Chris Brand
Environmental Remediation/ Facility Decom Advisor

VIA ELECTRONIC MAIL

June 4, 2025

New Mexico Oil Conservation Division
District I
1625 N. French Drive
Hobbs, New Mexico 88240

Re: West Lovington Unit #57
Soil Remediation Summary and Closure Request Report
Incident # nPLM0830342476
Case No. 1RP-1992

Dear Whom it May Concern:

Please find enclosed for your files, copies of the following:
West Lovington Unit #57 Soil Remediation Summary and Closure Request Report

The report was prepared by Arcadis U.S., Inc. (Arcadis) on behalf of Chevron Environmental Management Company (CEMC) for Chevron Midcontinent L.P.

Please do not hesitate to call Scott Foord with Arcadis at 713.953.4853, or myself at 661.401.0359, should you have any questions.

Sincerely,

Chris Brand

Encl. Soil Remediation Summary and Closure Request Report
West Lovington Unit #57

cc. Scott Foord – Arcadis
Morgan Jordan – Arcadis

Chris Brand
Environmental Remediation/ Facility Decom Advisor
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ARCADIS

Chevron Environmental Management Company

2025 Soil Remediation Summary and Closure Request Report

West Lovington Unit #57

Incident # nPLM0830342476

Case No. 1RP-1992

Lea County, New Mexico

June 2025

2025 Soil Remediation Summary and Closure Request Report

West Lovington Unit #57
Incident # nPLM0830342476
Case No. 1RP-1992
Lea County, New Mexico

June 2025

Prepared By:
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Program Manager

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2025 Soil Remediation Summary and Closure Request Report
West Lovington Unit #57

1 Introduction

Arcadis U.S., Inc. (Arcadis) has prepared this Soil Remediation Summary and Closure Request Report for Chevron Environmental Management Company (CEMC) on behalf of Chevron U.S.A. Inc., through its division Chevron North America Exploration and Production Company, for the release site known as the West Lovington Unit #57 (Site) located at coordinates: 32.852161, -103.371459.

2 Project Summary

The Site is located on private land approximately 6 miles south of the City of Lovington in Unit H, Section 8, Township 17 South, Range 36 East, Lea County, New Mexico. The site is located within a low karst area. A Site Location Map is included as **Figure 1** and a Topographic Map as **Figure 2**.

According to the Initial C-141 Form, on April 1, 2007, a soil boring assessment was conducted at site No. 173608G located within the Unit Boundary of the West Lovington Unit. Evidence of groundwater impact was found indicating chloride and low-level hydrocarbon impacts sufficient to warrant further investigation. Verbal notification of potential groundwater impact was made to Chris Williams at the local New Mexico Oil Conservation Division (NMOCD) district office on February 1, 2008. The time and source of the impacting event (release) is unknown. The Initial C-141 Form was approved on October 29, 2008, and assigned remediation permit number 1RP-1992 and incident number nPLM0830342476.

3 Soil Assessment Activities

In January 2021, March 2023, and January 2024, Arcadis performed site assessment activities to evaluate soil impacts stemming from the release. A total of eighteen (18) sample points (SB-1 through SB-18) were advanced to depths ranging from the surface to 4 feet below ground surface (bgs) inside and surrounding the release area to evaluate the horizontal and vertical extents of the release. Horizontal and vertical delineation was assessed in each cardinal direction to determine the potential area of concern. Arcadis used this data and field screening to guide proposed remediation activities prior to collecting any confirmation samples.

Following initial assessment activities Chevron submitted a Remediation Work Plan to the NMOCD in March 2025 proposing excavation and confirmation soil sampling activities on the well pad. The Remediation Work Plan was approved by the NMOCD on May 9, 2025. The approved Work Plan is included as **Appendix A**.

4 Site Characterization

There are three groundwater monitoring wells located approximately 425 feet west of the Site associated with the West Lovington Unit #57 Site (Case No. 1RP-1992). The closest groundwater monitoring well to the Site was gauged with a water level meter by Arcadis on May 20, 2024, and depth to water was verified at 58.92 bgs. As such, assessment activities completed to date and remediation/reclamation activities at the Site have been evaluated assuming a Site with a depth to groundwater as greater than 50 feet bgs for soils at depths greater than 4 feet bgs. Site characterization data is included in the approved Work Plan in **Appendix A**.

5 NMAC Regulatory Criteria

Per Table I of NMAC part 19.15.29.12, the following closure criteria apply to the Site for reclamation activities within the first 4 feet of soil:

Constituent	Limit (mg/kg)
Benzene	10 mg/kg
Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)	50 mg/kg
Total Petroleum Hydrocarbons (TPH) – Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and Oil Range Organics (ORO)	100 mg/kg
Chloride	600 mg/kg

Per Table I of NMAC part 19.15.29.12, the following closure criteria apply to the Site for remediation activities for soils at depths greater than 4 feet bgs confirmed with depth to groundwater greater than 50 feet bgs:

Constituent	Limit (mg/kg)
Benzene	10 mg/kg
BTEX	50 mg/kg
TPH –GRO, DRO, and ORO	2,500 mg/kg
Chloride	10,000 mg/kg

6 Remediation Activities Summary

6.1 Soil Removal

Soil remediation activities were performed from May 12, 2025, through May 20, 2025. Photo-ionization detector (PID) readings, chloride field screening with Hach field test strip results, and laboratory analytical results from the pre-remediation assessment activities were evaluated prior to and during remediation activities to determine the horizontal and vertical extent of soil impacted by the release. Horizontal and vertical delineation of the impacted soil requiring removal was based on samples collected from the perimeter and bottom of the release area. Based on these results, it was determined that the release covered an approximately 6,060 square foot (sq ft) area. Excavation activities were conducted to a maximum depth of approximately 4 feet bgs. Approximately 700 cubic yards of impacted soil were excavated from the release area. The limits of the excavation are presented in **Figure 3** and **Figure 4**. Excavated soil was stockpiled on-site, adjacent to the release area on 20 millimeter (mil) thick plastic sheeting and covered with 20 mil plastic sheeting during remediation activities.

The stockpiled soil was disposed offsite at the Gandy Marley Landfill located in Roswell, New Mexico as Class 2 non-hazardous material. Copies of disposal manifests can be provided upon request.

6.2 Excavation Confirmation Sampling Activities

Arcadis, personnel conducted excavation confirmation soil sampling activities from May 15, 2025, through May 20, 2025, for laboratory analyses. Following excavation of the impacted area, 5-point composite confirmation soil samples were collected from the excavation area as needed to maintain an approximate 400 square foot sample spacing or less for base samples and an approximate 200 square foot sample spacing or less for sidewall samples, approved as a variance request in e-mail correspondence with the NMOCD. This correspondence is presented in **Appendix B**. The excavation sidewall confirmation sample locations are depicted in **Figure 3** and excavation base confirmation samples are depicted in **Figure 4**.

The confirmation soil samples were collected for chemical analyses, placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Eurofins Laboratories in Midland, Texas. The sample was analyzed for modified BTEX by EPA Method 8021B, TPH by United States Environmental Protection Agency (EPA) Method 8015, and chloride by EPA method 300. Soil sample analytical results are summarized in **Table 1**. The laboratory analytical reports are included in **Appendix C.**

6.2.1 BTEX

BTEX concentrations were reported below the NMOCD reclamation and remediation standards.

6.2.2 TPH

TPH concentrations were reported below the NMOCD reclamation and remediation standards for GRO, DRO, and ORO.

6.2.3 Chloride

Chloride concentrations were reported below the NMOCD reclamation and remediation standards.

7 Restoration, Reclamation, and Re-Vegetation Activities

Prior to backfill, a 5-point composite sample was collected from the backfill material to confirm all constituents were below the NMOCD reclamation standards for BTEX, TPH, and chloride and the analytical results are included in **Table 1** and **Appendix C**. Upon receiving laboratory analytical data confirming impacted soil over the applicable restoration limits had been removed from the release area, the excavated area was backfilled with locally sourced, non-impacted "like" material suitable to establish vegetation growth as proposed in the 2025 Work Plan approved by NMOCD.

Approximately 6,060 square feet of the area of concern pertaining to the remediated area for incident number nPLM0830342476 was restored to its near original condition. The area was contoured and/or compacted to achieve erosion control, stability, and preservation of surface water flow to the extent practicable.

The area has not been re-seeded at this time. The area will be re-seeded during the first favorable growing season with a NMSLO approved seed mixture based on documented soil types proximate to the site. A separate revegetation report will be submitted to the NMOCD once revegetation activities have been completed.

8 Summary

Analytical results associated with the remediation activities conducted in 2025 indicate that the horizontal and vertical extent of BTEX, TPH, and chloride impact in soil above NMAC screening standards have been remediated (excavated) from the impacted area. The area was backfilled with clean/ suitable material to establish vegetation growth, graded to match the original surface conditions and drainage, and restored to its near original condition.

Photographic documentation of the remediation and restoration activities are included in **Appendix D.**

9 Remediation Closure Request

Remediation activities were conducted in accordance with the NMOCD standards outlined in Table I of NMAC part 19.15.29.12 utilizing an approved confirmation sampling variance of 400 square feet for the base area and 200 square feet for the sidewalls. 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 for the remediated area at the Site.

Based on laboratory analytical results and field activities conducted to date, no additional soil assessment or remediation activities are recommended at this time at the Site.

Arcadis requests remediation closure be granted to the West Lovington Unit #57 for Incident Number nPLM0830342476.

A separate revegetation report will be submitted to the NMOCD once revegetation activities have been completed.

Tables

Table 1
Soil Analytical Results
Chevron Environmental Management Company
WLU 57
Lea County, NM

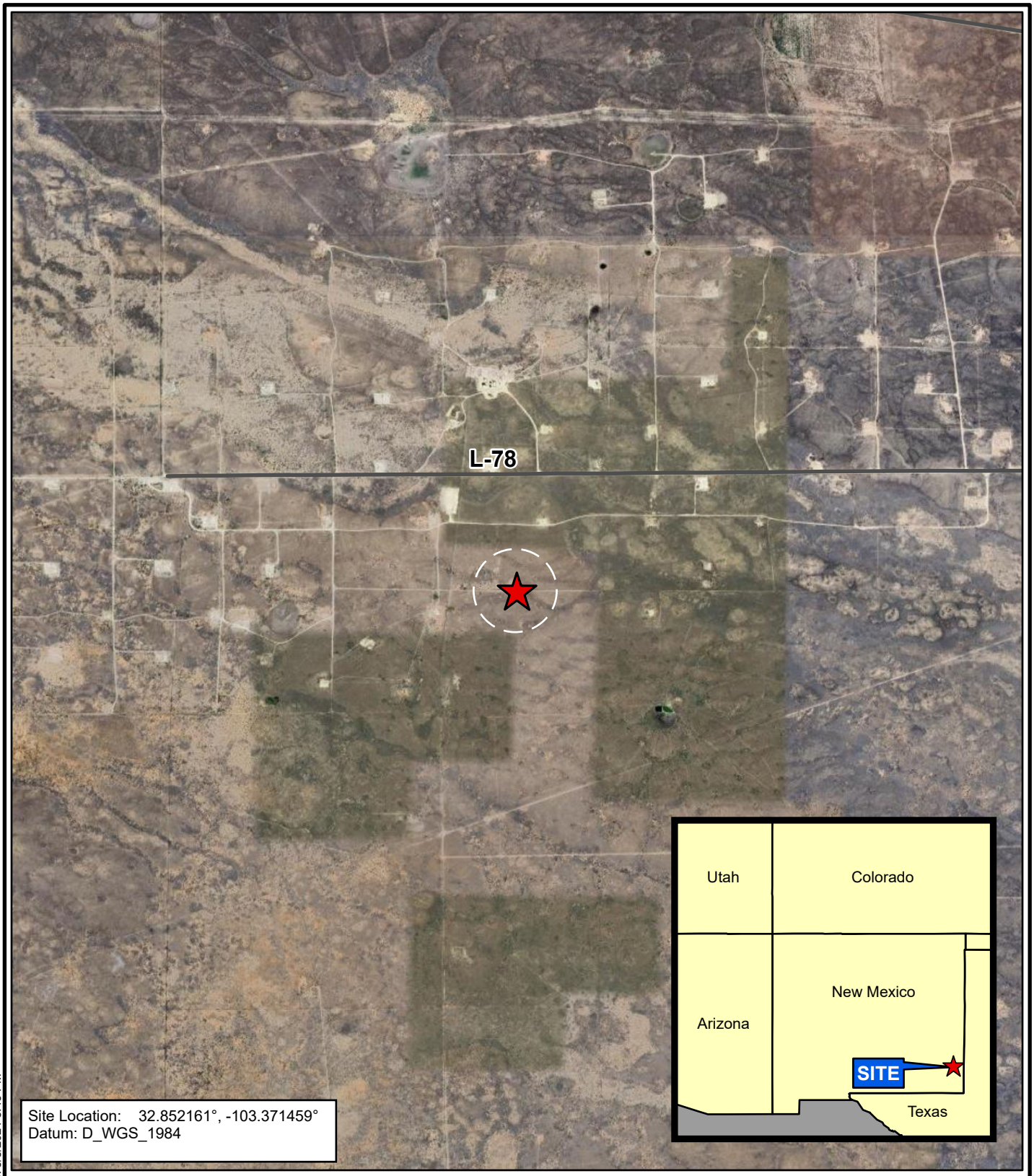
ARCADIS

Sample I.D.	Sample Depth (feet bgs)	Date	Soil Satus	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	TPH-GRO	TPH-DRO	TPH GRO + DRO	TPH MRO	Total TPH	Chloride
				(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NMAC Standards				10	--	--	--	50	--	--	1,000	--	2,500	10,000
Restoration Requirements				10	--	--	--	50	--	--	--	--	100	600
SW-1	0-2.5'	05/15/25	Removed	--	--	--	--	--	<14.4	136	136	<15.0	**136**	--
SW-1B	0-3'	05/20/25	In-Situ	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	<14.5	15.2 J B	15.2 J B	<15.1	15.2 J	95.3
SW-2	0-2.5'	05/15/25	In-Situ	<0.00139	<0.00199	<0.00108	<0.00228	<0.00228	<14.4	<15.0	<15.0	<15.0	<15.0	48.0
SW-3	0-4'	05/15/25	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.5	<15.1	<15.1	<15.1	<15.1	165
SW-4	0-4'	05/15/25	In-Situ	<0.00139	<0.00200	<0.00109	<0.00229	<0.00229	<14.5	<15.1	<15.1	<15.1	<15.1	91.9
SW-5	0-2'	05/15/25	In-Situ	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	<14.5	<15.1	<15.1	<15.1	<15.1	97.2
B-1	2.5'	05/15/25	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.5	<15.1	<15.1	<15.1	<15.1	107
B-2	2.5'	05/15/25	In-Situ	<0.00140	<0.00201	<0.00109	<0.00229	<0.00229	<14.5	17.7 J	17.7 J	<15.1	17.7 J	218
B-3	2.5'	05/15/25	Removed	--	--	--	--	--	<14.5	198	198	<15.1	**198**	--
B-3B	3'	05/20/25	In-Situ	<0.00138	<0.00198	<0.00108	<0.00226	<0.00226	<14.5	19.3 J B	19.3 J B	<15.1	19.3 J B	102
B-4	2.5'	05/15/25	In-Situ	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	<14.4	<15.0	<15.0	<15.0	<15.0	181
B-5	2'	05/15/25	In-Situ	<0.00141	<0.00202	<0.00110	<0.00231	<0.00231	<14.5	33.2 J	33.2 J	<15.1	33.2 J	212
B-6	3'	05/15/25	In-Situ	<0.00140	<0.00201	<0.00109	<0.00229	<0.00229	<14.5	15.6 J	15.6 J	<15.1	15.6 J	379
B-7	2'	05/15/25	In-Situ	<0.00138	<0.00199	<0.00108	<0.00227	<0.00227	<14.4	25.7 J	25.7 J	<15.0	25.7 J	560
B-8	2'	05/15/25	In-Situ	<0.00138	<0.00198	<0.00108	<0.00227	<0.00227	<14.6	<15.2	<15.2	<15.2	<15.2	380
B-9	3'	05/15/25	In-Situ	<0.00139	<0.00200	<0.00109	<0.00229	<0.00229	<14.5	<15.1	<15.1	<15.1	<15.1	228
B-10	4'	05/15/25	In-Situ	<0.00141	<0.00202	<0.00110	<0.00231	<0.00231	<14.5	<15.1	<15.1	<15.1	<15.1	439
B-11	4'	05/15/25	In-Situ	<0.00140	<0.00202	<0.00110	<0.00230	<0.00230	<14.6	<15.2	<15.2	<15.2	<15.2	147
B-12	2'	05/15/25	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.6	<15.2	<15.2	<15.2	<15.2	208
B-13	2'	05/15/25	In-Situ	<0.00140	<0.00201	<0.00110	<0.00230	<0.00230	<14.4	<15.0	<15.0	<15.0	<15.0	116
B-14	2'	05/15/25	In-Situ	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.5	<15.1	<15.1	<15.1	<15.1	363
B-15	2'	05/15/25	Removed	--	--	--	--	--	<14.5	187	187	<15.1	**187**	--
B-15B	2.5'	05/20/25	In-Situ	<0.00140	<0.00201	<0.00109	<0.00229	<0.00229	<14.5	<15.1	<15.1	<15.1	<15.1	99.6
B-16	2'	05/15/25	In-Situ	<0.00139	<0.00199	<0.00108	<0.00228	<0.00228	<14.5	<15.1	<15.1	<15.1	<15.1	122
Backfill	--	3/28/2025	--	<0.00139	<0.00200	<0.00109	<0.00228	<0.00228	<14.5	<15.1	<15.1	<15.1	<15.1	529

Legend:
BOLD = Analytes exceeding Restoration Requirement
--: Not available/not applicable
" ' " : Indicates one foot
ft: foot
F1: Matrix Spike and/or Matix Spike Duplicate recovery exceeds control limits.
J: Result is less than the Reprting Limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.
'<' indicates the analyte was not detected at or above the MDL.
mg/kg: Milligram per Kilogram
BTEX : Benzene, Toluene, Ethylbenzene, and Total Xylenes
NMAC : New Mexico Administration Code. Criteria based off of depth to groundwater of 51-100 feet.
TPH GRO: Total Petroleum Hydrocarbons Gasoline Range Organics
TPH MRO: Total Petroluem Hydrocarbons Motor Oil Range Organics
TPH DRO: Total Petroleum Hydrocarbon Diesel Range Organics
Total TPH: GRO + DRO + MRO
*Revised screening limit and restoration criteria within the first 4 feet below ground surface per Rule 19.15.29 effective August 14, 2018

Notes:
1. Chloride analyzed by United States Environmental Protection Agency (USEPA) Method 300.0
2. TPH analyzed by USEPA Method SW846 8015B NM
3. BTEX analyzed by USEPA Method SW846 8021B
4. Closure Criteria New Mexico Administrative Code 19.15.29.12.E(2)

Figures



Legend

Site Location

Credits: ESRI Online, Google Earth

0 2,000 4,000 Feet

GRAPHIC SCALE

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #057
LEA COUNTY, NEW MEXICO

SITE LOCATION MAP

ARCADIS

FIGURE 1

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: avi00976 ; Client (Project #)
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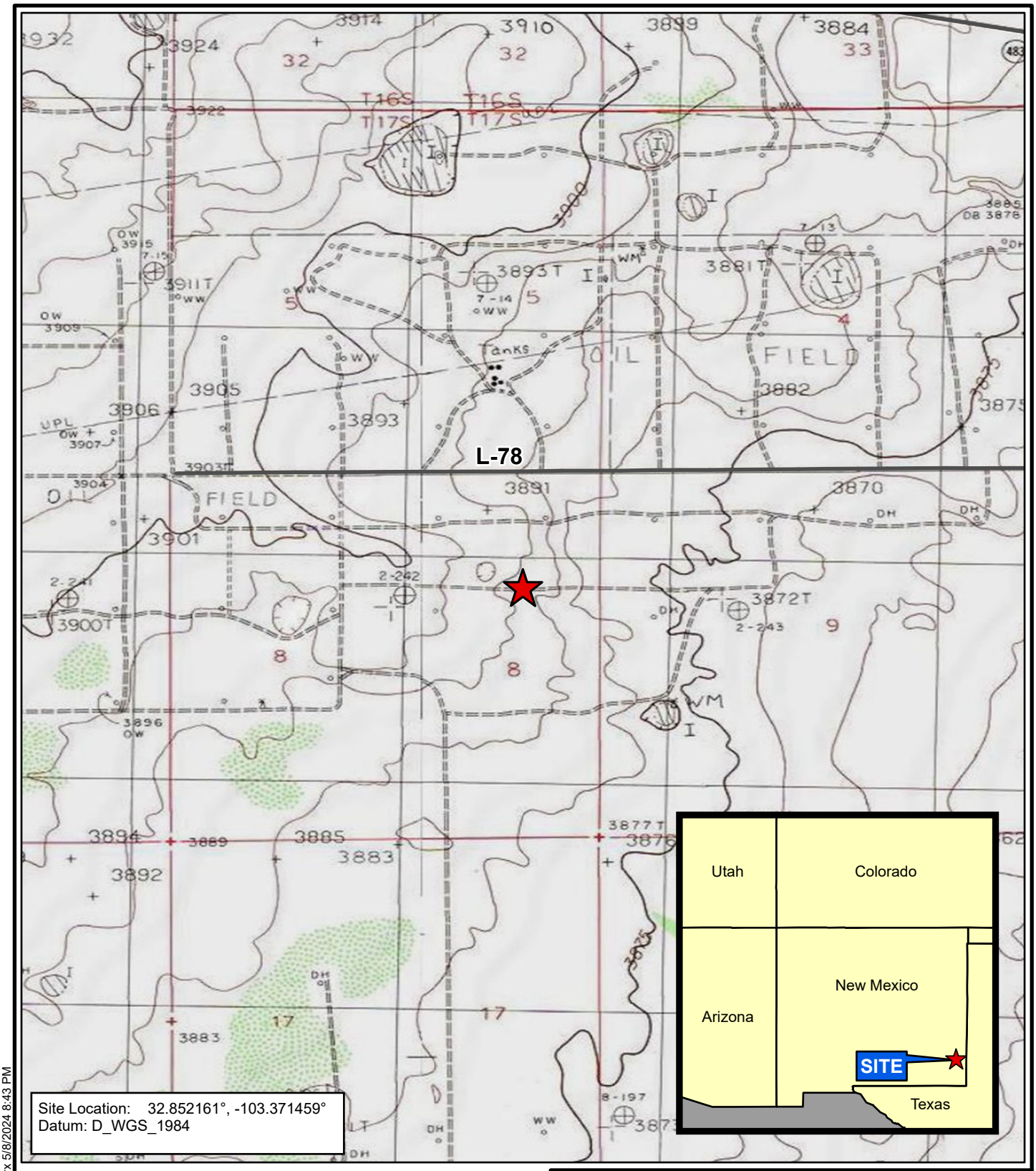


Legend

Site Location

Credits: ESRI Online, USGS 24,000 K Topo (Map Service)
Red Lake, New Mexico Quadrangle

0 2,000 4,000 Feet
GRAPHIC SCALE

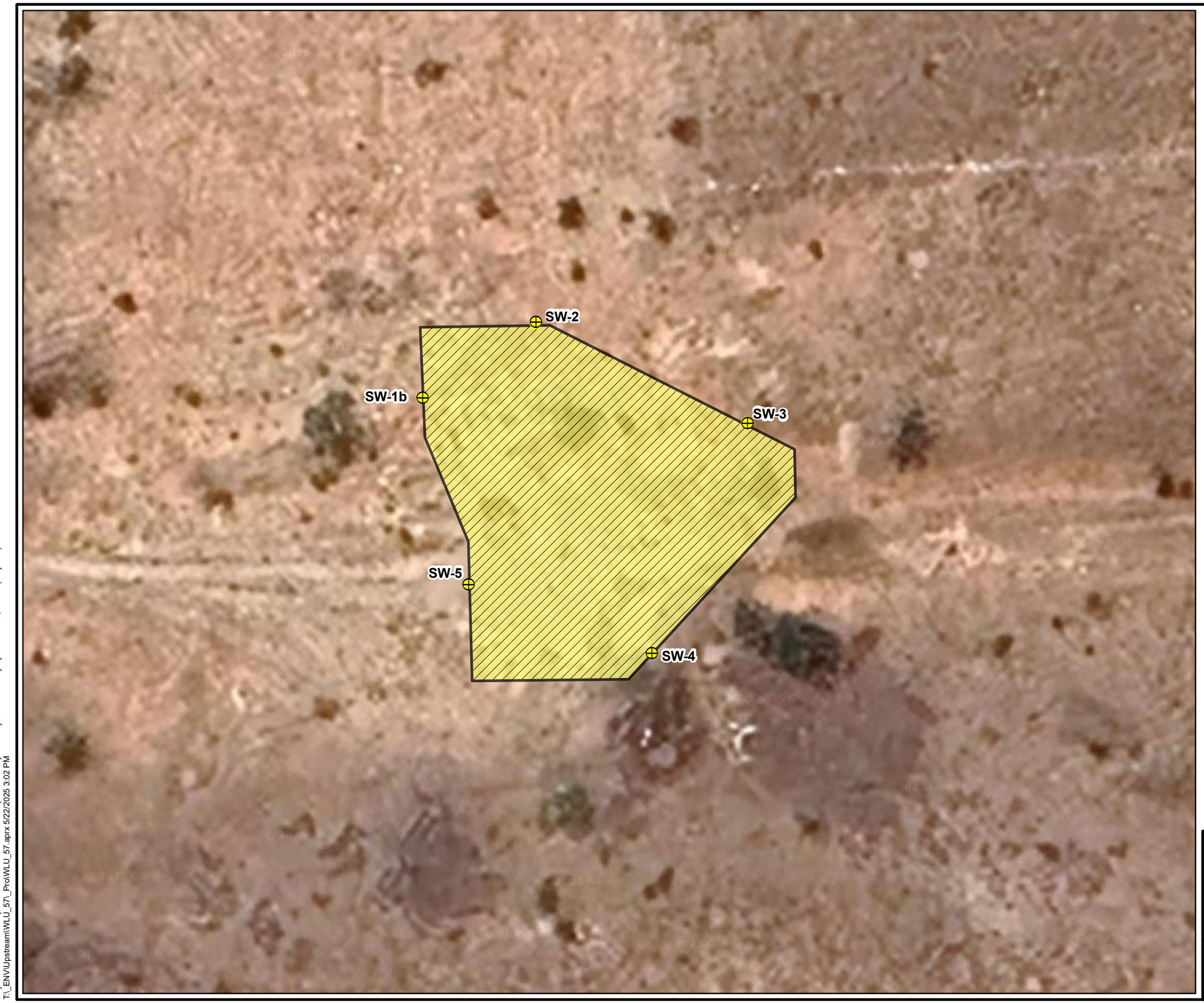
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #057
LEA COUNTY, NEW MEXICO

TOPOGRAPHIC MAP

ARCADIS

FIGURE 2

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: avi00976 ; Client (Project #) T:_ENV\Chevron\WLU_57_Pro\WLU_57.aprx 5/8/2024 8:43 PM



LEGEND:

- Sidewall Soil Sample Location
- Excavated Area

0 25 50 Feet

GRAPHIC SCALE

Datum: D_WGS_1984
Source: ESRI Online, Google Earth
Site Location: 32.852161°, -103.371459°

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #057
LEA COUNTY, NEW MEXICO

EXCAVATION SIDEWALL SOIL SAMPLE LOCATIONS

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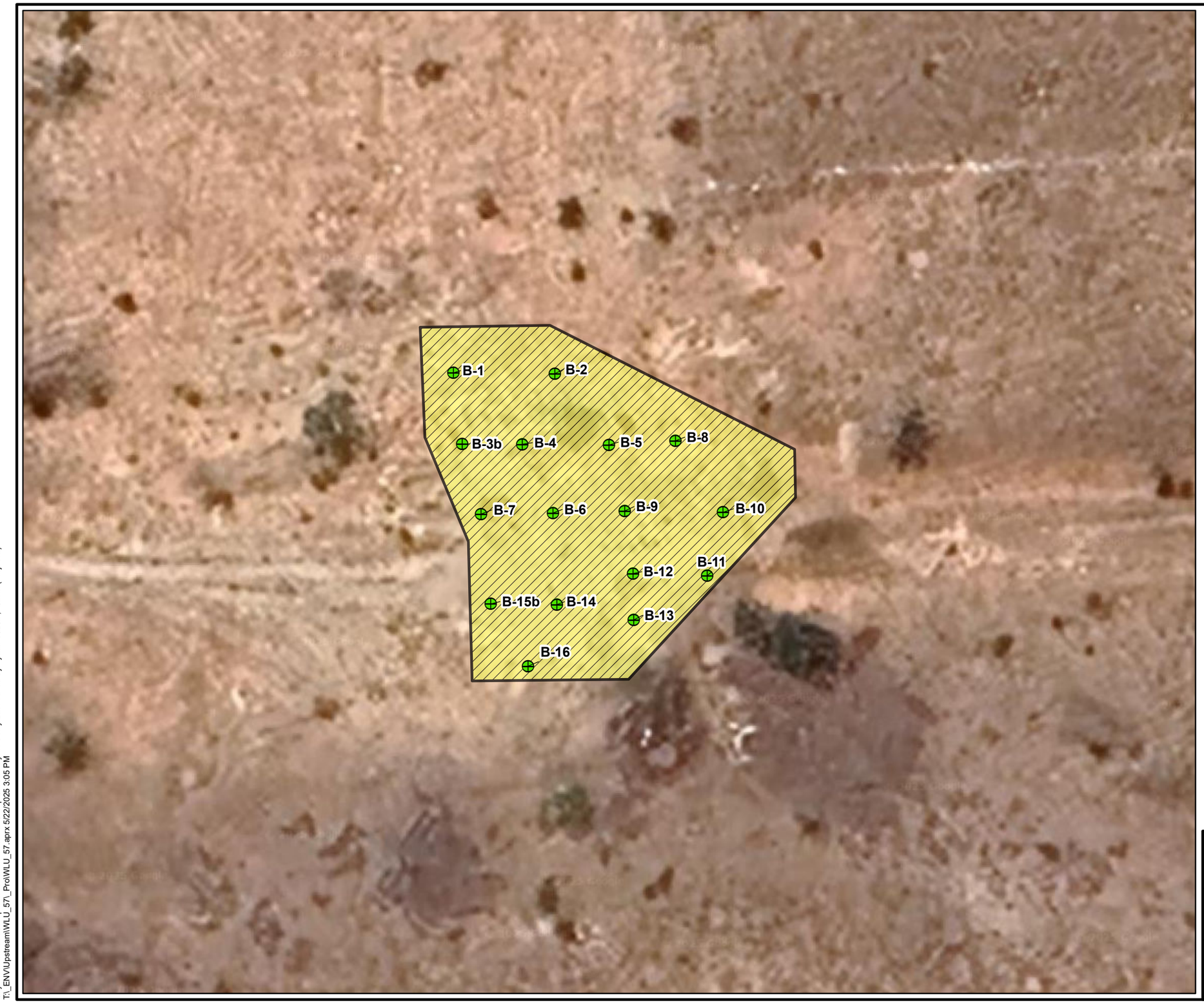
FIGURE 3

City: Houston Div/Group: Remediation West Air Group Created By: W Berry Last Saved By: yadavs0264 ; Client (Project #) T:_ENV\Upstream\WLU_57_Pro\WLU_57.aprx 5/22/2025 3:02 PM



LEGEND:

- Base Soil Sample Location
- Excavated Area

0 25 50 Feet

GRAPHIC SCALE

Datum: D_WGS_1984
Source: ESRI Online, Google Earth
Site Location: 32.852161°, -103.371459°

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #057
LEA COUNTY, NEW MEXICO

EXCAVATION BASE SOIL SAMPLE LOCATIONS

ARCADIS

FIGURE 4

City: Houston Div/Group: Remediation West Air Group Created By: W Berry Last Saved By: yadavs0264 ; Client (Project #)
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Appendix A

Work Plan

Chris Brand
Environmental Remediation/ Facility Decom Advisor

VIA ELECTRONIC MAIL

March 18, 2025

New Mexico Oil Conservation Division
District I
1625 N. French Drive
Hobbs, New Mexico 88240

Re: West Lovington Unit #57
Soil Remediation Work Plan
Incident No. nPLM0830342476
Case No. 1RP-1992

Dear Whom it May Concern:

Please find enclosed for your files, copies of the following:
West Lovington Unit #57 Soil Remediation Work Plan

The Work Plan was prepared by Arcadis U.S., Inc. (Arcadis) on behalf of Chevron Environmental Management Company (CEMC) for Chevron USA Inc.

Please do not hesitate to call Scott Foord with Arcadis at 713.953.4853, or myself at 661.401.0359, should you have any questions.

Sincerely,

Chris Brand

Encl. 2025 Work Plan
West Lovington Unit #57

cc. Scott Foord – Arcadis
Morgan Jordan – Arcadis

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ARCADIS

Chevron Environmental Management Company

2025 Work Plan

West Lovington Unit #57

Lea County, New Mexico

Incident # nPLM0830342476

March 2025

2025 Work Plan

West Lovington Unit #57
Incident # nPLM0830342476
Lea County, New Mexico

March 2025

Prepared By:
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Scott Foord, PG
Program Manager

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2025 Work Plan
West Lovington Unit #57

1 Introduction

Arcadis U.S., Inc. (Arcadis) has prepared this Work Plan, for Chevron Environmental Management Company (CEMC) on behalf of Chevron U.S.A. Inc., through its division Chevron North America Exploration and Production Company, for the release site known as the West Lovington Unit #57 (Site) located at coordinates: 32.852161, -103.371459. Details of the release are summarized in the New Mexico Oil Conservation Division (NMOCD) Initial C-141 Form included as **Appendix A**.

2 Project Summary

The Site is located on private land approximately 6 miles south of the City of Lovington in Unit H, Section 8, Township 17 South, Range 36 East, Lea County, New Mexico. The site is located within a low karst area. A Site Location Map is included as **Figure 1** and a Topographic Map as **Figure 2**.

2.1 Incident # nPLM0830342476

According to the Initial C-141 Form, on April 1, 2007, a soil boring assessment was conducted at site No. 173608G located within the Unit Boundary of the West Lovington Unit. Evidence of groundwater impact was found indicating chloride and low-level hydrocarbon impacts sufficient to warrant further investigation. Verbal notification of potential groundwater impact was made to Chris Williams at the local NMOCD district office on February 1, 2008. The time and source of the impacting event (release) is unknown. The Initial C-141 Form for this release was submitted to the NMOCD on March 17, 2008, and approved by NMOCD on October 29, 2008. The release was assigned remediation permit number 1RP-1992. The Initial C-141 Form for this release is included in **Appendix A**.

On December 17, 2023, a request to remove the site from the Agreed Compliance Order (ACO) List and to reassign the site with a pending abatement plan status was submitted to the NMOCD due to confirmation of groundwater monitoring wells in vicinity of site. The request was approved by NMOCD on January 10, 2024. The approval is included in **Appendix B**.

3 Site Characterization

There are three groundwater monitoring wells located approximately 425 feet west of the Site associated with the West Lovington Unit #57 Site (Case No. 1RP-1992). The closest groundwater monitoring well to the Site was gauged with a water level meter by Arcadis on May 20, 2024, and depth to water was verified at 58.92 feet below ground surface (bgs). Photographic documentation of gauging activities by Arcadis are included in **Appendix C (Photo No. 9 - 10)**.

The following site characteristics were determined in accordance with 19.15.29 New Mexico Administrative Code (NMAC):

- Shallowest depth to groundwater beneath the area affected by the release in ft bgs: Between 51 and 75 feet;
- Method used to determine the depth to groundwater: direct measurement;
- Distance to continuously flowing watercourse or any other significant watercourse: >5 miles;

- Distance to lakebed, sinkhole, or playa lake: Between 1,000 feet and 0.50 miles;
- Distance to occupied permanent residence, school, hospital, institution, or church: Between 1 and 5 miles;
- Distance to spring or private domestic fresh water well used by less than five households for domestic or stock watering purposes: Between 1 and 5 miles;
- Distance to any other fresh water well or spring: Between 1,000 feet and 0.50 miles;
- Distance to incorporated municipal boundaries or a defined municipal fresh water well field: Between 1 and 5 miles;
- Distance to wetland: Between 1,000 feet and 0.50 miles;
- Distance to subsurface mine: >5 miles;
- Distance to (non-karst) unstable area: >5 miles;
- Categorize the risk of this well/site being in a karst geology: Low;
- Distance to a 100-year floodplain: Between 1 and 5 miles; and
- Did the release impact areas not on an exploration, development, production, or storage site? No

The site characterization data is presented in **Appendix D**.

4 NMAC Regulatory Criteria

Per Table I of NMAC part 19.15.29.12, the following closure criteria apply to the Site for reclamation activities within the first 4 feet of soil:

Constituent	Limit (mg/kg)
Benzene	10 mg/kg
Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)	50 mg/kg
Total Petroleum Hydrocarbons (TPH) – Gasoline Range Organics (GRO), Diesel Range Organics (DRO), and Oil Range Organics (ORO)	100 mg/kg
Chloride	600 mg/kg

Per Table I of NMAC part 19.15.29.12, the following closure criteria apply to the Site for remediation activities for soils at depths greater than 4 feet bgs due to depth to groundwater measured by Arcadis at 58.29 feet bgs within Chevron West Lovington Unit #057 closest groundwater monitoring well located approximately 425 feet west of the Site:

Constituent	Limit (mg/kg)
Benzene	10 mg/kg
BTEX	50 mg/kg
TPH – GRO, DRO, and ORO	2,500 mg/kg
Chloride	10,000 mg/kg

5 Site Assessment Activities

In January 2021, March 2023, and January 2024, Arcadis performed site assessment activities to evaluate soil impacts stemming from the release. A total of eighteen (18) sample points (SB-1 through SB-18) were advanced to depths ranging from the surface to 4 feet bgs inside and surrounding the release area to evaluate the horizontal and vertical extents of the release. Soil sample locations are shown on **Figure 3**. A photo log is included in **Appendix B**. Soil samples were collected for chemical analyses, placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Eurofins Laboratories in Midland, Texas.

