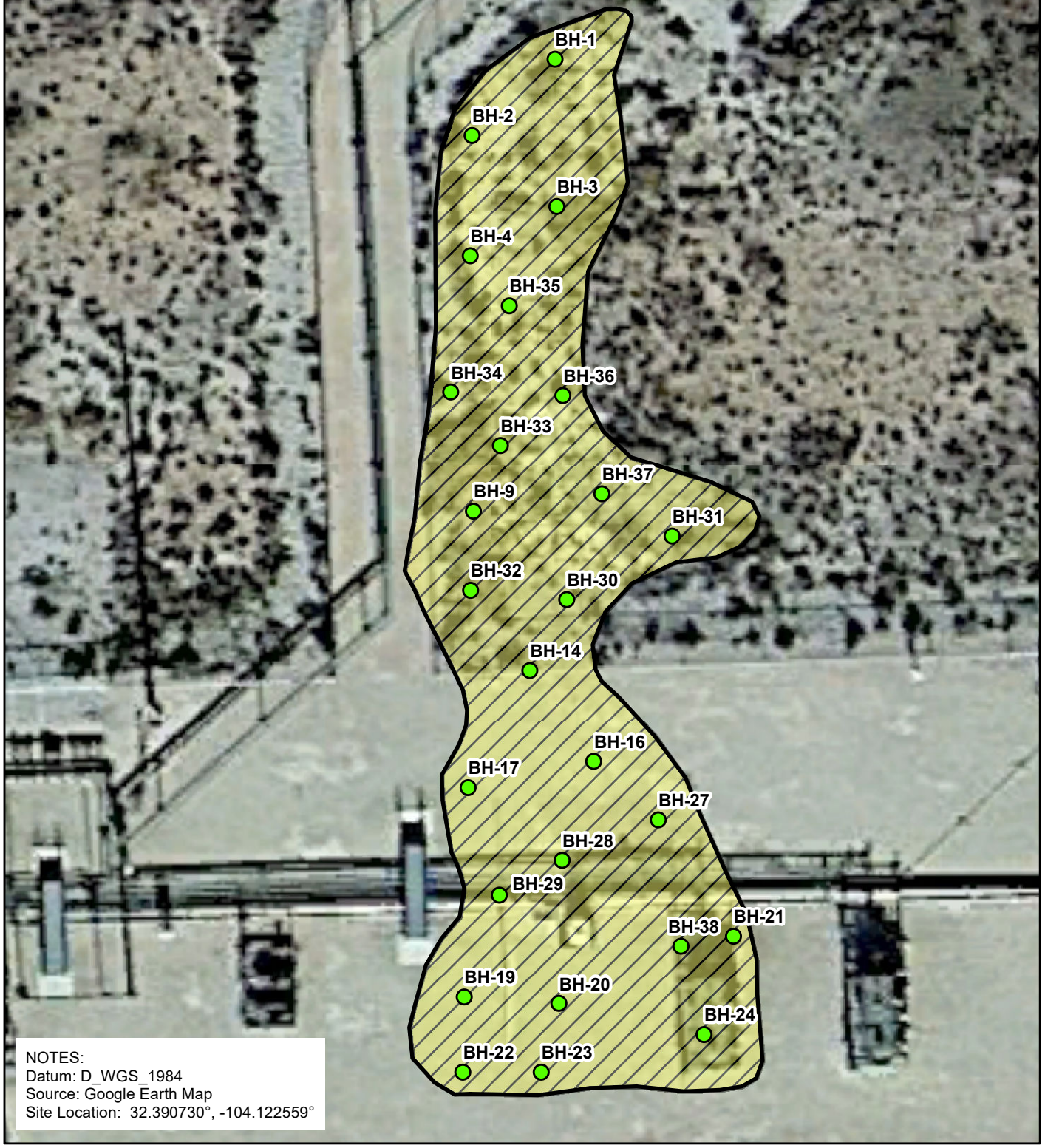
MCBU
OLD INDIAN DRAW ~ TANK BATTERY
INCIDENT NUMBER: nRM2020935007
EDDY COUNTY, NEW MEXICO

EXCAVATION SIDEWALL SOIL SAMPLE LOCATIONS

ARCADIS

FIGURE 2

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: wberry ; Client (Project #)
D:_Arcadis\Land Services\Chevron\Old_Indian_Draw\GIS\MXD_Confirmation\OID Tank Battery_Fig2.mxd 3/10/2023 12:31:43 PM



NOTES:
Datum: D_WGS_1984
Source: Google Earth Map
Site Location: 32.390730°, -104.122559°

LEGEND:

- BASE SAMPLE LOCATION
- EXCAVATED AREA

0 20 40 Feet

GRAPHIC SCALE

MCBU
OLD INDIAN DRAW ~ TANK BATTERY
INCIDENT NUMBER: nRM2020935007
EDDY COUNTY, NEW MEXICO

EXCAVATION BASE SOIL SAMPLE LOCATIONS

ARCADIS

FIGURE 3

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: wberry ; Client (Project #)
D:_Arcadis\Land Services\Chevron\Old_Indian_Draw\GIS\MXD_Confirmation\OID Tank Battery_Fig3.mxd 3/10/2023 12:33:49 PM

Appendix A

Initial C-141 Form Incident # NRM2020935007

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	**nRM2020935007**
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: Chevron Mid LP	OGRID: 4323
Contact Name: Josepha DeLeon	Contact Telephone: 575-263-0424
Contact email: jdxd@chevron.com	Incident # *(assigned by OCD):*
Contact mailing address: 1616 E. Bender Blvd., Hobbs, NM 88240	

Location of Release Source

Latitude 32.3904 Longitude -104.1228
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Old Indian Draw	Site Type: Battery
Date Release Discovered: July 10, 2020	API# *(if applicable): N/A*

Unit Letter	Section	Township	Range	County
J	18	22S	28E	Lea

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls): 9.3 barrels	Volume Recovered (bbls): 8 barrels
☒ Produced Water	Volume Released (bbls): 29.54 barrels	Volume Recovered (bbls): 22 barrels
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:

Power loss caused instrument air compressors to fault and dumps on production vessel stopped causing liquid to go out the gas outlet.

State of New Mexico
Oil Conservation Division

Incident ID	nRM2020935007
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Exceeded 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? By Josie DeLeon, to Email Message to NMOCD and BLM on 7/10/2020; 1:00 pm	

Initial Response

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

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Signature: JDeLeon Date: July 23, 2020

Printed Name: Josepha DeLeon Title: Environmental Compliance Specialist

email: jdxd@chevron.com Telephone: 575-263-0424

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Location	Old Indian Draw CTB				
Lat/Long	32.3904/-104.1228: UL J, Sec. 18, 22S, R28E				
All volumes in following table in barrels					
Area	Standing Liquid	In Soil	dimensions / shape	Oil Volume	Water Volume
1	0.0521		4x34 REC	0.3	0.96
2	0.0521		29x34 TRI	1.09	3.47
3	0.25		33.75x9 REC	3.24	10.28
4	0.25		20.25x33.75 TRI	3.65	11.56
5		0.25	33.75x9 REC	0.48	1.54
6		0.25	20.25x33.75 TRI	0.54	1.73
7					
8					
			Total Fluid	9.3	29.54
Fluid Recovered in barrels			Oil Volume	Water Volume	
			8	22	

Appendix B

Final C-141 Form Incident # NRM2020935007

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	NRM2020935007
District RP	N/A
Facility ID	N/A
Application ID	N/A

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?	46 (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 ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☒ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

State of New Mexico
Oil Conservation Division

Incident ID	NRM2020935007
District RP	N/A
Facility ID	N/A
Application ID	N/A

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.

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: Gene Choquette
Title: MCBU Sr. Environmental Specialist

Signature: Gene Choquette
Date: 05/23/2023

email: gchoquette@chevron.com
Telephone: 713-372-2100

OCD Only

Received by: _____
Date: _____

Incident ID	NRM2020935007
District RP	N/A
Facility ID	N/A
Application ID	N/A

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 items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Gene Choquette Title: MCBU Sr. Environmental Specialist

Signature: Gene Choquette Date: 05/23/2023

email: gchoquette@chevron.com Telephone: 713-372-2100

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Appendix C

2022/2023 Soil Remediation Photographic Log

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Case No.
Old Indian Draw Tank Battery	Eddy County, NM	NRM2020935007

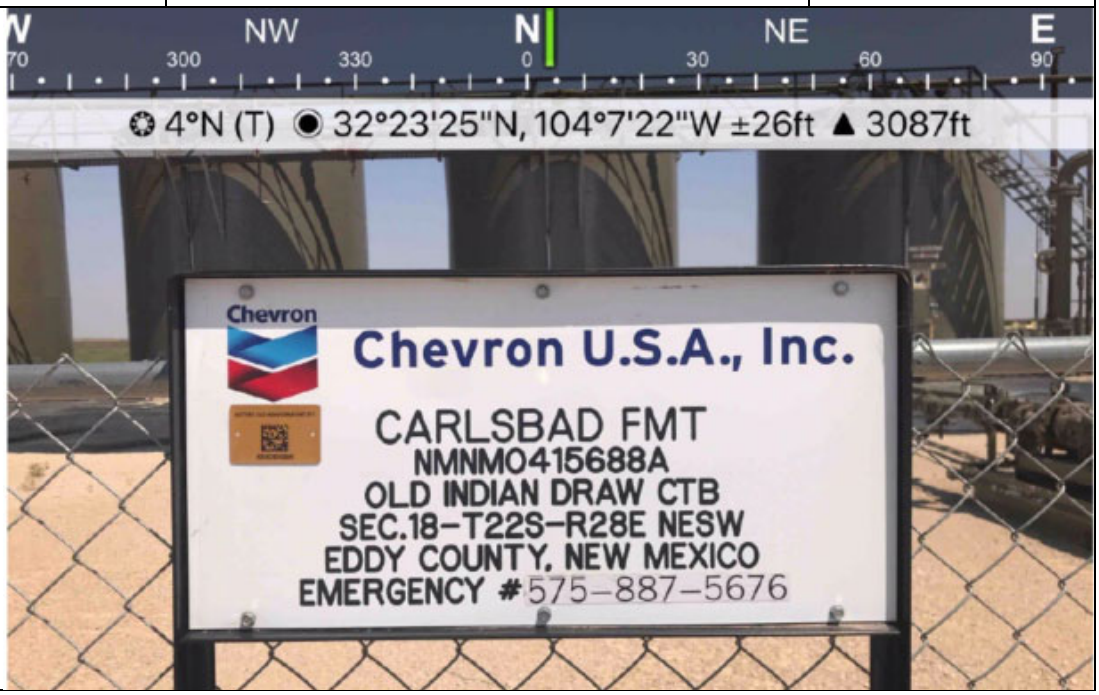
Photo No. 1	Date: 02/20/2023

Direction Photo Taken:

N

Description:

Location sign



ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Case No.
Old Indian Draw Tank Battery	Eddy County, NM	NRM2020935007

Photo No. 2	Date: 04/19/2022

Direction Photo Taken:

NE

Description:

Excavated area NE of Battery

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Case No.
Old Indian Draw Tank Battery	Eddy County, NM	NRM2020935007

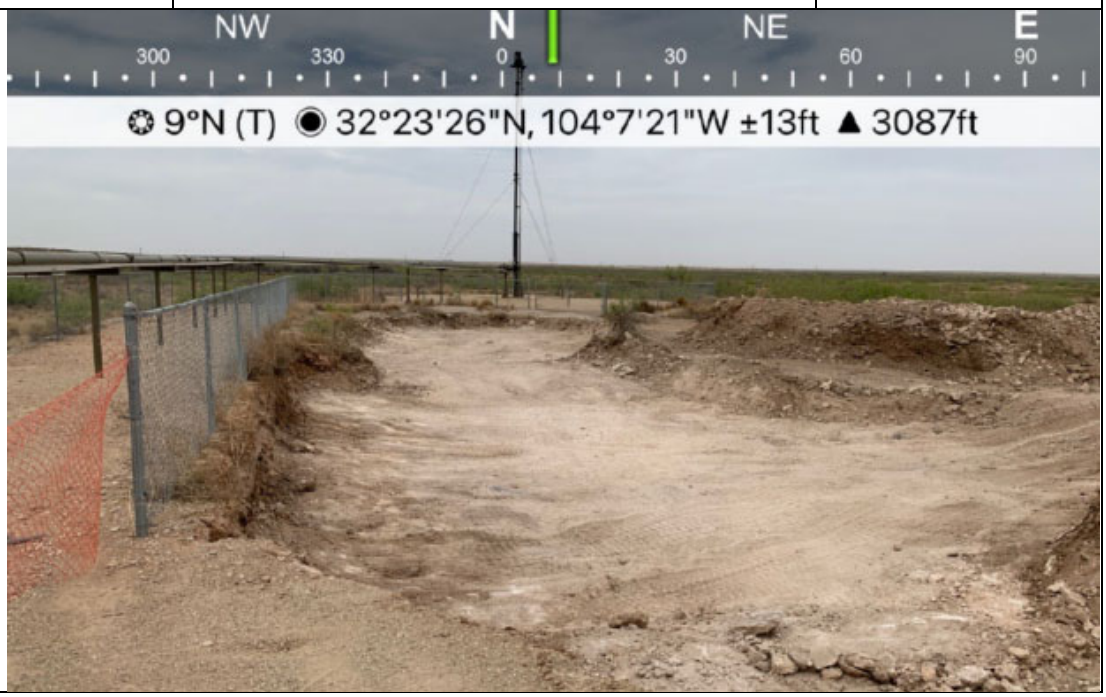
Photo No.	Date:
3	04/19/2022

Direction Photo Taken:

N

Description:

Excavated area



ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Case No.
Old Indian Draw Tank Battery	Eddy County, NM	NRM2020935007

Photo No.	Date:
4	02/20/2023

Direction Photo Taken:

SE

Description:

Excavated area

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Case No.
Old Indian Draw Tank Battery	Eddy County, NM	NRM2020935007

Photo No.	Date:
5	02/20/2023

Direction Photo Taken:

S

Description:

Area E of Battery

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Case No.
Old Indian Draw Tank Battery	Eddy County, NM	NRM2020935007

Photo No.	Date:
6	03/20/2023

Direction Photo Taken:

NE

Description:

View of excavation area backfilled on pad

ARCADIS

PHOTOGRAPHIC LOG

Property Name:/	Location:	Case No.
Old Indian Draw Tank Battery	Eddy County, NM	NRM2020935007

Photo No.	Date:
7	03/20/2023

Direction Photo Taken:

N

Description:

Backfilled excavation area near flare

Appendix D

Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Justin Nixon
ARCADIS U.S., Inc.
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 2/28/2023 4:50:32 PM Revision 2

JOB DESCRIPTION

Chevron Old Indian Draw Tank Battery
SDG NUMBER Eddy County

JOB NUMBER

880-24982-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

Eurofins Midland

Job Notes

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

Authorization

Generated
2/28/2023 4:50:32 PM
Revision 2

Authorized for release by
John Builes, Project Manager
John.Builes@et.eurofinsus.com
(561)558-4549

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Laboratory Job ID: 880-24982-1
SDG: Eddy County

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S., Inc. Job ID: 880-24982-1
Project/Site: Chevron Old Indian Draw Tank Battery SDG: Eddy County

Qualifiers

GC VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Job ID: 880-24982-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-24851-1

Receipt
The samples were received on 2/16/2023 2:07 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 3.5°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH-27-5-4.5'-20231302 (880-24851-1) and BH-28-5-4.5'-20231302 (880-24851-2).

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 method blank for preparation batch 880-46509 and analytical batch 880-46560 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-46509 and analytical batch 880-46560 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

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.

Narrative

Job Narrative
880-24982-1

REVISION

The report being provided is a revision of the original report sent on 2/22/2023. The report (revision 1) is being revised due to Revised report to correct transcription error from sample ID.

Report revision history

Receipt
The samples were received on 2/21/2023 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C

Receipt Exceptions
The following samples analyzed for method <TPH 8015> were received and analyzed from an unpreserved bulk soil jar

GC VOA
Method 8021B: The laboratory control sample (LCS) for preparation batch 880-46842 and analytical batch 880-46820 recovered outside control limits for the following analytes: Toluene, Ethylbenzene and o-Xylene. Since only an LCS is required to be acceptable per the method, the data was qualified and reported.

Case Narrative

Client: ARCADIS U.S., Inc. Job ID: 880-24982-1
Project/Site: Chevron Old Indian Draw Tank Battery SDG: Eddy County

Job ID: 880-24982-1 (Continued)

Laboratory: Eurofins Midland (Continued)

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-46842 and analytical batch 880-46820 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 8021B: Surrogate recovery for the following samples were outside control limits: (LCSD 880-46842/2-A), (880-24982-A-1-E MS) and (880-24982-A-1-F 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.

GC Semi VOA

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-46823 and analytical batch 880-46829 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-46824/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: BH-27-5-4.5'-20231302

Lab Sample ID: 880-24851-1
Matrix: Solid
Date Collected: 02/13/23 10:00
Date Received: 02/16/23 14:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000388	U	0.00202	0.000388	mg/Kg		02/16/23 14:15	02/17/23 02:36	1
Toluene	<0.000460	U	0.00202	0.000460	mg/Kg		02/16/23 14:15	02/17/23 02:36	1
Ethylbenzene	<0.000570	U	0.00202	0.000570	mg/Kg		02/16/23 14:15	02/17/23 02:36	1
m-Xylene & p-Xylene	<0.00102	U	0.00403	0.00102	mg/Kg		02/16/23 14:15	02/17/23 02:36	1
o-Xylene	<0.000347	U	0.00202	0.000347	mg/Kg		02/16/23 14:15	02/17/23 02:36	1
Xylenes, Total	<0.00102	U	0.00403	0.00102	mg/Kg		02/16/23 14:15	02/17/23 02:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*140*	*S1+*	*70 - 130*	*02/16/23 14:15*	*02/17/23 02:36*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*02/16/23 14:15*	*02/17/23 02:36*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00403	0.00102	mg/Kg			02/20/23 13:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**34.4**	**J**	50.0	15.0	mg/Kg			02/20/23 17:16	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	**34.4**	**J B *1**	50.0	15.0	mg/Kg		02/16/23 14:37	02/17/23 18:32	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		02/16/23 14:37	02/17/23 18:32	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/16/23 14:37	02/17/23 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*02/16/23 14:37*	*02/17/23 18:32*	*1*
o-Terphenyl	*93*		*70 - 130*	*02/16/23 14:37*	*02/17/23 18:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.397	U	5.02	0.397	mg/Kg			02/16/23 18:02	1

Client Sample ID: BH-28-5-4.5'-20231302

Lab Sample ID: 880-24851-2
Matrix: Solid
Date Collected: 02/13/23 10:10
Date Received: 02/16/23 14:07

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		02/16/23 14:15	02/17/23 02:56	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		02/16/23 14:15	02/17/23 02:56	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		02/16/23 14:15	02/17/23 02:56	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		02/16/23 14:15	02/17/23 02:56	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		02/16/23 14:15	02/17/23 02:56	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		02/16/23 14:15	02/17/23 02:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*139*	*S1+*	*70 - 130*	*02/16/23 14:15*	*02/17/23 02:56*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/16/23 14:15*	*02/17/23 02:56*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: BH-28-5-4.5'-20231302

Lab Sample ID: 880-24851-2
Matrix: Solid
Date Collected: 02/13/23 10:10
Date Received: 02/16/23 14:07

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			02/20/23 13:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**33.8**	**J**	50.0	15.0	mg/Kg			02/20/23 17:16	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	**33.8**	**J B *1**	50.0	15.0	mg/Kg		02/16/23 14:37	02/17/23 18:54	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		02/16/23 14:37	02/17/23 18:54	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/16/23 14:37	02/17/23 18:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*02/16/23 14:37*	*02/17/23 18:54*	*1*
o-Terphenyl	*91*		*70 - 130*	*02/16/23 14:37*	*02/17/23 18:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<3.94	U	49.9	3.94	mg/Kg			02/16/23 18:07	10

Client Sample ID: BH-29-5-4.5'-20230220

Lab Sample ID: 880-24982-1
Matrix: Solid
Date Collected: 02/20/23 10:20
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U F1	0.00201	0.000387	mg/Kg		02/21/23 11:47	02/21/23 14:36	1
Toluene	<0.000458	U F1 *-	0.00201	0.000458	mg/Kg		02/21/23 11:47	02/21/23 14:36	1
Ethylbenzene	<0.000567	U F1 *-	0.00201	0.000567	mg/Kg		02/21/23 11:47	02/21/23 14:36	1
m-Xylene & p-Xylene	<0.00101	U F1	0.00402	0.00101	mg/Kg		02/21/23 11:47	02/21/23 14:36	1
o-Xylene	<0.000345	U F1 *-	0.00201	0.000345	mg/Kg		02/21/23 11:47	02/21/23 14:36	1
Xylenes, Total	<0.00101	U *- F1	0.00402	0.00101	mg/Kg		02/21/23 11:47	02/21/23 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*185*	*S1+*	*70 - 130*	*02/21/23 11:47*	*02/21/23 14:36*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*02/21/23 11:47*	*02/21/23 14:36*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00402	0.00101	mg/Kg			02/22/23 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**39.2**	**J**	49.9	15.0	mg/Kg			02/22/23 16:01	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	**21.8**	**J B**	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 10:56	1
Diesel Range Organics (Over C10-C28)	**17.4**	**J B *1**	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 10:56	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: BH-29-5-4.5'-20230220

Lab Sample ID: 880-24982-1
Matrix: Solid
Date Collected: 02/20/23 10:20
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 10:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*02/21/23 08:38*	*02/21/23 10:56*	*1*
o-Terphenyl	*106*		*70 - 130*	*02/21/23 08:38*	*02/21/23 10:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**128**		5.04	0.398	mg/Kg			02/21/23 12:49	1