The soil samples were analyzed for BTEX by United States Environmental Protection Agency (EPA) Method 8021B, TPH by EPA Method 8015, and chloride by EPA method 300.0. Soil samples analyzed for BTEX were reported with the only detection being 0.00502 J mg/kg (S-13). Soil samples analyzed for TPH were reported with concentrations ranging from 21.8 J mg/kg (S-10) to 1,240 mg/kg (S-3). Soil samples analyzed for chloride were reported with concentrations ranging from 3.82 J mg/kg (S-18) to 917 mg/kg (S-12).

Horizontal and vertical delineation of the area of concern was completed during assessment activities. Analytical data collected to date and field screening during proposed remediation activities will be utilized to guide remediation activities. Soil sample analytical results from assessment activities are summarized in **Table 1**. Laboratory reports for soil samples collected during the assessments, including analytical methods, results, and chain-of-custody documents, are attached in **Appendix E.**

6 Proposed Work Plan

Based on the analytical data and the detected TPH and chloride concentrations in soil samples collected during site assessment activities, CEMC proposes to remediate the areas of concern via excavation illustrated in orange as shown in **Figure 3** and bolded in **Table 1**.

The proposed excavation area encompasses a surface area of approximately 10,500 square feet. In accordance with NMAC 19.15.29.12(D)(1)(b), CEMC proposes the following alternative confirmation sampling plan as a **variance request** to adhere with NMOCD requirements. Five-point composite confirmation soil samples will be collected from the excavation floor and sidewalls at 400 square foot intervals for analysis of BTEX by EPA Method 8260, TPH for GRO, DRO, and ORO by EPA Method 8015, and chloride by EPA Method 300.0. Lateral and vertical limits of the excavation will halt once confirmation sample analytical results are in accordance with NMAC 19.15.29.12(D)(1)(c).

An estimated 1,600 cubic yards of soil will be removed and transported to the Gandy Marley Landfill located in Roswell, New Mexico, which is listed as an NMOCD approved disposal facility.

Backfill material will be verified to be non-waste containing prior to backfilling the remediated area by obtaining analytical data from the backfill material supplier if available, or by collecting a five-point composite sample and analyzing for BTEX by EPA Method 8260, TPH for GRO, DRO, and ORO by EPA Method 8015, and chloride by EPA Method 300.0. Following completion of excavation activities and confirmation that the backfill material is non-waste containing, the areas will be backfilled with the clean material and graded to match the original surface conditions and drainage. Approximately 10,500 square feet of the area of concern located within the pad area will be reclaimed to original condition and re-seeded following remediation activities.

The proposed remediation activities will be implemented within 90 days following approval of this work plan by the NMOCD. The anticipated schedule includes 30 days to setup field work and confirm sub-contractors, 30 days to complete on-site remediation activities, and 30 days to prepare a soil remediation summary and closure request report.

7 Work Plan Approval Request

Upon completion of the above proposed soil remediation activities, a closure request report describing the soil remediation activities and a separate reclamation report will be submitted to the NMOCD for review. If you have any questions regarding this work plan or need additional information, please do not hesitate to contact Scott Foord at 281-725-7447 or Morgan Jordan at 281-644-9437.

Tables

Table 1
Soil Analytical Results
Chevron Environmental Management Company
WLU 57
Lea County, New Mexico

Sample I.D.	Sample Depth (feet bgs)	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	TPH-GRO	TPH-DRO	TPH GRO + DRO	TPH MRO	Total TPH	Chloride
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NMAC Standards			10	--	--	--	50	--	--	1,000	--	2,500	10,000
Restoration Requirements			10	--	--	--	50	--	--	--	--	100	600
SB-1	0-0.5	01/28/21	<0.000382	<0.000452	<0.000560	<0.000342	<0.000342	23.1 J	33.9 J	57	18.1 J	75.1	580
SB-2	0-0.5	01/28/21	<0.000383	<0.000454	<0.000563	<0.000343	<0.000343	15.4 J	15.9 J	31.3 J	<15.0	31.3 J	8.9
SB-3	0-0.5	01/28/21	<0.000386	<0.000457	<0.000566	<0.000345	<0.000345	<15.0	947	947	294	***1,240***	43.7
	1-2	01/28/21	<0.000389	<0.000460	<0.000570	<0.000348	<0.000348	<15.0	78.6	78.6	78.7	***157***	93.2
SB-3 (DUP)	0-0.5	01/28/21	<0.000384	<0.000455	<0.000564	<0.000344	<0.000344	<15.0	632	632	288	***920***	55.0
SB-4	0-0.5	01/28/21	<0.000386	<0.000457	<0.000567	<0.000346	<0.000346	<15.0	333	333	157	***490***	***616***
SB-5	0-0.5	01/29/21	<0.000382	<0.000452	<0.000560	<0.000342	<0.000342	21.2 B J	198	219.2	137	***356***	95.5
SB-6	0-0.5	01/29/21	<0.000388	<0.000459	<0.000569	<0.000347	<0.000347	20.4 B J	93.4	113.8	69.6	***183***	368
SB-7	0-0.5	01/29/21	<0.000384	<0.000455	<0.000564	<0.000344	<0.000344	19.3 B J	112	131.3	82.3	***214***	217
SB-8	0-0.5	01/29/21	<0.000383	<0.000453	<0.000561	<0.000342	<0.000342	22.6 B J	20.7 J	43.3 J	24.7 J	68.0	12.1
SB-9	0-0.5	01/29/21	<0.000383	<0.000454	<0.000563	<0.000343	<0.000343	23.5 B J	16.1 J	39.6 J	19.3 J	58.9	15.4
SB-10	0-0.5	01/29/21	<0.000385	<0.000456	<0.000565	<0.000344	<0.000344	21.7 B J	15.0 J	36.7 J	16.9 J	53.6	24.7
	1-1.75	01/29/21	<0.000385	<0.000456	<0.000565	<0.000344	<0.000344	21.8 B J	<14.9	21.8 J	<14.9	21.8 J	246
SB-11	0-0.5	03/22/23	<0.000381	<0.000451	<0.000559	<0.000341	<0.000341	35.2 J B	<15.0	35.2 J B	<15.0	35.2 J	407
	2	03/22/23	<0.000383	<0.000453	<0.000562	<0.000342	<0.000342	37.9 J B	<15.0	37.9 J B	<15.0	37.9 J	87.0
	4	03/22/23	<0.000387	<0.000459	<0.000568	<0.000346	<0.000346	42.0 J B	<15.0	42.0 J B	<15.0	42.0 J	104
SB-12	0-0.5	03/22/23	<0.000389	<0.000461	<0.000571	<0.000347	<0.000347	<15.0	149	149	<15.0	***149***	163
	2	03/22/23	<0.000383	<0.000454	<0.000563	<0.000343	<0.000343	31.7 J B	<15.0	31.7 J B	<15.0	31.7 J	285 F1
	4	03/22/23	<0.000384	<0.000455	<0.000564	<0.000343	<0.000343	48.3 J B	<15.0	48.3 J B	<15.0	48.3 J	917
SB-13	0-0.5	03/22/23	<0.000387	<0.000459	<0.000568	<0.000346	<0.000346	28.4 J B	25.2 J	53.6 J B	<15.0	53.6	***784***
	2	03/22/23	<0.000386	<0.000457	<0.000566	<0.000345	<0.000345	28.1 J	24.8 J	52.9 J	<15.0	52.9	***868***
	4	03/22/23	<0.000386	0.000502 J	<0.000566	<0.000345	0.000502 J	22.5 J	113	135.5 J	<15.0	136	762
SB-14	0-0.5	03/22/23	<0.000386	<0.000457	<0.000566	<0.000345	<0.000345	24.2 J B	19.5 J	43.7 J B	<15.0	43.7 J	390
	2	03/22/23	<0.000383	<0.000454	<0.000563	<0.000343	<0.000343	22.3 J B	19.1 J	41.4 J B	<14.9	41.4 J	266
SB-15	1	01/24/24	--	--	--	--	--	--	--	--	--	--	144
	2	01/24/24	<0.000384	<0.000455	<0.000564	<0.00101	<0.00101	<24.8	<24.8	<24.8	<24.8	<24.8	144
SB-16	1	01/24/24	--	--	--	--	--	--	--	--	--	--	14.0
	2	01/24/24	<0.000386	<0.000457	<0.000566	<0.00101	<0.00101	<25.1	<25.1	<25.1	<25.1	<25.1	84.6
SB-17	1	01/24/24	--	--	--	--	--	--	--	--	--	--	11.5
	2	01/24/24	<0.000383	<0.000454	<0.000563	<0.00101	<0.00101	<25.2	<25.2	<25.2	<25.2	<25.2	10.4
SB-18	1	01/24/24	<0.000383	<0.000453	<0.000562	<0.00100	<0.00100	<25.2	<25.2	<25.2	<25.2	<25.2	53.1
	2	01/24/24	--	--	--	--	--	--	--	--	--	--	3.82 J

Legend:
BOLD = Analytes exceeding Restoration Requirement
J: Result is less than the Reporting Limit but greater than or equal to the MDL and the concentration is an approximate value
B: Compound was found in the blank and sample.
F1: Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) recovery exceeds control limits.
'<' indicates the analyte was not detected at or above the Method Detection Limit (MDL)
mg/kg: Milligram per Kilogram
BTEX : Benzene, Toluene, Ethylbenzene, and Total Xylenes
NMAC : New Mexico Administration Code. Criteria based off of depth to groundwater of 51-100 feet.
TPH GRO: Total Petroleum Hydrocarbons Gasoline Range Organics
TPH MRO: Total Petroluem Hydrocarbons Motor Oil Range Organics
TPH DRO: Total Petroleum Hydrocarbon Diesel Range Organics
Total TPH: GRO + DRO + MRO
*Revised screening limit and restoration criteria within the first 4 feet below ground surface per Rule 19.15.29 effective August 14, 2018

Table 1
Soil Analytical Results
Chevron Environmental Management Company
WLU 57
Lea County, New Mexico

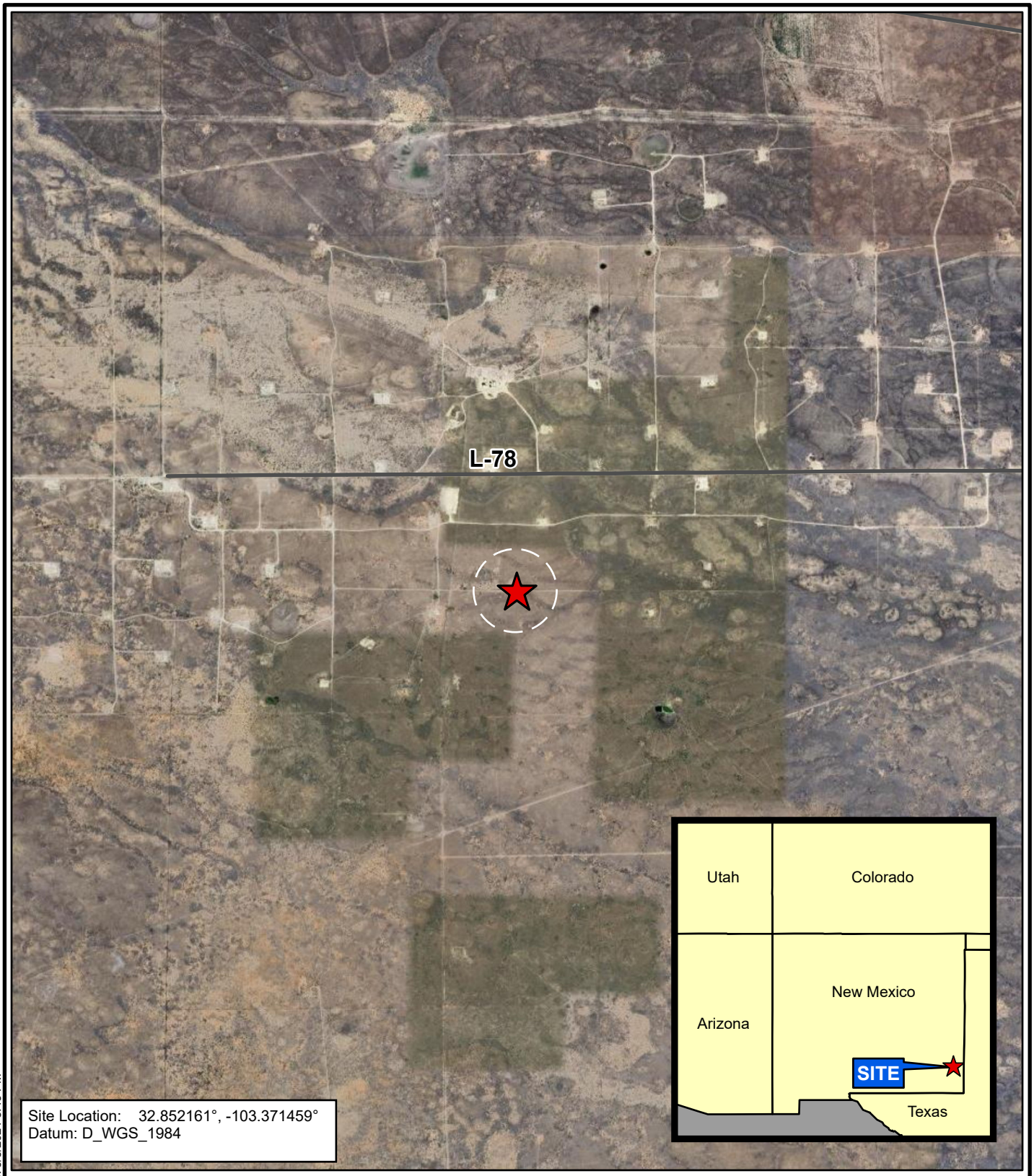
Sample I.D.	Sample Depth (feet bgs)	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	TPH-GRO	TPH-DRO	TPH GRO + DRO	TPH MRO	Total TPH	Chloride
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NMAC Standards			10	--	--	--	50	--	--	1,000	--	2,500	10,000
Restoration Requirements			10	--	--	--	50	--	--	--	--	100	600

DUP: Duplicate sample

Notes:

1. Chloride analyzed by United States Environmental Protection Agency Method 300
2. TPH analyzed by TPH by SW8015 Mod DRO/ORO Method
3. BTEX analyzed by USEPA Method 8021B
4. Closure Criteria New Mexico Administrative Code 19.15.29.12.E(2)

Figures



Legend

Site Location

Credits: ESRI Online, Google Earth

0 2,000 4,000 Feet

GRAPHIC SCALE

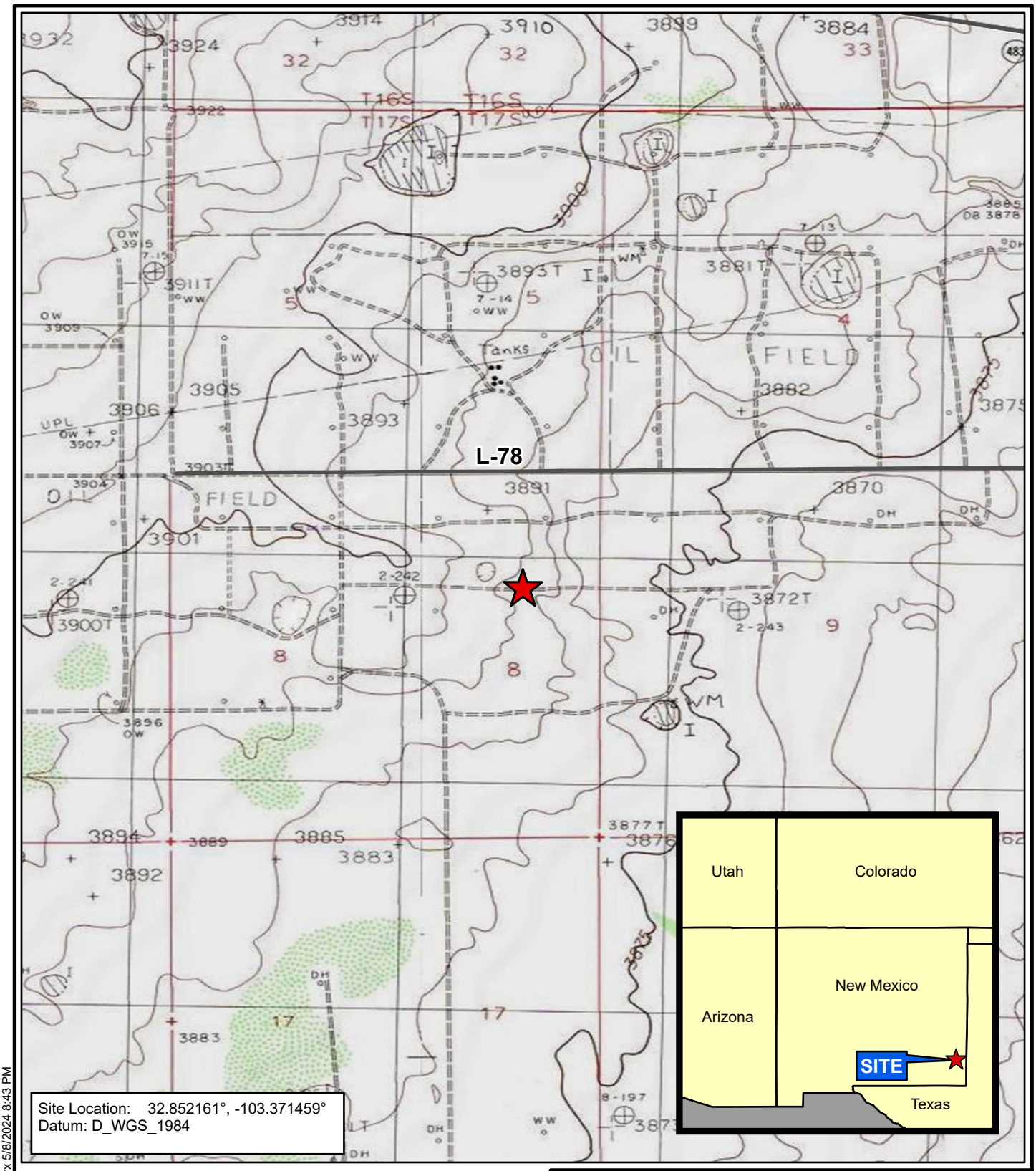
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #057
LEA COUNTY, NEW MEXICO

SITE LOCATION MAP

ARCADIS

FIGURE 1

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: avi00976 ; Client (Project #)
T:_ENV\Chevron\WLU_57_Pro\WLU_57.aprx 5/8/2024 8:43 PM



Legend

Site Location

Credits: ESRI Online, USGS 24,000 K Topo (Map Service)
Red Lake, New Mexico Quadrangle

0 2,000 4,000 Feet
GRAPHIC SCALE

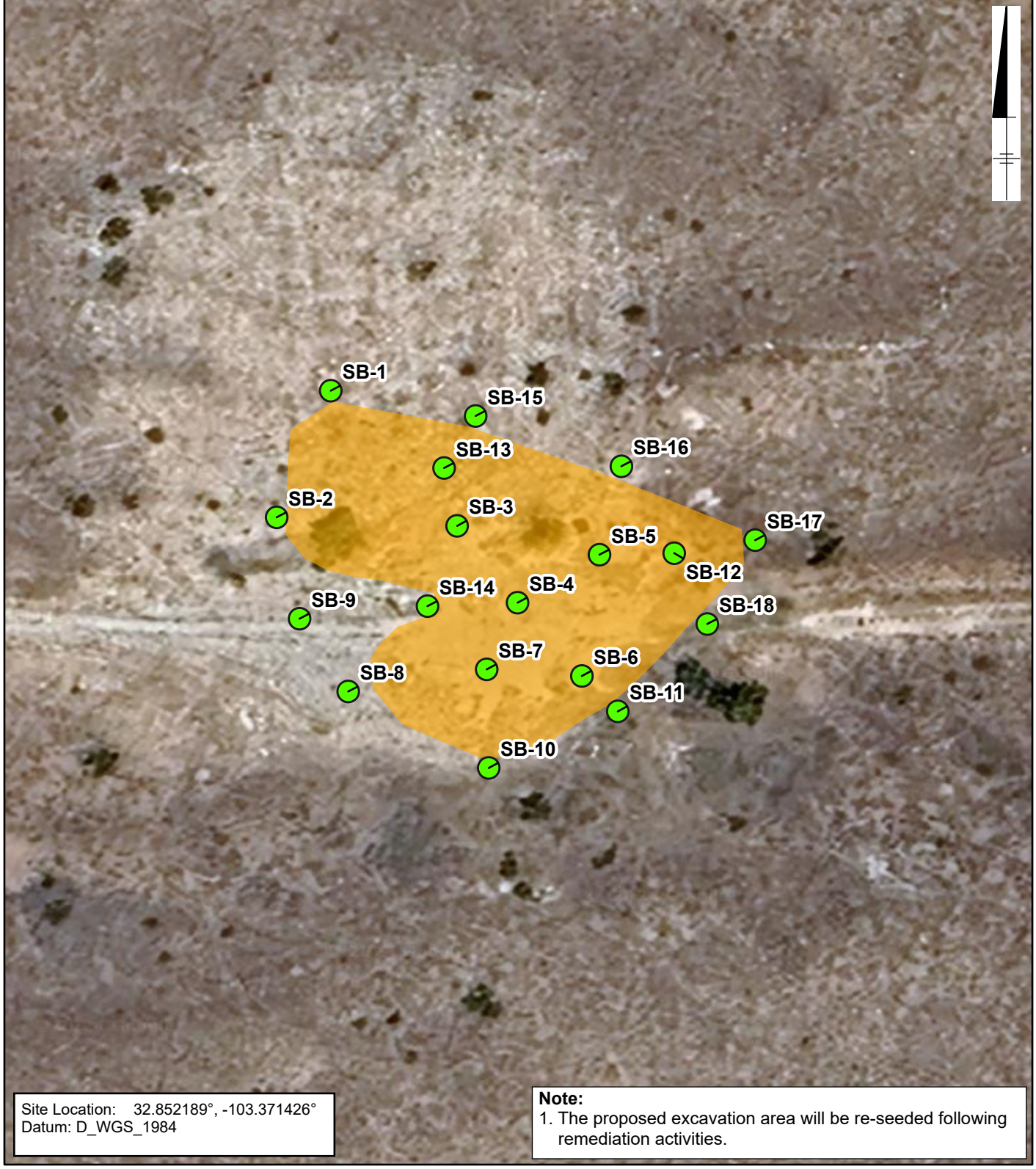
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #057
LEA COUNTY, NEW MEXICO

TOPOGRAPHIC MAP

ARCADIS

FIGURE 2

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: avi00976 ; Client (Project #) T:_ENV\Chevron\WLU_57_Pro\WLU_57.aprx 5/8/2024 8:43 PM



Site Location: 32.852189°, -103.371426°
Datum: D_WGS_1984

Note:
1. The proposed excavation area will be re-seeded following remediation activities.

Legend

- Previous Assessment Sample Location
- Proposed Excavation Area

0 50 100 Feet
GRAPHIC SCALE

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #057
LEA COUNTY, NEW MEXICO

PROPOSED EXCAVATION AND SOIL SAMPLE LOCATION MAP

ARCADIS

FIGURE 3

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: amirm1212 ; Client (Project #)
T:_ENV\UpstreamWLU_57_Pro\WLU_57.aprx 7/29/2024 11:52 AM

Appendix A

Initial C-141 Form Incident # nPLM0830342476

RECEIVED
OCT 29 2008
HOBBS OCD

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

X Initial Report Final Report

Name of Company Chevron USA	Contact TEJAY SIMPSON
Address HCR 60 Box 423 Lovington, N.M. 88260	Telephone No. 505-396-4414 X 101
Facility Name WEST LOVINGTON UNIT #57	Facility Type GENERAL LEASE – IIS 173608G

Surface Owner CHEVRON	Mineral Owner STATE OF NEW MEXICO	Lease No. B-4704 OGRID NO. 241333 API# 30 025 21885

LOCATION OF RELEASE (Closest Chevron Operated Well)

Unit Letter	Section	Township	Range	Feet from the	South Line	Feet from the	West Line	County
H	8	17.0S	36E	1650 FNL		989 FEL		Lea

(Investigation Site) Latitude_32.8533056 __ Longitude_-103.3763333

NATURE OF RELEASE

Type of Release UNKNOWN	Volume of Release UNKNOWN	Volume Recovered UNKNOWN
Source of Release UNKNOWN	Date and Hour of Occurrence UNKNOWN	Date and Hour of Discovery APRIL 2007
Was Immediate Notice Given? * see below ☐ Yes ☒ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☒ Yes ☐ No	If YES, Volume Impacting the Watercourse. UNKNOWN	

If a Watercourse was Impacted, Describe Fully.*Chloride, Hydrocarbon and total Xylenes impact to groundwater

Describe Cause of Problem and Remedial Action Taken.*1 ISoil boring conducted in April 2007 at site No. 173608G located within the Unit Boundary of the West Lovington Unit found evidence of ground water impact. The initial investigation indicates chlorides contamination and low level hydrocarbon impact sufficient to warrant further investigation.

The origin, source, date of occurrence or responsible party for the impact is undetermined.

**Verbal notification of potential groundwater impact was made to Chris Williams at the local NMOCD District office February 1, 2008. Since the date, time and source of the impacting event is not known, it is assumed that the event was not reported at the time of occurrence.*

Describe Area Affected and Cleanup Action Taken.*

Ground water impact in remote low activity oil production and ranching location. The nearest known active livestock water supply well is located approximately one mile north of the investigation site. Water gradient flow is believed to be southeast.

A work plan is being developed to further investigate the potential source of the impact and delineate the area of groundwater impact above standards.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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: Tejay Simpson	OIL CONSERVATION DIVISION
Printed Name: TEJAY SIMPSON	Approved by District Supervisor: ENVIRONMENTAL ENGINEER
Title: OPERATIONS SUPERVISOR	Approval Date: 10.29.08 Expiration Date: 12.1.08
E-mail Address tsimpson@chevron.com	Conditions of Approval: SUBMIT DETAILED REPORT INITIAL ADDING REASONS FOR INVESTIGATION BY IRP#1992 Attached ☐
Date: March 17, 2008 Phone: 396-4414 X 101	

* Attach Additional Sheets If Necessary

Appendix B

NMOCD Correspondence

OCD Permitting

[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT) Application

Submission Information

Submission ID:	295339	**Districts:**	Hobbs
Operator:	[4323] CHEVRON U S A INC	**Counties:**	Lea
Description:	CHEVRON U S A INC [4323] , WEST LOVINGTON UNIT #057 , nPLM0830342476		
Status:	APPROVED		
Status Date:	01/10/2024		
References (2):	30-025-21885, nPLM0830342476		

Forms

Attachments: GROUND WATER ABATEMENT, Cover letter/ executive summary, Current report period activity, Plans for next reporting period, Siting Criteria

Questions

This submission type does not have questions, at this time.

Acknowledgments

This submission type does not have acknowledgments, at this time.

Comments

No comments found for this submission.

Conditions

Summary: *michael.buchanan (1/10/2024),* List Removal Letter has been received for the record.

Reasons

No reasons found for this submission.

1220 South St. Francis Drive | Santa Fe, NM 87505 | P: (505) 476-3200 | F: (505) 476-3220

Appendix C

Photo Log

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 57	Lea County, NM	nPLM0830342476

Photo No.	Date:
1	01/28/2021

Direction Photo Taken:

Facing south

Description:

North center

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 57	Lea County, NM	nPLM0830342476

Photo No.	Date:
2	01/28/2021

Direction Photo Taken:

Southwest

Description:

North east corner

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 57	Lea County, NM	nPLM0830342476

Photo No.	Date:
3	01/28/2021

Direction Photo Taken:

Facing west

Description:

East center

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 57	Lea County, NM	nPLM0830342476

Photo No.	Date:
4	01/28/2021

Direction Photo Taken:

Facing northwest

Description:

Southeast corner

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 57	Lea County, NM	nPLM0830342476

Photo No.	Date:
5	01/28/2021

Direction Photo Taken:

Facing north

Description:

South center

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 57	Lea County, NM	nPLM0830342476

Photo No.	Date:
6	01/28/2021

Direction Photo Taken:

Facing east

Description:

West side of site.

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 57	Lea County, NM	nPLM0830342476

Photo No.	Date:
7	01/28/2021

Direction Photo Taken:

Facing northeast

Description:

Southwest

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 57	Lea County, NM	nPLM0830342476

Photo No.	Date:
8	01/28/2021

Direction Photo Taken:

East

Description:
Well marker

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 57	Lea County, NM	nPLM0830342476

Photo No.	Date:
9	05/20/2024

Direction Photo Taken:

East

Description:
Groundwater Monitoring Well located directly west of site.

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU 57	Lea County, NM	nPLM0830342476

Photo No.	Date:
10	05/20/2024

Direction Photo Taken:

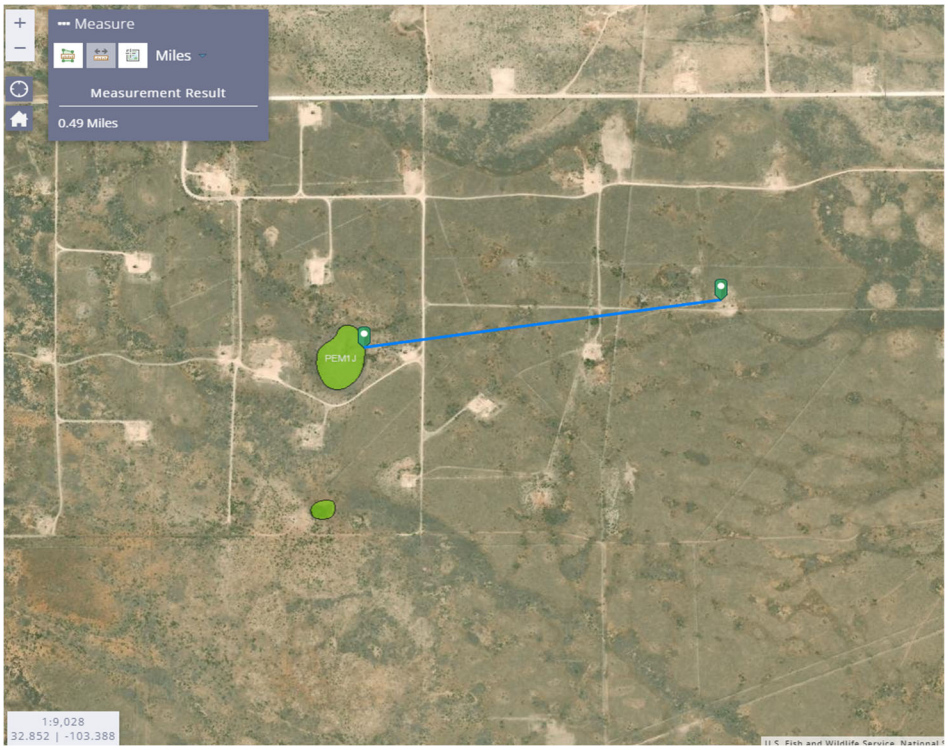
East

Description:
Arcadis gauging Monitoring Well on 5/20/2024.

Appendix D

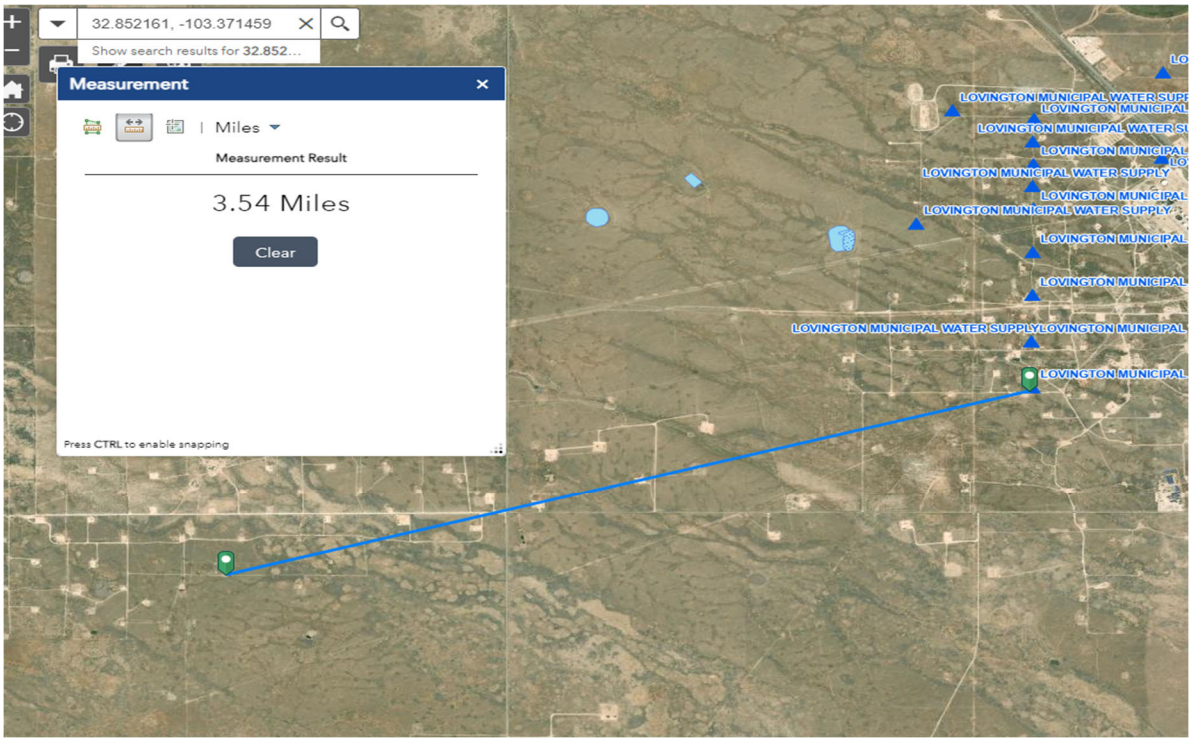
Site Characterization Data

Distance to lakebed, sinkhole, or playa lake.

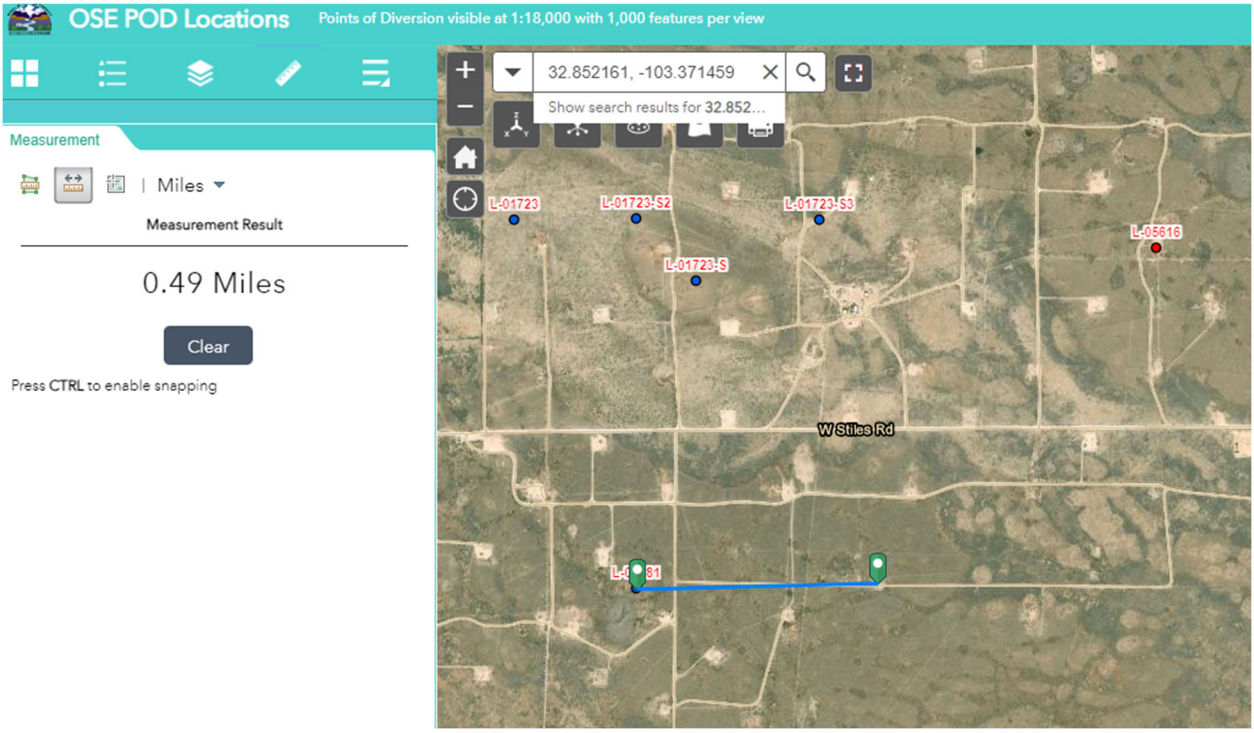


Distance to occupied permanent residence, school, hospital, institution, or church.