Client Sample ID: BH-30-5-4.5'-20230220

Lab Sample ID: 880-24982-2
Matrix: Solid
Date Collected: 02/20/23 10:30
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		02/21/23 11:47	02/21/23 14:57	1
Toluene	<0.000454	U *-	0.00199	0.000454	mg/Kg		02/21/23 11:47	02/21/23 14:57	1
Ethylbenzene	<0.000563	U *-	0.00199	0.000563	mg/Kg		02/21/23 11:47	02/21/23 14:57	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		02/21/23 11:47	02/21/23 14:57	1
o-Xylene	<0.000343	U *-	0.00199	0.000343	mg/Kg		02/21/23 11:47	02/21/23 14:57	1
Xylenes, Total	<0.00101	U *-	0.00398	0.00101	mg/Kg		02/21/23 11:47	02/21/23 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*191*	*S1+*	*70 - 130*	*02/21/23 11:47*	*02/21/23 14:57*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/21/23 11:47*	*02/21/23 14:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			02/22/23 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**16.9**	**J**	50.0	15.0	mg/Kg			02/22/23 16:01	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	**16.9**	**J B**	50.0	15.0	mg/Kg		02/21/23 08:38	02/21/23 12:01	1
Diesel Range Organics (Over C10-C28)	<15.0	U *1	50.0	15.0	mg/Kg		02/21/23 08:38	02/21/23 12:01	1
Oll Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/21/23 08:38	02/21/23 12:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*02/21/23 08:38*	*02/21/23 12:01*	*1*
o-Terphenyl	*88*		*70 - 130*	*02/21/23 08:38*	*02/21/23 12:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**226**		5.00	0.395	mg/Kg			02/21/23 13:07	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: BH-31-5-4.5'-20230220

Lab Sample ID: 880-24982-3
Matrix: Solid
Date Collected: 02/20/23 10:40
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		02/21/23 11:47	02/21/23 15:17	1
Toluene	<0.000453	U *-	0.00199	0.000453	mg/Kg		02/21/23 11:47	02/21/23 15:17	1
Ethylbenzene	<0.000562	U *-	0.00199	0.000562	mg/Kg		02/21/23 11:47	02/21/23 15:17	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		02/21/23 11:47	02/21/23 15:17	1
o-Xylene	**0.000389**	**J *-**	0.00199	0.000342	mg/Kg		02/21/23 11:47	02/21/23 15:17	1
Xylenes, Total	<0.00100	U *-	0.00398	0.00100	mg/Kg		02/21/23 11:47	02/21/23 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*222*	*S1+*	*70 - 130*	*02/21/23 11:47*	*02/21/23 15:17*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*02/21/23 11:47*	*02/21/23 15:17*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00398	0.00100	mg/Kg			02/22/23 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**51.9**		49.9	15.0	mg/Kg			02/22/23 16:01	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	**25.1**	**J B**	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 12:23	1
Diesel Range Organics (Over C10-C28)	**26.8**	**J B *1**	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 12:23	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 12:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*02/21/23 08:38*	*02/21/23 12:23*	*1*
o-Terphenyl	*86*		*70 - 130*	*02/21/23 08:38*	*02/21/23 12:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**269**		5.00	0.395	mg/Kg			02/21/23 13:13	1

Client Sample ID: BH-32-5-5'-20230220

Lab Sample ID: 880-24982-4
Matrix: Solid
Date Collected: 02/20/23 10:50
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.000632**	**J**	0.00200	0.000384	mg/Kg		02/21/23 11:47	02/21/23 15:38	1
Toluene	<0.000455	U *-	0.00200	0.000455	mg/Kg		02/21/23 11:47	02/21/23 15:38	1
Ethylbenzene	<0.000564	U *-	0.00200	0.000564	mg/Kg		02/21/23 11:47	02/21/23 15:38	1
m-Xylene & p-Xylene	**0.00189**	**J**	0.00399	0.00101	mg/Kg		02/21/23 11:47	02/21/23 15:38	1
o-Xylene	<0.000343	U *-	0.00200	0.000343	mg/Kg		02/21/23 11:47	02/21/23 15:38	1
Xylenes, Total	**0.00189**	**J *-**	0.00399	0.00101	mg/Kg		02/21/23 11:47	02/21/23 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*251*	*S1+*	*70 - 130*	*02/21/23 11:47*	*02/21/23 15:38*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*02/21/23 11:47*	*02/21/23 15:38*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: BH-32-5-5'-20230220

Lab Sample ID: 880-24982-4
Matrix: Solid
Date Collected: 02/20/23 10:50
Date Received: 02/21/23 08:00

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00252**	**J**	0.00399	0.00101	mg/Kg			02/22/23 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**36.0**	**J**	49.9	15.0	mg/Kg			02/22/23 16:01	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	**36.0**	**J B**	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 12:45	1
Diesel Range Organics (Over C10-C28)	<15.0	U *1	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 12:45	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 12:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*02/21/23 08:38*	*02/21/23 12:45*	*1*
o-Terphenyl	*87*		*70 - 130*	*02/21/23 08:38*	*02/21/23 12:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**146**		5.03	0.397	mg/Kg			02/21/23 13:20	1

Client Sample ID: BH-33-5-5'-20230220

Lab Sample ID: 880-24982-5
Matrix: Solid
Date Collected: 02/20/23 11:00
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		02/21/23 11:47	02/21/23 15:58	1
Toluene	<0.000459	U *-	0.00201	0.000459	mg/Kg		02/21/23 11:47	02/21/23 15:58	1
Ethylbenzene	<0.000568	U *-	0.00201	0.000568	mg/Kg		02/21/23 11:47	02/21/23 15:58	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		02/21/23 11:47	02/21/23 15:58	1
o-Xylene	<0.000346	U *-	0.00201	0.000346	mg/Kg		02/21/23 11:47	02/21/23 15:58	1
Xylenes, Total	<0.00102	U *-	0.00402	0.00102	mg/Kg		02/21/23 11:47	02/21/23 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*252*	*S1+*	*70 - 130*	*02/21/23 11:47*	*02/21/23 15:58*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*02/21/23 11:47*	*02/21/23 15:58*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00402	0.00102	mg/Kg			02/22/23 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**29.7**	**J**	50.0	15.0	mg/Kg			02/22/23 16:01	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	**29.7**	**J B**	50.0	15.0	mg/Kg		02/21/23 08:38	02/21/23 13:07	1
Diesel Range Organics (Over C10-C28)	<15.0	U *1	50.0	15.0	mg/Kg		02/21/23 08:38	02/21/23 13:07	1

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Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: BH-33-5-5'-20230220

Lab Sample ID: 880-24982-5
Matrix: Solid
Date Collected: 02/20/23 11:00
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/21/23 08:38	02/21/23 13:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*02/21/23 08:38*	*02/21/23 13:07*	*1*
o-Terphenyl	*97*		*70 - 130*	*02/21/23 08:38*	*02/21/23 13:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**334**		5.02	0.397	mg/Kg			02/21/23 13:26	1

Client Sample ID: BH-34-5-5'-20230220

Lab Sample ID: 880-24982-6
Matrix: Solid
Date Collected: 02/20/23 11:10
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		02/21/23 11:47	02/21/23 16:18	1
Toluene	<0.000457	U *-	0.00200	0.000457	mg/Kg		02/21/23 11:47	02/21/23 16:18	1
Ethylbenzene	<0.000566	U *-	0.00200	0.000566	mg/Kg		02/21/23 11:47	02/21/23 16:18	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		02/21/23 11:47	02/21/23 16:18	1
o-Xylene	**0.00161**	**J *-**	0.00200	0.000345	mg/Kg		02/21/23 11:47	02/21/23 16:18	1
Xylenes, Total	**0.00161**	**J *-**	0.00401	0.00101	mg/Kg		02/21/23 11:47	02/21/23 16:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*222*	*S1+*	*70 - 130*	*02/21/23 11:47*	*02/21/23 16:18*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*02/21/23 11:47*	*02/21/23 16:18*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00161**	**J**	0.00401	0.00101	mg/Kg			02/22/23 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**78.8**		50.0	15.0	mg/Kg			02/22/23 16:01	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	**41.8**	**J B**	50.0	15.0	mg/Kg		02/21/23 08:38	02/21/23 13:29	1
Diesel Range Organics (Over C10-C28)	**37.0**	**J B *1**	50.0	15.0	mg/Kg		02/21/23 08:38	02/21/23 13:29	1
Oll Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/21/23 08:38	02/21/23 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*02/21/23 08:38*	*02/21/23 13:29*	*1*
o-Terphenyl	*100*		*70 - 130*	*02/21/23 08:38*	*02/21/23 13:29*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**548**		4.98	0.393	mg/Kg			02/21/23 13:32	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: BH-35-5-6'-20230220

Lab Sample ID: 880-24982-7
Matrix: Solid
Date Collected: 02/20/23 13:00
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		02/21/23 11:47	02/21/23 17:05	1
Toluene	<0.000454	U *-	0.00199	0.000454	mg/Kg		02/21/23 11:47	02/21/23 17:05	1
Ethylbenzene	<0.000563	U *-	0.00199	0.000563	mg/Kg		02/21/23 11:47	02/21/23 17:05	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		02/21/23 11:47	02/21/23 17:05	1
o-Xylene	<0.000343	U *-	0.00199	0.000343	mg/Kg		02/21/23 11:47	02/21/23 17:05	1
Xylenes, Total	<0.00101	U *-	0.00398	0.00101	mg/Kg		02/21/23 11:47	02/21/23 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*02/21/23 11:47*	*02/21/23 17:05*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*02/21/23 11:47*	*02/21/23 17:05*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			02/22/23 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**82.9**		49.9	15.0	mg/Kg			02/22/23 16:01	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	**27.4**	**J B**	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 13:51	1
Diesel Range Organics (Over C10-C28)	**55.5**	**B *1**	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 13:51	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*02/21/23 08:38*	*02/21/23 13:51*	*1*
o-Terphenyl	*102*		*70 - 130*	*02/21/23 08:38*	*02/21/23 13:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**611**		4.96	0.392	mg/Kg			02/21/23 13:38	1

Client Sample ID: BH-36-5-5'-20230220

Lab Sample ID: 880-24982-8
Matrix: Solid
Date Collected: 02/20/23 11:30
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		02/21/23 11:47	02/21/23 17:26	1
Toluene	<0.000453	U *-	0.00199	0.000453	mg/Kg		02/21/23 11:47	02/21/23 17:26	1
Ethylbenzene	<0.000562	U *-	0.00199	0.000562	mg/Kg		02/21/23 11:47	02/21/23 17:26	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		02/21/23 11:47	02/21/23 17:26	1
o-Xylene	<0.000342	U *-	0.00199	0.000342	mg/Kg		02/21/23 11:47	02/21/23 17:26	1
Xylenes, Total	<0.00100	U *-	0.00398	0.00100	mg/Kg		02/21/23 11:47	02/21/23 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*02/21/23 11:47*	*02/21/23 17:26*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*02/21/23 11:47*	*02/21/23 17:26*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: BH-36-5-5'-20230220

Lab Sample ID: 880-24982-8
Matrix: Solid
Date Collected: 02/20/23 11:30
Date Received: 02/21/23 08:00

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00398	0.00100	mg/Kg			02/22/23 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**28.2**	**J**	49.9	15.0	mg/Kg			02/22/23 16:01	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	**28.2**	**J B**	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 14:13	1
Diesel Range Organics (Over C10-C28)	<15.0	U *1	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 14:13	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*02/21/23 08:38*	*02/21/23 14:13*	*1*
o-Terphenyl	*87*		*70 - 130*	*02/21/23 08:38*	*02/21/23 14:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**79.9**		4.96	0.392	mg/Kg			02/21/23 13:57	1

Client Sample ID: BH-37-5-5'-20230220

Lab Sample ID: 880-24982-9
Matrix: Solid
Date Collected: 02/20/23 11:40
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		02/21/23 11:47	02/21/23 17:46	1
Toluene	<0.000454	U *-	0.00199	0.000454	mg/Kg		02/21/23 11:47	02/21/23 17:46	1
Ethylbenzene	<0.000563	U *-	0.00199	0.000563	mg/Kg		02/21/23 11:47	02/21/23 17:46	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		02/21/23 11:47	02/21/23 17:46	1
o-Xylene	<0.000343	U *-	0.00199	0.000343	mg/Kg		02/21/23 11:47	02/21/23 17:46	1
Xylenes, Total	<0.00101	U *-	0.00398	0.00101	mg/Kg		02/21/23 11:47	02/21/23 17:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*02/21/23 11:47*	*02/21/23 17:46*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/21/23 11:47*	*02/21/23 17:46*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			02/22/23 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**35.7**	**J**	50.0	15.0	mg/Kg			02/22/23 16:01	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	**35.7**	**J B**	50.0	15.0	mg/Kg		02/21/23 08:38	02/21/23 14:36	1
Diesel Range Organics (Over C10-C28)	<15.0	U *1	50.0	15.0	mg/Kg		02/21/23 08:38	02/21/23 14:36	1

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Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: BH-37-5-5'-20230220

Lab Sample ID: 880-24982-9
Matrix: Solid
Date Collected: 02/20/23 11:40
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oll Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/21/23 08:38	02/21/23 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*02/21/23 08:38*	*02/21/23 14:36*	*1*
o-Terphenyl	*97*		*70 - 130*	*02/21/23 08:38*	*02/21/23 14:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**149**		4.97	0.393	mg/Kg			02/21/23 14:03	1

Client Sample ID: BH-38-5-3'-20230220

Lab Sample ID: 880-24982-10
Matrix: Solid
Date Collected: 02/20/23 11:50
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		02/21/23 11:47	02/21/23 18:07	1
Toluene	<0.000453	U *-	0.00199	0.000453	mg/Kg		02/21/23 11:47	02/21/23 18:07	1
Ethylbenzene	<0.000562	U *-	0.00199	0.000562	mg/Kg		02/21/23 11:47	02/21/23 18:07	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		02/21/23 11:47	02/21/23 18:07	1
o-Xylene	<0.000342	U *-	0.00199	0.000342	mg/Kg		02/21/23 11:47	02/21/23 18:07	1
Xylenes, Total	<0.00100	U *-	0.00398	0.00100	mg/Kg		02/21/23 11:47	02/21/23 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*02/21/23 11:47*	*02/21/23 18:07*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*02/21/23 11:47*	*02/21/23 18:07*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00398	0.00100	mg/Kg			02/22/23 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**36.5**	**J**	49.9	15.0	mg/Kg			02/22/23 16:01	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	**36.5**	**J B**	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 14:58	1
Diesel Range Organics (Over C10-C28)	<15.0	U *1	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 14:58	1
Oll Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/21/23 08:38	02/21/23 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*02/21/23 08:38*	*02/21/23 14:58*	*1*
o-Terphenyl	*84*		*70 - 130*	*02/21/23 08:38*	*02/21/23 14:58*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**48.5**		5.03	0.397	mg/Kg			02/21/23 14:21	1

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: SW-12-5-0-5'-20230220

Lab Sample ID: 880-24982-11
Matrix: Solid
Date Collected: 02/20/23 13:50
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		02/21/23 11:47	02/21/23 19:57	1
Toluene	<0.000455	U *-	0.00200	0.000455	mg/Kg		02/21/23 11:47	02/21/23 19:57	1
Ethylbenzene	**0.000737**	**J *-**	0.00200	0.000564	mg/Kg		02/21/23 11:47	02/21/23 19:57	1
m-Xylene & p-Xylene	**0.00132**	**J**	0.00399	0.00101	mg/Kg		02/21/23 11:47	02/21/23 19:57	1
o-Xylene	**0.000564**	**J *-**	0.00200	0.000343	mg/Kg		02/21/23 11:47	02/21/23 19:57	1
Xylenes, Total	**0.00188**	**J *-**	0.00399	0.00101	mg/Kg		02/21/23 11:47	02/21/23 19:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*02/21/23 11:47*	*02/21/23 19:57*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*02/21/23 11:47*	*02/21/23 19:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00262**	**J**	0.00399	0.00101	mg/Kg			02/22/23 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**15.4**	**J**	49.9	15.0	mg/Kg			02/22/23 16:26	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	<15.0	U	49.9	15.0	mg/Kg		02/21/23 08:40	02/21/23 13:51	1
Diesel Range Organics (Over C10-C28)	**15.4**	**J**	49.9	15.0	mg/Kg		02/21/23 08:40	02/21/23 13:51	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/21/23 08:40	02/21/23 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*02/21/23 08:40*	*02/21/23 13:51*	*1*
o-Terphenyl	*121*		*70 - 130*	*02/21/23 08:40*	*02/21/23 13:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**319**		5.00	0.395	mg/Kg			02/21/23 14:27	1

Client Sample ID: SW-13-5-0-5'-20230220

Lab Sample ID: 880-24982-12
Matrix: Solid
Date Collected: 02/20/23 14:00
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		02/21/23 11:47	02/21/23 20:17	1
Toluene	<0.000459	U *-	0.00201	0.000459	mg/Kg		02/21/23 11:47	02/21/23 20:17	1
Ethylbenzene	<0.000568	U *-	0.00201	0.000568	mg/Kg		02/21/23 11:47	02/21/23 20:17	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		02/21/23 11:47	02/21/23 20:17	1
o-Xylene	<0.000346	U *-	0.00201	0.000346	mg/Kg		02/21/23 11:47	02/21/23 20:17	1
Xylenes, Total	<0.00102	U *-	0.00402	0.00102	mg/Kg		02/21/23 11:47	02/21/23 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*02/21/23 11:47*	*02/21/23 20:17*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*02/21/23 11:47*	*02/21/23 20:17*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: SW-13-5-0-5'-20230220

Lab Sample ID: 880-24982-12
Matrix: Solid
Date Collected: 02/20/23 14:00
Date Received: 02/21/23 08:00

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00402	0.00102	mg/Kg			02/22/23 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**17.6**	**J**	50.0	15.0	mg/Kg			02/22/23 16:26	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	**17.6**	**J**	50.0	15.0	mg/Kg		02/21/23 08:40	02/21/23 14:13	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		02/21/23 08:40	02/21/23 14:13	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/21/23 08:40	02/21/23 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*02/21/23 08:40*	*02/21/23 14:13*	*1*
o-Terphenyl	*108*		*70 - 130*	*02/21/23 08:40*	*02/21/23 14:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**250**		4.98	0.393	mg/Kg			02/21/23 14:34	1

Client Sample ID: SW-14-5-0-5'-20230220

Lab Sample ID: 880-24982-13
Matrix: Solid
Date Collected: 02/20/23 14:10
Date Received: 02/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		02/21/23 11:47	02/21/23 20:38	1
Toluene	<0.000457	U *-	0.00200	0.000457	mg/Kg		02/21/23 11:47	02/21/23 20:38	1
Ethylbenzene	<0.000566	U *-	0.00200	0.000566	mg/Kg		02/21/23 11:47	02/21/23 20:38	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		02/21/23 11:47	02/21/23 20:38	1
o-Xylene	<0.000345	U *-	0.00200	0.000345	mg/Kg		02/21/23 11:47	02/21/23 20:38	1
Xylenes, Total	<0.00101	U *-	0.00401	0.00101	mg/Kg		02/21/23 11:47	02/21/23 20:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*02/21/23 11:47*	*02/21/23 20:38*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*02/21/23 11:47*	*02/21/23 20:38*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			02/22/23 14:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**45.2**	**J**	50.0	15.0	mg/Kg			02/22/23 16:26	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	**29.8**	**J**	50.0	15.0	mg/Kg		02/21/23 08:40	02/21/23 14:36	1
Diesel Range Organics (Over C10-C28)	**15.4**	**J**	50.0	15.0	mg/Kg		02/21/23 08:40	02/21/23 14:36	1

Eurofins Midland

Client Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: SW-14-5-0-5'-20230220

Date Collected: 02/20/23 14:10
Date Received: 02/21/23 08:00

Lab Sample ID: 880-24982-13

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/21/23 08:40	02/21/23 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*02/21/23 08:40*	*02/21/23 14:36*	*1*
o-Terphenyl	*110*		*70 - 130*	*02/21/23 08:40*	*02/21/23 14:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**153**		4.97	0.393	mg/Kg			02/21/23 14:40	1

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-24851-1	BH-27-5-4.5'-20231302	140 S1+	110
880-24851-2	BH-28-5-4.5'-20231302	139 S1+	106
880-24982-1	BH-29-5-4.5'-20230220	185 S1+	94
880-24982-1 MS	BH-29-5-4.5'-20230220	168 S1+	96
880-24982-1 MSD	BH-29-5-4.5'-20230220	171 S1+	96
880-24982-2	BH-30-5-4.5'-20230220	191 S1+	97
880-24982-3	BH-31-5-4.5'-20230220	222 S1+	93
880-24982-4	BH-32-5-5'-20230220	251 S1+	98
880-24982-5	BH-33-5-5'-20230220	252 S1+	84
880-24982-6	BH-34-5-5'-20230220	222 S1+	90
880-24982-7	BH-35-5-6'-20230220	122	115
880-24982-8	BH-36-5-5'-20230220	110	100
880-24982-9	BH-37-5-5'-20230220	116	108
880-24982-10	BH-38-5-3'-20230220	110	106
880-24982-11	SW-12-5-0-5'-20230220	108	96
880-24982-12	SW-13-5-0-5'-20230220	114	108
880-24982-13	SW-14-5-0-5'-20230220	110	113
LCS 880-46534/1-A	Lab Control Sample	127	106
LCS 880-46842/1-A	Lab Control Sample	159 S1+	96
LCSD 880-46534/2-A	Lab Control Sample Dup	128	106
LCSD 880-46842/2-A	Lab Control Sample Dup	151 S1+	99
MB 880-46421/5-A	Method Blank	119	98
MB 880-46534/5-A	Method Blank	121	102
MB 880-46842/5-A	Method Blank	167 S1+	95

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-24851-1	BH-27-5-4.5'-20231302	101	93
880-24851-2	BH-28-5-4.5'-20231302	98	91
880-24982-1	BH-29-5-4.5'-20230220	108	106
880-24982-1 MS	BH-29-5-4.5'-20230220	117	106
880-24982-1 MSD	BH-29-5-4.5'-20230220	120	109
880-24982-2	BH-30-5-4.5'-20230220	87	88
880-24982-3	BH-31-5-4.5'-20230220	87	86
880-24982-4	BH-32-5-5'-20230220	87	87
880-24982-5	BH-33-5-5'-20230220	101	97
880-24982-6	BH-34-5-5'-20230220	104	100
880-24982-7	BH-35-5-6'-20230220	106	102
880-24982-8	BH-36-5-5'-20230220	87	87
880-24982-9	BH-37-5-5'-20230220	101	97
880-24982-10	BH-38-5-3'-20230220	83	84
880-24982-11	SW-12-5-0-5'-20230220	113	121

Surrogate Summary

Client: ARCADIS U.S., Inc. Job ID: 880-24982-1
Project/Site: Chevron Old Indian Draw Tank Battery SDG: Eddy County

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-24982-12	SW-13-5-0-5'-20230220	99	108
880-24982-13	SW-14-5-0-5'-20230220	101	110
890-4113-A-1-H MS	Matrix Spike	118	112
890-4113-A-1-I MSD	Matrix Spike Duplicate	128	125
LCS 880-46509/2-A	Lab Control Sample	100	90
LCS 880-46823/2-A	Lab Control Sample	127	129
LCS 880-46824/2-A	Lab Control Sample	83	90
LCSD 880-46509/3-A	Lab Control Sample Dup	100	99
LCSD 880-46823/3-A	Lab Control Sample Dup	114	108
LCSD 880-46824/3-A	Lab Control Sample Dup	82	91
MB 880-46509/1-A	Method Blank	100	94
MB 880-46823/1-A	Method Blank	104	108
MB 880-46824/1-A	Method Blank	137 S1+	156 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46421/5-A
Matrix: Solid
Analysis Batch: 46482