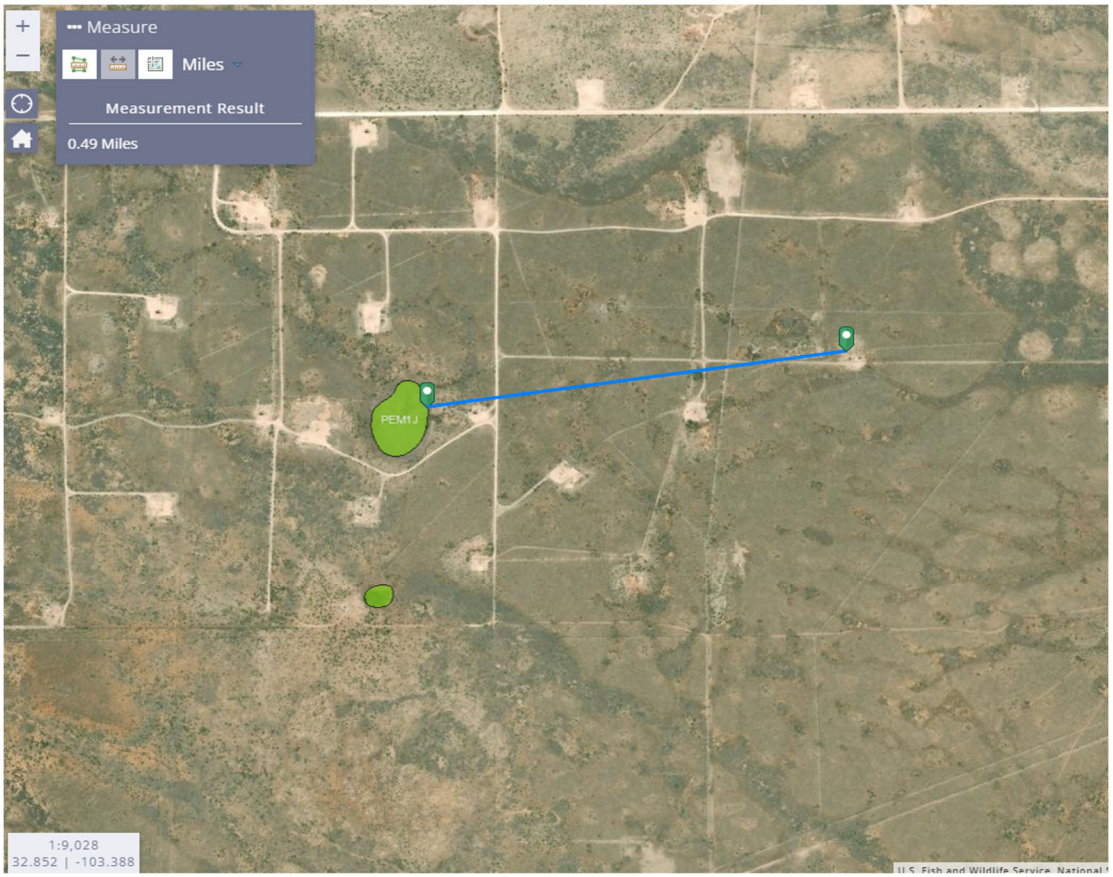
Distance to spring or private domestic fresh water well used by less than five households for domestic or stock watering purposes (Lovington Municipal Water Supply Well NM3521813).



Distance to any other fresh water well or spring (L-00381).



Distance to a wetland.



Appendix E

Laboratory Analytical Reports

eurofins | Environment Testing Xenco

Analytical Report 686645

for

Arcadis U.S., Inc

Project Manager: Morgan Jordan

WLU 57

30064883-0002B

02.09.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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02.09.2021

Project Manager: **Morgan Jordan**
Arcadis U.S., Inc
1717 W 6th Street, Suite 210
Austin, TX 78703

Reference: Eurofins Xenco, LLC Report No(s): **686645**
WLU 57
Project Address:

Morgan Jordan:

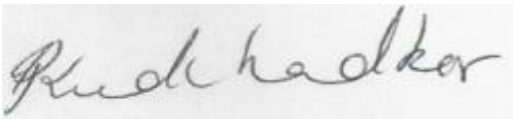
We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 686645. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 686645 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,



Sachin Kudchadkar
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-5-S-0-.5-210129	S	01.29.2021 10:22		686645-001
SB-7-S-0-.5-210129	S	01.29.2021 11:02		686645-002
SB-6-S-0-.5-210129	S	01.29.2021 11:11		686645-003
SB-8-S-0-.5-210129	S	01.29.2021 11:40		686645-004
SB-9-S-0-.5-210129	S	01.29.2021 11:50		686645-005
SB-10-S-0-.5-210129	S	01.29.2021 12:01		686645-006
SB-10-S-1-1.75-210129	S	01.29.2021 12:06		686645-007

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CASE NARRATIVE

Client Name: Arcadis U.S., Inc

Project Name: WLU 57

Project ID: *30064883-0002B*
Work Order Number(s): *686645*

Report Date: *02.09.2021*
Date Received: *01.29.2021*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3149669 BTEX by EPA 8021B

Lab Sample ID 686645-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 686645-001, -002, -003, -004, -005, -006, -007.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3150009 TPH By SW8015 Mod

Detection in the method blank for the gasoline range, data was accepted due to detection being <.5 the reporting limit.

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Certificate of Analytical Results 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-5-S-0-.5-210129** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686645-001 Date Collected: 01.29.2021 10:22

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.01.2021 16:45 % Moisture:

Seq Number: 3149707 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**95.5**	4.99	0.857	mg/kg	02.01.2021 21:55		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:

Seq Number: 3150009 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**21.2**	49.9	15.0	mg/kg	02.04.2021 03:40	BJ	1
Diesel Range Organics (DRO)	C10C28DRO	**198**	49.9	15.0	mg/kg	02.04.2021 03:40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**137**	49.9	15.0	mg/kg	02.04.2021 03:40		1
Total TPH	PHC635	**356**	49.9	15.0	mg/kg	02.04.2021 03:40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	02.04.2021 03:40	
o-Terphenyl	84-15-1	120	%	70-130	02.04.2021 03:40	

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Certificate of Analytical Results 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-5-S-0-.5-210129**
Matrix: Soil
Date Received:01.29.2021 17:00
Lab Sample Id: 686645-001
Date Collected: 01.29.2021 10:22

Analytical Method: BTEX by EPA 8021B
Prep Method: SW5035A
Tech: KTL
Analyst: KTL
Seq Number: 3149669
Date Prep: 02.01.2021 17:15
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000382	0.00198	0.000382	mg/kg	02.02.2021 07:26	UX	1
Toluene	108-88-3	<0.000452	0.00198	0.000452	mg/kg	02.02.2021 07:26	UX	1
Ethylbenzene	100-41-4	<0.000560	0.00198	0.000560	mg/kg	02.02.2021 07:26	UX	1
m,p-Xylenes	179601-23-1	<0.00101	0.00397	0.00101	mg/kg	02.02.2021 07:26	UX	1
o-Xylene	95-47-6	<0.000342	0.00198	0.000342	mg/kg	02.02.2021 07:26	UX	1
Total Xylenes	1330-20-7	<0.000342	0.00198	0.000342	mg/kg	02.02.2021 07:26	U	1
Total BTEX		<0.000342	0.00198	0.000342	mg/kg	02.02.2021 07:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	02.02.2021 07:26	
4-Bromofluorobenzene	460-00-4	130	%	70-130	02.02.2021 07:26	

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Certificate of Analytical Results 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-7-S-0-.5-210129** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686645-002 Date Collected: 01.29.2021 11:02

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.01.2021 16:45 % Moisture:

Seq Number: 3149707 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**217**	5.05	0.867	mg/kg	02.01.2021 22:00		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:

Seq Number: 3150009 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**19.3**	50.0	15.0	mg/kg	02.04.2021 04:01	BJ	1
Diesel Range Organics (DRO)	C10C28DRO	**112**	50.0	15.0	mg/kg	02.04.2021 04:01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**82.3**	50.0	15.0	mg/kg	02.04.2021 04:01		1
Total TPH	PHC635	**214**	50.0	15.0	mg/kg	02.04.2021 04:01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-130	02.04.2021 04:01	
o-Terphenyl	84-15-1	118	%	70-130	02.04.2021 04:01	

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Certificate of Analytical Results 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-7-S-0-.5-210129** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686645-002 Date Collected: 01.29.2021 11:02

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 02.01.2021 17:15 % Moisture:

Seq Number: 3149669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000384	0.00200	0.000384	mg/kg	02.02.2021 07:47	U	1
Toluene	108-88-3	<0.000455	0.00200	0.000455	mg/kg	02.02.2021 07:47	U	1
Ethylbenzene	100-41-4	<0.000564	0.00200	0.000564	mg/kg	02.02.2021 07:47	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00399	0.00101	mg/kg	02.02.2021 07:47	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.02.2021 07:47	U	1
Total Xylenes	1330-20-7	<0.000344	0.00200	0.000344	mg/kg	02.02.2021 07:47	U	1
Total BTEX		<0.000344	0.00200	0.000344	mg/kg	02.02.2021 07:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	02.02.2021 07:47	
4-Bromofluorobenzene	460-00-4	122	%	70-130	02.02.2021 07:47	

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Certificate of Analytical Results 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-6-S-0-.5-210129** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686645-003 Date Collected: 01.29.2021 11:11

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.01.2021 16:45 % Moisture:

Seq Number: 3149707 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**368**	5.00	0.858	mg/kg	02.01.2021 22:05		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:

Seq Number: 3150009 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**20.4**	50.0	15.0	mg/kg	02.04.2021 04:22	BJ	1
Diesel Range Organics (DRO)	C10C28DRO	**93.4**	50.0	15.0	mg/kg	02.04.2021 04:22		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**69.6**	50.0	15.0	mg/kg	02.04.2021 04:22		1
Total TPH	PHC635	**183**	50.0	15.0	mg/kg	02.04.2021 04:22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	02.04.2021 04:22	
o-Terphenyl	84-15-1	111	%	70-130	02.04.2021 04:22	

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Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-6-S-0-.5-210129** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686645-003 Date Collected: 01.29.2021 11:11

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 02.01.2021 17:15 % Moisture:

Seq Number: 3149669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000388	0.00202	0.000388	mg/kg	02.02.2021 08:08	U	1
Toluene	108-88-3	<0.000459	0.00202	0.000459	mg/kg	02.02.2021 08:08	U	1
Ethylbenzene	100-41-4	<0.000569	0.00202	0.000569	mg/kg	02.02.2021 08:08	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00403	0.00102	mg/kg	02.02.2021 08:08	U	1
o-Xylene	95-47-6	<0.000347	0.00202	0.000347	mg/kg	02.02.2021 08:08	U	1
Total Xylenes	1330-20-7	<0.000347	0.00202	0.000347	mg/kg	02.02.2021 08:08	U	1
Total BTEX		<0.000347	0.00202	0.000347	mg/kg	02.02.2021 08:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	118	%	70-130	02.02.2021 08:08	
4-Bromofluorobenzene	460-00-4	120	%	70-130	02.02.2021 08:08	

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Certificate of Analytical Results 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-8-S-0-.5-210129** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686645-004 Date Collected: 01.29.2021 11:40

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.01.2021 16:45 % Moisture:

Seq Number: 3149707 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.1**	5.02	0.862	mg/kg	02.01.2021 22:21		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:

Seq Number: 3150009 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**22.6**	50.0	15.0	mg/kg	02.04.2021 04:43	BJ	1
Diesel Range Organics (DRO)	C10C28DRO	**20.7**	50.0	15.0	mg/kg	02.04.2021 04:43	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**24.7**	50.0	15.0	mg/kg	02.04.2021 04:43	J	1
Total TPH	PHC635	**68.0**	50.0	15.0	mg/kg	02.04.2021 04:43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	02.04.2021 04:43	
o-Terphenyl	84-15-1	125	%	70-130	02.04.2021 04:43	

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Certificate of Analytical Results 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-8-S-0-.5-210129**
Matrix: Soil
Date Received:01.29.2021 17:00
Lab Sample Id: 686645-004
Date Collected: 01.29.2021 11:40

Analytical Method: BTEX by EPA 8021B
Prep Method: SW5035A
Tech: KTL
Analyst: KTL
Date Prep: 02.01.2021 17:15
% Moisture:
Basis: Wet Weight
Seq Number: 3149669

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	02.02.2021 08:28	U	1
Toluene	108-88-3	<0.000453	0.00199	0.000453	mg/kg	02.02.2021 08:28	U	1
Ethylbenzene	100-41-4	<0.000561	0.00199	0.000561	mg/kg	02.02.2021 08:28	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	02.02.2021 08:28	U	1
o-Xylene	95-47-6	<0.000342	0.00199	0.000342	mg/kg	02.02.2021 08:28	U	1
Total Xylenes	1330-20-7	<0.000342	0.00199	0.000342	mg/kg	02.02.2021 08:28	U	1
Total BTEX		<0.000342	0.00199	0.000342	mg/kg	02.02.2021 08:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	02.02.2021 08:28	
4-Bromofluorobenzene	460-00-4	109	%	70-130	02.02.2021 08:28	

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Certificate of Analytical Results 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-9-S-0-.5-210129** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686645-005 Date Collected: 01.29.2021 11:50

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.01.2021 16:45 % Moisture:

Seq Number: 3149707 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**15.4**	4.97	0.853	mg/kg	02.01.2021 22:27		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:

Seq Number: 3150009 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**23.5**	49.9	15.0	mg/kg	02.04.2021 05:05	BJ	1
Diesel Range Organics (DRO)	C10C28DRO	**16.1**	49.9	15.0	mg/kg	02.04.2021 05:05	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**19.3**	49.9	15.0	mg/kg	02.04.2021 05:05	J	1
Total TPH	PHC635	**58.9**	49.9	15.0	mg/kg	02.04.2021 05:05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	02.04.2021 05:05	
o-Terphenyl	84-15-1	112	%	70-130	02.04.2021 05:05	

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Certificate of Analytical Results 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-9-S-0-.5-210129** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686645-005 Date Collected: 01.29.2021 11:50

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 02.01.2021 17:15 % Moisture:

Seq Number: 3149669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	02.02.2021 08:49	U	1
Toluene	108-88-3	<0.000454	0.00199	0.000454	mg/kg	02.02.2021 08:49	U	1
Ethylbenzene	100-41-4	<0.000563	0.00199	0.000563	mg/kg	02.02.2021 08:49	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	02.02.2021 08:49	U	1
o-Xylene	95-47-6	<0.000343	0.00199	0.000343	mg/kg	02.02.2021 08:49	U	1
Total Xylenes	1330-20-7	<0.000343	0.00199	0.000343	mg/kg	02.02.2021 08:49	U	1
Total BTEX		<0.000343	0.00199	0.000343	mg/kg	02.02.2021 08:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	02.02.2021 08:49	
4-Bromofluorobenzene	460-00-4	113	%	70-130	02.02.2021 08:49	

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Certificate of Analytical Results 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-10-S-0-.5-210129** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686645-006 Date Collected: 01.29.2021 12:01

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.01.2021 16:45 % Moisture:

Seq Number: 3149707 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**24.7**	4.99	0.857	mg/kg	02.01.2021 22:43		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:

Seq Number: 3150009 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**21.7**	49.9	15.0	mg/kg	02.04.2021 05:26	BJ	1
Diesel Range Organics (DRO)	C10C28DRO	**15.0**	49.9	15.0	mg/kg	02.04.2021 05:26	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**16.9**	49.9	15.0	mg/kg	02.04.2021 05:26	J	1
Total TPH	PHC635	**53.6**	49.9	15.0	mg/kg	02.04.2021 05:26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	02.04.2021 05:26	
o-Terphenyl	84-15-1	112	%	70-130	02.04.2021 05:26	

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Certificate of Analytical Results 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-10-S-0-.5-210129** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686645-006 Date Collected: 01.29.2021 12:01

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 02.01.2021 17:15 % Moisture:

Seq Number: 3149669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	02.02.2021 09:10	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	02.02.2021 09:10	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	02.02.2021 09:10	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	02.02.2021 09:10	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.02.2021 09:10	U	1
Total Xylenes	1330-20-7	<0.000344	0.00200	0.000344	mg/kg	02.02.2021 09:10	U	1
Total BTEX		<0.000344	0.00200	0.000344	mg/kg	02.02.2021 09:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	02.02.2021 09:10	
1,4-Difluorobenzene	540-36-3	117	%	70-130	02.02.2021 09:10	

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Certificate of Analytical Results 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-10-S-1-1.75-210129** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686645-007 Date Collected: 01.29.2021 12:06

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.01.2021 16:45 % Moisture:

Seq Number: 3149707 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**246**	5.02	0.862	mg/kg	02.01.2021 22:48		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:

Seq Number: 3150009 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**21.8**	49.8	14.9	mg/kg	02.04.2021 05:48	BJ	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	49.8	14.9	mg/kg	02.04.2021 05:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	49.8	14.9	mg/kg	02.04.2021 05:48	U	1
Total TPH	PHC635	**21.8**	49.8	14.9	mg/kg	02.04.2021 05:48	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	02.04.2021 05:48	
o-Terphenyl	84-15-1	108	%	70-130	02.04.2021 05:48	

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Certificate of Analytical Results 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-10-S-1-1.75-210129** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686645-007 Date Collected: 01.29.2021 12:06

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 02.01.2021 17:15 % Moisture:

Seq Number: 3149669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	02.02.2021 09:31	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	02.02.2021 09:31	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	02.02.2021 09:31	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	02.02.2021 09:31	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.02.2021 09:31	U	1
Total Xylenes	1330-20-7	<0.000344	0.00200	0.000344	mg/kg	02.02.2021 09:31	U	1
Total BTEX		<0.000344	0.00200	0.000344	mg/kg	02.02.2021 09:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	02.02.2021 09:31	
1,4-Difluorobenzene	540-36-3	111	%	70-130	02.02.2021 09:31	

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Blank Summary 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **7720557-1-BLK** Matrix: SOLID

Lab Sample Id: **7720557-1-BLK**

Analytical Method: **Chloride by EPA 300** Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.01.2021 16:45

Seq Number: 3149707

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	02.01.2021 20:35	U	1

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Blank Summary 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **7720565-1-BLK** Matrix: SOLID

Lab Sample Id: **7720565-1-BLK**

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 02.01.2021 17:15

Seq Number: 3149669

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	02.02.2021 07:04	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	02.02.2021 07:04	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	02.02.2021 07:04	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	02.02.2021 07:04	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.02.2021 07:04	U	1

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Blank Summary 686645

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **7720763-1-BLK** Matrix: SOLID

Lab Sample Id: **7720763-1-BLK**

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.03.2021 17:00

Seq Number: 3150009

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	21.1	50.0	15.0	mg/kg	02.03.2021 21:39	BJ	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	02.03.2021 21:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	02.03.2021 21:39	U	1

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Form 2 - Surrogate Recoveries

Project Name: WLU 57

Report Date: 02092021

Work Orders : 686645

Project ID: 30064883-0002B

Lab Batch #: 3149669 **Sample:** 7720565-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.02.2021 05:04 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0340	0.0300	113	70-130	
4-Bromofluorobenzene	0.0325	0.0300	108	70-130	

Lab Batch #: 3149669 **Sample:** 7720565-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.02.2021 05:24 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	70-130	
4-Bromofluorobenzene	0.0331	0.0300	110	70-130	

Lab Batch #: 3149669 **Sample:** 686645-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.02.2021 05:45 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	70-130	
4-Bromofluorobenzene	0.0345	0.0300	115	70-130	

Lab Batch #: 3149669 **Sample:** 686645-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.02.2021 06:06 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0327	0.0300	109	70-130	
4-Bromofluorobenzene	0.0336	0.0300	112	70-130	

Lab Batch #: 3149669 **Sample:** 7720565-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.02.2021 07:04 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0360	0.0300	120	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: WLU 57

Report Date: 02092021

Work Orders : 686645 **Project ID:** 30064883-0002B

Lab Batch #: 3150009 **Sample:** 7720763-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.03.2021 21:39 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-130	
o-Terphenyl	62.7	50.0	125	70-130	

Lab Batch #: 3150009 **Sample:** 7720763-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.03.2021 22:01 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-130	
o-Terphenyl	55.5	50.0	111	70-130	

Lab Batch #: 3150009 **Sample:** 7720763-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.03.2021 22:22 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	100	106	70-130	
o-Terphenyl	55.5	50.0	111	70-130	

Lab Batch #: 3150009 **Sample:** 686580-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.03.2021 23:04 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.2	99.7	84	70-130	
o-Terphenyl	41.7	49.9	84	70-130	

Lab Batch #: 3150009 **Sample:** 686580-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.03.2021 23:25 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.0	99.9	87	70-130	
o-Terphenyl	43.3	50.0	87	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

QC Summary 686645

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Arcadis U.S., Inc

WLU 57

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149707 — Matrix: Solid — Date Prep: 02.01.2021
MB Sample Id: 7720557-1-BLK — LCS Sample Id: 7720557-1-BKS — LCSD Sample Id: 7720557-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	239	96	244	98	90-110	2	20	mg/kg	02.01.2021 20:40	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149707 — Matrix: Soil — Date Prep: 02.01.2021
Parent Sample Id: 686558-005 — MS Sample Id: 686558-005 S — MSD Sample Id: 686558-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	514	252	745	92	865	139	90-110	15	20	mg/kg	02.01.2021 20:56	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149707 — Matrix: Soil — Date Prep: 02.01.2021
Parent Sample Id: 686645-003 — MS Sample Id: 686645-003 S — MSD Sample Id: 686645-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	368	250	599	92	615	99	90-110	3	20	mg/kg	02.01.2021 22:11	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3150009 — Matrix: Solid — Date Prep: 02.03.2021
MB Sample Id: 7720763-1-BLK — LCS Sample Id: 7720763-1-BKS — LCSD Sample Id: 7720763-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	917	92	904	90	70-130	1	20	mg/kg	02.03.2021 22:01	
Diesel Range Organics (DRO)	<15.0	1000	1040	104	1030	103	70-130	1	20	mg/kg	02.03.2021 22:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		105		106		70-130	%	02.03.2021 22:01
o-Terphenyl	125		111		111		70-130	%	02.03.2021 22:01

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3150009 — Matrix: Solid — Date Prep: 02.03.2021
MB Sample Id: 7720763-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<15.0	mg/kg	02.03.2021 21:39	

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

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QC Summary 686645

Arcadis U.S., Inc

WLU 57

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3150009 Matrix: Soil Date Prep: 02.03.2021
Parent Sample Id: 686580-001 MS Sample Id: 686580-001 S MSD Sample Id: 686580-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	833	84	846	85	70-130	2	20	mg/kg	02.03.2021 23:04	
Diesel Range Organics (DRO)	<15.0	997	899	90	933	93	70-130	4	20	mg/kg	02.03.2021 23:04	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	84		87		70-130	%	02.03.2021 23:04
o-Terphenyl	84		87		70-130	%	02.03.2021 23:04

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3149669 Matrix: Solid Date Prep: 02.01.2021
MB Sample Id: 7720565-1-BLK LCS Sample Id: 7720565-1-BKS LCSD Sample Id: 7720565-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.0947	95	0.0878	88	70-130	8	35	mg/kg	02.02.2021 05:04	
Toluene	<0.000456	0.100	0.101	101	0.0970	97	70-130	4	35	mg/kg	02.02.2021 05:04	
Ethylbenzene	<0.000565	0.100	0.0983	98	0.0947	95	70-130	4	35	mg/kg	02.02.2021 05:04	
m,p-Xylenes	<0.00101	0.200	0.199	100	0.186	93	70-130	7	35	mg/kg	02.02.2021 05:04	
o-Xylene	<0.000344	0.100	0.101	101	0.0947	95	70-130	6	35	mg/kg	02.02.2021 05:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		113		107		70-130	%	02.02.2021 05:04
4-Bromofluorobenzene	120		108		110		70-130	%	02.02.2021 05:04

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3149669 Matrix: Soil Date Prep: 02.01.2021
Parent Sample Id: 686645-001 MS Sample Id: 686645-001 S MSD Sample Id: 686645-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000381	0.0990	0.0334	34	0.0450	45	70-130	30	35	mg/kg	02.02.2021 05:45	X
Toluene	<0.000451	0.0990	0.0325	33	0.0387	39	70-130	17	35	mg/kg	02.02.2021 05:45	X
Ethylbenzene	<0.000559	0.0990	0.0260	26	0.0330	33	70-130	24	35	mg/kg	02.02.2021 05:45	X
m,p-Xylenes	<0.00100	0.198	0.0503	25	0.0646	32	70-130	25	35	mg/kg	02.02.2021 05:45	X
o-Xylene	<0.000341	0.0990	0.0290	29	0.0317	32	70-130	9	35	mg/kg	02.02.2021 05:45	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		109		70-130	%	02.02.2021 05:45
4-Bromofluorobenzene	115		112		70-130	%	02.02.2021 05:45

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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

Chain of Custody Record

Client Information	Sampler: J. Steinmann	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-23595-8666.1
Client Contact: Motgan Jordan	Phone: 619 851 8792	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job#: 6866045
Address: 1717 W 6th Street. Suite 210	Due Date Requested:			
City: Austin	TAT Requested (days): std			
State, Zip: TX, 78703				
Phone: 281 644 9437	PO #:			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: 30064883-0002B	Project #: 30064883-0002B			
Site: WLU 57	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	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)	8015_GRO/ DRO/ ORO	300 - Chloride	8021- BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	N	N	X	
SB-5-S-0-.5-210129	1/29/21	1022	G	Solid						1	
SB-7-S-0-.5-210129		1102		Solid							
SB-6-S-0-.5-210129		1111		Solid							
SB-8-S-0-.5-210129		1140		Solid							
SB-9-S-0-.5-210129		1150		Solid							
SB-10-S-0-.5-210129		1201		Solid							
SB-10-S-1-1.75-210129		1206		Solid							
				Solid							
				Solid							
c/s 1/29/21				Solid							
				Solid							

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	Justin Steinmann	1/29/21 1500	Arcadis	Carlos Grajeda	1-29-21 1500	Arcadis
2	Carlos Grajeda	1-29-21 1700	Arcadis		1/29/21 1700	
3						

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

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

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Arcadis U.S., Inc

Date/ Time Received: 01.29.2021 05.00.00 PM

Work Order #: 686645

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 01.29.2021

Brianna Teel

Checklist reviewed by: Sachin Kudchadkar Date: 01.29.2021

Sachin Kudchadkar

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Analytical Report 686646

for

Arcadis U.S., Inc

Project Manager: Morgan Jordan

WLU 57

30064883-0002B

03.04.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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03.04.2021

Project Manager: **Morgan Jordan**
Arcadis U.S., Inc
1717 W 6th Street, Suite 210
Austin, TX 78703

Reference: Eurofins Xenco, LLC Report No(s): **686646**
WLU 57
Project Address:

Morgan Jordan:

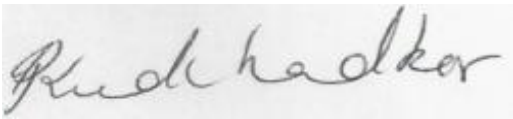
We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 686646. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 686646 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,



Sachin Kudchadkar
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

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Sample Cross Reference 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-1-S-0-.5-210128	S	01.28.2021 13:16		686646-001
SB-2-S-0-.5-210128	S	01.28.2021 13:36		686646-002
SB-3-S-0-.5-210128	S	01.28.2021 13:49		686646-003
SB-3-S-1-2-210128	S	01.28.2021 14:10		686646-004
SB-4-S-0-.5-210128	S	01.28.2021 14:38		686646-005
SB-3-SD-0-.5-210128	S	01.28.2021 00:00		686646-006

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CASE NARRATIVE

Client Name: Arcadis U.S., Inc

Project Name: WLU 57

Project ID: *30064883-0002B*
Work Order Number(s): *686646*

Report Date: *03.04.2021*
Date Received: *01.29.2021*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3150167 TPH By SW8015 Mod

Samples affected are: 686646-001.

Surrogate o-Terphenyl recovered above QC limits. Samples affected are: 7720889-1-BKS,7720889-1-BLK,7720889-1-BSD,686655-001 S,686655-001 SD,686646-001,686646-002,686646-003,686646-004.

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Certificate of Analytical Results 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-1-S-0-.5-210128** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686646-001 Date Collected: 01.28.2021 13:16

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.01.2021 16:45 % Moisture:

Seq Number: 3149707 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**580**	49.8	8.55	mg/kg	02.01.2021 22:53		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.04.2021 11:00 % Moisture:

Seq Number: 3150167 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**23.1**	49.9	15.0	mg/kg	02.04.2021 19:03	J	1
Diesel Range Organics (DRO)	C10C28DRO	**33.9**	49.9	15.0	mg/kg	02.04.2021 19:03	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**18.1**	49.9	15.0	mg/kg	02.04.2021 19:03	J	1
Total TPH	PHC635	**75.1**	49.9	15.0	mg/kg	02.04.2021 19:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	129	%	70-130	02.04.2021 19:03	
o-Terphenyl	84-15-1	191	%	70-130	02.04.2021 19:03	**

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Certificate of Analytical Results 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-1-S-0-.5-210128** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686646-001 Date Collected: 01.28.2021 13:16

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 02.01.2021 17:15 % Moisture:

Seq Number: 3149669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000382	0.00198	0.000382	mg/kg	02.02.2021 09:51	U	1
Toluene	108-88-3	<0.000452	0.00198	0.000452	mg/kg	02.02.2021 09:51	U	1
Ethylbenzene	100-41-4	<0.000560	0.00198	0.000560	mg/kg	02.02.2021 09:51	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00397	0.00101	mg/kg	02.02.2021 09:51	U	1
o-Xylene	95-47-6	<0.000342	0.00198	0.000342	mg/kg	02.02.2021 09:51	U	1
Total Xylenes	1330-20-7	<0.000342	0.00198	0.000342	mg/kg	02.02.2021 09:51	U	1
Total BTEX		<0.000342	0.00198	0.000342	mg/kg	02.02.2021 09:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	02.02.2021 09:51	
4-Bromofluorobenzene	460-00-4	124	%	70-130	02.02.2021 09:51	

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Certificate of Analytical Results 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-2-S-0-.5-210128** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686646-002 Date Collected: 01.28.2021 13:36

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.01.2021 16:45 % Moisture:

Seq Number: 3149707 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8.90**	5.00	0.858	mg/kg	02.01.2021 22:59		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.04.2021 11:00 % Moisture:

Seq Number: 3150167 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**15.4**	50.0	15.0	mg/kg	02.04.2021 19:24	J	1
Diesel Range Organics (DRO)	C10C28DRO	**15.9**	50.0	15.0	mg/kg	02.04.2021 19:24	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	02.04.2021 19:24	U	1
Total TPH	PHC635	**31.3**	50.0	15.0	mg/kg	02.04.2021 19:24	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-130	02.04.2021 19:24	
o-Terphenyl	84-15-1	146	%	70-130	02.04.2021 19:24	**

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Certificate of Analytical Results 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id:	**SB-2-S-0-.5-210128**	Matrix:	Soil	Date Received:	01.29.2021 17:00
Lab Sample Id:	686646-002	Date Collected:	01.28.2021 13:36		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	02.01.2021 17:15	% Moisture:	
Seq Number:	3149669			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	02.02.2021 10:12	U	1
Toluene	108-88-3	<0.000454	0.00199	0.000454	mg/kg	02.02.2021 10:12	U	1
Ethylbenzene	100-41-4	<0.000563	0.00199	0.000563	mg/kg	02.02.2021 10:12	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	02.02.2021 10:12	U	1
o-Xylene	95-47-6	<0.000343	0.00199	0.000343	mg/kg	02.02.2021 10:12	U	1
Total Xylenes	1330-20-7	<0.000343	0.00199	0.000343	mg/kg	02.02.2021 10:12	U	1
Total BTEX		<0.000343	0.00199	0.000343	mg/kg	02.02.2021 10:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	108	%	70-130	02.02.2021 10:12	
4-Bromofluorobenzene	460-00-4	118	%	70-130	02.02.2021 10:12	

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Certificate of Analytical Results 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-3-S-0-.5-210128** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686646-003 Date Collected: 01.28.2021 13:49

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.01.2021 16:45 % Moisture:

Seq Number: 3149707 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**43.7**	5.03	0.864	mg/kg	02.01.2021 23:04		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.04.2021 11:00 % Moisture:

Seq Number: 3150167 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	02.04.2021 19:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	**947**	50.0	15.0	mg/kg	02.04.2021 19:46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**294**	50.0	15.0	mg/kg	02.04.2021 19:46		1
Total TPH	PHC635	**1240**	50.0	15.0	mg/kg	02.04.2021 19:46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-130	02.04.2021 19:46	
o-Terphenyl	84-15-1	158	%	70-130	02.04.2021 19:46	**

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Certificate of Analytical Results 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-3-S-0-.5-210128** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686646-003 Date Collected: 01.28.2021 13:49

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 02.01.2021 17:15 % Moisture:

Seq Number: 3149669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000386	0.00200	0.000386	mg/kg	02.02.2021 10:33	U	1
Toluene	108-88-3	<0.000457	0.00200	0.000457	mg/kg	02.02.2021 10:33	U	1
Ethylbenzene	100-41-4	<0.000566	0.00200	0.000566	mg/kg	02.02.2021 10:33	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00401	0.00102	mg/kg	02.02.2021 10:33	U	1
o-Xylene	95-47-6	<0.000345	0.00200	0.000345	mg/kg	02.02.2021 10:33	U	1
Total Xylenes	1330-20-7	<0.000345	0.00200	0.000345	mg/kg	02.02.2021 10:33	U	1
Total BTEX		<0.000345	0.00200	0.000345	mg/kg	02.02.2021 10:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	119	%	70-130	02.02.2021 10:33	
4-Bromofluorobenzene	460-00-4	126	%	70-130	02.02.2021 10:33	

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Certificate of Analytical Results 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-3-S-1-2-210128** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686646-004 Date Collected: 01.28.2021 14:10

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.01.2021 16:45 % Moisture:

Seq Number: 3149707 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**93.2**	5.00	0.858	mg/kg	02.01.2021 23:09		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.04.2021 11:00 % Moisture:

Seq Number: 3150167 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	49.9	15.0	mg/kg	02.04.2021 20:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	**78.6**	49.9	15.0	mg/kg	02.04.2021 20:07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**78.7**	49.9	15.0	mg/kg	02.04.2021 20:07		1
Total TPH	PHC635	**157**	49.9	15.0	mg/kg	02.04.2021 20:07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-130	02.04.2021 20:07	
o-Terphenyl	84-15-1	167	%	70-130	02.04.2021 20:07	**

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Certificate of Analytical Results 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id:	**SB-3-S-1-2-210128**	Matrix:	Soil	Date Received:	01.29.2021 17:00
Lab Sample Id:	686646-004	Date Collected:	01.28.2021 14:10		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	02.01.2021 17:15	% Moisture:	
Seq Number:	3149669			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000389	0.00202	0.000389	mg/kg	02.02.2021 11:56	U	1
Toluene	108-88-3	<0.000460	0.00202	0.000460	mg/kg	02.02.2021 11:56	U	1
Ethylbenzene	100-41-4	<0.000570	0.00202	0.000570	mg/kg	02.02.2021 11:56	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00404	0.00102	mg/kg	02.02.2021 11:56	U	1
o-Xylene	95-47-6	<0.000348	0.00202	0.000348	mg/kg	02.02.2021 11:56	U	1
Total Xylenes	1330-20-7	<0.000348	0.00202	0.000348	mg/kg	02.02.2021 11:56	U	1
Total BTEX		<0.000348	0.00202	0.000348	mg/kg	02.02.2021 11:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	02.02.2021 11:56	
4-Bromofluorobenzene	460-00-4	106	%	70-130	02.02.2021 11:56	

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Certificate of Analytical Results 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-4-S-0-.5-210128** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686646-005 Date Collected: 01.28.2021 14:38

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.01.2021 16:45 % Moisture:

Seq Number: 3149707 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**616**	5.00	0.858	mg/kg	02.01.2021 23:15		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:

Seq Number: 3149995 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	49.9	15.0	mg/kg	02.04.2021 08:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	**333**	49.9	15.0	mg/kg	02.04.2021 08:13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**157**	49.9	15.0	mg/kg	02.04.2021 08:13		1
Total TPH	PHC635	**490**	49.9	15.0	mg/kg	02.04.2021 08:13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	02.04.2021 08:13	
o-Terphenyl	84-15-1	112	%	70-130	02.04.2021 08:13	

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Certificate of Analytical Results 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-4-S-0-.5-210128** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686646-005 Date Collected: 01.28.2021 14:38

Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 02.01.2021 17:15 % Moisture:

Seq Number: 3149669 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000386	0.00201	0.000386	mg/kg	02.02.2021 12:17	U	1
Toluene	108-88-3	<0.000457	0.00201	0.000457	mg/kg	02.02.2021 12:17	U	1
Ethylbenzene	100-41-4	<0.000567	0.00201	0.000567	mg/kg	02.02.2021 12:17	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00402	0.00102	mg/kg	02.02.2021 12:17	U	1
o-Xylene	95-47-6	<0.000346	0.00201	0.000346	mg/kg	02.02.2021 12:17	U	1
Total Xylenes	1330-20-7	<0.000346	0.00201	0.000346	mg/kg	02.02.2021 12:17	U	1
Total BTEX		<0.000346	0.00201	0.000346	mg/kg	02.02.2021 12:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	02.02.2021 12:17	
4-Bromofluorobenzene	460-00-4	122	%	70-130	02.02.2021 12:17	

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Certificate of Analytical Results 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **SB-3-SD-0-.5-210128** Matrix: Soil Date Received:01.29.2021 17:00

Lab Sample Id: 686646-006 Date Collected: 01.28.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC

Analyst: SPC Date Prep: 02.02.2021 16:20 % Moisture:

Seq Number: 3149807 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**55.0**	4.98	0.855	mg/kg	02.02.2021 20:35		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:

Seq Number: 3149995 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	02.04.2021 08:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	**632**	50.0	15.0	mg/kg	02.04.2021 08:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**288**	50.0	15.0	mg/kg	02.04.2021 08:35		1
Total TPH	PHC635	**920**	50.0	15.0	mg/kg	02.04.2021 08:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-130	02.04.2021 08:35	
o-Terphenyl	84-15-1	105	%	70-130	02.04.2021 08:35	

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Certificate of Analytical Results 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id:	**SB-3-SD-0-.5-210128**	Matrix:	Soil	Date Received:	01.29.2021 17:00
Lab Sample Id:	686646-006	Date Collected:	01.28.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	02.01.2021 17:15	% Moisture:	
Seq Number:	3149669			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000384	0.00200	0.000384	mg/kg	02.02.2021 12:38	U	1
Toluene	108-88-3	<0.000455	0.00200	0.000455	mg/kg	02.02.2021 12:38	U	1
Ethylbenzene	100-41-4	<0.000564	0.00200	0.000564	mg/kg	02.02.2021 12:38	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00399	0.00101	mg/kg	02.02.2021 12:38	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.02.2021 12:38	U	1
Total Xylenes	1330-20-7	<0.000344	0.00200	0.000344	mg/kg	02.02.2021 12:38	U	1
Total BTEX		<0.000344	0.00200	0.000344	mg/kg	02.02.2021 12:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	02.02.2021 12:38	
1,4-Difluorobenzene	540-36-3	118	%	70-130	02.02.2021 12:38	

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Blank Summary 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **7720557-1-BLK** Matrix: SOLID

Lab Sample Id: **7720557-1-BLK**

Analytical Method: **Chloride by EPA 300** Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 02.01.2021 16:45

Seq Number: 3149707

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	02.01.2021 20:35	U	1

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Blank Summary 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **7720565-1-BLK** Matrix: SOLID

Lab Sample Id: **7720565-1-BLK**

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Tech: KTL

Analyst: KTL Date Prep: 02.01.2021 17:15

Seq Number: 3149669

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	02.02.2021 07:04	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	02.02.2021 07:04	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	02.02.2021 07:04	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	02.02.2021 07:04	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	02.02.2021 07:04	U	1

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Blank Summary 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **7720615-1-BLK** Matrix: SOLID

Lab Sample Id: **7720615-1-BLK**

Analytical Method: **Chloride by EPA 300** Prep Method: E300P

Tech: SPC

Analyst: SPC Date Prep: 02.02.2021 16:20

Seq Number: 3149807

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	02.02.2021 18:22	U	1

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Blank Summary 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **7720754-1-BLK** Matrix: SOLID

Lab Sample Id: **7720754-1-BLK**

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.03.2021 17:00

Seq Number: 3149995

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	02.03.2021 21:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	02.03.2021 21:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	02.03.2021 21:28	U	1

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Blank Summary 686646

Arcadis U.S., Inc, Austin, TX

WLU 57

Sample Id: **7720889-1-BLK** Matrix: SOLID

Lab Sample Id: **7720889-1-BLK**

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 02.04.2021 11:00

Seq Number: 3150167

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	02.04.2021 11:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	02.04.2021 11:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	02.04.2021 11:50	U	1

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Form 2 - Surrogate Recoveries

Project Name: WLU 57

Report Date: 03042021

Work Orders : 686646 **Project ID:** 30064883-0002B

Lab Batch #: 3149669 **Sample:** 7720565-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.02.2021 05:04 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0340	0.0300	113	70-130	
4-Bromofluorobenzene	0.0325	0.0300	108	70-130	

Lab Batch #: 3149669 **Sample:** 7720565-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.02.2021 05:24 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0321	0.0300	107	70-130	
4-Bromofluorobenzene	0.0331	0.0300	110	70-130	

Lab Batch #: 3149669 **Sample:** 686645-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.02.2021 05:45 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	70-130	
4-Bromofluorobenzene	0.0345	0.0300	115	70-130	

Lab Batch #: 3149669 **Sample:** 686645-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.02.2021 06:06 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0327	0.0300	109	70-130	
4-Bromofluorobenzene	0.0336	0.0300	112	70-130	

Lab Batch #: 3149669 **Sample:** 7720565-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.02.2021 07:04 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0360	0.0300	120	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: WLU 57

Report Date: 03042021

Work Orders : 686646 **Project ID:** 30064883-0002B

Lab Batch #: 3149995 **Sample:** 7720754-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.03.2021 21:28 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	100	107	70-130	
o-Terphenyl	60.2	50.0	120	70-130	

Lab Batch #: 3149995 **Sample:** 7720754-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.03.2021 21:49 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-130	
o-Terphenyl	58.8	50.0	118	70-130	

Lab Batch #: 3149995 **Sample:** 7720754-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.03.2021 22:11 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	119	100	119	70-130	
o-Terphenyl	61.8	50.0	124	70-130	

Lab Batch #: 3149995 **Sample:** 686581-041 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.03.2021 22:53 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.7	99.7	100	70-130	
o-Terphenyl	51.8	49.9	104	70-130	

Lab Batch #: 3149995 **Sample:** 686581-041 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.03.2021 23:15 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.9	105	70-130	
o-Terphenyl	54.6	50.0	109	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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Form 2 - Surrogate Recoveries

Project Name: WLU 57

Report Date: 03042021

Work Orders : 686646 **Project ID:** 30064883-0002B

Lab Batch #: 3150167 **Sample:** 7720889-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.04.2021 11:50 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-130	
o-Terphenyl	66.3	50.0	133	70-130	**

Lab Batch #: 3150167 **Sample:** 7720889-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.04.2021 12:11 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	100	125	70-130	
o-Terphenyl	75.0	50.0	150	70-130	**

Lab Batch #: 3150167 **Sample:** 7720889-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 02.04.2021 12:32 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	128	100	128	70-130	
o-Terphenyl	80.9	50.0	162	70-130	**

Lab Batch #: 3150167 **Sample:** 686655-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.04.2021 13:14 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	123	99.9	123	70-130	
o-Terphenyl	70.5	50.0	141	70-130	**

Lab Batch #: 3150167 **Sample:** 686655-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 02.04.2021 13:35 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	118	100	118	70-130	
o-Terphenyl	69.0	50.0	138	70-130	**

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

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QC Summary 686646

Arcadis U.S., Inc

WLU 57

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149707 — Matrix: Solid — Date Prep: 02.01.2021
MB Sample Id: 7720557-1-BLK — LCS Sample Id: 7720557-1-BKS — LCSD Sample Id: 7720557-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	239	96	244	98	90-110	2	20	mg/kg	02.01.2021 20:40	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149807 — Matrix: Solid — Date Prep: 02.02.2021
MB Sample Id: 7720615-1-BLK — LCS Sample Id: 7720615-1-BKS — LCSD Sample Id: 7720615-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	242	97	241	96	90-110	0	20	mg/kg	02.02.2021 18:27	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149707 — Matrix: Soil — Date Prep: 02.01.2021
Parent Sample Id: 686558-005 — MS Sample Id: 686558-005 S — MSD Sample Id: 686558-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	514	252	745	92	865	139	90-110	15	20	mg/kg	02.01.2021 20:56	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149707 — Matrix: Soil — Date Prep: 02.01.2021
Parent Sample Id: 686645-003 — MS Sample Id: 686645-003 S — MSD Sample Id: 686645-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	368	250	599	92	615	99	90-110	3	20	mg/kg	02.01.2021 22:11	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149807 — Matrix: Soil — Date Prep: 02.02.2021
Parent Sample Id: 686865-009 — MS Sample Id: 686865-009 S — MSD Sample Id: 686865-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	214	249	471	103	469	102	90-110	0	20	mg/kg	02.02.2021 19:57	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149807 — Matrix: Soil — Date Prep: 02.02.2021
Parent Sample Id: 686867-001 — MS Sample Id: 686867-001 S — MSD Sample Id: 686867-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	902	249	1110	84	1110	84	90-110	0	20	mg/kg	02.02.2021 18:43	X

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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QC Summary 686646

Arcadis U.S., Inc

WLU 57

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3149995 Matrix: Solid Date Prep: 02.03.2021
MB Sample Id: 7720754-1-BLK LCS Sample Id: 7720754-1-BKS LCSD Sample Id: 7720754-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	966	97	1020	102	70-130	5	20	mg/kg	02.03.2021 21:49	
Diesel Range Organics (DRO)	<15.0	1000	1020	102	1090	109	70-130	7	20	mg/kg	02.03.2021 21:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		114		119		70-130	%	02.03.2021 21:49
o-Terphenyl	120		118		124		70-130	%	02.03.2021 21:49

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3150167 Matrix: Solid Date Prep: 02.04.2021
MB Sample Id: 7720889-1-BLK LCS Sample Id: 7720889-1-BKS LCSD Sample Id: 7720889-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	870	87	870	87	70-130	0	20	mg/kg	02.04.2021 12:11	
Diesel Range Organics (DRO)	<15.0	1000	1130	113	1130	113	70-130	0	20	mg/kg	02.04.2021 12:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		125		128		70-130	%	02.04.2021 12:11
o-Terphenyl	133	**	150	**	162	**	70-130	%	02.04.2021 12:11

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3149995 Matrix: Solid Date Prep: 02.03.2021
MB Sample Id: 7720754-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<15.0	mg/kg	02.03.2021 21:28	

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P
Seq Number: 3150167 Matrix: Solid Date Prep: 02.04.2021
MB Sample Id: 7720889-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<15.0	mg/kg	02.04.2021 11:50	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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QC Summary 686646

Arcadis U.S., Inc

WLU 57

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P

Seq Number: 3149995 Matrix: Soil Date Prep: 02.03.2021

Parent Sample Id: 686581-041 MS Sample Id: 686581-041 S MSD Sample Id: 686581-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	989	99	978	98	70-130	1	20	mg/kg	02.03.2021 22:53	
Diesel Range Organics (DRO)	<15.0	997	912	91	966	97	70-130	6	20	mg/kg	02.03.2021 22:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		105		70-130	%	02.03.2021 22:53
o-Terphenyl	104		109		70-130	%	02.03.2021 22:53

Analytical Method: **TPH By SW8015 Mod** Prep Method: SW8015P

Seq Number: 3150167 Matrix: Soil Date Prep: 02.04.2021

Parent Sample Id: 686655-001 MS Sample Id: 686655-001 S MSD Sample Id: 686655-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	1030	103	1080	108	70-130	5	20	mg/kg	02.04.2021 13:14	
Diesel Range Organics (DRO)	<15.0	999	1300	130	1300	130	70-130	0	20	mg/kg	02.04.2021 13:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	123		118		70-130	%	02.04.2021 13:14
o-Terphenyl	141	**	138	**	70-130	%	02.04.2021 13:14

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3149669 Matrix: Solid Date Prep: 02.01.2021

MB Sample Id: 7720565-1-BLK LCS Sample Id: 7720565-1-BKS LCSD Sample Id: 7720565-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.0947	95	0.0878	88	70-130	8	35	mg/kg	02.02.2021 05:04	
Toluene	<0.000456	0.100	0.101	101	0.0970	97	70-130	4	35	mg/kg	02.02.2021 05:04	
Ethylbenzene	<0.000565	0.100	0.0983	98	0.0947	95	70-130	4	35	mg/kg	02.02.2021 05:04	
m,p-Xylenes	<0.00101	0.200	0.199	100	0.186	93	70-130	7	35	mg/kg	02.02.2021 05:04	
o-Xylene	<0.000344	0.100	0.101	101	0.0947	95	70-130	6	35	mg/kg	02.02.2021 05:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		113		107		70-130	%	02.02.2021 05:04
4-Bromofluorobenzene	120		108		110		70-130	%	02.02.2021 05:04

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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QC Summary 686646

Arcadis U.S., Inc

WLU 57

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3149669 Matrix: Soil Date Prep: 02.01.2021

Parent Sample Id: 686645-001 MS Sample Id: 686645-001 S MSD Sample Id: 686645-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000381	0.0990	0.0334	34	0.0450	45	70-130	30	35	mg/kg	02.02.2021 05:45	X
Toluene	<0.000451	0.0990	0.0325	33	0.0387	39	70-130	17	35	mg/kg	02.02.2021 05:45	X
Ethylbenzene	<0.000559	0.0990	0.0260	26	0.0330	33	70-130	24	35	mg/kg	02.02.2021 05:45	X
m,p-Xylenes	<0.00100	0.198	0.0503	25	0.0646	32	70-130	25	35	mg/kg	02.02.2021 05:45	X
o-Xylene	<0.000341	0.0990	0.0290	29	0.0317	32	70-130	9	35	mg/kg	02.02.2021 05:45	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		109		70-130	%	02.02.2021 05:45
4-Bromofluorobenzene	115		112		70-130	%	02.02.2021 05:45

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

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Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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

Chain of Custody Record

Client Information	Sampler: J. Steinmann	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-23595-8666.1
Client Contact: Motgan Jordan	Phone: 619 851 8792	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job #: 68666416
Address: 1717 W 6th Street. Suite 210	Due Date Requested:			
City: Austin	TAT Requested (days): Std			
State, Zip: TX, 78703				
Phone: 281 649 9437	PO #:			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: 30064883-0002B	Project #: 30064883-0002B			
Site: WLU 57	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	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)	8015_GRO/ DRO/ ORO	300 - Chloride	8021- BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
SB-1-S-0-.5-210128	1/28/21	1316	G	Solid						1	
SB-2-S-0-.5-210128		1336		Solid							
SB-3-S-0-.5-210128		1349		Solid							
SB-3-S-1-2-210128		1410		Solid							
SB-4-S-0-.5-210128		1438		Solid							
SB-3-SD-0-.5-210128		—		Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							

QC 1/28/21

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:

	Date/Time:	Company		Date/Time:	Company
Relinquished by:	1/28/21 1600	Arcadis	Received by:	1-28-21 1600	Arcadis
Relinquished by:	1-29-21 1700	Arcadis	Received by:	1/29/21 1700	
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: .3 .5

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Arcadis U.S., Inc

Date/ Time Received: 01.29.2021 05.00.00 PM

Work Order #: 686646

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.3
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 01.29.2021

Brianna Teel

Checklist reviewed by: Sachin Kudchadkar Date: 01.29.2021

Sachin Kudchadkar

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ANALYTICAL REPORT

PREPARED FOR

Attn: Douglas Jordan
ARCADIS U.S. Inc
10205 Westheimer Rd
Suite 800
Houston, Texas 77042

Generated 4/5/2023 12:02:52 PM

JOB DESCRIPTION

Lovington Field Assessment
SDG NUMBER WLU 57

JOB NUMBER

880-26267-1

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
4/5/2023 12:02:52 PM

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

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc Job ID: 880-26267-1
Project/Site: Lovington Field Assessment SDG: WLU 57

Qualifiers

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

Glossary

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

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Job ID: 880-26267-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-26267-1

Receipt
The samples were received on 3/23/2023 8:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.3°C

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

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 880-49755 and analytical batch 880-49777 contained Gasoline Range Organics (GRO)-C6-C10 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 surrogate recovery for the blank associated with preparation batch 880-49771 and analytical batch 880-49783 was outside the upper control limits.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-50160 and analytical batch 880-50338 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.SB-12-S-2'-20230322 (880-26267-7), SB-12-S-4'-20230322 (880-26267-8), SB-13-S-0.5'-20230322 (880-26267-9), SB-13-S-2'-20230322 (880-26267-10), SB-13-S-4'-20230322 (880-26267-11), (880-26267-A-7-D MS) and (880-26267-A-7-E MSD)

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: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Client Sample ID: SB-14-S-0.5'-20230322

Lab Sample ID: 880-26267-1

Date Collected: 03/22/23 15:10
Matrix: Solid
Date Received: 03/23/23 08:20

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		03/29/23 16:35	04/03/23 11:23	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		03/29/23 16:35	04/03/23 11:23	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		03/29/23 16:35	04/03/23 11:23	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		03/29/23 16:35	04/03/23 11:23	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		03/29/23 16:35	04/03/23 11:23	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		03/29/23 16:35	04/03/23 11:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/29/23 16:35*	*04/03/23 11:23*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*03/29/23 16:35*	*04/03/23 11:23*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**43.7**	**J**	50.0	15.0	mg/Kg			03/30/23 12:51	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	**24.2**	**J B**	50.0	15.0	mg/Kg		03/28/23 13:32	03/30/23 02:17	1
Diesel Range Organics (Over C10-C28)	**19.5**	**J**	50.0	15.0	mg/Kg		03/28/23 13:32	03/30/23 02:17	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/28/23 13:32	03/30/23 02:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*03/28/23 13:32*	*03/30/23 02:17*	*1*
o-Terphenyl	*104*		*70 - 130*	*03/28/23 13:32*	*03/30/23 02:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**390**		49.7	3.93	mg/Kg			03/31/23 12:09	10

Client Sample ID: SB-14-S-2'-20230322

Lab Sample ID: 880-26267-2

Date Collected: 03/22/23 15:30
Matrix: Solid
Date Received: 03/23/23 08:20

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		03/29/23 16:35	04/03/23 11:44	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		03/29/23 16:35	04/03/23 11:44	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		03/29/23 16:35	04/03/23 11:44	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		03/29/23 16:35	04/03/23 11:44	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		03/29/23 16:35	04/03/23 11:44	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		03/29/23 16:35	04/03/23 11:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/29/23 16:35*	*04/03/23 11:44*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/29/23 16:35*	*04/03/23 11:44*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**41.4**	**J**	49.8	14.9	mg/Kg			03/30/23 12:51	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Client Sample ID: SB-14-S-2'-20230322

Lab Sample ID: 880-26267-2
Date Collected: 03/22/23 15:30
Matrix: Solid
Date Received: 03/23/23 08:20

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	22.3	J B	49.8	14.9	mg/Kg		03/28/23 13:32	03/30/23 02:38	1
Diesel Range Organics (Over C10-C28)	19.1	J	49.8	14.9	mg/Kg		03/28/23 13:32	03/30/23 02:38	1
OII Range Organics (Over C28-C36)	<14.9	U	49.8	14.9	mg/Kg		03/28/23 13:32	03/30/23 02:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*03/28/23 13:32*	*03/30/23 02:38*	*1*
o-Terphenyl	*89*		*70 - 130*	*03/28/23 13:32*	*03/30/23 02:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	266		4.97	0.393	mg/Kg			03/31/23 12:13	1

Client Sample ID: SB-11-S-0.5'-20230322

Lab Sample ID: 880-26267-3
Date Collected: 03/22/23 15:35
Matrix: Solid
Date Received: 03/23/23 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000381	U	0.00198	0.000381	mg/Kg		03/29/23 16:35	04/03/23 12:05	1
Toluene	<0.000451	U	0.00198	0.000451	mg/Kg		03/29/23 16:35	04/03/23 12:05	1
Ethylbenzene	<0.000559	U	0.00198	0.000559	mg/Kg		03/29/23 16:35	04/03/23 12:05	1
m-Xylene & p-Xylene	<0.00100	U	0.00396	0.00100	mg/Kg		03/29/23 16:35	04/03/23 12:05	1
o-Xylene	<0.000341	U	0.00198	0.000341	mg/Kg		03/29/23 16:35	04/03/23 12:05	1
Xylenes, Total	<0.00100	U	0.00396	0.00100	mg/Kg		03/29/23 16:35	04/03/23 12:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/29/23 16:35*	*04/03/23 12:05*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*03/29/23 16:35*	*04/03/23 12:05*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	35.2	J	50.0	15.0	mg/Kg			03/30/23 12:51	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	35.2	J B	50.0	15.0	mg/Kg		03/28/23 13:32	03/30/23 03:00	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		03/28/23 13:32	03/30/23 03:00	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/28/23 13:32	03/30/23 03:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*03/28/23 13:32*	*03/30/23 03:00*	*1*
o-Terphenyl	*89*		*70 - 130*	*03/28/23 13:32*	*03/30/23 03:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	407		4.95	0.391	mg/Kg			03/31/23 12:18	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Client Sample ID: SB-11-S-2'-20230322

Lab Sample ID: 880-26267-4
Matrix: Solid
Date Collected: 03/22/23 15:50
Date Received: 03/23/23 08:20

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		03/29/23 16:35	04/03/23 12:26	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		03/29/23 16:35	04/03/23 12:26	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		03/29/23 16:35	04/03/23 12:26	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		03/29/23 16:35	04/03/23 12:26	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		03/29/23 16:35	04/03/23 12:26	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		03/29/23 16:35	04/03/23 12:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*03/29/23 16:35*	*04/03/23 12:26*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/29/23 16:35*	*04/03/23 12:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**37.9**	**J**	49.9	15.0	mg/Kg			03/30/23 12:51	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	**37.9**	**J B**	49.9	15.0	mg/Kg		03/28/23 13:32	03/30/23 03:21	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		03/28/23 13:32	03/30/23 03:21	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/28/23 13:32	03/30/23 03:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*03/28/23 13:32*	*03/30/23 03:21*	*1*
o-Terphenyl	*105*		*70 - 130*	*03/28/23 13:32*	*03/30/23 03:21*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**87.0**		5.01	0.396	mg/Kg			03/31/23 12:22	1

Client Sample ID: SB-11-S-4'-20230322

Lab Sample ID: 880-26267-5
Matrix: Solid
Date Collected: 03/22/23 16:05
Date Received: 03/23/23 08:20

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		03/29/23 16:35	04/03/23 12:47	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		03/29/23 16:35	04/03/23 12:47	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		03/29/23 16:35	04/03/23 12:47	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		03/29/23 16:35	04/03/23 12:47	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg		03/29/23 16:35	04/03/23 12:47	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		03/29/23 16:35	04/03/23 12:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*03/29/23 16:35*	*04/03/23 12:47*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*03/29/23 16:35*	*04/03/23 12:47*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**42.0**	**J**	49.9	15.0	mg/Kg			03/30/23 12:51	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Client Sample ID: SB-11-S-4'-20230322

Lab Sample ID: 880-26267-5
Matrix: Solid
Date Collected: 03/22/23 16:05
Date Received: 03/23/23 08:20

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	**42.0**	**J B**	49.9	15.0	mg/Kg		03/28/23 13:32	03/30/23 03:43	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		03/28/23 13:32	03/30/23 03:43	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/28/23 13:32	03/30/23 03:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*03/28/23 13:32*	*03/30/23 03:43*	*1*
o-Terphenyl	*103*		*70 - 130*	*03/28/23 13:32*	*03/30/23 03:43*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**104**		5.03	0.397	mg/Kg			03/31/23 12:27	1

Client Sample ID: SB-12-S-0.5'-20230322

Lab Sample ID: 880-26267-6
Matrix: Solid
Date Collected: 03/22/23 16:10
Date Received: 03/23/23 08:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000389	U	0.00202	0.000389	mg/Kg		03/29/23 16:35	04/03/23 13:08	1
Toluene	<0.000461	U	0.00202	0.000461	mg/Kg		03/29/23 16:35	04/03/23 13:08	1
Ethylbenzene	<0.000571	U	0.00202	0.000571	mg/Kg		03/29/23 16:35	04/03/23 13:08	1
m-Xylene & p-Xylene	<0.00102	U	0.00404	0.00102	mg/Kg		03/29/23 16:35	04/03/23 13:08	1
o-Xylene	<0.000347	U	0.00202	0.000347	mg/Kg		03/29/23 16:35	04/03/23 13:08	1
Xylenes, Total	<0.00102	U	0.00404	0.00102	mg/Kg		03/29/23 16:35	04/03/23 13:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*03/29/23 16:35*	*04/03/23 13:08*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/29/23 16:35*	*04/03/23 13:08*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**149**		49.9	15.0	mg/Kg			03/30/23 12:51	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		03/28/23 13:32	03/30/23 05:10	1
Diesel Range Organics (Over C10-C28)	**149**		49.9	15.0	mg/Kg		03/28/23 13:32	03/30/23 05:10	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/28/23 13:32	03/30/23 05:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*03/28/23 13:32*	*03/30/23 05:10*	*1*
o-Terphenyl	*87*		*70 - 130*	*03/28/23 13:32*	*03/30/23 05:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**163**		4.97	0.393	mg/Kg			03/31/23 12:31	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Client Sample ID: SB-12-S-2'-20230322

Lab Sample ID: 880-26267-7
Matrix: Solid
Date Collected: 03/22/23 16:15
Date Received: 03/23/23 08:20

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		03/29/23 16:35	04/03/23 13:28	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		03/29/23 16:35	04/03/23 13:28	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		03/29/23 16:35	04/03/23 13:28	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		03/29/23 16:35	04/03/23 13:28	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		03/29/23 16:35	04/03/23 13:28	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		03/29/23 16:35	04/03/23 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*03/29/23 16:35*	*04/03/23 13:28*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/29/23 16:35*	*04/03/23 13:28*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**31.7**	**J**	50.0	15.0	mg/Kg			03/30/23 12:51	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	**31.7**	**J B**	50.0	15.0	mg/Kg		03/28/23 13:32	03/30/23 04:05	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		03/28/23 13:32	03/30/23 04:05	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/28/23 13:32	03/30/23 04:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*03/28/23 13:32*	*03/30/23 04:05*	*1*
o-Terphenyl	*87*		*70 - 130*	*03/28/23 13:32*	*03/30/23 04:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**285**	**F1**	5.05	0.399	mg/Kg			04/04/23 20:54	1

Client Sample ID: SB-12-S-4'-20230322

Lab Sample ID: 880-26267-8
Matrix: Solid
Date Collected: 03/22/23 16:20
Date Received: 03/23/23 08:20

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		04/03/23 12:22	04/04/23 02:26	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		04/03/23 12:22	04/04/23 02:26	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		04/03/23 12:22	04/04/23 02:26	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		04/03/23 12:22	04/04/23 02:26	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		04/03/23 12:22	04/04/23 02:26	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		04/03/23 12:22	04/04/23 02:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*04/03/23 12:22*	*04/04/23 02:26*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*04/03/23 12:22*	*04/04/23 02:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**48.3**	**J**	49.9	15.0	mg/Kg			03/30/23 12:51	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Client Sample ID: SB-12-S-4'-20230322

Lab Sample ID: 880-26267-8
Matrix: Solid
Date Collected: 03/22/23 16:20
Date Received: 03/23/23 08:20

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	**48.3**	**J B**	49.9	15.0	mg/Kg		03/28/23 13:32	03/30/23 04:27	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		03/28/23 13:32	03/30/23 04:27	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/28/23 13:32	03/30/23 04:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*03/28/23 13:32*	*03/30/23 04:27*	*1*
o-Terphenyl	*99*		*70 - 130*	*03/28/23 13:32*	*03/30/23 04:27*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**917**		24.9	1.97	mg/Kg			04/04/23 21:09	5

Client Sample ID: SB-13-S-0.5'-20230322

Lab Sample ID: 880-26267-9
Matrix: Solid
Date Collected: 03/22/23 16:25
Date Received: 03/23/23 08:20

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		04/03/23 12:22	04/04/23 02:47	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		04/03/23 12:22	04/04/23 02:47	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		04/03/23 12:22	04/04/23 02:47	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		04/03/23 12:22	04/04/23 02:47	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg		04/03/23 12:22	04/04/23 02:47	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		04/03/23 12:22	04/04/23 02:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*04/03/23 12:22*	*04/04/23 02:47*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*04/03/23 12:22*	*04/04/23 02:47*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**53.6**		49.9	15.0	mg/Kg			03/30/23 12:51	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	**28.4**	**J B**	49.9	15.0	mg/Kg		03/28/23 13:32	03/30/23 04:49	1
Diesel Range Organics (Over C10-C28)	**25.2**	**J**	49.9	15.0	mg/Kg		03/28/23 13:32	03/30/23 04:49	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/28/23 13:32	03/30/23 04:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*03/28/23 13:32*	*03/30/23 04:49*	*1*
o-Terphenyl	*87*		*70 - 130*	*03/28/23 13:32*	*03/30/23 04:49*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**784**		25.0	1.98	mg/Kg			04/04/23 21:14	5

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Client Sample ID: SB-13-S-2'-20230322

Lab Sample ID: 880-26267-10
Matrix: Solid
Date Collected: 03/22/23 16:35
Date Received: 03/23/23 08:20

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		04/03/23 12:22	04/04/23 03:07	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		04/03/23 12:22	04/04/23 03:07	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		04/03/23 12:22	04/04/23 03:07	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		04/03/23 12:22	04/04/23 03:07	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		04/03/23 12:22	04/04/23 03:07	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		04/03/23 12:22	04/04/23 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*04/03/23 12:22*	*04/04/23 03:07*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*04/03/23 12:22*	*04/04/23 03:07*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**52.9**		49.9	15.0	mg/Kg			03/30/23 12:56	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	**28.1**	**J**	49.9	15.0	mg/Kg		03/28/23 17:17	03/29/23 11:15	1
Diesel Range Organics (Over C10-C28)	**24.8**	**J**	49.9	15.0	mg/Kg		03/28/23 17:17	03/29/23 11:15	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/28/23 17:17	03/29/23 11:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*03/28/23 17:17*	*03/29/23 11:15*	*1*
o-Terphenyl	*110*		*70 - 130*	*03/28/23 17:17*	*03/29/23 11:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**868**		25.1	1.98	mg/Kg			04/04/23 21:18	5

Client Sample ID: SB-13-S-4'-20230322

Lab Sample ID: 880-26267-11
Matrix: Solid
Date Collected: 03/22/23 16:45
Date Received: 03/23/23 08:20

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		03/29/23 16:20	04/03/23 19:56	1
Toluene	**0.000502**	**J**	0.00200	0.000457	mg/Kg		03/29/23 16:20	04/03/23 19:56	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		03/29/23 16:20	04/03/23 19:56	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		03/29/23 16:20	04/03/23 19:56	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		03/29/23 16:20	04/03/23 19:56	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		03/29/23 16:20	04/03/23 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*03/29/23 16:20*	*04/03/23 19:56*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*03/29/23 16:20*	*04/03/23 19:56*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**136**		49.9	15.0	mg/Kg			03/30/23 12:56	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Client Sample ID: SB-13-S-4'-20230322

Date Collected: 03/22/23 16:45
Date Received: 03/23/23 08:20

Lab Sample ID: 880-26267-11

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	22.5	J	49.9	15.0	mg/Kg		03/28/23 17:17	03/29/23 12:20	1
Diesel Range Organics (Over C10-C28)	113		49.9	15.0	mg/Kg		03/28/23 17:17	03/29/23 12:20	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/28/23 17:17	03/29/23 12:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*03/28/23 17:17*	*03/29/23 12:20*	*1*
o-Terphenyl	*95*		*70 - 130*	*03/28/23 17:17*	*03/29/23 12:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	762		25.0	1.97	mg/Kg			04/04/23 21:23	5

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

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)
880-26267-1	SB-14-S-0.5'-20230322	101	87
880-26267-1 MS	SB-14-S-0.5'-20230322	103	91
880-26267-1 MSD	SB-14-S-0.5'-20230322	104	90
880-26267-2	SB-14-S-2'-20230322	104	100
880-26267-3	SB-11-S-0.5'-20230322	101	99
880-26267-4	SB-11-S-2'-20230322	101	98
880-26267-5	SB-11-S-4'-20230322	114	99
880-26267-6	SB-12-S-0.5'-20230322	103	101
880-26267-7	SB-12-S-2'-20230322	102	98
880-26267-8	SB-12-S-4'-20230322	110	83
880-26267-9	SB-13-S-0.5'-20230322	108	77
880-26267-10	SB-13-S-2'-20230322	93	93
880-26267-11	SB-13-S-4'-20230322	100	107
LCS 880-49883/1-A	Lab Control Sample	97	109
LCS 880-49890/1-A	Lab Control Sample	92	90
LCS 880-50190/1-A	Lab Control Sample	111	103
LCSD 880-49883/2-A	Lab Control Sample Dup	97	113
LCSD 880-49890/2-A	Lab Control Sample Dup	105	98
LCSD 880-50190/2-A	Lab Control Sample Dup	106	107
MB 880-49883/5-B	Method Blank	90	97
MB 880-49890/5-A	Method Blank	98	81
MB 880-50130/5-A	Method Blank	77	97
MB 880-50190/5-A	Method Blank	80	96

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)
880-26267-1	SB-14-S-0.5'-20230322	97	104
880-26267-2	SB-14-S-2'-20230322	83	89
880-26267-3	SB-11-S-0.5'-20230322	86	89
880-26267-4	SB-11-S-2'-20230322	99	105
880-26267-5	SB-11-S-4'-20230322	99	103
880-26267-6	SB-12-S-0.5'-20230322	88	87
880-26267-7	SB-12-S-2'-20230322	85	87
880-26267-8	SB-12-S-4'-20230322	96	99
880-26267-9	SB-13-S-0.5'-20230322	84	87
880-26267-10	SB-13-S-2'-20230322	118	110
880-26267-10 MS	SB-13-S-2'-20230322	117	101
880-26267-10 MSD	SB-13-S-2'-20230322	105	91
880-26267-11	SB-13-S-4'-20230322	100	95
LCS 880-49755/2-A	Lab Control Sample	111	115
LCS 880-49771/2-A	Lab Control Sample	123	115
LCSD 880-49755/3-A	Lab Control Sample Dup	112	119

Surrogate Summary

Client: ARCADIS U.S. Inc Job ID: 880-26267-1
Project/Site: Lovington Field Assessment SDG: WLU 57

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
LCSD 880-49771/3-A	Lab Control Sample Dup	118	113								
MB 880-49755/1-A	Method Blank	119	124								
MB 880-49771/1-A	Method Blank	132 S1+	119								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49883/5-B
Matrix: Solid
Analysis Batch: 50103

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49883

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		03/29/23 16:20	04/03/23 11:48	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		03/29/23 16:20	04/03/23 11:48	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		03/29/23 16:20	04/03/23 11:48	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		03/29/23 16:20	04/03/23 11:48	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		03/29/23 16:20	04/03/23 11:48	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		03/29/23 16:20	04/03/23 11:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*03/29/23 16:20*	*04/03/23 11:48*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*03/29/23 16:20*	*04/03/23 11:48*	*1*

Lab Sample ID: LCS 880-49883/1-A
Matrix: Solid
Analysis Batch: 50103

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49883

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08870		mg/Kg		89	70 - 130		
Toluene			0.100	0.08620		mg/Kg		86	70 - 130		
Ethylbenzene			0.100	0.07860		mg/Kg		79	70 - 130		
m-Xylene & p-Xylene			0.200	0.1546		mg/Kg		77	70 - 130		
o-Xylene			0.100	0.07966		mg/Kg		80	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Lab Sample ID: LCSD 880-49883/2-A
Matrix: Solid
Analysis Batch: 50103

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49883

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09479		mg/Kg		95	70 - 130	7	35
Toluene			0.100	0.09119		mg/Kg		91	70 - 130	6	35
Ethylbenzene			0.100	0.08287		mg/Kg		83	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.1624		mg/Kg		81	70 - 130	5	35
o-Xylene			0.100	0.08296		mg/Kg		83	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*

Lab Sample ID: MB 880-49890/5-A
Matrix: Solid
Analysis Batch: 50118

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49890

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		03/29/23 16:35	04/03/23 11:02	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		03/29/23 16:35	04/03/23 11:02	1

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

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

Lab Sample ID: MB 880-49890/5-A
Matrix: Solid
Analysis Batch: 50118

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49890

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		03/29/23 16:35	04/03/23 11:02	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		03/29/23 16:35	04/03/23 11:02	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		03/29/23 16:35	04/03/23 11:02	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		03/29/23 16:35	04/03/23 11:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*03/29/23 16:35*	*04/03/23 11:02*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*03/29/23 16:35*	*04/03/23 11:02*	*1*

Lab Sample ID: LCS 880-49890/1-A
Matrix: Solid
Analysis Batch: 50118

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49890

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09023		mg/Kg		90	70 - 130
Toluene	0.100	0.09583		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.08819		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1798		mg/Kg		90	70 - 130
o-Xylene	0.100	0.08983		mg/Kg		90	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: LCSD 880-49890/2-A
Matrix: Solid
Analysis Batch: 50118

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49890

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09909		mg/Kg		99	70 - 130	9	35
Toluene	0.100	0.1074		mg/Kg		107	70 - 130	11	35
Ethylbenzene	0.100	0.09936		mg/Kg		99	70 - 130	12	35
m-Xylene & p-Xylene	0.200	0.2037		mg/Kg		102	70 - 130	12	35
o-Xylene	0.100	0.1013		mg/Kg		101	70 - 130	12	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 880-26267-1 MS
Matrix: Solid
Analysis Batch: 50118

Client Sample ID: SB-14-S-0.5'-20230322
Prep Type: Total/NA
Prep Batch: 49890

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.000386	U	0.0998	0.09733		mg/Kg		98	70 - 130
Toluene	<0.000457	U	0.0998	0.1056		mg/Kg		106	70 - 130
Ethylbenzene	<0.000566	U	0.0998	0.09611		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	<0.00101	U	0.200	0.1967		mg/Kg		99	70 - 130

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

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

Lab Sample ID: 880-26267-1 MS
Matrix: Solid
Analysis Batch: 50118

Client Sample ID: SB-14-S-0.5'-20230322
Prep Type: Total/NA
Prep Batch: 49890

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	<0.000345	U	0.0998	0.09628		mg/Kg		96	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

Lab Sample ID: 880-26267-1 MSD
Matrix: Solid
Analysis Batch: 50118

Client Sample ID: SB-14-S-0.5'-20230322
Prep Type: Total/NA
Prep Batch: 49890

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.000386	U	0.100	0.09477		mg/Kg		95	70 - 130	3	35
Toluene	<0.000457	U	0.100	0.1021		mg/Kg		102	70 - 130	3	35
Ethylbenzene	<0.000566	U	0.100	0.09258		mg/Kg		92	70 - 130	4	35
m-Xylene & p-Xylene	<0.00101	U	0.200	0.1889		mg/Kg		94	70 - 130	4	35
o-Xylene	<0.000345	U	0.100	0.09317		mg/Kg		93	70 - 130	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: MB 880-50130/5-A
Matrix: Solid
Analysis Batch: 50119