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46421

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		02/15/23 13:08	02/16/23 14:11	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		02/15/23 13:08	02/16/23 14:11	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		02/15/23 13:08	02/16/23 14:11	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		02/15/23 13:08	02/16/23 14:11	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		02/15/23 13:08	02/16/23 14:11	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		02/15/23 13:08	02/16/23 14:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*02/15/23 13:08*	*02/16/23 14:11*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*02/15/23 13:08*	*02/16/23 14:11*	*1*

Lab Sample ID: MB 880-46534/5-A
Matrix: Solid
Analysis Batch: 46482

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46534

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		02/16/23 14:15	02/17/23 01:47	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		02/16/23 14:15	02/17/23 01:47	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		02/16/23 14:15	02/17/23 01:47	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		02/16/23 14:15	02/17/23 01:47	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		02/16/23 14:15	02/17/23 01:47	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		02/16/23 14:15	02/17/23 01:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*02/16/23 14:15*	*02/17/23 01:47*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*02/16/23 14:15*	*02/17/23 01:47*	*1*

Lab Sample ID: LCS 880-46534/1-A
Matrix: Solid
Analysis Batch: 46482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46534

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1259		mg/Kg		126	70 - 130
Toluene	0.100	0.1242		mg/Kg		124	70 - 130
Ethylbenzene	0.100	0.1209		mg/Kg		121	70 - 130
m-Xylene & p-Xylene	0.200	0.2489		mg/Kg		124	70 - 130
o-Xylene	0.100	0.1205		mg/Kg		121	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-46534/2-A
Matrix: Solid
Analysis Batch: 46482

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46534

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1261		mg/Kg		126	70 - 130	0	35

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

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

Lab Sample ID: LCSD 880-46534/2-A
Matrix: Solid
Analysis Batch: 46482

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46534

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1238		mg/Kg		124	70 - 130	0	35
Ethylbenzene			0.100	0.1230		mg/Kg		123	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.2540		mg/Kg		127	70 - 130	2	35
o-Xylene			0.100	0.1231		mg/Kg		123	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: MB 880-46842/5-A
Matrix: Solid
Analysis Batch: 46820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46842

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		02/21/23 11:47	02/21/23 14:08	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		02/21/23 11:47	02/21/23 14:08	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		02/21/23 11:47	02/21/23 14:08	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		02/21/23 11:47	02/21/23 14:08	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		02/21/23 11:47	02/21/23 14:08	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		02/21/23 11:47	02/21/23 14:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*167*	*S1+*	*70 - 130*	*02/21/23 11:47*	*02/21/23 14:08*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*02/21/23 11:47*	*02/21/23 14:08*	*1*

Lab Sample ID: LCS 880-46842/1-A
Matrix: Solid
Analysis Batch: 46820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46842

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.07828		mg/Kg		78	70 - 130		
Toluene			0.100	0.07493		mg/Kg		75	70 - 130		
Ethylbenzene			0.100	0.07608		mg/Kg		76	70 - 130		
m-Xylene & p-Xylene			0.200	0.1610		mg/Kg		81	70 - 130		
o-Xylene			0.100	0.07663		mg/Kg		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*159*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: LCSD 880-46842/2-A
Matrix: Solid
Analysis Batch: 46820

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46842

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.07074		mg/Kg		71	70 - 130	10	35
Toluene			0.100	0.06627	*-	mg/Kg		66	70 - 130	12	35
Ethylbenzene			0.100	0.06669	*-	mg/Kg		67	70 - 130	13	35

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

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

Lab Sample ID: LCSD 880-46842/2-A
Matrix: Solid
Analysis Batch: 46820

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46842

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
m-Xylene & p-Xylene			0.200	0.1403		mg/Kg		70	70 - 130	14	35
o-Xylene			0.100	0.06695	*-	mg/Kg		67	70 - 130	13	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*151*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-24982-1 MS
Matrix: Solid
Analysis Batch: 46820

Client Sample ID: BH-29-5-4.5'-20230220
Prep Type: Total/NA
Prep Batch: 46842

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.000387	U F1	0.0998	0.05587	F1	mg/Kg		56	70 - 130
Toluene	<0.000458	U F1 *-	0.0998	0.05766	F1	mg/Kg		58	70 - 130
Ethylbenzene	<0.000567	U F1 *-	0.0998	0.05909	F1	mg/Kg		59	70 - 130
m-Xylene & p-Xylene	<0.00101	U F1	0.200	0.1276	F1	mg/Kg		64	70 - 130
o-Xylene	<0.000345	U F1 *-	0.0998	0.06122	F1	mg/Kg		61	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*168*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 880-24982-1 MSD
Matrix: Solid
Analysis Batch: 46820

Client Sample ID: BH-29-5-4.5'-20230220
Prep Type: Total/NA
Prep Batch: 46842

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.000387	U F1	0.100	0.05576	F1	mg/Kg		56	70 - 130	0	35
Toluene	<0.000458	U F1 *-	0.100	0.05656	F1	mg/Kg		56	70 - 130	2	35
Ethylbenzene	<0.000567	U F1 *-	0.100	0.05806	F1	mg/Kg		58	70 - 130	2	35
m-Xylene & p-Xylene	<0.00101	U F1	0.201	0.1243	F1	mg/Kg		62	70 - 130	3	35
o-Xylene	<0.000345	U F1 *-	0.100	0.06031	F1	mg/Kg		60	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*171*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

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

Lab Sample ID: MB 880-46509/1-A
Matrix: Solid
Analysis Batch: 46560

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46509

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	23.75	J	50.0	15.0	mg/Kg		02/16/23 09:47	02/17/23 08:54	1
Diesel Range Organics (Over C10-C28)	20.71	J	50.0	15.0	mg/Kg		02/16/23 09:47	02/17/23 08:54	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/16/23 09:47	02/17/23 08:54	1

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	02/16/23 09:47	02/17/23 08:54	1
o-Terphenyl	94		70 - 130	02/16/23 09:47	02/17/23 08:54	1

Lab Sample ID: LCS 880-46509/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 46560 — **Prep Batch: 46509**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	825.8		mg/Kg		83	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	912.4		mg/Kg		91	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: LCSD 880-46509/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 46560 — **Prep Batch: 46509**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1126	*1	mg/Kg		113	70 - 130	31	20
Diesel Range Organics (Over C10-C28)			1000	1011		mg/Kg		101	70 - 130	10	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: MB 880-46823/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 46829 — **Prep Batch: 46823**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	24.20	J	50.0	15.0	mg/Kg		02/21/23 08:38	02/21/23 08:17	1
Diesel Range Organics (Over C10-C28)	32.59	J	50.0	15.0	mg/Kg		02/21/23 08:38	02/21/23 08:17	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/21/23 08:38	02/21/23 08:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	02/21/23 08:38	02/21/23 08:17	1
o-Terphenyl	108		70 - 130	02/21/23 08:38	02/21/23 08:17	1

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

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

Lab Sample ID: LCS 880-46823/2-A
Matrix: Solid
Analysis Batch: 46829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46823

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1049		mg/Kg		105	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1212		mg/Kg		121	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*127*		*70 - 130*
o-Terphenyl	*129*		*70 - 130*

Lab Sample ID: LCSD 880-46823/3-A
Matrix: Solid
Analysis Batch: 46829

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46823

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	857.5		mg/Kg		86	70 - 130	20	20
Diesel Range Organics (Over C10-C28)			1000	955.2	*1	mg/Kg		96	70 - 130	24	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*114*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: 880-24982-1 MS
Matrix: Solid
Analysis Batch: 46829

Client Sample ID: BH-29-5-4.5'-20230220
Prep Type: Total/NA
Prep Batch: 46823

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	21.8	J B	997	1193		mg/Kg		117	70 - 130		
Diesel Range Organics (Over C10-C28)	17.4	J B *1	997	1034		mg/Kg		102	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*117*		*70 - 130*
o-Terphenyl	*106*		*70 - 130*

Lab Sample ID: 880-24982-1 MSD
Matrix: Solid
Analysis Batch: 46829

Client Sample ID: BH-29-5-4.5'-20230220
Prep Type: Total/NA
Prep Batch: 46823

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	21.8	J B	998	987.5		mg/Kg		97	70 - 130	19	20
Diesel Range Organics (Over C10-C28)	17.4	J B *1	998	1068		mg/Kg		105	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*120*		*70 - 130*

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

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

Lab Sample ID: 880-24982-1 MSD
Matrix: Solid
Analysis Batch: 46829

Client Sample ID: BH-29-5-4.5'-20230220
Prep Type: Total/NA
Prep Batch: 46823

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	109		70 - 130

Lab Sample ID: MB 880-46824/1-A
Matrix: Solid
Analysis Batch: 46831

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46824

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		02/21/23 08:40	02/21/23 08:17	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		02/21/23 08:40	02/21/23 08:17	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/21/23 08:40	02/21/23 08:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	137	S1+	70 - 130	02/21/23 08:40	02/21/23 08:17	1
o-Terphenyl	156	S1+	70 - 130	02/21/23 08:40	02/21/23 08:17	1

Lab Sample ID: LCS 880-46824/2-A
Matrix: Solid
Analysis Batch: 46831

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46824

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1084		mg/Kg		108	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1170		mg/Kg		117	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	83		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: LCSD 880-46824/3-A
Matrix: Solid
Analysis Batch: 46831

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46824

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1130		mg/Kg		113	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	1043		mg/Kg		104	70 - 130	12	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	91		70 - 130

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

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

Lab Sample ID: 890-4113-A-1-H MS
Matrix: Solid
Analysis Batch: 46831

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 46824

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	22.0	J	997	1190		mg/Kg		117	70 - 130
Diesel Range Organics (Over C10-C28)	168		997	1295		mg/Kg		113	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*118*		*70 - 130*
o-Terphenyl	*112*		*70 - 130*

Lab Sample ID: 890-4113-A-1-I MSD
Matrix: Solid
Analysis Batch: 46831

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 46824

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	22.0	J	999	1240		mg/Kg		122	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	168		999	1413		mg/Kg		125	70 - 130	9	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*128*		*70 - 130*
o-Terphenyl	*125*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46519/1-A
Matrix: Solid
Analysis Batch: 46554

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			02/16/23 17:33	1

Lab Sample ID: LCS 880-46519/2-A
Matrix: Solid
Analysis Batch: 46554

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	232.5		mg/Kg		93	90 - 110

Lab Sample ID: LCSD 880-46519/3-A
Matrix: Solid
Analysis Batch: 46554

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	237.5		mg/Kg		95	90 - 110	2	20

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-46827/1-A
Matrix: Solid
Analysis Batch: 46839

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			02/21/23 11:53	1

Lab Sample ID: LCS 880-46827/2-A
Matrix: Solid
Analysis Batch: 46839

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	237.0		mg/Kg		95	90 - 110		

Lab Sample ID: LCSD 880-46827/3-A
Matrix: Solid
Analysis Batch: 46839

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	236.9		mg/Kg		95	90 - 110	0	20