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50130

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		04/03/23 08:39	04/03/23 11:01	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		04/03/23 08:39	04/03/23 11:01	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		04/03/23 08:39	04/03/23 11:01	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		04/03/23 08:39	04/03/23 11:01	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		04/03/23 08:39	04/03/23 11:01	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		04/03/23 08:39	04/03/23 11:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*04/03/23 08:39*	*04/03/23 11:01*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*04/03/23 08:39*	*04/03/23 11:01*	*1*

Lab Sample ID: MB 880-50190/5-A
Matrix: Solid
Analysis Batch: 50119

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50190

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		04/03/23 12:22	04/03/23 21:38	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		04/03/23 12:22	04/03/23 21:38	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		04/03/23 12:22	04/03/23 21:38	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		04/03/23 12:22	04/03/23 21:38	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		04/03/23 12:22	04/03/23 21:38	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		04/03/23 12:22	04/03/23 21:38	1

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130	04/03/23 12:22	04/03/23 21:38	1
1,4-Difluorobenzene (Surr)	96		70 - 130	04/03/23 12:22	04/03/23 21:38	1

Lab Sample ID: LCS 880-50190/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 50119 — **Prep Batch: 50190**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1000		mg/Kg		100	70 - 130
Toluene	0.100	0.09798		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.09773		mg/Kg		98	70 - 130
m-Xylene & p-Xylene	0.200	0.2101		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1071		mg/Kg		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 880-50190/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 50119 — **Prep Batch: 50190**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1016		mg/Kg		102	70 - 130	2	35
Toluene	0.100	0.09788		mg/Kg		98	70 - 130	0	35
Ethylbenzene	0.100	0.09718		mg/Kg		97	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2084		mg/Kg		104	70 - 130	1	35
o-Xylene	0.100	0.1061		mg/Kg		106	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

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

Lab Sample ID: MB 880-49755/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 49777 — **Prep Batch: 49755**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	21.02	J	50.0	15.0	mg/Kg		03/28/23 13:32	03/29/23 20:09	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		03/28/23 13:32	03/29/23 20:09	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/28/23 13:32	03/29/23 20:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130	03/28/23 13:32	03/29/23 20:09	1
o-Terphenyl	124		70 - 130	03/28/23 13:32	03/29/23 20:09	1

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

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

Lab Sample ID: LCS 880-49755/2-A
Matrix: Solid
Analysis Batch: 49777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49755

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	856.4		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	863.7		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*115*		*70 - 130*

Lab Sample ID: LCSD 880-49755/3-A
Matrix: Solid
Analysis Batch: 49777

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49755

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	843.1		mg/Kg		84	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	889.4		mg/Kg		89	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*119*		*70 - 130*

Lab Sample ID: MB 880-49771/1-A
Matrix: Solid
Analysis Batch: 49783

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49771

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		03/28/23 17:17	03/29/23 08:47	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		03/28/23 17:17	03/29/23 08:47	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/28/23 17:17	03/29/23 08:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*132*	*S1+*	*70 - 130*	*03/28/23 17:17*	*03/29/23 08:47*	*1*
o-Terphenyl	*119*		*70 - 130*	*03/28/23 17:17*	*03/29/23 08:47*	*1*

Lab Sample ID: LCS 880-49771/2-A
Matrix: Solid
Analysis Batch: 49783

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49771

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	846.1		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	801.6		mg/Kg		80	70 - 130		

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

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

Lab Sample ID: LCS 880-49771/2-A
Matrix: Solid
Analysis Batch: 49783

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49771

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	123		70 - 130
o-Terphenyl	115		70 - 130

Lab Sample ID: LCSD 880-49771/3-A
Matrix: Solid
Analysis Batch: 49783

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49771

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	820.0		mg/Kg		82	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	833.0		mg/Kg		83	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	118		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 880-26267-10 MS
Matrix: Solid
Analysis Batch: 49783

Client Sample ID: SB-13-S-2'-20230322
Prep Type: Total/NA
Prep Batch: 49771

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	28.1	J	998	1118		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	24.8	J	998	833.6		mg/Kg		81	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	101		70 - 130

Lab Sample ID: 880-26267-10 MSD
Matrix: Solid
Analysis Batch: 49783

Client Sample ID: SB-13-S-2'-20230322
Prep Type: Total/NA
Prep Batch: 49771

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	28.1	J	999	1004		mg/Kg		98	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	24.8	J	999	748.7		mg/Kg		72	70 - 130	11	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	91		70 - 130

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-50002/1-A
Matrix: Solid
Analysis Batch: 50028

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			03/31/23 10:19	1

Lab Sample ID: LCS 880-50002/2-A
Matrix: Solid
Analysis Batch: 50028

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	228.3		mg/Kg		91	90 - 110

Lab Sample ID: LCSD 880-50002/3-A
Matrix: Solid
Analysis Batch: 50028

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	229.1		mg/Kg		92	90 - 110	0	20

Lab Sample ID: MB 880-50160/1-A
Matrix: Solid
Analysis Batch: 50338

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			04/04/23 20:40	1

Lab Sample ID: LCS 880-50160/2-A
Matrix: Solid
Analysis Batch: 50338

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	258.5		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-50160/3-A
Matrix: Solid
Analysis Batch: 50338

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	259.3		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 880-26267-7 MS
Matrix: Solid
Analysis Batch: 50338

Client Sample ID: SB-12-S-2'-20230322
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	285	F1	253	579.9	F1	mg/Kg		117	90 - 110

Lab Sample ID: 880-26267-7 MSD
Matrix: Solid
Analysis Batch: 50338

Client Sample ID: SB-12-S-2'-20230322
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	285	F1	253	577.6	F1	mg/Kg		116	90 - 110	0	20

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

GC VOA

Prep Batch: 49883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26267-11	SB-13-S-4'-20230322	Total/NA	Solid	5030B	
MB 880-49883/5-B	Method Blank	Total/NA	Solid	5030B	
LCS 880-49883/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-49883/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Prep Batch: 49890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26267-1	SB-14-S-0.5'-20230322	Total/NA	Solid	5030B	
880-26267-2	SB-14-S-2'-20230322	Total/NA	Solid	5030B	
880-26267-3	SB-11-S-0.5'-20230322	Total/NA	Solid	5030B	
880-26267-4	SB-11-S-2'-20230322	Total/NA	Solid	5030B	
880-26267-5	SB-11-S-4'-20230322	Total/NA	Solid	5030B	
880-26267-6	SB-12-S-0.5'-20230322	Total/NA	Solid	5030B	
880-26267-7	SB-12-S-2'-20230322	Total/NA	Solid	5030B	
MB 880-49890/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-49890/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-49890/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
880-26267-1 MS	SB-14-S-0.5'-20230322	Total/NA	Solid	5030B	
880-26267-1 MSD	SB-14-S-0.5'-20230322	Total/NA	Solid	5030B	

Analysis Batch: 50103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26267-11	SB-13-S-4'-20230322	Total/NA	Solid	8021B	49883
MB 880-49883/5-B	Method Blank	Total/NA	Solid	8021B	49883
LCS 880-49883/1-A	Lab Control Sample	Total/NA	Solid	8021B	49883
LCSD 880-49883/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49883

Analysis Batch: 50118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26267-1	SB-14-S-0.5'-20230322	Total/NA	Solid	8021B	49890
880-26267-2	SB-14-S-2'-20230322	Total/NA	Solid	8021B	49890
880-26267-3	SB-11-S-0.5'-20230322	Total/NA	Solid	8021B	49890
880-26267-4	SB-11-S-2'-20230322	Total/NA	Solid	8021B	49890
880-26267-5	SB-11-S-4'-20230322	Total/NA	Solid	8021B	49890
880-26267-6	SB-12-S-0.5'-20230322	Total/NA	Solid	8021B	49890
880-26267-7	SB-12-S-2'-20230322	Total/NA	Solid	8021B	49890
MB 880-49890/5-A	Method Blank	Total/NA	Solid	8021B	49890
LCS 880-49890/1-A	Lab Control Sample	Total/NA	Solid	8021B	49890
LCSD 880-49890/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49890
880-26267-1 MS	SB-14-S-0.5'-20230322	Total/NA	Solid	8021B	49890
880-26267-1 MSD	SB-14-S-0.5'-20230322	Total/NA	Solid	8021B	49890

Analysis Batch: 50119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26267-8	SB-12-S-4'-20230322	Total/NA	Solid	8021B	50190
880-26267-9	SB-13-S-0.5'-20230322	Total/NA	Solid	8021B	50190
880-26267-10	SB-13-S-2'-20230322	Total/NA	Solid	8021B	50190
MB 880-50130/5-A	Method Blank	Total/NA	Solid	8021B	50130
MB 880-50190/5-A	Method Blank	Total/NA	Solid	8021B	50190
LCS 880-50190/1-A	Lab Control Sample	Total/NA	Solid	8021B	50190
LCSD 880-50190/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	50190

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

GC VOA

Prep Batch: 50130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-50130/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 50190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26267-8	SB-12-S-4'-20230322	Total/NA	Solid	5030B	
880-26267-9	SB-13-S-0.5'-20230322	Total/NA	Solid	5030B	
880-26267-10	SB-13-S-2'-20230322	Total/NA	Solid	5030B	
MB 880-50190/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-50190/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-50190/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

GC Semi VOA

Prep Batch: 49755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26267-1	SB-14-S-0.5'-20230322	Total/NA	Solid	8015NM Prep	
880-26267-2	SB-14-S-2'-20230322	Total/NA	Solid	8015NM Prep	
880-26267-3	SB-11-S-0.5'-20230322	Total/NA	Solid	8015NM Prep	
880-26267-4	SB-11-S-2'-20230322	Total/NA	Solid	8015NM Prep	
880-26267-5	SB-11-S-4'-20230322	Total/NA	Solid	8015NM Prep	
880-26267-6	SB-12-S-0.5'-20230322	Total/NA	Solid	8015NM Prep	
880-26267-7	SB-12-S-2'-20230322	Total/NA	Solid	8015NM Prep	
880-26267-8	SB-12-S-4'-20230322	Total/NA	Solid	8015NM Prep	
880-26267-9	SB-13-S-0.5'-20230322	Total/NA	Solid	8015NM Prep	
MB 880-49755/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49755/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49755/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Prep Batch: 49771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26267-10	SB-13-S-2'-20230322	Total/NA	Solid	8015NM Prep	
880-26267-11	SB-13-S-4'-20230322	Total/NA	Solid	8015NM Prep	
MB 880-49771/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49771/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49771/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-26267-10 MS	SB-13-S-2'-20230322	Total/NA	Solid	8015NM Prep	
880-26267-10 MSD	SB-13-S-2'-20230322	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26267-1	SB-14-S-0.5'-20230322	Total/NA	Solid	8015B NM	49755
880-26267-2	SB-14-S-2'-20230322	Total/NA	Solid	8015B NM	49755
880-26267-3	SB-11-S-0.5'-20230322	Total/NA	Solid	8015B NM	49755
880-26267-4	SB-11-S-2'-20230322	Total/NA	Solid	8015B NM	49755
880-26267-5	SB-11-S-4'-20230322	Total/NA	Solid	8015B NM	49755
880-26267-6	SB-12-S-0.5'-20230322	Total/NA	Solid	8015B NM	49755
880-26267-7	SB-12-S-2'-20230322	Total/NA	Solid	8015B NM	49755
880-26267-8	SB-12-S-4'-20230322	Total/NA	Solid	8015B NM	49755
880-26267-9	SB-13-S-0.5'-20230322	Total/NA	Solid	8015B NM	49755
MB 880-49755/1-A	Method Blank	Total/NA	Solid	8015B NM	49755
LCS 880-49755/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49755

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

GC Semi VOA (Continued)

Analysis Batch: 49777 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-49755/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49755

Analysis Batch: 49783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26267-10	SB-13-S-2'-20230322	Total/NA	Solid	8015B NM	49771
880-26267-11	SB-13-S-4'-20230322	Total/NA	Solid	8015B NM	49771
MB 880-49771/1-A	Method Blank	Total/NA	Solid	8015B NM	49771
LCS 880-49771/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49771
LCSD 880-49771/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49771
880-26267-10 MS	SB-13-S-2'-20230322	Total/NA	Solid	8015B NM	49771
880-26267-10 MSD	SB-13-S-2'-20230322	Total/NA	Solid	8015B NM	49771

Analysis Batch: 49935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26267-1	SB-14-S-0.5'-20230322	Total/NA	Solid	8015 NM	
880-26267-2	SB-14-S-2'-20230322	Total/NA	Solid	8015 NM	
880-26267-3	SB-11-S-0.5'-20230322	Total/NA	Solid	8015 NM	
880-26267-4	SB-11-S-2'-20230322	Total/NA	Solid	8015 NM	
880-26267-5	SB-11-S-4'-20230322	Total/NA	Solid	8015 NM	
880-26267-6	SB-12-S-0.5'-20230322	Total/NA	Solid	8015 NM	
880-26267-7	SB-12-S-2'-20230322	Total/NA	Solid	8015 NM	
880-26267-8	SB-12-S-4'-20230322	Total/NA	Solid	8015 NM	
880-26267-9	SB-13-S-0.5'-20230322	Total/NA	Solid	8015 NM	
880-26267-10	SB-13-S-2'-20230322	Total/NA	Solid	8015 NM	
880-26267-11	SB-13-S-4'-20230322	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 50002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26267-1	SB-14-S-0.5'-20230322	Soluble	Solid	DI Leach	
880-26267-2	SB-14-S-2'-20230322	Soluble	Solid	DI Leach	
880-26267-3	SB-11-S-0.5'-20230322	Soluble	Solid	DI Leach	
880-26267-4	SB-11-S-2'-20230322	Soluble	Solid	DI Leach	
880-26267-5	SB-11-S-4'-20230322	Soluble	Solid	DI Leach	
880-26267-6	SB-12-S-0.5'-20230322	Soluble	Solid	DI Leach	
MB 880-50002/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-50002/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-50002/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 50028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26267-1	SB-14-S-0.5'-20230322	Soluble	Solid	300.0	50002
880-26267-2	SB-14-S-2'-20230322	Soluble	Solid	300.0	50002
880-26267-3	SB-11-S-0.5'-20230322	Soluble	Solid	300.0	50002
880-26267-4	SB-11-S-2'-20230322	Soluble	Solid	300.0	50002
880-26267-5	SB-11-S-4'-20230322	Soluble	Solid	300.0	50002
880-26267-6	SB-12-S-0.5'-20230322	Soluble	Solid	300.0	50002
MB 880-50002/1-A	Method Blank	Soluble	Solid	300.0	50002
LCS 880-50002/2-A	Lab Control Sample	Soluble	Solid	300.0	50002
LCSD 880-50002/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	50002

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

HPLC/IC

Leach Batch: 50160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26267-7	SB-12-S-2'-20230322	Soluble	Solid	DI Leach	
880-26267-8	SB-12-S-4'-20230322	Soluble	Solid	DI Leach	
880-26267-9	SB-13-S-0.5'-20230322	Soluble	Solid	DI Leach	
880-26267-10	SB-13-S-2'-20230322	Soluble	Solid	DI Leach	
880-26267-11	SB-13-S-4'-20230322	Soluble	Solid	DI Leach	
MB 880-50160/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-50160/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-50160/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-26267-7 MS	SB-12-S-2'-20230322	Soluble	Solid	DI Leach	
880-26267-7 MSD	SB-12-S-2'-20230322	Soluble	Solid	DI Leach	

Analysis Batch: 50338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26267-7	SB-12-S-2'-20230322	Soluble	Solid	300.0	50160
880-26267-8	SB-12-S-4'-20230322	Soluble	Solid	300.0	50160
880-26267-9	SB-13-S-0.5'-20230322	Soluble	Solid	300.0	50160
880-26267-10	SB-13-S-2'-20230322	Soluble	Solid	300.0	50160
880-26267-11	SB-13-S-4'-20230322	Soluble	Solid	300.0	50160
MB 880-50160/1-A	Method Blank	Soluble	Solid	300.0	50160
LCS 880-50160/2-A	Lab Control Sample	Soluble	Solid	300.0	50160
LCSD 880-50160/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	50160
880-26267-7 MS	SB-12-S-2'-20230322	Soluble	Solid	300.0	50160
880-26267-7 MSD	SB-12-S-2'-20230322	Soluble	Solid	300.0	50160

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Client Sample ID: SB-14-S-0.5'-20230322

Lab Sample ID: 880-26267-1
Matrix: Solid
Date Collected: 03/22/23 15:10
Date Received: 03/23/23 08:20

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	49890	03/29/23 16:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50118	04/03/23 11:23	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49935	03/30/23 12:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49755	03/28/23 13:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49777	03/30/23 02:17	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	50002	03/31/23 08:54	KS	EET MID
Soluble	Analysis	300.0		10	50 mL	50 mL	50028	03/31/23 12:09	SMC	EET MID

Client Sample ID: SB-14-S-2'-20230322

Lab Sample ID: 880-26267-2
Matrix: Solid
Date Collected: 03/22/23 15:30
Date Received: 03/23/23 08:20

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	49890	03/29/23 16:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50118	04/03/23 11:44	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49935	03/30/23 12:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	49755	03/28/23 13:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49777	03/30/23 02:38	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	50002	03/31/23 08:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50028	03/31/23 12:13	SMC	EET MID

Client Sample ID: SB-11-S-0.5'-20230322

Lab Sample ID: 880-26267-3
Matrix: Solid
Date Collected: 03/22/23 15:35
Date Received: 03/23/23 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.05 g	5 mL	49890	03/29/23 16:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50118	04/03/23 12:05	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49935	03/30/23 12:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49755	03/28/23 13:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49777	03/30/23 03:00	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	50002	03/31/23 08:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50028	03/31/23 12:18	SMC	EET MID

Client Sample ID: SB-11-S-2'-20230322

Lab Sample ID: 880-26267-4
Matrix: Solid
Date Collected: 03/22/23 15:50
Date Received: 03/23/23 08:20

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	49890	03/29/23 16:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50118	04/03/23 12:26	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49935	03/30/23 12:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49755	03/28/23 13:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49777	03/30/23 03:21	SM	EET MID

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Client Sample ID: SB-11-S-2'-20230322

Lab Sample ID: 880-26267-4
Matrix: Solid
Date Collected: 03/22/23 15:50
Date Received: 03/23/23 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	50002	03/31/23 08:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50028	03/31/23 12:22	SMC	EET MID

Client Sample ID: SB-11-S-4'-20230322

Lab Sample ID: 880-26267-5
Matrix: Solid
Date Collected: 03/22/23 16:05
Date Received: 03/23/23 08:20

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	49890	03/29/23 16:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50118	04/03/23 12:47	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49935	03/30/23 12:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49755	03/28/23 13:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49777	03/30/23 03:43	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	50002	03/31/23 08:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50028	03/31/23 12:27	SMC	EET MID

Client Sample ID: SB-12-S-0.5'-20230322

Lab Sample ID: 880-26267-6
Matrix: Solid
Date Collected: 03/22/23 16:10
Date Received: 03/23/23 08:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.95 g	5 mL	49890	03/29/23 16:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50118	04/03/23 13:08	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49935	03/30/23 12:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	49755	03/28/23 13:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49777	03/30/23 05:10	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	50002	03/31/23 08:54	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50028	03/31/23 12:31	SMC	EET MID

Client Sample ID: SB-12-S-2'-20230322

Lab Sample ID: 880-26267-7
Matrix: Solid
Date Collected: 03/22/23 16:15
Date Received: 03/23/23 08:20

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	49890	03/29/23 16:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50118	04/03/23 13:28	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49935	03/30/23 12:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49755	03/28/23 13:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49777	03/30/23 04:05	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	50160	04/03/23 10:58	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50338	04/04/23 20:54	SMC	EET MID

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Client Sample ID: SB-12-S-4'-20230322

Lab Sample ID: 880-26267-8
Matrix: Solid
Date Collected: 03/22/23 16:20
Date Received: 03/23/23 08:20

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	50190	04/03/23 12:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50119	04/04/23 02:26	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49935	03/30/23 12:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49755	03/28/23 13:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49777	03/30/23 04:27	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	50160	04/03/23 10:58	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	50338	04/04/23 21:09	SMC	EET MID

Client Sample ID: SB-13-S-0.5'-20230322

Lab Sample ID: 880-26267-9
Matrix: Solid
Date Collected: 03/22/23 16:25
Date Received: 03/23/23 08:20

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	50190	04/03/23 12:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50119	04/04/23 02:47	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49935	03/30/23 12:51	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	49755	03/28/23 13:32	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49777	03/30/23 04:49	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	50160	04/03/23 10:58	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	50338	04/04/23 21:14	SMC	EET MID

Client Sample ID: SB-13-S-2'-20230322

Lab Sample ID: 880-26267-10
Matrix: Solid
Date Collected: 03/22/23 16:35
Date Received: 03/23/23 08:20

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	50190	04/03/23 12:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50119	04/04/23 03:07	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49935	03/30/23 12:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	49771	03/28/23 17:17	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49783	03/29/23 11:15	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	50160	04/03/23 10:58	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	50338	04/04/23 21:18	SMC	EET MID

Client Sample ID: SB-13-S-4'-20230322

Lab Sample ID: 880-26267-11
Matrix: Solid
Date Collected: 03/22/23 16:45
Date Received: 03/23/23 08:20

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	49883	03/29/23 16:20	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50103	04/03/23 19:56	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49935	03/30/23 12:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49771	03/28/23 17:17	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49783	03/29/23 12:20	SM	EET MID

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Client Sample ID: SB-13-S-4'-20230322

Date Collected: 03/22/23 16:45
Date Received: 03/23/23 08:20

Lab Sample ID: 880-26267-11

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			5.01 g	50 mL	50160	04/03/23 10:58	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	50338	04/04/23 21:23	SMC	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: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

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

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	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.

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: Lovington Field Assessment

Job ID: 880-26267-1
SDG: WLU 57

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-26267-1	SB-14-S-0.5'-20230322	Solid	03/22/23 15:10	03/23/23 08:20
880-26267-2	SB-14-S-2'-20230322	Solid	03/22/23 15:30	03/23/23 08:20
880-26267-3	SB-11-S-0.5'-20230322	Solid	03/22/23 15:35	03/23/23 08:20
880-26267-4	SB-11-S-2'-20230322	Solid	03/22/23 15:50	03/23/23 08:20
880-26267-5	SB-11-S-4'-20230322	Solid	03/22/23 16:05	03/23/23 08:20
880-26267-6	SB-12-S-0.5'-20230322	Solid	03/22/23 16:10	03/23/23 08:20
880-26267-7	SB-12-S-2'-20230322	Solid	03/22/23 16:15	03/23/23 08:20
880-26267-8	SB-12-S-4'-20230322	Solid	03/22/23 16:20	03/23/23 08:20
880-26267-9	SB-13-S-0.5'-20230322	Solid	03/22/23 16:25	03/23/23 08:20
880-26267-10	SB-13-S-2'-20230322	Solid	03/22/23 16:35	03/23/23 08:20
880-26267-11	SB-13-S-4'-20230322	Solid	03/22/23 16:45	03/23/23 08:20

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

Chain of Custody Record

26267

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Client Information	Sampler: Daniel McGee	Lab PM: Builes John	Carrier Tracking No(s):	COC No.: 880-5489-722 1
Client Contact: Douglas Jordan	Phone: 432-999-2980	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: NM	Page: Page ~~1 of 2~~ 1 of 1
Company: ARCADIS U S Inc	PWSID:			Job #:
Address: 10205 Westheimer Rd Suite 800	Due Date Requested:			
City: Houston	TAT Requested (days): Standard			
State, Zip: TX, 77042	Compliance Project: Δ Yes Δ No			
Phone: 713-953-4739(Tel)	PO #: PN 30172230 -00026			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: ~~Lovington~~ WLU 57	Project #: 88001697			
Site	SSOW#:			

880-26267 Chain of Custody

Analysis Requested

Preservation Codes:
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	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
SB-14-S-0.5'-20230322	3-22-23	1310	G	Solid			X	1	402
SB-14-S-2'-20230322		1530		Solid			X	1	
SB-11-S-0.5'-20230322		1535		Solid			X	1	
SB-11-S-2'-20230322		1550		Solid			X	1	
SB-11-S-4'-20230322		1605		Solid			X	1	
SB-12-S-0.5'-20230322		1610		Solid			X	1	
SB-12-S-2'-20230322		1615		Solid			X	1	
SB-12-S-4'-20230322		1620		Solid			X	1	
SB-13-S-0.5'-20230322		1625		Solid			X	1	
SB-13-S-2'-20230322		1635		Solid			X	1	
SB-13-S-4'-20230322	3-22-23	1645	G	Solid			X	1	

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: 3-23-23 0820	Company: Arcadis	Received by:	Date/Time: 3/23/23 0820	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 0.6 | 0.3 | -0.3

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 880-26267-1
SDG Number: WLU 57

Login Number: 26267
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	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Morgan Jordan
ARCADIS US Inc
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 2/12/2024 10:49:16 AM

JOB DESCRIPTION

WLU 57
Lovington, NM

JOB NUMBER

880-38636-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

Eurofins Midland

Job Notes

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

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

Authorization

Generated
2/12/2024 10:49:16 AM

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

Client: ARCADIS US Inc
Project/Site: WLU 57

Laboratory Job ID: 880-38636-1
SDG: Lovington, NM

Table of Contents

Definitions/Glossary

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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 US Inc
Project: WLU 57

Job ID: 880-38636-1

Job ID: 880-38636-1 Eurofins Midland

Job Narrative
880-38636-1

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

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

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

Receipt
The samples were received on 1/30/2024 8:38 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.7°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SB-15-S-1'-240124 (880-38636-1), SB-15-S-2'-240124 (880-38636-2), SB-16-S-1'-240124 (880-38636-3), SB-16-S-2'-240124 (880-38636-4), SB-17-S-1'-240124 (880-38636-5), SB-17-S-2'-240124 (880-38636-6), SB-18-S-1'-240124 (880-38636-7) and SB-18-S-2'-240124 (880-38636-8).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SB-15-S-2'-240124 (880-38636-2), SB-17-S-2'-240124 (880-38636-6) and SB-18-S-1'-240124 (880-38636-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-72362 and analytical batch 880-72315 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8021B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for analytical batch 880-72315 recovered outside control limits for the following analytes: MTBE.

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 870-17905 and analytical batch 870-17969 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO).

Method 8015MOD_NM: An incorrect volume of spiking solution was inadvertently added the following samples: (CCV 870-17969/164). Percent recoveries are based on the amount spiked.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside the upper control limit: SB-15-S-2'-240124 (880-38636-2), SB-16-S-2'-240124 (880-38636-4), SB-17-S-2'-240124 (880-38636-6), SB-18-S-1'-240124 (880-38636-7) and (890-6038-A-1-J). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

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

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

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

Client Sample ID: SB-15-S-1'-240124

Lab Sample ID: 880-38636-1
Matrix: Solid
Date Collected: 01/24/24 08:30
Date Received: 01/30/24 08:38

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	144		4.95	0.391	mg/Kg			01/31/24 08:40	1

Client Sample ID: SB-15-S-2'-240124

Lab Sample ID: 880-38636-2
Matrix: Solid
Date Collected: 01/24/24 08:40
Date Received: 01/30/24 08:38

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		02/05/24 11:33	02/06/24 03:27	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		02/05/24 11:33	02/06/24 03:27	1
Ethylbenzene	<0.000564	U *+	0.00200	0.000564	mg/Kg		02/05/24 11:33	02/06/24 03:27	1
m-Xylene & p-Xylene	<0.00101	U *+	0.00399	0.00101	mg/Kg		02/05/24 11:33	02/06/24 03:27	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		02/05/24 11:33	02/06/24 03:27	1
Xylenes, Total	<0.00101	U *+	0.00399	0.00101	mg/Kg		02/05/24 11:33	02/06/24 03:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*02/05/24 11:33*	*02/06/24 03:27*	*1*
1,4-Difluorobenzene (Surr)	*64*	*S1-*	*70 - 130*	*02/05/24 11:33*	*02/06/24 03:27*	*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	0.00399	0.00101	mg/Kg			02/06/24 03:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<24.8	U	49.6	24.8	mg/Kg			02/05/24 18:50	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	<24.8	U *1	49.6	24.8	mg/Kg		01/30/24 11:32	02/05/24 18:50	1
Diesel Range Organics (Over C10-C28)	<24.8	U	49.6	24.8	mg/Kg		01/30/24 11:32	02/05/24 18:50	1
OII Range Organics (Over C28-C36)	<24.8	U	49.6	24.8	mg/Kg		01/30/24 11:32	02/05/24 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*137*	*S1+*	*70 - 130*	*01/30/24 11:32*	*02/05/24 18:50*	*1*
o-Terphenyl	*154*	*S1+*	*70 - 130*	*01/30/24 11:32*	*02/05/24 18:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	144		4.95	0.391	mg/Kg			01/31/24 08:46	1

Client Sample ID: SB-16-S-1'-240124

Lab Sample ID: 880-38636-3
Matrix: Solid
Date Collected: 01/24/24 09:00
Date Received: 01/30/24 08:38

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.0		5.03	0.397	mg/Kg			01/31/24 04:19	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

Client Sample ID: SB-16-S-2'-240124

Lab Sample ID: 880-38636-4
Matrix: Solid
Date Collected: 01/24/24 09:10
Date Received: 01/30/24 08:38

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		02/05/24 11:33	02/06/24 03:48	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		02/05/24 11:33	02/06/24 03:48	1
Ethylbenzene	<0.000566	U *+	0.00200	0.000566	mg/Kg		02/05/24 11:33	02/06/24 03:48	1
m-Xylene & p-Xylene	<0.00101	U *+	0.00401	0.00101	mg/Kg		02/05/24 11:33	02/06/24 03:48	1
o-Xylene	**0.000555**	**J**	0.00200	0.000345	mg/Kg		02/05/24 11:33	02/06/24 03:48	1
Xylenes, Total	<0.00101	U *+	0.00401	0.00101	mg/Kg		02/05/24 11:33	02/06/24 03:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*02/05/24 11:33*	*02/06/24 03:48*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*02/05/24 11:33*	*02/06/24 03:48*	*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			02/06/24 03:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<25.1	U	50.2	25.1	mg/Kg			02/05/24 19:11	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	U *1	50.2	25.1	mg/Kg		01/30/24 11:32	02/05/24 19:11	1
Diesel Range Organics (Over C10-C28)	<25.1	U	50.2	25.1	mg/Kg		01/30/24 11:32	02/05/24 19:11	1
OII Range Organics (Over C28-C36)	<25.1	U	50.2	25.1	mg/Kg		01/30/24 11:32	02/05/24 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*01/30/24 11:32*	*02/05/24 19:11*	*1*
o-Terphenyl	*133*	*S1+*	*70 - 130*	*01/30/24 11:32*	*02/05/24 19:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**84.6**		5.01	0.396	mg/Kg			01/31/24 04:26	1

Client Sample ID: SB-17-S-1'-240124

Lab Sample ID: 880-38636-5
Matrix: Solid
Date Collected: 01/24/24 09:30
Date Received: 01/30/24 08:38

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.5**		4.97	0.393	mg/Kg			01/31/24 04:33	1

Client Sample ID: SB-17-S-2'-240124

Lab Sample ID: 880-38636-6
Matrix: Solid
Date Collected: 01/24/24 09:40
Date Received: 01/30/24 08:38

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		02/05/24 11:33	02/06/24 04:08	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		02/05/24 11:33	02/06/24 04:08	1
Ethylbenzene	<0.000563	U *+	0.00199	0.000563	mg/Kg		02/05/24 11:33	02/06/24 04:08	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

Client Sample ID: SB-17-S-2'-240124

Lab Sample ID: 880-38636-6
Matrix: Solid
Date Collected: 01/24/24 09:40
Date Received: 01/30/24 08:38

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<0.00101	U *+	0.00398	0.00101	mg/Kg		02/05/24 11:33	02/06/24 04:08	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		02/05/24 11:33	02/06/24 04:08	1
Xylenes, Total	<0.00101	U *+	0.00398	0.00101	mg/Kg		02/05/24 11:33	02/06/24 04:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*02/05/24 11:33*	*02/06/24 04:08*	*1*
1,4-Difluorobenzene (Surr)	*62*	*S1-*	*70 - 130*	*02/05/24 11:33*	*02/06/24 04:08*	*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			02/06/24 04:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<25.2	U	50.4	25.2	mg/Kg			02/05/24 19:32	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	<25.2	U *1	50.4	25.2	mg/Kg		01/30/24 11:32	02/05/24 19:32	1
Diesel Range Organics (Over C10-C28)	<25.2	U	50.4	25.2	mg/Kg		01/30/24 11:32	02/05/24 19:32	1
OII Range Organics (Over C28-C36)	<25.2	U	50.4	25.2	mg/Kg		01/30/24 11:32	02/05/24 19:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*124*		*70 - 130*	*01/30/24 11:32*	*02/05/24 19:32*	*1*
o-Terphenyl	*141*	*S1+*	*70 - 130*	*01/30/24 11:32*	*02/05/24 19:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.4**		4.99	0.394	mg/Kg			01/31/24 04:40	1

Client Sample ID: SB-18-S-1'-240124

Lab Sample ID: 880-38636-7
Matrix: Solid
Date Collected: 01/24/24 10:10
Date Received: 01/30/24 08:38

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		02/05/24 11:33	02/06/24 04:29	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		02/05/24 11:33	02/06/24 04:29	1
Ethylbenzene	<0.000562	U *+	0.00199	0.000562	mg/Kg		02/05/24 11:33	02/06/24 04:29	1
m-Xylene & p-Xylene	<0.00100	U *+	0.00398	0.00100	mg/Kg		02/05/24 11:33	02/06/24 04:29	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		02/05/24 11:33	02/06/24 04:29	1
Xylenes, Total	<0.00100	U *+	0.00398	0.00100	mg/Kg		02/05/24 11:33	02/06/24 04:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*	*02/05/24 11:33*	*02/06/24 04:29*	*1*
1,4-Difluorobenzene (Surr)	*59*	*S1-*	*70 - 130*	*02/05/24 11:33*	*02/06/24 04:29*	*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			02/06/24 04:29	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

Client Sample ID: SB-18-S-1'-240124

Lab Sample ID: 880-38636-7
Matrix: Solid
Date Collected: 01/24/24 10:10
Date Received: 01/30/24 08:38

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<25.2	U	50.4	25.2	mg/Kg			02/05/24 19:52	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	<25.2	U *1	50.4	25.2	mg/Kg		01/30/24 11:32	02/05/24 19:52	1
Diesel Range Organics (Over C10-C28)	<25.2	U	50.4	25.2	mg/Kg		01/30/24 11:32	02/05/24 19:52	1
Oil Range Organics (Over C28-C36)	<25.2	U	50.4	25.2	mg/Kg		01/30/24 11:32	02/05/24 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*137*	*S1+*	*70 - 130*	*01/30/24 11:32*	*02/05/24 19:52*	*1*
o-Terphenyl	*157*	*S1+*	*70 - 130*	*01/30/24 11:32*	*02/05/24 19:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**53.1**		4.98	0.393	mg/Kg			01/31/24 04:46	1

Client Sample ID: SB-18-S-2'-240124

Lab Sample ID: 880-38636-8
Matrix: Solid
Date Collected: 01/24/24 10:00
Date Received: 01/30/24 08:38

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.82**	**J**	5.03	0.397	mg/Kg			01/31/24 05:07	1

Surrogate Summary

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-38636-2	SB-15-S-2'-240124	86	64 S1-
880-38636-4	SB-16-S-2'-240124	88	72
880-38636-6	SB-17-S-2'-240124	90	62 S1-
880-38636-7	SB-18-S-1'-240124	89	59 S1-
LCS 880-72362/1-A	Lab Control Sample	110	92
LCSD 880-72362/2-A	Lab Control Sample Dup	129	97
MB 880-72103/5-A	Method Blank	76	77
MB 880-72362/5-A	Method Blank	73	80

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-38636-2	SB-15-S-2'-240124	137 S1+	154 S1+
880-38636-4	SB-16-S-2'-240124	116	133 S1+
880-38636-6	SB-17-S-2'-240124	124	141 S1+
880-38636-7	SB-18-S-1'-240124	137 S1+	157 S1+
LCS 870-17905/1-A	Lab Control Sample	108	125
LCSD 870-17905/2-A	Lab Control Sample Dup	112	126
MB 870-17905/3-A	Method Blank	122	128

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-72103/5-A
Matrix: Solid
Analysis Batch: 72315

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72103

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		02/01/24 10:19	02/05/24 11:23	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		02/01/24 10:19	02/05/24 11:23	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		02/01/24 10:19	02/05/24 11:23	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		02/01/24 10:19	02/05/24 11:23	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		02/01/24 10:19	02/05/24 11:23	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		02/01/24 10:19	02/05/24 11:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*02/01/24 10:19*	*02/05/24 11:23*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*02/01/24 10:19*	*02/05/24 11:23*	*1*

Lab Sample ID: MB 880-72362/5-A
Matrix: Solid
Analysis Batch: 72315

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 72362

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		02/05/24 11:33	02/05/24 22:36	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		02/05/24 11:33	02/05/24 22:36	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		02/05/24 11:33	02/05/24 22:36	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		02/05/24 11:33	02/05/24 22:36	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		02/05/24 11:33	02/05/24 22:36	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		02/05/24 11:33	02/05/24 22:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*73*		*70 - 130*	*02/05/24 11:33*	*02/05/24 22:36*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*02/05/24 11:33*	*02/05/24 22:36*	*1*

Lab Sample ID: LCS 880-72362/1-A
Matrix: Solid
Analysis Batch: 72315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 72362

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08244		mg/Kg		82	70 - 130
Toluene	0.100	0.09597		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.1204		mg/Kg		120	70 - 130
m-Xylene & p-Xylene	0.200	0.2275		mg/Kg		114	70 - 130
o-Xylene	0.100	0.1104		mg/Kg		110	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: LCSD 880-72362/2-A
Matrix: Solid
Analysis Batch: 72315