Lab Sample ID: 880-24982-7 MS
Matrix: Solid
Analysis Batch: 46839

Client Sample ID: BH-35-5-6'-20230220
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	611		248	840.8		mg/Kg		93	90 - 110		

Lab Sample ID: 880-24982-7 MSD
Matrix: Solid
Analysis Batch: 46839

Client Sample ID: BH-35-5-6'-20230220
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	611		248	833.4		mg/Kg		90	90 - 110	1	20

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

GC VOA

Prep Batch: 46421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-46421/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 46482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24851-1	BH-27-5-4.5'-20231302	Total/NA	Solid	8021B	46534
880-24851-2	BH-28-5-4.5'-20231302	Total/NA	Solid	8021B	46534
MB 880-46421/5-A	Method Blank	Total/NA	Solid	8021B	46421
MB 880-46534/5-A	Method Blank	Total/NA	Solid	8021B	46534
LCS 880-46534/1-A	Lab Control Sample	Total/NA	Solid	8021B	46534
LCSD 880-46534/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46534

Prep Batch: 46534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24851-1	BH-27-5-4.5'-20231302	Total/NA	Solid	5030B	
880-24851-2	BH-28-5-4.5'-20231302	Total/NA	Solid	5030B	
MB 880-46534/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-46534/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-46534/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 46733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24851-1	BH-27-5-4.5'-20231302	Total/NA	Solid	Total BTEX	
880-24851-2	BH-28-5-4.5'-20231302	Total/NA	Solid	Total BTEX	

Analysis Batch: 46820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24982-1	BH-29-5-4.5'-20230220	Total/NA	Solid	8021B	46842
880-24982-2	BH-30-5-4.5'-20230220	Total/NA	Solid	8021B	46842
880-24982-3	BH-31-5-4.5'-20230220	Total/NA	Solid	8021B	46842
880-24982-4	BH-32-5-5'-20230220	Total/NA	Solid	8021B	46842
880-24982-5	BH-33-5-5'-20230220	Total/NA	Solid	8021B	46842
880-24982-6	BH-34-5-5'-20230220	Total/NA	Solid	8021B	46842
880-24982-7	BH-35-5-6'-20230220	Total/NA	Solid	8021B	46842
880-24982-8	BH-36-5-5'-20230220	Total/NA	Solid	8021B	46842
880-24982-9	BH-37-5-5'-20230220	Total/NA	Solid	8021B	46842
880-24982-10	BH-38-5-3'-20230220	Total/NA	Solid	8021B	46842
880-24982-11	SW-12-5-0-5'-20230220	Total/NA	Solid	8021B	46842
880-24982-12	SW-13-5-0-5'-20230220	Total/NA	Solid	8021B	46842
880-24982-13	SW-14-5-0-5'-20230220	Total/NA	Solid	8021B	46842
MB 880-46842/5-A	Method Blank	Total/NA	Solid	8021B	46842
LCS 880-46842/1-A	Lab Control Sample	Total/NA	Solid	8021B	46842
LCSD 880-46842/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46842
880-24982-1 MS	BH-29-5-4.5'-20230220	Total/NA	Solid	8021B	46842
880-24982-1 MSD	BH-29-5-4.5'-20230220	Total/NA	Solid	8021B	46842

Prep Batch: 46842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24982-1	BH-29-5-4.5'-20230220	Total/NA	Solid	5030B	
880-24982-2	BH-30-5-4.5'-20230220	Total/NA	Solid	5030B	
880-24982-3	BH-31-5-4.5'-20230220	Total/NA	Solid	5030B	
880-24982-4	BH-32-5-5'-20230220	Total/NA	Solid	5030B	

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

GC VOA (Continued)

Prep Batch: 46842 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24982-5	BH-33-5-5'-20230220	Total/NA	Solid	5030B	
880-24982-6	BH-34-5-5'-20230220	Total/NA	Solid	5030B	
880-24982-7	BH-35-5-6'-20230220	Total/NA	Solid	5030B	
880-24982-8	BH-36-5-5'-20230220	Total/NA	Solid	5030B	
880-24982-9	BH-37-5-5'-20230220	Total/NA	Solid	5030B	
880-24982-10	BH-38-5-3'-20230220	Total/NA	Solid	5030B	
880-24982-11	SW-12-5-0-5'-20230220	Total/NA	Solid	5030B	
880-24982-12	SW-13-5-0-5'-20230220	Total/NA	Solid	5030B	
880-24982-13	SW-14-5-0-5'-20230220	Total/NA	Solid	5030B	
MB 880-46842/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-46842/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-46842/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
880-24982-1 MS	BH-29-5-4.5'-20230220	Total/NA	Solid	5030B	
880-24982-1 MSD	BH-29-5-4.5'-20230220	Total/NA	Solid	5030B	

Analysis Batch: 46943

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24982-1	BH-29-5-4.5'-20230220	Total/NA	Solid	Total BTEX	
880-24982-2	BH-30-5-4.5'-20230220	Total/NA	Solid	Total BTEX	
880-24982-3	BH-31-5-4.5'-20230220	Total/NA	Solid	Total BTEX	
880-24982-4	BH-32-5-5'-20230220	Total/NA	Solid	Total BTEX	
880-24982-5	BH-33-5-5'-20230220	Total/NA	Solid	Total BTEX	
880-24982-6	BH-34-5-5'-20230220	Total/NA	Solid	Total BTEX	
880-24982-7	BH-35-5-6'-20230220	Total/NA	Solid	Total BTEX	
880-24982-8	BH-36-5-5'-20230220	Total/NA	Solid	Total BTEX	
880-24982-9	BH-37-5-5'-20230220	Total/NA	Solid	Total BTEX	
880-24982-10	BH-38-5-3'-20230220	Total/NA	Solid	Total BTEX	
880-24982-11	SW-12-5-0-5'-20230220	Total/NA	Solid	Total BTEX	
880-24982-12	SW-13-5-0-5'-20230220	Total/NA	Solid	Total BTEX	
880-24982-13	SW-14-5-0-5'-20230220	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 46509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24851-1	BH-27-5-4.5'-20231302	Total/NA	Solid	8015NM Prep	
880-24851-2	BH-28-5-4.5'-20231302	Total/NA	Solid	8015NM Prep	
MB 880-46509/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46509/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46509/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24851-1	BH-27-5-4.5'-20231302	Total/NA	Solid	8015B NM	46509
880-24851-2	BH-28-5-4.5'-20231302	Total/NA	Solid	8015B NM	46509
MB 880-46509/1-A	Method Blank	Total/NA	Solid	8015B NM	46509
LCS 880-46509/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46509
LCSD 880-46509/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46509

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

GC Semi VOA

Analysis Batch: 46803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24851-1	BH-27-5-4.5'-20231302	Total/NA	Solid	8015 NM	
880-24851-2	BH-28-5-4.5'-20231302	Total/NA	Solid	8015 NM	

Prep Batch: 46823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24982-1	BH-29-5-4.5'-20230220	Total/NA	Solid	8015NM Prep	
880-24982-2	BH-30-5-4.5'-20230220	Total/NA	Solid	8015NM Prep	
880-24982-3	BH-31-5-4.5'-20230220	Total/NA	Solid	8015NM Prep	
880-24982-4	BH-32-5-5'-20230220	Total/NA	Solid	8015NM Prep	
880-24982-5	BH-33-5-5'-20230220	Total/NA	Solid	8015NM Prep	
880-24982-6	BH-34-5-5'-20230220	Total/NA	Solid	8015NM Prep	
880-24982-7	BH-35-5-6'-20230220	Total/NA	Solid	8015NM Prep	
880-24982-8	BH-36-5-5'-20230220	Total/NA	Solid	8015NM Prep	
880-24982-9	BH-37-5-5'-20230220	Total/NA	Solid	8015NM Prep	
880-24982-10	BH-38-5-3'-20230220	Total/NA	Solid	8015NM Prep	
MB 880-46823/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46823/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46823/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24982-1 MS	BH-29-5-4.5'-20230220	Total/NA	Solid	8015NM Prep	
880-24982-1 MSD	BH-29-5-4.5'-20230220	Total/NA	Solid	8015NM Prep	

Prep Batch: 46824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24982-11	SW-12-5-0-5'-20230220	Total/NA	Solid	8015NM Prep	
880-24982-12	SW-13-5-0-5'-20230220	Total/NA	Solid	8015NM Prep	
880-24982-13	SW-14-5-0-5'-20230220	Total/NA	Solid	8015NM Prep	
MB 880-46824/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46824/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46824/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4113-A-1-H MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4113-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 46829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24982-1	BH-29-5-4.5'-20230220	Total/NA	Solid	8015B NM	46823
880-24982-2	BH-30-5-4.5'-20230220	Total/NA	Solid	8015B NM	46823
880-24982-3	BH-31-5-4.5'-20230220	Total/NA	Solid	8015B NM	46823
880-24982-4	BH-32-5-5'-20230220	Total/NA	Solid	8015B NM	46823
880-24982-5	BH-33-5-5'-20230220	Total/NA	Solid	8015B NM	46823
880-24982-6	BH-34-5-5'-20230220	Total/NA	Solid	8015B NM	46823
880-24982-7	BH-35-5-6'-20230220	Total/NA	Solid	8015B NM	46823
880-24982-8	BH-36-5-5'-20230220	Total/NA	Solid	8015B NM	46823
880-24982-9	BH-37-5-5'-20230220	Total/NA	Solid	8015B NM	46823
880-24982-10	BH-38-5-3'-20230220	Total/NA	Solid	8015B NM	46823
MB 880-46823/1-A	Method Blank	Total/NA	Solid	8015B NM	46823
LCS 880-46823/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46823
LCSD 880-46823/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46823
880-24982-1 MS	BH-29-5-4.5'-20230220	Total/NA	Solid	8015B NM	46823
880-24982-1 MSD	BH-29-5-4.5'-20230220	Total/NA	Solid	8015B NM	46823

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

GC Semi VOA

Analysis Batch: 46831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24982-11	SW-12-5-0-5'-20230220	Total/NA	Solid	8015B NM	46824
880-24982-12	SW-13-5-0-5'-20230220	Total/NA	Solid	8015B NM	46824
880-24982-13	SW-14-5-0-5'-20230220	Total/NA	Solid	8015B NM	46824
MB 880-46824/1-A	Method Blank	Total/NA	Solid	8015B NM	46824
LCS 880-46824/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46824
LCSD 880-46824/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46824
890-4113-A-1-H MS	Matrix Spike	Total/NA	Solid	8015B NM	46824
890-4113-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	46824

Analysis Batch: 46959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24982-1	BH-29-5-4.5'-20230220	Total/NA	Solid	8015 NM	
880-24982-2	BH-30-5-4.5'-20230220	Total/NA	Solid	8015 NM	
880-24982-3	BH-31-5-4.5'-20230220	Total/NA	Solid	8015 NM	
880-24982-4	BH-32-5-5'-20230220	Total/NA	Solid	8015 NM	
880-24982-5	BH-33-5-5'-20230220	Total/NA	Solid	8015 NM	
880-24982-6	BH-34-5-5'-20230220	Total/NA	Solid	8015 NM	
880-24982-7	BH-35-5-6'-20230220	Total/NA	Solid	8015 NM	
880-24982-8	BH-36-5-5'-20230220	Total/NA	Solid	8015 NM	
880-24982-9	BH-37-5-5'-20230220	Total/NA	Solid	8015 NM	
880-24982-10	BH-38-5-3'-20230220	Total/NA	Solid	8015 NM	
880-24982-11	SW-12-5-0-5'-20230220	Total/NA	Solid	8015 NM	
880-24982-12	SW-13-5-0-5'-20230220	Total/NA	Solid	8015 NM	
880-24982-13	SW-14-5-0-5'-20230220	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 46519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24851-1	BH-27-5-4.5'-20231302	Soluble	Solid	DI Leach	
880-24851-2	BH-28-5-4.5'-20231302	Soluble	Solid	DI Leach	
MB 880-46519/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46519/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46519/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 46554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24851-1	BH-27-5-4.5'-20231302	Soluble	Solid	300.0	46519
880-24851-2	BH-28-5-4.5'-20231302	Soluble	Solid	300.0	46519
MB 880-46519/1-A	Method Blank	Soluble	Solid	300.0	46519
LCS 880-46519/2-A	Lab Control Sample	Soluble	Solid	300.0	46519
LCSD 880-46519/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46519