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72362

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09873		mg/Kg		99	70 - 130	18	35

QC Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

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

Lab Sample ID: LCSD 880-72362/2-A
Matrix: Solid
Analysis Batch: 72315

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 72362

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1077		mg/Kg		108	70 - 130	11	35
Ethylbenzene			0.100	0.1382	*+	mg/Kg		138	70 - 130	14	35
m-Xylene & p-Xylene			0.200	0.2649	*+	mg/Kg		132	70 - 130	15	35
o-Xylene			0.100	0.1288		mg/Kg		129	70 - 130	15	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: MB 870-17905/3-A
Matrix: Solid
Analysis Batch: 17969

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 17905

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<25.0	U	50.0	25.0	mg/Kg		01/30/24 11:32	02/05/24 15:43	1
Diesel Range Organics (Over C10-C28)	<25.0	U	50.0	25.0	mg/Kg		01/30/24 11:32	02/05/24 15:43	1
OII Range Organics (Over C28-C36)	<25.0	U	50.0	25.0	mg/Kg		01/30/24 11:32	02/05/24 15:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*01/30/24 11:32*	*02/05/24 15:43*	*1*
o-Terphenyl	*128*		*70 - 130*	*01/30/24 11:32*	*02/05/24 15:43*	*1*

Lab Sample ID: LCS 870-17905/1-A
Matrix: Solid
Analysis Batch: 17969

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 17905

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1020	1174		mg/Kg		115	70 - 130		
Diesel Range Organics (Over C10-C28)			1010	1217		mg/Kg		120	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*125*		*70 - 130*

Lab Sample ID: LCSD 870-17905/2-A
Matrix: Solid
Analysis Batch: 17969

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17905

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1020	906.0	*1	mg/Kg		89	70 - 130	26	20
Diesel Range Organics (Over C10-C28)			1010	1213		mg/Kg		120	70 - 130	0	20

Eurofins Midland

QC Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

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

Lab Sample ID: LCSD 870-17905/2-A
Matrix: Solid
Analysis Batch: 17969

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 17905

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	126		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-71925/1-A
Matrix: Solid
Analysis Batch: 71958

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			01/31/24 02:50	1

Lab Sample ID: LCS 880-71925/2-A
Matrix: Solid
Analysis Batch: 71958

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	260.5		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-71925/3-A
Matrix: Solid
Analysis Batch: 71958

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	261.1		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 880-38636-7 MS
Matrix: Solid
Analysis Batch: 71958

Client Sample ID: SB-18-S-1'-240124
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	53.1		249	305.7		mg/Kg		101	90 - 110		

Lab Sample ID: 880-38636-7 MSD
Matrix: Solid
Analysis Batch: 71958

Client Sample ID: SB-18-S-1'-240124
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	53.1		249	305.6		mg/Kg		101	90 - 110	0	20

QC Association Summary

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

GC VOA

Prep Batch: 72103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-72103/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 72315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38636-2	SB-15-S-2'-240124	Total/NA	Solid	8021B	72362
880-38636-4	SB-16-S-2'-240124	Total/NA	Solid	8021B	72362
880-38636-6	SB-17-S-2'-240124	Total/NA	Solid	8021B	72362
880-38636-7	SB-18-S-1'-240124	Total/NA	Solid	8021B	72362
MB 880-72103/5-A	Method Blank	Total/NA	Solid	8021B	72103
MB 880-72362/5-A	Method Blank	Total/NA	Solid	8021B	72362
LCS 880-72362/1-A	Lab Control Sample	Total/NA	Solid	8021B	72362
LCSD 880-72362/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	72362

Prep Batch: 72362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38636-2	SB-15-S-2'-240124	Total/NA	Solid	5030B	
880-38636-4	SB-16-S-2'-240124	Total/NA	Solid	5030B	
880-38636-6	SB-17-S-2'-240124	Total/NA	Solid	5030B	
880-38636-7	SB-18-S-1'-240124	Total/NA	Solid	5030B	
MB 880-72362/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-72362/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-72362/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 72513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38636-2	SB-15-S-2'-240124	Total/NA	Solid	Total BTEX	
880-38636-4	SB-16-S-2'-240124	Total/NA	Solid	Total BTEX	
880-38636-6	SB-17-S-2'-240124	Total/NA	Solid	Total BTEX	
880-38636-7	SB-18-S-1'-240124	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 17905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38636-2	SB-15-S-2'-240124	Total/NA	Solid	8015NM Prep	
880-38636-4	SB-16-S-2'-240124	Total/NA	Solid	8015NM Prep	
880-38636-6	SB-17-S-2'-240124	Total/NA	Solid	8015NM Prep	
880-38636-7	SB-18-S-1'-240124	Total/NA	Solid	8015NM Prep	
MB 870-17905/3-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 870-17905/1-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 870-17905/2-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 17969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38636-2	SB-15-S-2'-240124	Total/NA	Solid	8015B NM	17905
880-38636-4	SB-16-S-2'-240124	Total/NA	Solid	8015B NM	17905
880-38636-6	SB-17-S-2'-240124	Total/NA	Solid	8015B NM	17905
880-38636-7	SB-18-S-1'-240124	Total/NA	Solid	8015B NM	17905
MB 870-17905/3-A	Method Blank	Total/NA	Solid	8015B NM	17905
LCS 870-17905/1-A	Lab Control Sample	Total/NA	Solid	8015B NM	17905
LCSD 870-17905/2-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	17905

QC Association Summary

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

GC Semi VOA

Analysis Batch: 17982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38636-2	SB-15-S-2'-240124	Total/NA	Solid	8015 NM	
880-38636-4	SB-16-S-2'-240124	Total/NA	Solid	8015 NM	
880-38636-6	SB-17-S-2'-240124	Total/NA	Solid	8015 NM	
880-38636-7	SB-18-S-1'-240124	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 71925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38636-1	SB-15-S-1'-240124	Soluble	Solid	DI Leach	
880-38636-2	SB-15-S-2'-240124	Soluble	Solid	DI Leach	
880-38636-3	SB-16-S-1'-240124	Soluble	Solid	DI Leach	
880-38636-4	SB-16-S-2'-240124	Soluble	Solid	DI Leach	
880-38636-5	SB-17-S-1'-240124	Soluble	Solid	DI Leach	
880-38636-6	SB-17-S-2'-240124	Soluble	Solid	DI Leach	
880-38636-7	SB-18-S-1'-240124	Soluble	Solid	DI Leach	
880-38636-8	SB-18-S-2'-240124	Soluble	Solid	DI Leach	
MB 880-71925/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-71925/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-71925/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-38636-7 MS	SB-18-S-1'-240124	Soluble	Solid	DI Leach	
880-38636-7 MSD	SB-18-S-1'-240124	Soluble	Solid	DI Leach	

Analysis Batch: 71958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-38636-1	SB-15-S-1'-240124	Soluble	Solid	300.0	71925
880-38636-2	SB-15-S-2'-240124	Soluble	Solid	300.0	71925
880-38636-3	SB-16-S-1'-240124	Soluble	Solid	300.0	71925
880-38636-4	SB-16-S-2'-240124	Soluble	Solid	300.0	71925
880-38636-5	SB-17-S-1'-240124	Soluble	Solid	300.0	71925
880-38636-6	SB-17-S-2'-240124	Soluble	Solid	300.0	71925
880-38636-7	SB-18-S-1'-240124	Soluble	Solid	300.0	71925
880-38636-8	SB-18-S-2'-240124	Soluble	Solid	300.0	71925
MB 880-71925/1-A	Method Blank	Soluble	Solid	300.0	71925
LCS 880-71925/2-A	Lab Control Sample	Soluble	Solid	300.0	71925
LCSD 880-71925/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	71925
880-38636-7 MS	SB-18-S-1'-240124	Soluble	Solid	300.0	71925
880-38636-7 MSD	SB-18-S-1'-240124	Soluble	Solid	300.0	71925

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

Client Sample ID: SB-15-S-1'-240124

Lab Sample ID: 880-38636-1
Matrix: Solid
Date Collected: 01/24/24 08:30
Date Received: 01/30/24 08:38

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	71925	01/30/24 10:30	SMC	EET MID
Soluble	Analysis	300.0		1			71958	01/31/24 08:40	CH	EET MID

Client Sample ID: SB-15-S-2'-240124

Lab Sample ID: 880-38636-2
Matrix: Solid
Date Collected: 01/24/24 08:40
Date Received: 01/30/24 08:38

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	72362	02/05/24 11:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72315	02/06/24 03:27	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72513	02/06/24 03:27	SM	EET MID
Total/NA	Analysis	8015 NM		1			17982	02/05/24 18:50	CC	EET DAL
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	17905	01/30/24 11:32	WP	EET DAL
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	17969	02/05/24 18:50	WP	EET DAL
Soluble	Leach	DI Leach			5.05 g	50 mL	71925	01/30/24 10:30	SMC	EET MID
Soluble	Analysis	300.0		1			71958	01/31/24 08:46	CH	EET MID

Client Sample ID: SB-16-S-1'-240124

Lab Sample ID: 880-38636-3
Matrix: Solid
Date Collected: 01/24/24 09:00
Date Received: 01/30/24 08:38

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	71925	01/30/24 10:30	SMC	EET MID
Soluble	Analysis	300.0		1			71958	01/31/24 04:19	CH	EET MID

Client Sample ID: SB-16-S-2'-240124

Lab Sample ID: 880-38636-4
Matrix: Solid
Date Collected: 01/24/24 09:10
Date Received: 01/30/24 08:38

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	72362	02/05/24 11:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72315	02/06/24 03:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72513	02/06/24 03:48	SM	EET MID
Total/NA	Analysis	8015 NM		1			17982	02/05/24 19:11	CC	EET DAL
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	17905	01/30/24 11:32	WP	EET DAL
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	17969	02/05/24 19:11	WP	EET DAL
Soluble	Leach	DI Leach			4.99 g	50 mL	71925	01/30/24 10:30	SMC	EET MID
Soluble	Analysis	300.0		1			71958	01/31/24 04:26	CH	EET MID

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

Client Sample ID: SB-17-S-1'-240124

Lab Sample ID: 880-38636-5
Matrix: Solid
Date Collected: 01/24/24 09:30
Date Received: 01/30/24 08:38

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	71925	01/30/24 10:30	SMC	EET MID
Soluble	Analysis	300.0		1			71958	01/31/24 04:33	CH	EET MID

Client Sample ID: SB-17-S-2'-240124

Lab Sample ID: 880-38636-6
Matrix: Solid
Date Collected: 01/24/24 09:40
Date Received: 01/30/24 08:38

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	72362	02/05/24 11:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72315	02/06/24 04:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72513	02/06/24 04:08	SM	EET MID
Total/NA	Analysis	8015 NM		1			17982	02/05/24 19:32	CC	EET DAL
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	17905	01/30/24 11:32	WP	EET DAL
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	17969	02/05/24 19:32	WP	EET DAL
Soluble	Leach	DI Leach			5.01 g	50 mL	71925	01/30/24 10:30	SMC	EET MID
Soluble	Analysis	300.0		1			71958	01/31/24 04:40	CH	EET MID

Client Sample ID: SB-18-S-1'-240124

Lab Sample ID: 880-38636-7
Matrix: Solid
Date Collected: 01/24/24 10:10
Date Received: 01/30/24 08:38

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	72362	02/05/24 11:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	72315	02/06/24 04:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			72513	02/06/24 04:29	SM	EET MID
Total/NA	Analysis	8015 NM		1			17982	02/05/24 19:52	CC	EET DAL
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	17905	01/30/24 11:32	WP	EET DAL
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	17969	02/05/24 19:52	WP	EET DAL
Soluble	Leach	DI Leach			5.02 g	50 mL	71925	01/30/24 10:30	SMC	EET MID
Soluble	Analysis	300.0		1			71958	01/31/24 04:46	CH	EET MID

Client Sample ID: SB-18-S-2'-240124

Lab Sample ID: 880-38636-8
Matrix: Solid
Date Collected: 01/24/24 10:00
Date Received: 01/30/24 08:38

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	71925	01/30/24 10:30	SMC	EET MID
Soluble	Analysis	300.0		1			71958	01/31/24 05:07	CH	EET MID

Laboratory References:

EET DAL = Eurofins Dallas, 9701 Harry Hines Blvd, Dallas, TX 75220, TEL (214)902-0300

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

Accreditation/Certification Summary

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

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

Analysis Method	Prep Method	Matrix	Analyte
Total BTEX		Solid	Total BTEX

Laboratory: Eurofins Dallas

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704295-23-34	06-30-24

Method Summary

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

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 DAL
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET DAL
300.0	Anions, Ion Chromatography	EPA	EET MID
5030B	Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET DAL
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 DAL = Eurofins Dallas, 9701 Harry Hines Blvd, Dallas, TX 75220, TEL (214)902-0300

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

Sample Summary

Client: ARCADIS US Inc
Project/Site: WLU 57

Job ID: 880-38636-1
SDG: Lovington, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-38636-1	SB-15-S-1'-240124	Solid	01/24/24 08:30	01/30/24 08:38
880-38636-2	SB-15-S-2'-240124	Solid	01/24/24 08:40	01/30/24 08:38
880-38636-3	SB-16-S-1'-240124	Solid	01/24/24 09:00	01/30/24 08:38
880-38636-4	SB-16-S-2'-240124	Solid	01/24/24 09:10	01/30/24 08:38
880-38636-5	SB-17-S-1'-240124	Solid	01/24/24 09:30	01/30/24 08:38
880-38636-6	SB-17-S-2'-240124	Solid	01/24/24 09:40	01/30/24 08:38
880-38636-7	SB-18-S-1'-240124	Solid	01/24/24 10:10	01/30/24 08:38
880-38636-8	SB-18-S-2'-240124	Solid	01/24/24 10:00	01/30/24 08:38

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

Chain of Custody Record

880-38636 Chain of Custody

nent Testing

Client Information	Sampler: Heath Boyd	Lab PM: Builes, John	Ca:	
Client Contact: Mr Morgan Jordan	Phone: 575-942-0292	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: NM	Page: Page 5 of 14 → 1 of 1
Company: ARCADIS US Inc	PWSID:			Job #:
Address: 1004 North Big Spring Suite 300	Due Date Requested			
City: Midland	TAT Requested (days): Standard			
State Zip: TX, 79701	Compliance Project: Δ Yes Δ No			
Phone: 281-644-9437(Tel)	PO #: Purchase Order Requested			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: WLU 57	Project #: ~~88002020~~ 30209670			
Site: Lovington, NM	SSOW#:			

Analysis Requested

Preservation Codes

A HCL	M Hexane
B NaOH	N None
C Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E NaHSO4	Q Na2SO3
F - MeOH	R Na2S2O3
G Amchlor	S H2SO4
H Ascorbic Acid	T TSP Dodecahydrate
I Ice	U Acetone
J DI Water	V MCAA
K EDTA	W pH 4-5
L EDA	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	300_ORGFM_28D	Total Number of containers	Special Instructions/Note.
			Preservation Code:				N			
SB-15-S-1'-240124	1/24/24	830	G	Solid				X		
SB-15-S-2'-240124		840		Solid			X	X		
SB-16-S-1'-240124		900		Solid				X		
SB-16-S-2'-240124		910		Solid			X	X		
SB-17-S-1'-240124		930		Solid				X		
SB-17-S-2'-240124		940		Solid			X	X		
SB-18-S-2'-240124		1010		Solid			X	X		
SB-18-S-1'-240124	X	1000	X	Solid				X		
				Solid						
				Solid						
				Solid						

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
		1/25/24 1500	Arcadis	Daphne Gonzales	1/25/24	
					1/30/24	
					828	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.
		3.5/3.7

Ver 01/16/2019

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Phone: 432-704-5440

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Builes, John	Carrier Tracking No(s):	COC No: 880-9104.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: Texas	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 880-38636-1
Address: 9701 Harry Hines Blvd, ,	Due Date Requested: 2/5/2024			
City: Dallas	TAT Requested (days):			
State, Zip: TX, 75220				
Phone: 214-902-0300(Tel)	PO #:			
Email:	WO #:			
Project Name: WLU 57	Project #: 88002020			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_Calc	8015MOD_NM/8015NM_S_Prep Full TPH	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SB-15-S-2'-240124 (880-38636-2)	1/24/24	08:40 Central		Solid			X	X	1	
SB-16-S-2'-240124 (880-38636-4)	1/24/24	09:10 Central		Solid			X	X	1	
SB-17-S-2'-240124 (880-38636-6)	1/24/24	09:40 Central		Solid			X	X	1	
SB-18-S-1'-240124 (880-38636-7)	1/24/24	10:10 Central		Solid			X	X	1	

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

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

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by: FedEx	Date/Time:	Company
Relinquished by: FedEx	Date/Time: 2/3/24 1125	Company	Received by: MS	Date/Time: 2/3/24 1125	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 06/08/2021

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Phone: 432-704-5440

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Builes, John	Carrier Tracking No(s):	COC No: 880-9104.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: Texas	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 880-38636-1
Address: 9701 Harry Hines Blvd, ,	Due Date Requested: 2/5/2024			
City: Dallas	TAT Requested (days):			
State, Zip: TX, 75220				
Phone: 214-902-0300(Tel)	PO #:			
Email:	WO #:			
Project Name: WLU 57	Project #: 88002020			
Site:	SSOW#:			

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:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_Calc	8015MOD_NM/8015NM_S_Prep Full TPH	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
SB-15-S-2'-240124 (880-38636-2)	1/24/24	08:40 Central		Solid			X	X	1	
SB-16-S-2'-240124 (880-38636-4)	1/24/24	09:10 Central		Solid			X	X	1	
SB-17-S-2'-240124 (880-38636-6)	1/24/24	09:40 Central		Solid			X	X	1	
SB-18-S-1'-240124 (880-38636-7)	1/24/24	10:10 Central		Solid			X	X	1	

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

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

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by: AT FedEx	Date/Time: 2/02/24 1100	Company	Received by: FedEx	Date/Time:	Company	
Relinquished by: FedEx	Date/Time: 2/3/24 1125	Company	Received by: MS	Date/Time: 2/3/24 1125	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

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

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: ARCADIS US Inc

Job Number: 880-38636-1
SDG Number: Lovington, NM

Login Number: 38636
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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

Login Sample Receipt Checklist

Client: ARCADIS US Inc

Job Number: 880-38636-1
SDG Number: Lovington, NM

Login Number: 38636
List Number: 2
Creator: Thompson, Christopher

List Source: Eurofins Dallas
List Creation: 02/03/24 01:45 PM

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

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

Appendix B

NMOCD Correspondence

From: Brand, Chris <Chrisbrand@chevron.com>
Sent: Friday, May 9, 2025 4:08 PM
To: Foord, Scott; Jordan, Morgan
Subject: FW: The Oil Conservation Division (OCD) has approved the application, Application ID: 445308

From: OCDOnline@state.nm.us <OCDOnline@state.nm.us>
Sent: Friday, May 9, 2025 3:38 PM
To: Brand, Chris <Chrisbrand@chevron.com>
Subject: [**EXTERNAL**] The Oil Conservation Division (OCD) has approved the application, Application ID: 445308

To whom it may concern (c/o Chris Brand for CHEVRON U S A INC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nPLM0830342476,
with the following conditions:

- **Remediation plan is approved as written except with the following condition; 1. Alternative sampling plan request not to exceed 400 square feet (ft.2) for each five (5) point composite (5pc) from the excavation floor per 19.15.29.12D (1b) NMAC is approved. Sidewall confirmation sample(s) will abide at 200 ft.2 for each 5pc per 19.15.29.12D (1c) NMAC. All other provisions addressed in 19.15.29.12D NMAC remain in effect. 2. Chevron has 90-days (August 7, 2025) to submit to OCD its appropriate or final remediation closure report.**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,
Nelson Velez
Environmental Specialist - Advanced
505-469-6146
Nelson.Velez@emnrd.nm.gov

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

Appendix C

Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Morgan Jordan
Arcadis US Inc.
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 6/3/2025 5:06:35 PM Revision 1

JOB DESCRIPTION

WLU 57
LEA COUNTY, NM

JOB NUMBER

890-8190-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

Eurofins Carlsbad

Job Notes

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

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

Authorization

Generated
6/3/2025 5:06:35 PM
Revision 1

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

Client: Arcadis US Inc.
Project/Site: WLU 57

Laboratory Job ID: 890-8190-1
SDG: LEA COUNTY, NM

Table of Contents

Definitions/Glossary

Client: Arcadis US Inc. Job ID: 890-8190-1
Project/Site: WLU 57 SDG: LEA COUNTY, NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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.
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 US Inc.
Project: WLU 57

Job ID: 890-8190-1

Job ID: 890-8190-1 Eurofins Carlsbad

Job Narrative
890-8190-1

REVISION

The report being provided is a revision of the original report sent on 5/21/2025. The report (revision 1) is being revised due to Per client request, add additional samples.

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

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

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

Receipt
The samples were received on 5/20/2025 3:00 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 3.0°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: B - 3B - 3' (890-8190-1), B - 15B - 2.5' (890-8190-2) and SW - 1B - 0 - 3' (890-8190-3).

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

Diesel Range Organics
Method 8015MOD_NM: The method blank for preparation batch 880-110558 and analytical batch 880-110591 contained Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The Chloride matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-110569 and analytical batch 880-110576 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

The associated samples are: B - 15B - 2.5' (890-8190-2), SW - 1B - 0 - 3' (890-8190-3), (890-8186-A-1-A), (890-8186-A-1-B MS) and (890-8186-A-1-C MSD).

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

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 890-8190-1
SDG: LEA COUNTY, NM

Client Sample ID: B - 3B - 3'

Date Collected: 05/20/25 11:30
Date Received: 05/20/25 15:00

Lab Sample ID: 890-8190-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	0.00138	mg/Kg		05/30/25 08:33	05/30/25 14:54	1
Toluene	<0.00198	U	0.00198	0.00198	mg/Kg		05/30/25 08:33	05/30/25 14:54	1
Ethylbenzene	<0.00198	U	0.00198	0.00108	mg/Kg		05/30/25 08:33	05/30/25 14:54	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	0.00226	mg/Kg		05/30/25 08:33	05/30/25 14:54	1
o-Xylene	<0.00198	U	0.00198	0.00157	mg/Kg		05/30/25 08:33	05/30/25 14:54	1
Xylenes, Total	<0.00396	U	0.00396	0.00226	mg/Kg		05/30/25 08:33	05/30/25 14:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*05/30/25 08:33*	*05/30/25 14:54*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*05/30/25 08:33*	*05/30/25 14:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	0.00226	mg/Kg			05/30/25 14:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**19.3**	**J**	50.0	15.1	mg/Kg			05/21/25 12:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	14.5	mg/Kg		05/21/25 07:54	05/21/25 12:25	1
Diesel Range Organics (Over C10-C28)	**19.3**	**J B**	50.0	15.1	mg/Kg		05/21/25 07:54	05/21/25 12:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	15.1	mg/Kg		05/21/25 07:54	05/21/25 12:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*05/21/25 07:54*	*05/21/25 12:25*	*1*
o-Terphenyl	*123*		*70 - 130*	*05/21/25 07:54*	*05/21/25 12:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**102**		10.0	0.396	mg/Kg			05/30/25 19:03	1

Client Sample ID: B - 15B - 2.5'

Date Collected: 05/20/25 11:20
Date Received: 05/20/25 15:00

Lab Sample ID: 890-8190-2

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	0.00140	mg/Kg		05/21/25 09:45	05/21/25 12:09	1
Toluene	<0.00201	U	0.00201	0.00201	mg/Kg		05/21/25 09:45	05/21/25 12:09	1
Ethylbenzene	<0.00201	U	0.00201	0.00109	mg/Kg		05/21/25 09:45	05/21/25 12:09	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	0.00229	mg/Kg		05/21/25 09:45	05/21/25 12:09	1
o-Xylene	<0.00201	U	0.00201	0.00159	mg/Kg		05/21/25 09:45	05/21/25 12:09	1
Xylenes, Total	<0.00402	U	0.00402	0.00229	mg/Kg		05/21/25 09:45	05/21/25 12:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*05/21/25 09:45*	*05/21/25 12:09*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*05/21/25 09:45*	*05/21/25 12:09*	*1*

Client Sample Results

Client: Arcadis US Inc. Job ID: 890-8190-1
Project/Site: WLU 57 SDG: LEA COUNTY, NM

Client Sample ID: B - 15B - 2.5' Lab Sample ID: 890-8190-2

Date Collected: 05/20/25 11:20 **Matrix: Solid**
Date Received: 05/20/25 15:00

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	0.00229	mg/Kg			05/21/25 12:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	15.1	mg/Kg			05/21/25 12:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	14.5	mg/Kg		05/21/25 07:54	05/21/25 12:39	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	15.1	mg/Kg		05/21/25 07:54	05/21/25 12:39	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	15.1	mg/Kg		05/21/25 07:54	05/21/25 12:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*05/21/25 07:54*	*05/21/25 12:39*	*1*
o-Terphenyl	*117*		*70 - 130*	*05/21/25 07:54*	*05/21/25 12:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**99.6**		9.90	0.391	mg/Kg			05/21/25 10:00	1

Client Sample ID: SW - 1B - 0 - 3' Lab Sample ID: 890-8190-3

Date Collected: 05/20/25 12:00 **Matrix: Solid**
Date Received: 05/20/25 15:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	0.00138	mg/Kg		05/21/25 09:45	05/21/25 12:30	1
Toluene	<0.00199	U	0.00199	0.00199	mg/Kg		05/21/25 09:45	05/21/25 12:30	1
Ethylbenzene	<0.00199	U	0.00199	0.00108	mg/Kg		05/21/25 09:45	05/21/25 12:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	0.00227	mg/Kg		05/21/25 09:45	05/21/25 12:30	1
o-Xylene	<0.00199	U	0.00199	0.00157	mg/Kg		05/21/25 09:45	05/21/25 12:30	1
Xylenes, Total	<0.00398	U	0.00398	0.00227	mg/Kg		05/21/25 09:45	05/21/25 12:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*05/21/25 09:45*	*05/21/25 12:30*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*05/21/25 09:45*	*05/21/25 12:30*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	0.00227	mg/Kg			05/21/25 12:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**15.2**	**J**	49.9	15.1	mg/Kg			05/21/25 12:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	14.5	mg/Kg		05/21/25 07:54	05/21/25 12:54	1
Diesel Range Organics (Over C10-C28)	**15.2**	**J B**	49.9	15.1	mg/Kg		05/21/25 07:54	05/21/25 12:54	1

Eurofins Carlsbad

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 890-8190-1
SDG: LEA COUNTY, NM

Client Sample ID: SW - 1B - 0 - 3'

Date Collected: 05/20/25 12:00
Date Received: 05/20/25 15:00

Lab Sample ID: 890-8190-3

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)	<49.9	U	49.9	15.1	mg/Kg		05/21/25 07:54	05/21/25 12:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*05/21/25 07:54*	*05/21/25 12:54*	*1*
o-Terphenyl	*119*		*70 - 130*	*05/21/25 07:54*	*05/21/25 12:54*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**95.3**		9.92	0.392	mg/Kg			05/21/25 10:07	1

Surrogate Summary

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 890-8190-1
SDG: LEA COUNTY, NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-8190-1	B - 3B - 3'	112	100
890-8190-2	B - 15B - 2.5'	109	81
890-8190-3	SW - 1B - 0 - 3'	112	79
LCS 880-110587/1-A	Lab Control Sample	109	89
LCS 880-111212/1-A	Lab Control Sample	94	90
LCSD 880-110587/2-A	Lab Control Sample Dup	102	97
LCSD 880-111212/2-A	Lab Control Sample Dup	97	93
MB 880-110587/5-A	Method Blank	102	77
MB 880-111212/5-A	Method Blank	97	96

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-8190-1	B - 3B - 3'	115	123
890-8190-2	B - 15B - 2.5'	111	117
890-8190-3	SW - 1B - 0 - 3'	113	119
LCS 880-110558/2-A	Lab Control Sample	124	125
LCSD 880-110558/3-A	Lab Control Sample Dup	118	116
MB 880-110558/1-A	Method Blank	119	128

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 890-8190-1
SDG: LEA COUNTY, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-110587/5-A
Matrix: Solid
Analysis Batch: 110572

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 110587

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.00139	mg/Kg		05/21/25 09:45	05/21/25 11:27	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/21/25 09:45	05/21/25 11:27	1
Ethylbenzene	<0.00200	U	0.00200	0.00109	mg/Kg		05/21/25 09:45	05/21/25 11:27	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	0.00229	mg/Kg		05/21/25 09:45	05/21/25 11:27	1
o-Xylene	<0.00200	U	0.00200	0.00158	mg/Kg		05/21/25 09:45	05/21/25 11:27	1
Xylenes, Total	<0.00400	U	0.00400	0.00229	mg/Kg		05/21/25 09:45	05/21/25 11:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*05/21/25 09:45*	*05/21/25 11:27*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*05/21/25 09:45*	*05/21/25 11:27*	*1*

Lab Sample ID: LCS 880-110587/1-A
Matrix: Solid
Analysis Batch: 110572

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 110587

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08816		mg/Kg		88	70 - 130		
Toluene			0.100	0.09102		mg/Kg		91	70 - 130		
Ethylbenzene			0.100	0.09225		mg/Kg		92	70 - 130		
m-Xylene & p-Xylene			0.200	0.1951		mg/Kg		98	70 - 130		
o-Xylene			0.100	0.09905		mg/Kg		99	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: LCSD 880-110587/2-A
Matrix: Solid
Analysis Batch: 110572

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 110587

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08938		mg/Kg		89	70 - 130	1	35
Toluene			0.100	0.08954		mg/Kg		90	70 - 130	2	35
Ethylbenzene			0.100	0.09038		mg/Kg		90	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.1888		mg/Kg		94	70 - 130	3	35
o-Xylene			0.100	0.09547		mg/Kg		95	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: MB 880-111212/5-A
Matrix: Solid
Analysis Batch: 111204

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 111212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	0.00139	mg/Kg		05/30/25 08:33	05/30/25 11:28	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/30/25 08:33	05/30/25 11:28	1

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 890-8190-1
SDG: LEA COUNTY, NM

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

Lab Sample ID: MB 880-111212/5-A
Matrix: Solid
Analysis Batch: 111204

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 111212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200	0.00109	mg/Kg		05/30/25 08:33	05/30/25 11:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	0.00229	mg/Kg		05/30/25 08:33	05/30/25 11:28	1
o-Xylene	<0.00200	U	0.00200	0.00158	mg/Kg		05/30/25 08:33	05/30/25 11:28	1
Xylenes, Total	<0.00400	U	0.00400	0.00229	mg/Kg		05/30/25 08:33	05/30/25 11:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*05/30/25 08:33*	*05/30/25 11:28*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/30/25 08:33*	*05/30/25 11:28*	*1*

Lab Sample ID: LCS 880-111212/1-A
Matrix: Solid
Analysis Batch: 111204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 111212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1128		mg/Kg		113	70 - 130
Toluene	0.100	0.09811		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.1057		mg/Kg		106	70 - 130
m-Xylene & p-Xylene	0.200	0.2146		mg/Kg		107	70 - 130
o-Xylene	0.100	0.1080		mg/Kg		108	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: LCSD 880-111212/2-A
Matrix: Solid
Analysis Batch: 111204

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 111212

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1188		mg/Kg		119	70 - 130	5	35
Toluene	0.100	0.1060		mg/Kg		106	70 - 130	8	35
Ethylbenzene	0.100	0.1101		mg/Kg		110	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2237		mg/Kg		112	70 - 130	4	35
o-Xylene	0.100	0.1123		mg/Kg		112	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

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

Lab Sample ID: MB 880-110558/1-A
Matrix: Solid
Analysis Batch: 110591

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 110558

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	14.5	mg/Kg		05/20/25 16:23	05/21/25 08:07	1

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 890-8190-1
SDG: LEA COUNTY, NM

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

Lab Sample ID: MB 880-110558/1-A
Matrix: Solid
Analysis Batch: 110591

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 110558

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	19.45	J	50.0	15.1	mg/Kg		05/20/25 16:23	05/21/25 08:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	15.1	mg/Kg		05/20/25 16:23	05/21/25 08:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*05/20/25 16:23*	*05/21/25 08:07*	*1*
o-Terphenyl	*128*		*70 - 130*	*05/20/25 16:23*	*05/21/25 08:07*	*1*

Lab Sample ID: LCS 880-110558/2-A
Matrix: Solid
Analysis Batch: 110591

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 110558

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1051		mg/Kg		105	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	916.2		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*124*		*70 - 130*
o-Terphenyl	*125*		*70 - 130*

Lab Sample ID: LCSD 880-110558/3-A
Matrix: Solid
Analysis Batch: 110591

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 110558

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1015		mg/Kg		101	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	897.3		mg/Kg		90	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*118*		*70 - 130*
o-Terphenyl	*116*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-110569/1-A
Matrix: Solid
Analysis Batch: 110576

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	0.395	mg/Kg			05/21/25 09:18	1

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 890-8190-1
SDG: LEA COUNTY, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-110569/2-A
Matrix: Solid
Analysis Batch: 110576

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	250.3		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-110569/3-A
Matrix: Solid
Analysis Batch: 110576

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	250.8		mg/Kg		100	90 - 110	0	20

Lab Sample ID: MB 880-111223/1-A
Matrix: Solid
Analysis Batch: 111252

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	0.395	mg/Kg			05/30/25 15:59	1

Lab Sample ID: LCS 880-111223/2-A
Matrix: Solid
Analysis Batch: 111252

Client Sample ID: Lab Control Sample
Prep Type: Soluble

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

Lab Sample ID: LCSD 880-111223/3-A
Matrix: Solid
Analysis Batch: 111252

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	255.4		mg/Kg		102	90 - 110	0	20

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 890-8190-1
SDG: LEA COUNTY, NM

GC VOA

Analysis Batch: 110572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8190-2	B - 15B - 2.5'	Total/NA	Solid	8021B	110587
890-8190-3	SW - 1B - 0 - 3'	Total/NA	Solid	8021B	110587
MB 880-110587/5-A	Method Blank	Total/NA	Solid	8021B	110587
LCS 880-110587/1-A	Lab Control Sample	Total/NA	Solid	8021B	110587
LCSD 880-110587/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	110587

Prep Batch: 110587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8190-2	B - 15B - 2.5'	Total/NA	Solid	5030B	
890-8190-3	SW - 1B - 0 - 3'	Total/NA	Solid	5030B	
MB 880-110587/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-110587/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-110587/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 110675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8190-1	B - 3B - 3'	Total/NA	Solid	Total BTEX	
890-8190-2	B - 15B - 2.5'	Total/NA	Solid	Total BTEX	
890-8190-3	SW - 1B - 0 - 3'	Total/NA	Solid	Total BTEX	

Analysis Batch: 111204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8190-1	B - 3B - 3'	Total/NA	Solid	8021B	111212
MB 880-111212/5-A	Method Blank	Total/NA	Solid	8021B	111212
LCS 880-111212/1-A	Lab Control Sample	Total/NA	Solid	8021B	111212
LCSD 880-111212/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	111212

Prep Batch: 111212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8190-1	B - 3B - 3'	Total/NA	Solid	5030B	
MB 880-111212/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-111212/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-111212/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

GC Semi VOA

Prep Batch: 110558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8190-1	B - 3B - 3'	Total/NA	Solid	8015NM Prep	
890-8190-2	B - 15B - 2.5'	Total/NA	Solid	8015NM Prep	
890-8190-3	SW - 1B - 0 - 3'	Total/NA	Solid	8015NM Prep	
MB 880-110558/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-110558/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-110558/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 110591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8190-1	B - 3B - 3'	Total/NA	Solid	8015B NM	110558
890-8190-2	B - 15B - 2.5'	Total/NA	Solid	8015B NM	110558
890-8190-3	SW - 1B - 0 - 3'	Total/NA	Solid	8015B NM	110558
MB 880-110558/1-A	Method Blank	Total/NA	Solid	8015B NM	110558

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 890-8190-1
SDG: LEA COUNTY, NM

GC Semi VOA (Continued)

Analysis Batch: 110591 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-110558/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	110558
LCSD 880-110558/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	110558

Analysis Batch: 110672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8190-1	B - 3B - 3'	Total/NA	Solid	8015 NM	
890-8190-2	B - 15B - 2.5'	Total/NA	Solid	8015 NM	
890-8190-3	SW - 1B - 0 - 3'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 110569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8190-2	B - 15B - 2.5'	Soluble	Solid	DI Leach	
890-8190-3	SW - 1B - 0 - 3'	Soluble	Solid	DI Leach	
MB 880-110569/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-110569/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-110569/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 110576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8190-2	B - 15B - 2.5'	Soluble	Solid	300.0	110569
890-8190-3	SW - 1B - 0 - 3'	Soluble	Solid	300.0	110569
MB 880-110569/1-A	Method Blank	Soluble	Solid	300.0	110569
LCS 880-110569/2-A	Lab Control Sample	Soluble	Solid	300.0	110569
LCSD 880-110569/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	110569

Leach Batch: 111223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8190-1	B - 3B - 3'	Soluble	Solid	DI Leach	
MB 880-111223/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-111223/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-111223/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 111252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-8190-1	B - 3B - 3'	Soluble	Solid	300.0	111223
MB 880-111223/1-A	Method Blank	Soluble	Solid	300.0	111223
LCS 880-111223/2-A	Lab Control Sample	Soluble	Solid	300.0	111223
LCSD 880-111223/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	111223

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 890-8190-1
SDG: LEA COUNTY, NM

Client Sample ID: B - 3B - 3'
Date Collected: 05/20/25 11:30
Date Received: 05/20/25 15:00

Lab Sample ID: 890-8190-1
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			5.05 g	5 mL	111212	05/30/25 08:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	111204	05/30/25 14:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			110675	05/30/25 14:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			110672	05/21/25 12:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	110558	05/21/25 07:54	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110591	05/21/25 12:25	TKC	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	111223	05/30/25 10:08	SA	EET MID
Soluble	Analysis	300.0		1	5 mL	5 mL	111252	05/30/25 19:03	CH	EET MID

Client Sample ID: B - 15B - 2.5'
Date Collected: 05/20/25 11:20
Date Received: 05/20/25 15:00

Lab Sample ID: 890-8190-2
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			4.98 g	5 mL	110587	05/21/25 09:45	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110572	05/21/25 12:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			110675	05/21/25 12:09	SM	EET MID
Total/NA	Analysis	8015 NM		1			110672	05/21/25 12:39	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	110558	05/21/25 07:54	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110591	05/21/25 12:39	TKC	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	110569	05/21/25 07:54	SA	EET MID
Soluble	Analysis	300.0		1			110576	05/21/25 10:00	SMC	EET MID

Client Sample ID: SW - 1B - 0 - 3'
Date Collected: 05/20/25 12:00
Date Received: 05/20/25 15:00

Lab Sample ID: 890-8190-3
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	110587	05/21/25 09:45	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110572	05/21/25 12:30	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			110675	05/21/25 12:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			110672	05/21/25 12:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	110558	05/21/25 07:54	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110591	05/21/25 12:54	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	110569	05/21/25 07:54	SA	EET MID
Soluble	Analysis	300.0		1			110576	05/21/25 10:07	SMC	EET MID

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

Accreditation/Certification Summary

Client: Arcadis US Inc. Job ID: 890-8190-1
Project/Site: WLU 57 SDG: LEA COUNTY, NM

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 890-8190-1
SDG: LEA COUNTY, NM

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 US Inc.
Project/Site: WLU 57

Job ID: 890-8190-1
SDG: LEA COUNTY, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-8190-1	B - 3B - 3'	Solid	05/20/25 11:30	05/20/25 15:00
890-8190-2	B - 15B - 2.5'	Solid	05/20/25 11:20	05/20/25 15:00
890-8190-3	SW - 1B - 0 - 3'	Solid	05/20/25 12:00	05/20/25 15:00

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Phone: 432-704-5440

Chain of Custody Record

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Client Information	Sampler: Heath B.	Lab PM: Builes, John	Carrier Tracking No(s):	COC No: 880-11167-1628.2
Client Contact: Mr. Morgan Jordan	Phone: 575-942-0292	E-Mail: John.Builes@et.eurofinsus.com	State of Origin:	Page: ~~Page 2 of 11~~ 1 of 1
Company: Arcadis US Inc.	PWSID:	Analysis Requested		Job #:
Address: 1004 North Big Spring Suite 300	Due Date Requested:			Preservation Codes:
City: Midland	TAT Requested (days): 24 hr. TPH, Hold Cl, BTEX			
State, Zip: TX, 79701	Compliance Project: Δ Yes Δ No			
Phone: 281-644-9437(Tel)	PO #: Purchase Order Requested			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: ~~NM Sites~~ WLU 57	Project #: 30280645.00004 ~~88002920~~			Other:
Site: Lea County	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Total Filtered Sample (Yes or No)	300_ORGFM_28D, 8015MOD_NM, 8021B	Total Number of Containers	Special Instructions/Note:
	Preservation Code:					N		
B-3B-3'	5/20/25	1130	C	Solid		X		
B-15B-2.5'	1	1120	1	Solid		X		
SW-1B-0-3'	x	1200	x	Solid		X		
				Solid				
				Solid				
				Solid				
				Solid				
				Solid				
				Solid				
				Solid				
				Solid				

890-8190 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: 5/20 1500	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: IN 0002 0.2 3.2 3.0

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Arcadis US Inc.