Leach Batch: 46827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24982-1	BH-29-5-4.5'-20230220	Soluble	Solid	DI Leach	
880-24982-2	BH-30-5-4.5'-20230220	Soluble	Solid	DI Leach	
880-24982-3	BH-31-5-4.5'-20230220	Soluble	Solid	DI Leach	
880-24982-4	BH-32-5-5'-20230220	Soluble	Solid	DI Leach	
880-24982-5	BH-33-5-5'-20230220	Soluble	Solid	DI Leach	
880-24982-6	BH-34-5-5'-20230220	Soluble	Solid	DI Leach	

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

HPLC/IC (Continued)

Leach Batch: 46827 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24982-7	BH-35-5-6'-20230220	Soluble	Solid	DI Leach	
880-24982-8	BH-36-5-5'-20230220	Soluble	Solid	DI Leach	
880-24982-9	BH-37-5-5'-20230220	Soluble	Solid	DI Leach	
880-24982-10	BH-38-5-3'-20230220	Soluble	Solid	DI Leach	
880-24982-11	SW-12-5-0-5'-20230220	Soluble	Solid	DI Leach	
880-24982-12	SW-13-5-0-5'-20230220	Soluble	Solid	DI Leach	
880-24982-13	SW-14-5-0-5'-20230220	Soluble	Solid	DI Leach	
MB 880-46827/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46827/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46827/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-24982-7 MS	BH-35-5-6'-20230220	Soluble	Solid	DI Leach	
880-24982-7 MSD	BH-35-5-6'-20230220	Soluble	Solid	DI Leach	

Analysis Batch: 46839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-24982-1	BH-29-5-4.5'-20230220	Soluble	Solid	300.0	46827
880-24982-2	BH-30-5-4.5'-20230220	Soluble	Solid	300.0	46827
880-24982-3	BH-31-5-4.5'-20230220	Soluble	Solid	300.0	46827
880-24982-4	BH-32-5-5'-20230220	Soluble	Solid	300.0	46827
880-24982-5	BH-33-5-5'-20230220	Soluble	Solid	300.0	46827
880-24982-6	BH-34-5-5'-20230220	Soluble	Solid	300.0	46827
880-24982-7	BH-35-5-6'-20230220	Soluble	Solid	300.0	46827
880-24982-8	BH-36-5-5'-20230220	Soluble	Solid	300.0	46827
880-24982-9	BH-37-5-5'-20230220	Soluble	Solid	300.0	46827
880-24982-10	BH-38-5-3'-20230220	Soluble	Solid	300.0	46827
880-24982-11	SW-12-5-0-5'-20230220	Soluble	Solid	300.0	46827
880-24982-12	SW-13-5-0-5'-20230220	Soluble	Solid	300.0	46827
880-24982-13	SW-14-5-0-5'-20230220	Soluble	Solid	300.0	46827
MB 880-46827/1-A	Method Blank	Soluble	Solid	300.0	46827
LCS 880-46827/2-A	Lab Control Sample	Soluble	Solid	300.0	46827
LCSD 880-46827/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46827
880-24982-7 MS	BH-35-5-6'-20230220	Soluble	Solid	300.0	46827
880-24982-7 MSD	BH-35-5-6'-20230220	Soluble	Solid	300.0	46827

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: BH-27-5-4.5'-20231302
Date Collected: 02/13/23 10:00
Date Received: 02/16/23 14:07

Lab Sample ID: 880-24851-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.96 g	5 mL	46534	02/16/23 14:15	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46482	02/17/23 02:36	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46733	02/20/23 13:54	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46803	02/20/23 17:16	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46509	02/16/23 14:37	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46560	02/17/23 18:32	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	46519	02/16/23 15:00	KS	EET MID
Soluble	Analysis	300.0		1			46554	02/16/23 18:02	CH	EET MID

Client Sample ID: BH-28-5-4.5'-20231302
Date Collected: 02/13/23 10:10
Date Received: 02/16/23 14:07

Lab Sample ID: 880-24851-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.02 g	5 mL	46534	02/16/23 14:15	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46482	02/17/23 02:56	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46733	02/20/23 13:54	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46803	02/20/23 17:16	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	46509	02/16/23 14:37	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46560	02/17/23 18:54	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	46519	02/16/23 15:00	KS	EET MID
Soluble	Analysis	300.0		10			46554	02/16/23 18:07	CH	EET MID

Client Sample ID: BH-29-5-4.5'-20230220
Date Collected: 02/20/23 10:20
Date Received: 02/21/23 08:00

Lab Sample ID: 880-24982-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.98 g	5 mL	46842	02/21/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46820	02/21/23 14:36	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46943	02/22/23 14:13	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46959	02/22/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46823	02/21/23 08:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46829	02/21/23 10:56	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	46827	02/21/23 09:23	KS	EET MID
Soluble	Analysis	300.0		1			46839	02/21/23 12:49	CH	EET MID

Client Sample ID: BH-30-5-4.5'-20230220
Date Collected: 02/20/23 10:30
Date Received: 02/21/23 08:00

Lab Sample ID: 880-24982-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.02 g	5 mL	46842	02/21/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46820	02/21/23 14:57	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46943	02/22/23 14:13	AJ	EET MID

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: BH-30-5-4.5'-20230220
Date Collected: 02/20/23 10:30
Date Received: 02/21/23 08:00

Lab Sample ID: 880-24982-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			46959	02/22/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46823	02/21/23 08:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46829	02/21/23 12:01	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46827	02/21/23 09:23	KS	EET MID
Soluble	Analysis	300.0		1			46839	02/21/23 13:07	CH	EET MID

Client Sample ID: BH-31-5-4.5'-20230220
Date Collected: 02/20/23 10:40
Date Received: 02/21/23 08:00

Lab Sample ID: 880-24982-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.03 g	5 mL	46842	02/21/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46820	02/21/23 15:17	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46943	02/22/23 14:13	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46959	02/22/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46823	02/21/23 08:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46829	02/21/23 12:23	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46827	02/21/23 09:23	KS	EET MID
Soluble	Analysis	300.0		1			46839	02/21/23 13:13	CH	EET MID

Client Sample ID: BH-32-5-5'-20230220
Date Collected: 02/20/23 10:50
Date Received: 02/21/23 08:00

Lab Sample ID: 880-24982-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5 mL	46842	02/21/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46820	02/21/23 15:38	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46943	02/22/23 14:13	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46959	02/22/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46823	02/21/23 08:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46829	02/21/23 12:45	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	46827	02/21/23 09:23	KS	EET MID
Soluble	Analysis	300.0		1			46839	02/21/23 13:20	CH	EET MID

Client Sample ID: BH-33-5-5'-20230220
Date Collected: 02/20/23 11:00
Date Received: 02/21/23 08:00

Lab Sample ID: 880-24982-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.97 g	5 mL	46842	02/21/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46820	02/21/23 15:58	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46943	02/22/23 14:13	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46959	02/22/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46823	02/21/23 08:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46829	02/21/23 13:07	AJ	EET MID

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: BH-33-5-5'-20230220
Date Collected: 02/20/23 11:00
Date Received: 02/21/23 08:00

Lab Sample ID: 880-24982-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	46827	02/21/23 09:23	KS	EET MID
Soluble	Analysis	300.0		1			46839	02/21/23 13:26	CH	EET MID

Client Sample ID: BH-34-5-5'-20230220
Date Collected: 02/20/23 11:10
Date Received: 02/21/23 08:00

Lab Sample ID: 880-24982-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.99 g	5 mL	46842	02/21/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46820	02/21/23 16:18	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46943	02/22/23 14:13	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46959	02/22/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46823	02/21/23 08:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46829	02/21/23 13:29	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	46827	02/21/23 09:23	KS	EET MID
Soluble	Analysis	300.0		1			46839	02/21/23 13:32	CH	EET MID

Client Sample ID: BH-35-5-6'-20230220
Date Collected: 02/20/23 13:00
Date Received: 02/21/23 08:00

Lab Sample ID: 880-24982-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.02 g	5 mL	46842	02/21/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46820	02/21/23 17:05	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46943	02/22/23 14:13	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46959	02/22/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	46823	02/21/23 08:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46829	02/21/23 13:51	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	46827	02/21/23 09:23	KS	EET MID
Soluble	Analysis	300.0		1			46839	02/21/23 13:38	CH	EET MID

Client Sample ID: BH-36-5-5'-20230220
Date Collected: 02/20/23 11:30
Date Received: 02/21/23 08:00

Lab Sample ID: 880-24982-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.03 g	5 mL	46842	02/21/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46820	02/21/23 17:26	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46943	02/22/23 14:13	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46959	02/22/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46823	02/21/23 08:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46829	02/21/23 14:13	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	46827	02/21/23 09:23	KS	EET MID
Soluble	Analysis	300.0		1			46839	02/21/23 13:57	CH	EET MID

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: BH-37-5-5'-20230220
Lab Sample ID: 880-24982-9
Date Collected: 02/20/23 11:40
Matrix: Solid
Date Received: 02/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.02 g	5 mL	46842	02/21/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46820	02/21/23 17:46	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46943	02/22/23 14:13	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46959	02/22/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46823	02/21/23 08:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46829	02/21/23 14:36	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	46827	02/21/23 09:23	KS	EET MID
Soluble	Analysis	300.0		1			46839	02/21/23 14:03	CH	EET MID

Client Sample ID: BH-38-5-3'-20230220
Lab Sample ID: 880-24982-10
Date Collected: 02/20/23 11:50
Matrix: Solid
Date Received: 02/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.03 g	5 mL	46842	02/21/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46820	02/21/23 18:07	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46943	02/22/23 14:13	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46959	02/22/23 16:01	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46823	02/21/23 08:38	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46829	02/21/23 14:58	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	46827	02/21/23 09:23	KS	EET MID
Soluble	Analysis	300.0		1			46839	02/21/23 14:21	CH	EET MID

Client Sample ID: SW-12-5-0-5'-20230220
Lab Sample ID: 880-24982-11
Date Collected: 02/20/23 13:50
Matrix: Solid
Date Received: 02/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5 mL	46842	02/21/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46820	02/21/23 19:57	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46943	02/22/23 14:13	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46959	02/22/23 16:26	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46824	02/21/23 08:40	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46831	02/21/23 13:51	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46827	02/21/23 09:23	KS	EET MID
Soluble	Analysis	300.0		1			46839	02/21/23 14:27	CH	EET MID

Client Sample ID: SW-13-5-0-5'-20230220
Lab Sample ID: 880-24982-12
Date Collected: 02/20/23 14:00
Matrix: Solid
Date Received: 02/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.97 g	5 mL	46842	02/21/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46820	02/21/23 20:17	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46943	02/22/23 14:13	AJ	EET MID