Job Number: 890-8190-1
SDG Number: LEA COUNTY, NM

Login Number: 8190
List Number: 1
Creator: Bruns, Shannon

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Arcadis US Inc.

Job Number: 890-8190-1
SDG Number: LEA COUNTY, NM

Login Number: 8190
List Number: 2
Creator: Laing, Edmundo

List Source: Eurofins Midland
List Creation: 05/21/25 07:59 AM

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Morgan Jordan
Arcadis US Inc.
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 6/3/2025 5:08:39 PM Revision 2

JOB DESCRIPTION

WLU 57
Lea County NM

JOB NUMBER

880-58251-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

Eurofins Midland

Job Notes

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

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

Authorization

Generated
6/3/2025 5:08:39 PM
Revision 2

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

Client: Arcadis US Inc.
Project/Site: WLU 57

Laboratory Job ID: 880-58251-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

Glossary

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

Case Narrative

Client: Arcadis US Inc.
Project: WLU 57

Job ID: 880-58251-1

Job ID: 880-58251-1 Eurofins Midland

Job Narrative
880-58251-1

REVISION

The report being provided is a revision of the original report sent on 5/19/2025. The report (revision 2) is being revised due to Per client request, add additional samples.

Report revision history
Revision 1 - 5/23/2025 - Reason - Revised report to add additional methods per client request..

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

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

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

Receipt
The samples were received on 5/16/2025 1:31 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.5°C.

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-110630 and analytical batch 880-110693 was outside the upper control limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: B-1-2.5' (880-58251-1), B-2-2.5' (880-58251-2), B-4-2.5' (880-58251-4), B-5-2' (880-58251-5), B-6-3' (880-58251-6), B-7-2' (880-58251-7), B-8-2' (880-58251-8), B-9-3' (880-58251-9), B-10-4' (880-58251-10), B-11-4' (880-58251-11), B-12-2' (880-58251-12), B-13-2' (880-58251-13), B-14-2' (880-58251-14), SW-2-0-2.5' (880-58251-18), SW-3-0-4' (880-58251-19), SW-4-0-4' (880-58251-20), (LCS 880-110630/1-A), (LCSD 880-110630/2-A), (880-58251-A-1-G MS) and (880-58251-A-1-H MSD). Evidence of matrix interferences is not obvious.

Method 8021B: The following sample(s) was analyzed outside of analytical holding time due to being released from hold after holding time was expired. B-16-2' (880-58251-16).

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

Diesel Range Organics
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-110347/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The method blank for preparation batch 880-110347 and analytical batch 880-110306 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: B-3-2.5' (880-58251-3), B-15-2' (880-58251-15) and SW-1-0-2.5' (880-58251-17). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SW-5-0-2' (880-58251-21) and (880-58102-A-1-F). 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.

Case Narrative

Client: Arcadis US Inc.
Project: WLU 57

Job ID: 880-58251-1

Job ID: 880-58251-1 (Continued) Eurofins Midland

HPLC/IC

Method 300_ORGFM_28D - Soluble: The Chloride matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-110578 and analytical batch 880-110590 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

The associated samples are: B-12-2' (880-58251-12), B-13-2' (880-58251-13), B-14-2' (880-58251-14), SW-2-0-2.5' (880-58251-18), SW-3-0-4' (880-58251-19), SW-4-0-4' (880-58251-20), SW-5-0-2' (880-58251-21), (880-58251-A-12-C MS) and (880-58251-A-12-D MSD).

Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-111223 and analytical batch 880-111252 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-1-2.5'

Date Collected: 05/15/25 09:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		05/21/25 11:56	05/22/25 12:19	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/21/25 11:56	05/22/25 12:19	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		05/21/25 11:56	05/22/25 12:19	1
m-Xylene & p-Xylene	<0.00228	U	0.00399	0.00228	mg/Kg		05/21/25 11:56	05/22/25 12:19	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		05/21/25 11:56	05/22/25 12:19	1
Xylenes, Total	<0.00228	U	0.00399	0.00228	mg/Kg		05/21/25 11:56	05/22/25 12:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*155*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 12:19*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*05/21/25 11:56*	*05/22/25 12:19*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00228	U	0.00399	0.00228	mg/Kg			05/22/25 12:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.1	U	50.1	15.1	mg/Kg			05/16/25 19:28	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	<14.5	U	50.1	14.5	mg/Kg		05/16/25 14:06	05/16/25 19:28	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.1	15.1	mg/Kg		05/16/25 14:06	05/16/25 19:28	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.1	15.1	mg/Kg		05/16/25 14:06	05/16/25 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*05/16/25 14:06*	*05/16/25 19:28*	*1*
o-Terphenyl	*102*		*70 - 130*	*05/16/25 14:06*	*05/16/25 19:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**107**		9.92	0.392	mg/Kg			05/21/25 13:41	1

Client Sample ID: B-2-2.5'

Date Collected: 05/15/25 09:10
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-2

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00140	U	0.00201	0.00140	mg/Kg		05/21/25 11:56	05/22/25 12:39	1
Toluene	<0.00201	U	0.00201	0.00201	mg/Kg		05/21/25 11:56	05/22/25 12:39	1
Ethylbenzene	<0.00109	U	0.00201	0.00109	mg/Kg		05/21/25 11:56	05/22/25 12:39	1
m-Xylene & p-Xylene	<0.00229	U	0.00402	0.00229	mg/Kg		05/21/25 11:56	05/22/25 12:39	1
o-Xylene	<0.00159	U	0.00201	0.00159	mg/Kg		05/21/25 11:56	05/22/25 12:39	1
Xylenes, Total	<0.00229	U	0.00402	0.00229	mg/Kg		05/21/25 11:56	05/22/25 12:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*145*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 12:39*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*05/21/25 11:56*	*05/22/25 12:39*	*1*

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-2-2.5'
Date Collected: 05/15/25 09:10
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-2
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00229	U	0.00402	0.00229	mg/Kg			05/22/25 12:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**17.7**	**J**	50.0	15.1	mg/Kg			05/16/25 20:15	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	<14.5	U	50.0	14.5	mg/Kg		05/16/25 14:06	05/16/25 20:15	1
Diesel Range Organics (Over C10-C28)	**17.7**	**J**	50.0	15.1	mg/Kg		05/16/25 14:06	05/16/25 20:15	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/16/25 14:06	05/16/25 20:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*05/16/25 14:06*	*05/16/25 20:15*	*1*
o-Terphenyl	*104*		*70 - 130*	*05/16/25 14:06*	*05/16/25 20:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**218**		9.98	0.394	mg/Kg			05/21/25 14:03	1

Client Sample ID: B-3-2.5'
Date Collected: 05/15/25 09:20
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**198**		50.0	15.1	mg/Kg			05/19/25 13:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	50.0	14.5	mg/Kg		05/19/25 08:51	05/19/25 13:55	1
Diesel Range Organics (Over C10-C28)	**198**		50.0	15.1	mg/Kg		05/19/25 08:51	05/19/25 13:55	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/19/25 08:51	05/19/25 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*137*	*S1+*	*70 - 130*	*05/19/25 08:51*	*05/19/25 13:55*	*1*
o-Terphenyl	*156*	*S1+*	*70 - 130*	*05/19/25 08:51*	*05/19/25 13:55*	*1*

Client Sample ID: B-4-2.5'
Date Collected: 05/15/25 09:30
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-4
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00138	U	0.00199	0.00138	mg/Kg		05/21/25 11:56	05/22/25 13:00	1
Toluene	<0.00199	U	0.00199	0.00199	mg/Kg		05/21/25 11:56	05/22/25 13:00	1
Ethylbenzene	<0.00108	U	0.00199	0.00108	mg/Kg		05/21/25 11:56	05/22/25 13:00	1
m-Xylene & p-Xylene	<0.00227	U	0.00398	0.00227	mg/Kg		05/21/25 11:56	05/22/25 13:00	1
o-Xylene	<0.00157	U	0.00199	0.00157	mg/Kg		05/21/25 11:56	05/22/25 13:00	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-4-2.5'

Date Collected: 05/15/25 09:30
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-4
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	<0.00227	U	0.00398	0.00227	mg/Kg		05/21/25 11:56	05/22/25 13:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*143*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 13:00*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/21/25 11:56*	*05/22/25 13:00*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00227	U	0.00398	0.00227	mg/Kg			05/22/25 13:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.0	U	49.7	15.0	mg/Kg			05/16/25 20:48	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	<14.4	U	49.7	14.4	mg/Kg		05/16/25 14:06	05/16/25 20:48	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.7	15.0	mg/Kg		05/16/25 14:06	05/16/25 20:48	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.7	15.0	mg/Kg		05/16/25 14:06	05/16/25 20:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*05/16/25 14:06*	*05/16/25 20:48*	*1*
o-Terphenyl	*108*		*70 - 130*	*05/16/25 14:06*	*05/16/25 20:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**181**		10.0	0.395	mg/Kg			05/21/25 14:10	1

Client Sample ID: B-5-2'

Date Collected: 05/15/25 09:40
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00141	U	0.00202	0.00141	mg/Kg		05/21/25 11:56	05/22/25 13:20	1
Toluene	<0.00202	U	0.00202	0.00202	mg/Kg		05/21/25 11:56	05/22/25 13:20	1
Ethylbenzene	<0.00110	U	0.00202	0.00110	mg/Kg		05/21/25 11:56	05/22/25 13:20	1
m-Xylene & p-Xylene	<0.00231	U	0.00404	0.00231	mg/Kg		05/21/25 11:56	05/22/25 13:20	1
o-Xylene	<0.00160	U	0.00202	0.00160	mg/Kg		05/21/25 11:56	05/22/25 13:20	1
Xylenes, Total	<0.00231	U	0.00404	0.00231	mg/Kg		05/21/25 11:56	05/22/25 13:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*143*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 13:20*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/21/25 11:56*	*05/22/25 13:20*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00231	U	0.00404	0.00231	mg/Kg			05/22/25 13:20	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-5-2'
Date Collected: 05/15/25 09:40
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**33.2**	**J**	49.9	15.1	mg/Kg			05/16/25 21:04	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	<14.5	U	49.9	14.5	mg/Kg		05/16/25 14:06	05/16/25 21:04	1
Diesel Range Organics (Over C10-C28)	**33.2**	**J**	49.9	15.1	mg/Kg		05/16/25 14:06	05/16/25 21:04	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.9	15.1	mg/Kg		05/16/25 14:06	05/16/25 21:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*05/16/25 14:06*	*05/16/25 21:04*	*1*
o-Terphenyl	*100*		*70 - 130*	*05/16/25 14:06*	*05/16/25 21:04*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**212**		10.0	0.397	mg/Kg			05/21/25 14:17	1

Client Sample ID: B-6-3'
Date Collected: 05/15/25 11:10
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-6
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00140	U	0.00201	0.00140	mg/Kg		05/21/25 11:56	05/22/25 13:41	1
Toluene	<0.00201	U	0.00201	0.00201	mg/Kg		05/21/25 11:56	05/22/25 13:41	1
Ethylbenzene	<0.00109	U	0.00201	0.00109	mg/Kg		05/21/25 11:56	05/22/25 13:41	1
m-Xylene & p-Xylene	<0.00229	U	0.00402	0.00229	mg/Kg		05/21/25 11:56	05/22/25 13:41	1
o-Xylene	<0.00159	U	0.00201	0.00159	mg/Kg		05/21/25 11:56	05/22/25 13:41	1
Xylenes, Total	<0.00229	U	0.00402	0.00229	mg/Kg		05/21/25 11:56	05/22/25 13:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*143*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 13:41*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*05/21/25 11:56*	*05/22/25 13:41*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00229	U	0.00402	0.00229	mg/Kg			05/22/25 13:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**15.6**	**J**	49.8	15.1	mg/Kg			05/16/25 21:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	49.8	14.5	mg/Kg		05/16/25 14:06	05/16/25 21:20	1
Diesel Range Organics (Over C10-C28)	**15.6**	**J**	49.8	15.1	mg/Kg		05/16/25 14:06	05/16/25 21:20	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.8	15.1	mg/Kg		05/16/25 14:06	05/16/25 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*05/16/25 14:06*	*05/16/25 21:20*	*1*

Eurofins Midland

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-6-3'
Date Collected: 05/15/25 11:10
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-6
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	*99*		*70 - 130*	*05/16/25 14:06*	*05/16/25 21:20*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**379**		10.1	0.398	mg/Kg			05/21/25 14:24	1

Client Sample ID: B-7-2'
Date Collected: 05/15/25 10:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-7
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00138	U	0.00199	0.00138	mg/Kg		05/21/25 11:56	05/22/25 14:01	1
Toluene	<0.00199	U	0.00199	0.00199	mg/Kg		05/21/25 11:56	05/22/25 14:01	1
Ethylbenzene	<0.00108	U	0.00199	0.00108	mg/Kg		05/21/25 11:56	05/22/25 14:01	1
m-Xylene & p-Xylene	<0.00227	U	0.00398	0.00227	mg/Kg		05/21/25 11:56	05/22/25 14:01	1
o-Xylene	<0.00157	U	0.00199	0.00157	mg/Kg		05/21/25 11:56	05/22/25 14:01	1
Xylenes, Total	<0.00227	U	0.00398	0.00227	mg/Kg		05/21/25 11:56	05/22/25 14:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*144*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 14:01*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/21/25 11:56*	*05/22/25 14:01*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00227	U	0.00398	0.00227	mg/Kg			05/22/25 14:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**25.7**	**J**	49.6	15.0	mg/Kg			05/16/25 21:37	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	<14.4	U	49.6	14.4	mg/Kg		05/16/25 14:06	05/16/25 21:37	1
Diesel Range Organics (Over C10-C28)	**25.7**	**J**	49.6	15.0	mg/Kg		05/16/25 14:06	05/16/25 21:37	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.6	15.0	mg/Kg		05/16/25 14:06	05/16/25 21:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*110*		*70 - 130*	*05/16/25 14:06*	*05/16/25 21:37*	*1*
o-Terphenyl	*104*		*70 - 130*	*05/16/25 14:06*	*05/16/25 21:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**560**		9.92	0.392	mg/Kg			05/21/25 14:45	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-8-2'

Date Collected: 05/15/25 10:10
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-8
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00138	U	0.00198	0.00138	mg/Kg		05/21/25 11:56	05/22/25 14:22	1
Toluene	<0.00198	U	0.00198	0.00198	mg/Kg		05/21/25 11:56	05/22/25 14:22	1
Ethylbenzene	<0.00108	U	0.00198	0.00108	mg/Kg		05/21/25 11:56	05/22/25 14:22	1
m-Xylene & p-Xylene	<0.00227	U	0.00397	0.00227	mg/Kg		05/21/25 11:56	05/22/25 14:22	1
o-Xylene	<0.00157	U	0.00198	0.00157	mg/Kg		05/21/25 11:56	05/22/25 14:22	1
Xylenes, Total	<0.00227	U	0.00397	0.00227	mg/Kg		05/21/25 11:56	05/22/25 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*153*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 14:22*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*05/21/25 11:56*	*05/22/25 14:22*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00227	U	0.00397	0.00227	mg/Kg			05/22/25 14:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.2	U	50.1	15.2	mg/Kg			05/16/25 21:53	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	<14.6	U	50.1	14.6	mg/Kg		05/16/25 14:06	05/16/25 21:53	1
Diesel Range Organics (Over C10-C28)	<15.2	U	50.1	15.2	mg/Kg		05/16/25 14:06	05/16/25 21:53	1
Oil Range Organics (Over C28-C36)	<15.2	U	50.1	15.2	mg/Kg		05/16/25 14:06	05/16/25 21:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*05/16/25 14:06*	*05/16/25 21:53*	*1*
o-Terphenyl	*105*		*70 - 130*	*05/16/25 14:06*	*05/16/25 21:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**380**		9.90	0.391	mg/Kg			05/21/25 14:52	1

Client Sample ID: B-9-3'

Date Collected: 05/15/25 11:20
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-9
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		05/21/25 11:56	05/22/25 14:42	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/21/25 11:56	05/22/25 14:42	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		05/21/25 11:56	05/22/25 14:42	1
m-Xylene & p-Xylene	<0.00229	U	0.00400	0.00229	mg/Kg		05/21/25 11:56	05/22/25 14:42	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		05/21/25 11:56	05/22/25 14:42	1
Xylenes, Total	<0.00229	U	0.00400	0.00229	mg/Kg		05/21/25 11:56	05/22/25 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*153*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 14:42*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*05/21/25 11:56*	*05/22/25 14:42*	*1*

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-9-3'
Date Collected: 05/15/25 11:20
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-9
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00229	U	0.00400	0.00229	mg/Kg			05/22/25 14:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.1	U	49.8	15.1	mg/Kg			05/16/25 22:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	49.8	14.5	mg/Kg		05/16/25 14:06	05/16/25 22:09	1
Diesel Range Organics (Over C10-C28)	<15.1	U	49.8	15.1	mg/Kg		05/16/25 14:06	05/16/25 22:09	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.8	15.1	mg/Kg		05/16/25 14:06	05/16/25 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*05/16/25 14:06*	*05/16/25 22:09*	*1*
o-Terphenyl	*108*		*70 - 130*	*05/16/25 14:06*	*05/16/25 22:09*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**228**		9.92	0.392	mg/Kg			05/21/25 14:59	1

Client Sample ID: B-10-4'
Date Collected: 05/15/25 11:30
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-10
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00141	U	0.00202	0.00141	mg/Kg		05/21/25 11:56	05/22/25 15:03	1
Toluene	<0.00202	U	0.00202	0.00202	mg/Kg		05/21/25 11:56	05/22/25 15:03	1
Ethylbenzene	<0.00110	U	0.00202	0.00110	mg/Kg		05/21/25 11:56	05/22/25 15:03	1
m-Xylene & p-Xylene	<0.00231	U	0.00404	0.00231	mg/Kg		05/21/25 11:56	05/22/25 15:03	1
o-Xylene	<0.00160	U	0.00202	0.00160	mg/Kg		05/21/25 11:56	05/22/25 15:03	1
Xylenes, Total	<0.00231	U	0.00404	0.00231	mg/Kg		05/21/25 11:56	05/22/25 15:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*144*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 15:03*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*05/21/25 11:56*	*05/22/25 15:03*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00231	U	0.00404	0.00231	mg/Kg			05/22/25 15:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.1	U	50.0	15.1	mg/Kg			05/16/25 22:25	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	<14.5	U	50.0	14.5	mg/Kg		05/16/25 14:06	05/16/25 22:25	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		05/16/25 14:06	05/16/25 22:25	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-10-4'
Date Collected: 05/15/25 11:30
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-10
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)	<15.1	U	50.0	15.1	mg/Kg		05/16/25 14:06	05/16/25 22:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*05/16/25 14:06*	*05/16/25 22:25*	*1*
o-Terphenyl	*104*		*70 - 130*	*05/16/25 14:06*	*05/16/25 22:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**439**		10.1	0.398	mg/Kg			05/21/25 15:07	1

Client Sample ID: B-11-4'
Date Collected: 05/15/25 11:40
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-11
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00140	U	0.00202	0.00140	mg/Kg		05/21/25 11:56	05/22/25 15:23	1
Toluene	<0.00202	U	0.00202	0.00202	mg/Kg		05/21/25 11:56	05/22/25 15:23	1
Ethylbenzene	<0.00110	U	0.00202	0.00110	mg/Kg		05/21/25 11:56	05/22/25 15:23	1
m-Xylene & p-Xylene	<0.00230	U	0.00403	0.00230	mg/Kg		05/21/25 11:56	05/22/25 15:23	1
o-Xylene	<0.00160	U	0.00202	0.00160	mg/Kg		05/21/25 11:56	05/22/25 15:23	1
Xylenes, Total	<0.00230	U	0.00403	0.00230	mg/Kg		05/21/25 11:56	05/22/25 15:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*145*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 15:23*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*05/21/25 11:56*	*05/22/25 15:23*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00230	U	0.00403	0.00230	mg/Kg			05/22/25 15:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.2	U	50.2	15.2	mg/Kg			05/16/25 22:57	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	<14.6	U	50.2	14.6	mg/Kg		05/16/25 14:06	05/16/25 22:57	1
Diesel Range Organics (Over C10-C28)	<15.2	U	50.2	15.2	mg/Kg		05/16/25 14:06	05/16/25 22:57	1
Oil Range Organics (Over C28-C36)	<15.2	U	50.2	15.2	mg/Kg		05/16/25 14:06	05/16/25 22:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*05/16/25 14:06*	*05/16/25 22:57*	*1*
o-Terphenyl	*108*		*70 - 130*	*05/16/25 14:06*	*05/16/25 22:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**147**		9.98	0.394	mg/Kg			05/21/25 15:14	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-12-2'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-12
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		05/21/25 11:56	05/22/25 17:11	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/21/25 11:56	05/22/25 17:11	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		05/21/25 11:56	05/22/25 17:11	1
m-Xylene & p-Xylene	<0.00228	U	0.00399	0.00228	mg/Kg		05/21/25 11:56	05/22/25 17:11	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		05/21/25 11:56	05/22/25 17:11	1
Xylenes, Total	<0.00228	U	0.00399	0.00228	mg/Kg		05/21/25 11:56	05/22/25 17:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*166*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 17:11*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*05/21/25 11:56*	*05/22/25 17:11*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00228	U	0.00399	0.00228	mg/Kg			05/22/25 17:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.2	U	50.3	15.2	mg/Kg			05/16/25 23:13	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	<14.6	U	50.3	14.6	mg/Kg		05/16/25 14:06	05/16/25 23:13	1
Diesel Range Organics (Over C10-C28)	<15.2	U	50.3	15.2	mg/Kg		05/16/25 14:06	05/16/25 23:13	1
Oil Range Organics (Over C28-C36)	<15.2	U	50.3	15.2	mg/Kg		05/16/25 14:06	05/16/25 23:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*05/16/25 14:06*	*05/16/25 23:13*	*1*
o-Terphenyl	*89*		*70 - 130*	*05/16/25 14:06*	*05/16/25 23:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**208**	**F1**	10.0	0.395	mg/Kg			05/21/25 15:21	1

Client Sample ID: B-13-2'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-13
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00140	U	0.00201	0.00140	mg/Kg		05/21/25 11:56	05/22/25 17:32	1
Toluene	<0.00201	U	0.00201	0.00201	mg/Kg		05/21/25 11:56	05/22/25 17:32	1
Ethylbenzene	<0.00110	U	0.00201	0.00110	mg/Kg		05/21/25 11:56	05/22/25 17:32	1
m-Xylene & p-Xylene	<0.00230	U	0.00402	0.00230	mg/Kg		05/21/25 11:56	05/22/25 17:32	1
o-Xylene	<0.00159	U	0.00201	0.00159	mg/Kg		05/21/25 11:56	05/22/25 17:32	1
Xylenes, Total	<0.00230	U	0.00402	0.00230	mg/Kg		05/21/25 11:56	05/22/25 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*150*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 17:32*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*05/21/25 11:56*	*05/22/25 17:32*	*1*

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-13-2'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-13
Matrix: Solid

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00230	U	0.00402	0.00230	mg/Kg			05/22/25 17:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.0	U	49.7	15.0	mg/Kg			05/16/25 23:30	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	<14.4	U	49.7	14.4	mg/Kg		05/16/25 14:06	05/16/25 23:30	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.7	15.0	mg/Kg		05/16/25 14:06	05/16/25 23:30	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.7	15.0	mg/Kg		05/16/25 14:06	05/16/25 23:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*05/16/25 14:06*	*05/16/25 23:30*	*1*
o-Terphenyl	*89*		*70 - 130*	*05/16/25 14:06*	*05/16/25 23:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	116		9.92	0.392	mg/Kg			05/21/25 15:42	1

Client Sample ID: B-14-2'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-14
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		05/21/25 11:56	05/22/25 17:52	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/21/25 11:56	05/22/25 17:52	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		05/21/25 11:56	05/22/25 17:52	1
m-Xylene & p-Xylene	<0.00228	U	0.00399	0.00228	mg/Kg		05/21/25 11:56	05/22/25 17:52	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		05/21/25 11:56	05/22/25 17:52	1
Xylenes, Total	<0.00228	U	0.00399	0.00228	mg/Kg		05/21/25 11:56	05/22/25 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*150*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 17:52*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*05/21/25 11:56*	*05/22/25 17:52*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00228	U	0.00399	0.00228	mg/Kg			05/22/25 17:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.1	U	49.8	15.1	mg/Kg			05/16/25 23:45	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	<14.5	U	49.8	14.5	mg/Kg		05/16/25 14:06	05/16/25 23:45	1
Diesel Range Organics (Over C10-C28)	<15.1	U	49.8	15.1	mg/Kg		05/16/25 14:06	05/16/25 23:45	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-14-2'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-14
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)	<15.1	U	49.8	15.1	mg/Kg		05/16/25 14:06	05/16/25 23:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*05/16/25 14:06*	*05/16/25 23:45*	*1*
o-Terphenyl	*101*		*70 - 130*	*05/16/25 14:06*	*05/16/25 23:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**363**		10.1	0.399	mg/Kg			05/21/25 15:49	1

Client Sample ID: B-15-2'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-15
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**187**		49.8	15.1	mg/Kg			05/19/25 14:10	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	<14.5	U	49.8	14.5	mg/Kg		05/19/25 08:51	05/19/25 14:10	1
Diesel Range Organics (Over C10-C28)	**187**		49.8	15.1	mg/Kg		05/19/25 08:51	05/19/25 14:10	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.8	15.1	mg/Kg		05/19/25 08:51	05/19/25 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*154*	*S1+*	*70 - 130*	*05/19/25 08:51*	*05/19/25 14:10*	*1*
o-Terphenyl	*172*	*S1+*	*70 - 130*	*05/19/25 08:51*	*05/19/25 14:10*	*1*

Client Sample ID: B-16-2'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-16
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U H	0.00199	0.00139	mg/Kg		05/30/25 14:00	05/30/25 14:13	1
Toluene	<0.00199	U H	0.00199	0.00199	mg/Kg		05/30/25 14:00	05/30/25 14:13	1
Ethylbenzene	<0.00108	U H	0.00199	0.00108	mg/Kg		05/30/25 14:00	05/30/25 14:13	1
m-Xylene & p-Xylene	<0.00228	U H	0.00398	0.00228	mg/Kg		05/30/25 14:00	05/30/25 14:13	1
o-Xylene	<0.00158	U H	0.00199	0.00158	mg/Kg		05/30/25 14:00	05/30/25 14:13	1
Xylenes, Total	<0.00228	U H	0.00398	0.00228	mg/Kg		05/30/25 14:00	05/30/25 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*05/30/25 14:00*	*05/30/25 14:13*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*05/30/25 14:00*	*05/30/25 14:13*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00228	U	0.00398	0.00228	mg/Kg			05/30/25 14:13	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-16-2'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-16
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.1	U	50.0	15.1	mg/Kg			05/17/25 00:19	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	<14.5	U	50.0	14.5	mg/Kg		05/16/25 14:06	05/17/25 00:19	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		05/16/25 14:06	05/17/25 00:19	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/16/25 14:06	05/17/25 00:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*05/16/25 14:06*	*05/17/25 00:19*	*1*
o-Terphenyl	*110*		*70 - 130*	*05/16/25 14:06*	*05/17/25 00:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**122**	**F1**	9.92	0.392	mg/Kg			05/30/25 16:20	1

Client Sample ID: SW-1-0-2.5'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-17
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**136**		49.7	15.0	mg/Kg			05/19/25 14:25	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	<14.4	U	49.7	14.4	mg/Kg		05/19/25 08:51	05/19/25 14:25	1
Diesel Range Organics (Over C10-C28)	**136**		49.7	15.0	mg/Kg		05/19/25 08:51	05/19/25 14:25	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.7	15.0	mg/Kg		05/19/25 08:51	05/19/25 14:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*133*	*S1+*	*70 - 130*	*05/19/25 08:51*	*05/19/25 14:25*	*1*
o-Terphenyl	*143*	*S1+*	*70 - 130*	*05/19/25 08:51*	*05/19/25 14:25*	*1*

Client Sample ID: SW-2-0-2.5'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-18
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00199	0.00139	mg/Kg		05/21/25 11:56	05/22/25 18:13	1
Toluene	<0.00199	U	0.00199	0.00199	mg/Kg		05/21/25 11:56	05/22/25 18:13	1
Ethylbenzene	<0.00108	U	0.00199	0.00108	mg/Kg		05/21/25 11:56	05/22/25 18:13	1
m-Xylene & p-Xylene	<0.00228	U	0.00398	0.00228	mg/Kg		05/21/25 11:56	05/22/25 18:13	1
o-Xylene	<0.00158	U	0.00199	0.00158	mg/Kg		05/21/25 11:56	05/22/25 18:13	1
Xylenes, Total	<0.00228	U	0.00398	0.00228	mg/Kg		05/21/25 11:56	05/22/25 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*153*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 18:13*	*1*

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: SW-2-0-2.5'

Lab Sample ID: 880-58251-18
Matrix: Solid
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*05/21/25 11:56*	*05/22/25 18:13*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00228	U	0.00398	0.00228	mg/Kg			05/22/25 18:13	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.0	U	49.7	15.0	mg/Kg			05/17/25 00:52	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	<14.4	U	49.7	14.4	mg/Kg		05/16/25 14:06	05/17/25 00:52	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.7	15.0	mg/Kg		05/16/25 14:06	05/17/25 00:52	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.7	15.0	mg/Kg		05/16/25 14:06	05/17/25 00:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*112*		*70 - 130*	*05/16/25 14:06*	*05/17/25 00:52*	*1*
o-Terphenyl	*104*		*70 - 130*	*05/16/25 14:06*	*05/17/25 00:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**48.0**		10.1	0.398	mg/Kg			05/21/25 16:10	1

Client Sample ID: SW-3-0-4'

Lab Sample ID: 880-58251-19
Matrix: Solid
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		05/21/25 11:56	05/22/25 18:33	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/21/25 11:56	05/22/25 18:33	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		05/21/25 11:56	05/22/25 18:33	1
m-Xylene & p-Xylene	<0.00228	U	0.00399	0.00228	mg/Kg		05/21/25 11:56	05/22/25 18:33	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		05/21/25 11:56	05/22/25 18:33	1
Xylenes, Total	<0.00228	U	0.00399	0.00228	mg/Kg		05/21/25 11:56	05/22/25 18:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*154*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 18:33*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*05/21/25 11:56*	*05/22/25 18:33*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00228	U	0.00399	0.00228	mg/Kg			05/22/25 18:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.1	U	49.9	15.1	mg/Kg			05/17/25 01:08	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: SW-3-0-4'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-19
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	49.9	14.5	mg/Kg		05/16/25 14:06	05/17/25 01:08	1
Diesel Range Organics (Over C10-C28)	<15.1	U	49.9	15.1	mg/Kg		05/16/25 14:06	05/17/25 01:08	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.9	15.1	mg/Kg		05/16/25 14:06	05/17/25 01:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*05/16/25 14:06*	*05/17/25 01:08*	*1*
o-Terphenyl	*103*		*70 - 130*	*05/16/25 14:06*	*05/17/25 01:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**165**		10.1	0.397	mg/Kg			05/21/25 16:17	1

Client Sample ID: SW-4-0-4'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-20
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		05/21/25 11:56	05/22/25 18:54	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/21/25 11:56	05/22/25 18:54	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		05/21/25 11:56	05/22/25 18:54	1
m-Xylene & p-Xylene	<0.00229	U	0.00401	0.00229	mg/Kg		05/21/25 11:56	05/22/25 18:54	1
o-Xylene	<0.00159	U	0.00200	0.00159	mg/Kg		05/21/25 11:56	05/22/25 18:54	1
Xylenes, Total	<0.00229	U	0.00401	0.00229	mg/Kg		05/21/25 11:56	05/22/25 18:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*146*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 18:54*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*05/21/25 11:56*	*05/22/25 18:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00229	U	0.00401	0.00229	mg/Kg			05/22/25 18:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.1	U	50.0	15.1	mg/Kg			05/17/25 01:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	50.0	14.5	mg/Kg		05/16/25 14:06	05/17/25 01:24	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		05/16/25 14:06	05/17/25 01:24	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/16/25 14:06	05/17/25 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*05/16/25 14:06*	*05/17/25 01:24*	*1*
o-Terphenyl	*94*		*70 - 130*	*05/16/25 14:06*	*05/17/25 01:24*	*1*

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: SW-4-0-4'

Lab Sample ID: 880-58251-20
Matrix: Solid
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	91.9		10.1	0.397	mg/Kg			05/21/25 16:24	1

Client Sample ID: SW-5-0-2'

Lab Sample ID: 880-58251-21
Matrix: Solid
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00138	U	0.00199	0.00138	mg/Kg		05/21/25 11:37	05/21/25 22:48	1
Toluene	<0.00199	U	0.00199	0.00199	mg/Kg		05/21/25 11:37	05/21/25 22:48	1
Ethylbenzene	<0.00108	U	0.00199	0.00108	mg/Kg		05/21/25 11:37	05/21/25 22:48	1
m-Xylene & p-Xylene	<0.00227	U	0.00398	0.00227	mg/Kg		05/21/25 11:37	05/21/25 22:48	1
o-Xylene	<0.00157	U	0.00199	0.00157	mg/Kg		05/21/25 11:37	05/21/25 22:48	1
Xylenes, Total	<0.00227	U	0.00398	0.00227	mg/Kg		05/21/25 11:37	05/21/25 22:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*05/21/25 11:37*	*05/21/25 22:48*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*05/21/25 11:37*	*05/21/25 22:48*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00227	U	0.00398	0.00227	mg/Kg			05/21/25 22:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.1	U	49.8	15.1	mg/Kg			05/19/25 13:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	49.8	14.5	mg/Kg		05/16/25 16:36	05/19/25 13:55	1
Diesel Range Organics (Over C10-C28)	<15.1	U	49.8	15.1	mg/Kg		05/16/25 16:36	05/19/25 13:55	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.8	15.1	mg/Kg		05/16/25 16:36	05/19/25 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*136*	*S1+*	*70 - 130*	*05/16/25 16:36*	*05/19/25 13:55*	*1*
o-Terphenyl	*124*		*70 - 130*	*05/16/25 16:36*	*05/19/25 13:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	97.2		10.0	0.397	mg/Kg			05/21/25 16:31	1