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Client Sample ID: SW-13-5-0-5'-20230220

Lab Sample ID: 880-24982-12
Matrix: Solid
Date Collected: 02/20/23 14:00
Date Received: 02/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			46959	02/22/23 16:26	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46824	02/21/23 08:40	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46831	02/21/23 14:13	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	46827	02/21/23 09:23	KS	EET MID
Soluble	Analysis	300.0		1			46839	02/21/23 14:34	CH	EET MID

Client Sample ID: SW-14-5-0-5'-20230220

Lab Sample ID: 880-24982-13
Matrix: Solid
Date Collected: 02/20/23 14:10
Date Received: 02/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.99 g	5 mL	46842	02/21/23 11:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46820	02/21/23 20:38	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46943	02/22/23 14:13	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46959	02/22/23 16:26	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46824	02/21/23 08:40	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46831	02/21/23 14:36	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	46827	02/21/23 09:23	KS	EET MID
Soluble	Analysis	300.0		1			46839	02/21/23 14:40	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

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
5030B	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: ARCADIS U.S., Inc.
Project/Site: Chevron Old Indian Draw Tank Battery

Job ID: 880-24982-1
SDG: Eddy County

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-24851-1	BH-27-5-4.5'-20231302	Solid	02/13/23 10:00	02/16/23 14:07
880-24851-2	BH-28-5-4.5'-20231302	Solid	02/13/23 10:10	02/16/23 14:07
880-24982-1	BH-29-5-4.5'-20230220	Solid	02/20/23 10:20	02/21/23 08:00
880-24982-2	BH-30-5-4.5'-20230220	Solid	02/20/23 10:30	02/21/23 08:00
880-24982-3	BH-31-5-4.5'-20230220	Solid	02/20/23 10:40	02/21/23 08:00
880-24982-4	BH-32-5-5'-20230220	Solid	02/20/23 10:50	02/21/23 08:00
880-24982-5	BH-33-5-5'-20230220	Solid	02/20/23 11:00	02/21/23 08:00
880-24982-6	BH-34-5-5'-20230220	Solid	02/20/23 11:10	02/21/23 08:00
880-24982-7	BH-35-5-6'-20230220	Solid	02/20/23 13:00	02/21/23 08:00
880-24982-8	BH-36-5-5'-20230220	Solid	02/20/23 11:30	02/21/23 08:00
880-24982-9	BH-37-5-5'-20230220	Solid	02/20/23 11:40	02/21/23 08:00
880-24982-10	BH-38-5-3'-20230220	Solid	02/20/23 11:50	02/21/23 08:00
880-24982-11	SW-12-5-0-5'-20230220	Solid	02/20/23 13:50	02/21/23 08:00
880-24982-12	SW-13-5-0-5'-20230220	Solid	02/20/23 14:00	02/21/23 08:00
880-24982-13	SW-14-5-0-5'-20230220	Solid	02/20/23 14:10	02/21/23 08:00

Eurofins Midland
1211 W Florida Ave
Midland, TX 79701
Phone (432) 704-5440

Chain of Custody Record

24982

eurofins | Environment Testing

Client Information	Sampler: Daniel McLee	Lab PM: Builes John	Carrier Tracking No(s):	COC No: 880-5080-623 4
Client Contact: Justin Nixon	Phone: 432-999-2080	E-Mail: John Builes@et.eurofinsus com	State of Origin: NM	Page: Page ~~4 of 4~~ 1 of 2
Company: ARCADIS U S Inc	PWSID:			Job #:
Address: 1004 North Big Spring Suite 300	Due Date Requested			
City: Midland	TAT Requested (days): Same day			
State, Zip: TX, 79701	Compliance Project: Δ Yes Δ No			
Phone: 432-296-9547(Tel)	PO #: Purchase Order Requested			
Email: Justin Nixon@arcadis com, ~~Scott.Foord@arcadis.com~~	WO #:			
Project Name: Chevron Old Indian Draw Tank Battery	Project #: 88001629			
Site: Eddy County	SSOW#:			

Analysis Requested

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

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D, 8015MOD_NM, 8021B, MOISTURE_2540G	Total Number of containers	Special Instructions/Note.
			Preservation Code:				N		
BH-29-S-4.5'-20230220	2-20-23	1020	C	Solid			X	1	
BH-30-S-4.5'-20230220		1030	C	Solid			X	1	
BH-31-S-4.5'-20230220		1040	C	Solid			X	1	
BH-32-S-5'-20230220		1050	C	Solid			X	1	
BH-33-S-5'-20230220		1100	C	Solid			X	1	
BH-34-S-5'-20230220		1110	C	Solid			X	1	
BH-35-S-6'-20230220		1300	C	Solid			X	1	
BH-36-S-5'-20230220		1130	C	solid			X	1	
BH-37-S-5'-20230220		1140	C	solid			X	1	
BH-38-S 3'-20230220		1150	C	solid			X	1	
SW-12-S-0-6'-20230220	2-20-23	1350	C	solid			X	1	

880-24982 Chain of Custody

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III, IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		2/20/23 1530	Arcadis		2/20/23 1530	Arcadis
2	Michael McLemore	2/20/23 1815	Arcadis		2/20/23 1815	
3		Date/Time	Company		2/21/23 0800	

Custody Seals Intact. Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks: 0.5 | 0.2 | 0.3

Ver: 01/16/2019

Eurofins Midland
1211 W Florida Ave
Midland TX 79701
Phone (432) 704-5440

Chain of Custody Record

24982

eurofins | Environment Testing

Client Information	Sampler: Daniel Mcbee	Lab PM: Builes John	Carrier Tracking No(s):	COC No: 880-5080-623 4
Client Contact: Justin Nixon	Phone: 432-999-7960	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: NM	Page: ~~Page 4 of 4~~ 2 of 2
Company: ARCADIS U S Inc	PWSID:			Job #:
Address: 1004 North Big Spring Suite 300	Due Date Requested:			
City: Midland	TAT Requested (days): Same day			
State, Zip: TX 79701	Compliance Project: Δ Yes Δ No			
Phone: 432-296-9547(Tel)	PO #: Purchase Order Requested			
Email: Justin.Nixon@arcadis.com, Scott.Ford@arcadis.com	WO #:			
Project Name: Chevron Old Indian Draw Tank Battery	Project #: 88001629			
Site: Eddy County	SSOW#:			

Analysis Requested

Preservation Codes

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D, 8015MOD_NM, 8021B, %MOISTURE_2540G	Total Number of containers	Special Instructions/Note
			Preservation Code:				N		
SW-13-S-0-5'-20230220	2-20-23	1400	C	Solid			X	1	
SW-14-S-0-5'-20230220	2-20-23	1410	C	Solid			X	1	
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					

RM 2-20-23

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Deliverable Requested I II III IV Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:
Relinquished by:	Date/Time: 2/20/23 1530	Company: Arcadis	Received by: x	Date/Time: x 2/20/23 1530	Company: x Arcadis
Relinquished by: x	Date/Time: x 2/20/23 1815	Company: x Arcadis	Received by:	Date/Time: 2/20/23 1815	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

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

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 880-24982-1
SDG Number: Eddy County

Login Number: 24982
List Number: 1
Creator: Teel, Brianna

List Source: Eurofins Midland

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

Arcadis U.S., Inc.
10205 Westheimer Road, Suite 800
Houston
Texas 77042
Phone: 713 953 4800
Fax: 713 977 4620
www.arcadis.com

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

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

QUESTIONS

Action 331819

QUESTIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 331819
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nRM2020935007**
Incident Name	**NRM2020935007 OLD INDIAN DRAW @ 0**
Incident Type	**Release Other**
Incident Status	**Reclamation Report Received**
Incident Facility	**[fAPP2315861305] OLD INDIAN DRAW UNIT BATTERY**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	OLD INDIAN DRAW
Date Release Discovered	07/10/2020
Surface Owner	Federal

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Other | Other (Specify) | Crude Oil | Released: 9 BBL | Recovered: 8 BBL | Lost: 1 BBL.
Produced Water Released (bbls) Details	Cause: Other | Other (Specify) | Produced Water | Released: 30 BBL | Recovered: 22 BBL | Lost: 8 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.*

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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Phone:(575) 748-1283 Fax:(575) 748-9720
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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 (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 331819
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

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. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

I hereby agree and sign off to the above statement	Name: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 04/10/2024

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 331819
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 26 and 50 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	Yes
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 500 and 1000 (ft.)
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 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between ½ and 1 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	8220
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	30500
GRO+DRO (EPA SW-846 Method 8015M)	24000
BTEX (EPA SW-846 Method 8021B or 8260B)	37
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	02/07/2022
On what date will (or did) the final sampling or liner inspection occur	02/20/2023
On what date will (or was) the remediation complete(d)	02/28/2023
What is the estimated surface area (in square feet) that will be reclaimed	4244
What is the estimated volume (in cubic yards) that will be reclaimed	432
What is the estimated surface area (in square feet) that will be remediated	4244
What is the estimated volume (in cubic yards) that will be remediated	432
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 331819
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

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	Sundance Services, Inc [fKJ1600527371]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Amy Barnhill Title: Waste & Water Specialist Email: ABarnhill@chevron.com Date: 04/10/2024
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.	

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 331819
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

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

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QUESTIONS (continued)

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	Action Number: 331819
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**331853**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**02/20/2023**
What was the (estimated) number of samples that were to be gathered	**13**
What was the sampling surface area in square feet	**4244**

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	4244
What was the total volume (cubic yards) remediated	432
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	4244
What was the total volume (in cubic yards) reclaimed	432
Summarize any additional remediation activities not included by answers (above)	Analytical results associated with recent remediation activities conducted in 2023 indicate that the horizontal and vertical extent of chloride, TPH, and BTEX impact in soil above NMAC screening standards for a site with depth the groundwater less than 50 feet bgs have been delineated both horizontally and vertically, and excavated. from the impacted area based on the approved variance.

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.

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QUESTIONS (continued)

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	Action Number: 331819
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	4244
What was the total volume of replacement material (in cubic yards) for this site	432
Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeding commence(d)	02/20/2023
Summarize any additional reclamation activities not included by answers (above)	Upon receiving laboratory analytical results from the excavation confirmation soil samples confirming impacted soil over the applicable restoration closure limits had been removed laterally and excavated to the extent possible vertically down to the base rock layer, the lined excavated area was backfilled with locally sourced, non-impacted "like" material placed at or near the original relative positions. The affected area was contoured and compacted to achieve erosion control, stability, and preservation of surface water flow to the extent practicable. The excavated area within the affected pasture was topped with a topsoil similar to native surrounding pasture material and reseeded with a BLM-approved seed mixture on September 20, 2023.
The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeding plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.	

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QUESTIONS (continued)

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	Action Number: 331819
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Revegetation Report	
Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.	
Requesting a restoration complete approval with this submission	No
Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.	

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CONDITIONS

Action 331819

CONDITIONS

Operator:	OGRID:
CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	4323
	Action Number: 331819
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CONDITIONS

Created By	Condition	Condition Date
scwells	Operator failed to provide proper Sampling Notification pursuant to 19.15.29.12.D.(1).(a) NMAC. Failure to provide proper sampling notice is a compliance issue and OCD may pursue compliance actions pursuant to 19.15.5 NMAC. Operator shall ensure future compliance with 19.15.29.12.D.(1).(a) NMAC	4/10/2024