Surrogate Summary

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

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)
880-58251-1	B-1-2.5'	155 S1+	89
880-58251-1 MS	B-1-2.5'	137 S1+	92
880-58251-1 MSD	B-1-2.5'	145 S1+	92
880-58251-2	B-2-2.5'	145 S1+	91
880-58251-4	B-4-2.5'	143 S1+	90
880-58251-5	B-5-2'	143 S1+	90
880-58251-6	B-6-3'	143 S1+	89
880-58251-7	B-7-2'	144 S1+	90
880-58251-8	B-8-2'	153 S1+	87
880-58251-9	B-9-3'	153 S1+	87
880-58251-10	B-10-4'	144 S1+	89
880-58251-11	B-11-4'	145 S1+	89
880-58251-12	B-12-2'	166 S1+	91
880-58251-13	B-13-2'	150 S1+	86
880-58251-14	B-14-2'	150 S1+	86
880-58251-16	B-16-2'	109	100
880-58251-18	SW-2-0-2.5'	153 S1+	89
880-58251-19	SW-3-0-4'	154 S1+	88
880-58251-20	SW-4-0-4'	146 S1+	89
880-58251-21	SW-5-0-2'	94	102
LCS 880-110626/1-A	Lab Control Sample	89	106
LCS 880-110630/1-A	Lab Control Sample	139 S1+	93
LCS 880-111212/1-A	Lab Control Sample	94	90
LCSD 880-110626/2-A	Lab Control Sample Dup	97	103
LCSD 880-110630/2-A	Lab Control Sample Dup	136 S1+	93
LCSD 880-111212/2-A	Lab Control Sample Dup	97	93
MB 880-110626/5-A	Method Blank	102	89
MB 880-110630/5-A	Method Blank	141 S1+	86
MB 880-111212/5-A	Method Blank	97	96

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)
880-58251-1	B-1-2.5'	111	102
880-58251-1 MS	B-1-2.5'	103	101
880-58251-1 MSD	B-1-2.5'	103	103
880-58251-2	B-2-2.5'	113	104
880-58251-3	B-3-2.5'	137 S1+	156 S1+
880-58251-4	B-4-2.5'	112	108
880-58251-5	B-5-2'	110	100
880-58251-6	B-6-3'	109	99
880-58251-7	B-7-2'	110	104
880-58251-8	B-8-2'	111	105

Surrogate Summary

Client: Arcadis US Inc. Job ID: 880-58251-1
Project/Site: WLU 57 SDG: Lea County NM

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-58251-9	B-9-3'	112	108
880-58251-10	B-10-4'	112	104
880-58251-11	B-11-4'	113	108
880-58251-12	B-12-2'	93	89
880-58251-13	B-13-2'	94	89
880-58251-14	B-14-2'	108	101
880-58251-15	B-15-2'	154 S1+	172 S1+
880-58251-16	B-16-2'	116	110
880-58251-17	SW-1-0-2.5'	133 S1+	143 S1+
880-58251-18	SW-2-0-2.5'	112	104
880-58251-19	SW-3-0-4'	112	103
880-58251-20	SW-4-0-4'	100	94
880-58251-21	SW-5-0-2'	136 S1+	124
LCS 880-110243/2-A	Lab Control Sample	86	77
LCS 880-110347/2-A	Lab Control Sample	133 S1+	130
LCS 880-110414/2-A	Lab Control Sample	79	77
LCSD 880-110243/3-A	Lab Control Sample Dup	85	75
LCSD 880-110347/3-A	Lab Control Sample Dup	130	126
LCSD 880-110414/3-A	Lab Control Sample Dup	77	78
MB 880-110243/1-A	Method Blank	108	99
MB 880-110347/1-A	Method Blank	81	78
MB 880-110414/1-A	Method Blank	101	103

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-110626/5-A
Matrix: Solid
Analysis Batch: 110631

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 110626

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		05/21/25 11:37	05/21/25 15:44	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/21/25 11:37	05/21/25 15:44	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		05/21/25 11:37	05/21/25 15:44	1
m-Xylene & p-Xylene	<0.00229	U	0.00400	0.00229	mg/Kg		05/21/25 11:37	05/21/25 15:44	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		05/21/25 11:37	05/21/25 15:44	1
Xylenes, Total	<0.00229	U	0.00400	0.00229	mg/Kg		05/21/25 11:37	05/21/25 15:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*05/21/25 11:37*	*05/21/25 15:44*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*05/21/25 11:37*	*05/21/25 15:44*	*1*

Lab Sample ID: LCS 880-110626/1-A
Matrix: Solid
Analysis Batch: 110631

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 110626

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1176		mg/Kg		118	70 - 130
Toluene	0.100	0.09364		mg/Kg		94	70 - 130
Ethylbenzene	0.100	0.09709		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.1986		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09861		mg/Kg		99	70 - 130

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

Lab Sample ID: LCSD 880-110626/2-A
Matrix: Solid
Analysis Batch: 110631

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 110626

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1135		mg/Kg		113	70 - 130	4	35
Toluene	0.100	0.09512		mg/Kg		95	70 - 130	2	35
Ethylbenzene	0.100	0.09910		mg/Kg		99	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2070		mg/Kg		104	70 - 130	4	35
o-Xylene	0.100	0.1028		mg/Kg		103	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: MB 880-110630/5-A
Matrix: Solid
Analysis Batch: 110693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 110630

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		05/21/25 11:56	05/22/25 11:57	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/21/25 11:56	05/22/25 11:57	1

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

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

Lab Sample ID: MB 880-110630/5-A
Matrix: Solid
Analysis Batch: 110693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 110630

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		05/21/25 11:56	05/22/25 11:57	1
m-Xylene & p-Xylene	<0.00229	U	0.00400	0.00229	mg/Kg		05/21/25 11:56	05/22/25 11:57	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		05/21/25 11:56	05/22/25 11:57	1
Xylenes, Total	<0.00229	U	0.00400	0.00229	mg/Kg		05/21/25 11:56	05/22/25 11:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*141*	*S1+*	*70 - 130*	*05/21/25 11:56*	*05/22/25 11:57*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*05/21/25 11:56*	*05/22/25 11:57*	*1*

Lab Sample ID: LCS 880-110630/1-A
Matrix: Solid
Analysis Batch: 110693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 110630

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09506		mg/Kg		95	70 - 130
Toluene	0.100	0.09998		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.1055		mg/Kg		106	70 - 130
m-Xylene & p-Xylene	0.200	0.2046		mg/Kg		102	70 - 130
o-Xylene	0.100	0.1034		mg/Kg		103	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*139*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: LCSD 880-110630/2-A
Matrix: Solid
Analysis Batch: 110693

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 110630

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1014		mg/Kg		101	70 - 130	6	35
Toluene	0.100	0.1069		mg/Kg		107	70 - 130	7	35
Ethylbenzene	0.100	0.1100		mg/Kg		110	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2165		mg/Kg		108	70 - 130	6	35
o-Xylene	0.100	0.1089		mg/Kg		109	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: 880-58251-1 MS
Matrix: Solid
Analysis Batch: 110693

Client Sample ID: B-1-2.5'
Prep Type: Total/NA
Prep Batch: 110630

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00139	U	0.100	0.1003		mg/Kg		100	70 - 130
Toluene	<0.00200	U	0.100	0.1005		mg/Kg		100	70 - 130
Ethylbenzene	<0.00109	U	0.100	0.09506		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	<0.00228	U	0.200	0.1858		mg/Kg		93	70 - 130

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

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

Lab Sample ID: 880-58251-1 MS
Matrix: Solid
Analysis Batch: 110693

Client Sample ID: B-1-2.5'
Prep Type: Total/NA
Prep Batch: 110630

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	<0.00158	U	0.100	0.09469		mg/Kg		95	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*137*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: 880-58251-1 MSD
Matrix: Solid
Analysis Batch: 110693

Client Sample ID: B-1-2.5'
Prep Type: Total/NA
Prep Batch: 110630

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00139	U	0.100	0.09147		mg/Kg		91	70 - 130	9	35
Toluene	<0.00200	U	0.100	0.09047		mg/Kg		90	70 - 130	10	35
Ethylbenzene	<0.00109	U	0.100	0.08462		mg/Kg		85	70 - 130	12	35
m-Xylene & p-Xylene	<0.00228	U	0.200	0.1648		mg/Kg		82	70 - 130	12	35
o-Xylene	<0.00158	U	0.100	0.08487		mg/Kg		85	70 - 130	11	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*145*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: MB 880-111212/5-A
Matrix: Solid
Analysis Batch: 111204

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 111212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		05/30/25 08:33	05/30/25 11:28	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		05/30/25 08:33	05/30/25 11:28	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		05/30/25 08:33	05/30/25 11:28	1
m-Xylene & p-Xylene	<0.00229	U	0.00400	0.00229	mg/Kg		05/30/25 08:33	05/30/25 11:28	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		05/30/25 08:33	05/30/25 11:28	1
Xylenes, Total	<0.00229	U	0.00400	0.00229	mg/Kg		05/30/25 08:33	05/30/25 11:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*05/30/25 08:33*	*05/30/25 11:28*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/30/25 08:33*	*05/30/25 11:28*	*1*

Lab Sample ID: LCS 880-111212/1-A
Matrix: Solid
Analysis Batch: 111204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 111212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1128		mg/Kg		113	70 - 130
Toluene	0.100	0.09811		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.1057		mg/Kg		106	70 - 130
m-Xylene & p-Xylene	0.200	0.2146		mg/Kg		107	70 - 130
o-Xylene	0.100	0.1080		mg/Kg		108	70 - 130

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-111212/1-A
Matrix: Solid
Analysis Batch: 111204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 111212

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	94		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: LCSD 880-111212/2-A
Matrix: Solid
Analysis Batch: 111204

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 111212

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1188		mg/Kg		119	70 - 130	5	35
Toluene			0.100	0.1060		mg/Kg		106	70 - 130	8	35
Ethylbenzene			0.100	0.1101		mg/Kg		110	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.2237		mg/Kg		112	70 - 130	4	35
o-Xylene			0.100	0.1123		mg/Kg		112	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

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

Lab Sample ID: MB 880-110243/1-A
Matrix: Solid
Analysis Batch: 110442

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 110243

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	50.0	14.5	mg/Kg		05/15/25 13:24	05/19/25 10:20	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		05/15/25 13:24	05/19/25 10:20	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/15/25 13:24	05/19/25 10:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130	05/15/25 13:24	05/19/25 10:20	1
o-Terphenyl	99		70 - 130	05/15/25 13:24	05/19/25 10:20	1

Lab Sample ID: LCS 880-110243/2-A
Matrix: Solid
Analysis Batch: 110442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 110243

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1098		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	986.8		mg/Kg		99	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	77		70 - 130

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-110243/3-A
Matrix: Solid
Analysis Batch: 110442

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 110243

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1104		mg/Kg		110	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	985.8		mg/Kg		99	70 - 130	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*85*		*70 - 130*
o-Terphenyl	*75*		*70 - 130*

Lab Sample ID: MB 880-110347/1-A
Matrix: Solid
Analysis Batch: 110306

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 110347

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	20.53	J	50.0	14.5	mg/Kg		05/16/25 14:06	05/16/25 18:39	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		05/16/25 14:06	05/16/25 18:39	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/16/25 14:06	05/16/25 18:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*05/16/25 14:06*	*05/16/25 18:39*	*1*
o-Terphenyl	*78*		*70 - 130*	*05/16/25 14:06*	*05/16/25 18:39*	*1*

Lab Sample ID: LCS 880-110347/2-A
Matrix: Solid
Analysis Batch: 110306

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 110347

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1027		mg/Kg		103	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1143		mg/Kg		114	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*133*	*S1+*	*70 - 130*
o-Terphenyl	*130*		*70 - 130*

Lab Sample ID: LCSD 880-110347/3-A
Matrix: Solid
Analysis Batch: 110306

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 110347

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	982.8		mg/Kg		98	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	1117		mg/Kg		112	70 - 130	2	20

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

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

Lab Sample ID: LCSD 880-110347/3-A
Matrix: Solid
Analysis Batch: 110306

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 110347

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

Lab Sample ID: 880-58251-1 MS
Matrix: Solid
Analysis Batch: 110306

Client Sample ID: B-1-2.5'
Prep Type: Total/NA
Prep Batch: 110347

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	996	882.0		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	<15.1	U	996	951.4		mg/Kg		96	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	101		70 - 130

Lab Sample ID: 880-58251-1 MSD
Matrix: Solid
Analysis Batch: 110306

Client Sample ID: B-1-2.5'
Prep Type: Total/NA
Prep Batch: 110347

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	<14.5	U	996	897.6		mg/Kg		90	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<15.1	U	996	967.9		mg/Kg		97	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: MB 880-110414/1-A
Matrix: Solid
Analysis Batch: 110440

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 110414

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	50.0	14.5	mg/Kg		05/19/25 08:50	05/19/25 10:20	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		05/19/25 08:50	05/19/25 10:20	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		05/19/25 08:50	05/19/25 10:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	05/19/25 08:50	05/19/25 10:20	1
o-Terphenyl	103		70 - 130	05/19/25 08:50	05/19/25 10:20	1

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

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

Lab Sample ID: LCS 880-110414/2-A
Matrix: Solid
Analysis Batch: 110440

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 110414

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1079		mg/Kg		108	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	910.8		mg/Kg		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*79*		*70 - 130*
o-Terphenyl	*77*		*70 - 130*

Lab Sample ID: LCSD 880-110414/3-A
Matrix: Solid
Analysis Batch: 110440

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 110414

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1087		mg/Kg		109	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	933.5		mg/Kg		93	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*77*		*70 - 130*
o-Terphenyl	*78*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-110578/1-A
Matrix: Solid
Analysis Batch: 110590

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	10.0	0.395	mg/Kg			05/21/25 13:20	1

Lab Sample ID: LCS 880-110578/2-A
Matrix: Solid
Analysis Batch: 110590

Client Sample ID: Lab Control Sample
Prep Type: Soluble

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

Lab Sample ID: LCSD 880-110578/3-A
Matrix: Solid
Analysis Batch: 110590

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	261.1		mg/Kg		104	90 - 110	2	20

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-58251-1 MS
Matrix: Solid
Analysis Batch: 110590

Client Sample ID: B-1-2.5'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	107		248	373.9		mg/Kg		108	90 - 110

Lab Sample ID: 880-58251-1 MSD
Matrix: Solid
Analysis Batch: 110590

Client Sample ID: B-1-2.5'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	107		248	371.4		mg/Kg		107	90 - 110	1	20

Lab Sample ID: 880-58251-12 MS
Matrix: Solid
Analysis Batch: 110590

Client Sample ID: B-12-2'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	208	F1	250	523.2	F1	mg/Kg		126	90 - 110

Lab Sample ID: 880-58251-12 MSD
Matrix: Solid
Analysis Batch: 110590

Client Sample ID: B-12-2'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	208	F1	250	524.7	F1	mg/Kg		127	90 - 110	0	20

Lab Sample ID: MB 880-111223/1-A
Matrix: Solid
Analysis Batch: 111252

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	10.0	0.395	mg/Kg			05/30/25 15:59	1

Lab Sample ID: LCS 880-111223/2-A
Matrix: Solid
Analysis Batch: 111252

Client Sample ID: Lab Control Sample
Prep Type: Soluble

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

Lab Sample ID: LCSD 880-111223/3-A
Matrix: Solid
Analysis Batch: 111252

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	255.4		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 880-58251-16 MS
Matrix: Solid
Analysis Batch: 111252

Client Sample ID: B-16-2'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	122	F1	248	418.2	F1	mg/Kg		120	90 - 110

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 880-58251-16 MSD
Matrix: Solid
Analysis Batch: 111252

Client Sample ID: B-16-2'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	122	F1	248	418.3	F1	mg/Kg		120	90 - 110	0	20

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

GC VOA

Prep Batch: 110626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-21	SW-5-0-2'	Total/NA	Solid	5030B	
MB 880-110626/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-110626/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-110626/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Prep Batch: 110630

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-1	B-1-2.5'	Total/NA	Solid	5030B	
880-58251-2	B-2-2.5'	Total/NA	Solid	5030B	
880-58251-4	B-4-2.5'	Total/NA	Solid	5030B	
880-58251-5	B-5-2'	Total/NA	Solid	5030B	
880-58251-6	B-6-3'	Total/NA	Solid	5030B	
880-58251-7	B-7-2'	Total/NA	Solid	5030B	
880-58251-8	B-8-2'	Total/NA	Solid	5030B	
880-58251-9	B-9-3'	Total/NA	Solid	5030B	
880-58251-10	B-10-4'	Total/NA	Solid	5030B	
880-58251-11	B-11-4'	Total/NA	Solid	5030B	
880-58251-12	B-12-2'	Total/NA	Solid	5030B	
880-58251-13	B-13-2'	Total/NA	Solid	5030B	
880-58251-14	B-14-2'	Total/NA	Solid	5030B	
880-58251-18	SW-2-0-2.5'	Total/NA	Solid	5030B	
880-58251-19	SW-3-0-4'	Total/NA	Solid	5030B	
880-58251-20	SW-4-0-4'	Total/NA	Solid	5030B	
MB 880-110630/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-110630/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-110630/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
880-58251-1 MS	B-1-2.5'	Total/NA	Solid	5030B	
880-58251-1 MSD	B-1-2.5'	Total/NA	Solid	5030B	

Analysis Batch: 110631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-21	SW-5-0-2'	Total/NA	Solid	8021B	110626
MB 880-110626/5-A	Method Blank	Total/NA	Solid	8021B	110626
LCS 880-110626/1-A	Lab Control Sample	Total/NA	Solid	8021B	110626
LCSD 880-110626/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	110626

Analysis Batch: 110693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-1	B-1-2.5'	Total/NA	Solid	8021B	110630
880-58251-2	B-2-2.5'	Total/NA	Solid	8021B	110630
880-58251-4	B-4-2.5'	Total/NA	Solid	8021B	110630
880-58251-5	B-5-2'	Total/NA	Solid	8021B	110630
880-58251-6	B-6-3'	Total/NA	Solid	8021B	110630
880-58251-7	B-7-2'	Total/NA	Solid	8021B	110630
880-58251-8	B-8-2'	Total/NA	Solid	8021B	110630
880-58251-9	B-9-3'	Total/NA	Solid	8021B	110630
880-58251-10	B-10-4'	Total/NA	Solid	8021B	110630
880-58251-11	B-11-4'	Total/NA	Solid	8021B	110630
880-58251-12	B-12-2'	Total/NA	Solid	8021B	110630
880-58251-13	B-13-2'	Total/NA	Solid	8021B	110630
880-58251-14	B-14-2'	Total/NA	Solid	8021B	110630

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

GC VOA (Continued)

Analysis Batch: 110693 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-18	SW-2-0-2.5'	Total/NA	Solid	8021B	110630
880-58251-19	SW-3-0-4'	Total/NA	Solid	8021B	110630
880-58251-20	SW-4-0-4'	Total/NA	Solid	8021B	110630
MB 880-110630/5-A	Method Blank	Total/NA	Solid	8021B	110630
LCS 880-110630/1-A	Lab Control Sample	Total/NA	Solid	8021B	110630
LCSD 880-110630/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	110630
880-58251-1 MS	B-1-2.5'	Total/NA	Solid	8021B	110630
880-58251-1 MSD	B-1-2.5'	Total/NA	Solid	8021B	110630

Analysis Batch: 110742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-1	B-1-2.5'	Total/NA	Solid	Total BTEX	
880-58251-2	B-2-2.5'	Total/NA	Solid	Total BTEX	
880-58251-4	B-4-2.5'	Total/NA	Solid	Total BTEX	
880-58251-5	B-5-2'	Total/NA	Solid	Total BTEX	
880-58251-6	B-6-3'	Total/NA	Solid	Total BTEX	
880-58251-7	B-7-2'	Total/NA	Solid	Total BTEX	
880-58251-8	B-8-2'	Total/NA	Solid	Total BTEX	
880-58251-9	B-9-3'	Total/NA	Solid	Total BTEX	
880-58251-10	B-10-4'	Total/NA	Solid	Total BTEX	
880-58251-11	B-11-4'	Total/NA	Solid	Total BTEX	
880-58251-12	B-12-2'	Total/NA	Solid	Total BTEX	
880-58251-13	B-13-2'	Total/NA	Solid	Total BTEX	
880-58251-14	B-14-2'	Total/NA	Solid	Total BTEX	
880-58251-16	B-16-2'	Total/NA	Solid	Total BTEX	
880-58251-18	SW-2-0-2.5'	Total/NA	Solid	Total BTEX	
880-58251-19	SW-3-0-4'	Total/NA	Solid	Total BTEX	
880-58251-20	SW-4-0-4'	Total/NA	Solid	Total BTEX	
880-58251-21	SW-5-0-2'	Total/NA	Solid	Total BTEX	

Analysis Batch: 111204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-16	B-16-2'	Total/NA	Solid	8021B	111212
MB 880-111212/5-A	Method Blank	Total/NA	Solid	8021B	111212
LCS 880-111212/1-A	Lab Control Sample	Total/NA	Solid	8021B	111212
LCSD 880-111212/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	111212

Prep Batch: 111212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-16	B-16-2'	Total/NA	Solid	5030B	
MB 880-111212/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-111212/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-111212/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

GC Semi VOA

Prep Batch: 110243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-21	SW-5-0-2'	Total/NA	Solid	8015NM Prep	
MB 880-110243/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-110243/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

GC Semi VOA (Continued)

Prep Batch: 110243 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-110243/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 110306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-1	B-1-2.5'	Total/NA	Solid	8015B NM	110347
880-58251-2	B-2-2.5'	Total/NA	Solid	8015B NM	110347
880-58251-4	B-4-2.5'	Total/NA	Solid	8015B NM	110347
880-58251-5	B-5-2'	Total/NA	Solid	8015B NM	110347
880-58251-6	B-6-3'	Total/NA	Solid	8015B NM	110347
880-58251-7	B-7-2'	Total/NA	Solid	8015B NM	110347
880-58251-8	B-8-2'	Total/NA	Solid	8015B NM	110347
880-58251-9	B-9-3'	Total/NA	Solid	8015B NM	110347
880-58251-10	B-10-4'	Total/NA	Solid	8015B NM	110347
880-58251-11	B-11-4'	Total/NA	Solid	8015B NM	110347
880-58251-12	B-12-2'	Total/NA	Solid	8015B NM	110347
880-58251-13	B-13-2'	Total/NA	Solid	8015B NM	110347
880-58251-14	B-14-2'	Total/NA	Solid	8015B NM	110347
880-58251-16	B-16-2'	Total/NA	Solid	8015B NM	110347
880-58251-18	SW-2-0-2.5'	Total/NA	Solid	8015B NM	110347
880-58251-19	SW-3-0-4'	Total/NA	Solid	8015B NM	110347
880-58251-20	SW-4-0-4'	Total/NA	Solid	8015B NM	110347
MB 880-110347/1-A	Method Blank	Total/NA	Solid	8015B NM	110347
LCS 880-110347/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	110347
LCSD 880-110347/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	110347
880-58251-1 MS	B-1-2.5'	Total/NA	Solid	8015B NM	110347
880-58251-1 MSD	B-1-2.5'	Total/NA	Solid	8015B NM	110347

Prep Batch: 110347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-1	B-1-2.5'	Total/NA	Solid	8015NM Prep	
880-58251-2	B-2-2.5'	Total/NA	Solid	8015NM Prep	
880-58251-4	B-4-2.5'	Total/NA	Solid	8015NM Prep	
880-58251-5	B-5-2'	Total/NA	Solid	8015NM Prep	
880-58251-6	B-6-3'	Total/NA	Solid	8015NM Prep	
880-58251-7	B-7-2'	Total/NA	Solid	8015NM Prep	
880-58251-8	B-8-2'	Total/NA	Solid	8015NM Prep	
880-58251-9	B-9-3'	Total/NA	Solid	8015NM Prep	
880-58251-10	B-10-4'	Total/NA	Solid	8015NM Prep	
880-58251-11	B-11-4'	Total/NA	Solid	8015NM Prep	
880-58251-12	B-12-2'	Total/NA	Solid	8015NM Prep	
880-58251-13	B-13-2'	Total/NA	Solid	8015NM Prep	
880-58251-14	B-14-2'	Total/NA	Solid	8015NM Prep	
880-58251-16	B-16-2'	Total/NA	Solid	8015NM Prep	
880-58251-18	SW-2-0-2.5'	Total/NA	Solid	8015NM Prep	
880-58251-19	SW-3-0-4'	Total/NA	Solid	8015NM Prep	
880-58251-20	SW-4-0-4'	Total/NA	Solid	8015NM Prep	
MB 880-110347/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-110347/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-110347/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-58251-1 MS	B-1-2.5'	Total/NA	Solid	8015NM Prep	
880-58251-1 MSD	B-1-2.5'	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

GC Semi VOA

Prep Batch: 110414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-3	B-3-2.5'	Total/NA	Solid	8015NM Prep	
880-58251-15	B-15-2'	Total/NA	Solid	8015NM Prep	
880-58251-17	SW-1-0-2.5'	Total/NA	Solid	8015NM Prep	
MB 880-110414/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-110414/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-110414/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 110433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-1	B-1-2.5'	Total/NA	Solid	8015 NM	
880-58251-2	B-2-2.5'	Total/NA	Solid	8015 NM	
880-58251-3	B-3-2.5'	Total/NA	Solid	8015 NM	
880-58251-4	B-4-2.5'	Total/NA	Solid	8015 NM	
880-58251-5	B-5-2'	Total/NA	Solid	8015 NM	
880-58251-6	B-6-3'	Total/NA	Solid	8015 NM	
880-58251-7	B-7-2'	Total/NA	Solid	8015 NM	
880-58251-8	B-8-2'	Total/NA	Solid	8015 NM	
880-58251-9	B-9-3'	Total/NA	Solid	8015 NM	
880-58251-10	B-10-4'	Total/NA	Solid	8015 NM	
880-58251-11	B-11-4'	Total/NA	Solid	8015 NM	
880-58251-12	B-12-2'	Total/NA	Solid	8015 NM	
880-58251-13	B-13-2'	Total/NA	Solid	8015 NM	
880-58251-14	B-14-2'	Total/NA	Solid	8015 NM	
880-58251-15	B-15-2'	Total/NA	Solid	8015 NM	
880-58251-16	B-16-2'	Total/NA	Solid	8015 NM	
880-58251-17	SW-1-0-2.5'	Total/NA	Solid	8015 NM	
880-58251-18	SW-2-0-2.5'	Total/NA	Solid	8015 NM	
880-58251-19	SW-3-0-4'	Total/NA	Solid	8015 NM	
880-58251-20	SW-4-0-4'	Total/NA	Solid	8015 NM	
880-58251-21	SW-5-0-2'	Total/NA	Solid	8015 NM	

Analysis Batch: 110440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-3	B-3-2.5'	Total/NA	Solid	8015B NM	110414
880-58251-15	B-15-2'	Total/NA	Solid	8015B NM	110414
880-58251-17	SW-1-0-2.5'	Total/NA	Solid	8015B NM	110414
MB 880-110414/1-A	Method Blank	Total/NA	Solid	8015B NM	110414
LCS 880-110414/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	110414
LCSD 880-110414/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	110414

Analysis Batch: 110442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-21	SW-5-0-2'	Total/NA	Solid	8015B NM	110243
MB 880-110243/1-A	Method Blank	Total/NA	Solid	8015B NM	110243
LCS 880-110243/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	110243
LCSD 880-110243/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	110243

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

HPLC/IC

Leach Batch: 110578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-1	B-1-2.5'	Soluble	Solid	DI Leach	
880-58251-2	B-2-2.5'	Soluble	Solid	DI Leach	
880-58251-4	B-4-2.5'	Soluble	Solid	DI Leach	
880-58251-5	B-5-2'	Soluble	Solid	DI Leach	
880-58251-6	B-6-3'	Soluble	Solid	DI Leach	
880-58251-7	B-7-2'	Soluble	Solid	DI Leach	
880-58251-8	B-8-2'	Soluble	Solid	DI Leach	
880-58251-9	B-9-3'	Soluble	Solid	DI Leach	
880-58251-10	B-10-4'	Soluble	Solid	DI Leach	
880-58251-11	B-11-4'	Soluble	Solid	DI Leach	
880-58251-12	B-12-2'	Soluble	Solid	DI Leach	
880-58251-13	B-13-2'	Soluble	Solid	DI Leach	
880-58251-14	B-14-2'	Soluble	Solid	DI Leach	
880-58251-18	SW-2-0-2.5'	Soluble	Solid	DI Leach	
880-58251-19	SW-3-0-4'	Soluble	Solid	DI Leach	
880-58251-20	SW-4-0-4'	Soluble	Solid	DI Leach	
880-58251-21	SW-5-0-2'	Soluble	Solid	DI Leach	
MB 880-110578/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-110578/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-110578/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-58251-1 MS	B-1-2.5'	Soluble	Solid	DI Leach	
880-58251-1 MSD	B-1-2.5'	Soluble	Solid	DI Leach	
880-58251-12 MS	B-12-2'	Soluble	Solid	DI Leach	
880-58251-12 MSD	B-12-2'	Soluble	Solid	DI Leach	

Analysis Batch: 110590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-1	B-1-2.5'	Soluble	Solid	300.0	110578
880-58251-2	B-2-2.5'	Soluble	Solid	300.0	110578
880-58251-4	B-4-2.5'	Soluble	Solid	300.0	110578
880-58251-5	B-5-2'	Soluble	Solid	300.0	110578
880-58251-6	B-6-3'	Soluble	Solid	300.0	110578
880-58251-7	B-7-2'	Soluble	Solid	300.0	110578
880-58251-8	B-8-2'	Soluble	Solid	300.0	110578
880-58251-9	B-9-3'	Soluble	Solid	300.0	110578
880-58251-10	B-10-4'	Soluble	Solid	300.0	110578
880-58251-11	B-11-4'	Soluble	Solid	300.0	110578
880-58251-12	B-12-2'	Soluble	Solid	300.0	110578
880-58251-13	B-13-2'	Soluble	Solid	300.0	110578
880-58251-14	B-14-2'	Soluble	Solid	300.0	110578
880-58251-18	SW-2-0-2.5'	Soluble	Solid	300.0	110578
880-58251-19	SW-3-0-4'	Soluble	Solid	300.0	110578
880-58251-20	SW-4-0-4'	Soluble	Solid	300.0	110578
880-58251-21	SW-5-0-2'	Soluble	Solid	300.0	110578
MB 880-110578/1-A	Method Blank	Soluble	Solid	300.0	110578
LCS 880-110578/2-A	Lab Control Sample	Soluble	Solid	300.0	110578
LCSD 880-110578/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	110578
880-58251-1 MS	B-1-2.5'	Soluble	Solid	300.0	110578
880-58251-1 MSD	B-1-2.5'	Soluble	Solid	300.0	110578
880-58251-12 MS	B-12-2'	Soluble	Solid	300.0	110578
880-58251-12 MSD	B-12-2'	Soluble	Solid	300.0	110578

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

HPLC/IC

Leach Batch: 111223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-16	B-16-2'	Soluble	Solid	DI Leach	
MB 880-111223/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-111223/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-111223/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-58251-16 MS	B-16-2'	Soluble	Solid	DI Leach	
880-58251-16 MSD	B-16-2'	Soluble	Solid	DI Leach	

Analysis Batch: 111252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-58251-16	B-16-2'	Soluble	Solid	300.0	111223
MB 880-111223/1-A	Method Blank	Soluble	Solid	300.0	111223
LCS 880-111223/2-A	Lab Control Sample	Soluble	Solid	300.0	111223
LCSD 880-111223/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	111223
880-58251-16 MS	B-16-2'	Soluble	Solid	300.0	111223
880-58251-16 MSD	B-16-2'	Soluble	Solid	300.0	111223

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-1-2.5'
Date Collected: 05/15/25 09:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-1
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			5.01 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 12:19	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 12:19	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/16/25 19:28	SM	EET MID
Total/NA	Prep	8015NM Prep			9.99 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/16/25 19:28	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 13:41	SMC	EET MID

Client Sample ID: B-2-2.5'
Date Collected: 05/15/25 09:10
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-2
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			4.98 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 12:39	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 12:39	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/16/25 20:15	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/16/25 20:15	TKC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 14:03	SMC	EET MID

Client Sample ID: B-3-2.5'
Date Collected: 05/15/25 09:20
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			110433	05/19/25 13:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	110414	05/19/25 08:51	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110440	05/19/25 13:55	TKC	EET MID

Client Sample ID: B-4-2.5'
Date Collected: 05/15/25 09:30
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-4
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			5.03 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 13:00	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 13:00	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/16/25 20:48	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/16/25 20:48	TKC	EET MID
Soluble	Leach	DI Leach			5.0 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 14:10	SMC	EET MID

Eurofins Midland

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-5-2'
Date Collected: 05/15/25 09:40
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-5
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			4.95 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 13:20	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 13:20	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/16/25 21:04	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/16/25 21:04	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 14:17	SMC	EET MID

Client Sample ID: B-6-3'
Date Collected: 05/15/25 11:10
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-6
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			4.98 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 13:41	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 13:41	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/16/25 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/16/25 21:20	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 14:24	SMC	EET MID

Client Sample ID: B-7-2'
Date Collected: 05/15/25 10:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-7
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			5.03 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 14:01	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 14:01	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/16/25 21:37	SM	EET MID
Total/NA	Prep	8015NM Prep			10.09 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/16/25 21:37	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 14:45	SMC	EET MID

Client Sample ID: B-8-2'
Date Collected: 05/15/25 10:10
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-8
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			5.04 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 14:22	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 14:22	SM	EET MID

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-8-2'
Date Collected: 05/15/25 10:10
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			110433	05/16/25 21:53	SM	EET MID
Total/NA	Prep	8015NM Prep			9.98 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/16/25 21:53	TKC	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 14:52	SMC	EET MID

Client Sample ID: B-9-3'
Date Collected: 05/15/25 11:20
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.00 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 14:42	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 14:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/16/25 22:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/16/25 22:09	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 14:59	SMC	EET MID

Client Sample ID: B-10-4'
Date Collected: 05/15/25 11:30
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.95 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 15:03	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 15:03	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/16/25 22:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/16/25 22:25	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 15:07	SMC	EET MID

Client Sample ID: B-11-4'
Date Collected: 05/15/25 11:40
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.96 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 15:23	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 15:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/16/25 22:57	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/16/25 22:57	TKC	EET MID

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-11-4'
Date Collected: 05/15/25 11:40
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-11
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			5.01 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 15:14	SMC	EET MID

Client Sample ID: B-12-2'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 17:11	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 17:11	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/16/25 23:13	SM	EET MID
Total/NA	Prep	8015NM Prep			9.95 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/16/25 23:13	TKC	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 15:21	SMC	EET MID

Client Sample ID: B-13-2'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.97 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 17:32	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 17:32	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/16/25 23:30	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/16/25 23:30	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 15:42	SMC	EET MID

Client Sample ID: B-14-2'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 17:52	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 17:52	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/16/25 23:45	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/16/25 23:45	TKC	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 15:49	SMC	EET MID

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: B-15-2'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			110433	05/19/25 14:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	110414	05/19/25 08:51	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110440	05/19/25 14:10	TKC	EET MID

Client Sample ID: B-16-2'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.02 g	5 mL	111212	05/30/25 14:00	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	111204	05/30/25 14:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/30/25 14:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/17/25 00:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/17/25 00:19	TKC	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	111223	05/30/25 10:08	SA	EET MID
Soluble	Analysis	300.0		1	5 mL	5 mL	111252	05/30/25 16:20	CH	EET MID

Client Sample ID: SW-1-0-2.5'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			110433	05/19/25 14:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	110414	05/19/25 08:51	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110440	05/19/25 14:25	TKC	EET MID

Client Sample ID: SW-2-0-2.5'
Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-18
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.02 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 18:13	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 18:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/17/25 00:52	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/17/25 00:52	TKC	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 16:10	SMC	EET MID

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Client Sample ID: SW-3-0-4'

Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-19
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 18:33	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 18:33	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/17/25 01:08	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/17/25 01:08	TKC	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 16:17	SMC	EET MID

Client Sample ID: SW-4-0-4'

Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-20
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.99 g	5 mL	110630	05/21/25 11:56	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110693	05/22/25 18:54	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/22/25 18:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/17/25 01:24	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	110347	05/16/25 14:06	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110306	05/17/25 01:24	TKC	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 16:24	SMC	EET MID

Client Sample ID: SW-5-0-2'

Date Collected: 05/15/25 00:00
Date Received: 05/16/25 13:31

Lab Sample ID: 880-58251-21
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.03 g	5 mL	110626	05/21/25 11:37	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	110631	05/21/25 22:48	EL	EET MID
Total/NA	Analysis	Total BTEX		1			110742	05/21/25 22:48	SM	EET MID
Total/NA	Analysis	8015 NM		1			110433	05/19/25 13:55	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	110243	05/16/25 16:36	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	110442	05/19/25 13:55	TKC	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	110578	05/21/25 08:42	SA	EET MID
Soluble	Analysis	300.0		1			110590	05/21/25 16:31	SMC	EET MID

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

Accreditation/Certification Summary

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Arcadis US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

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 US Inc.
Project/Site: WLU 57

Job ID: 880-58251-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-58251-1	B-1-2.5'	Solid	05/15/25 09:00	05/16/25 13:31
880-58251-2	B-2-2.5'	Solid	05/15/25 09:10	05/16/25 13:31
880-58251-3	B-3-2.5'	Solid	05/15/25 09:20	05/16/25 13:31
880-58251-4	B-4-2.5'	Solid	05/15/25 09:30	05/16/25 13:31
880-58251-5	B-5-2'	Solid	05/15/25 09:40	05/16/25 13:31
880-58251-6	B-6-3'	Solid	05/15/25 11:10	05/16/25 13:31
880-58251-7	B-7-2'	Solid	05/15/25 10:00	05/16/25 13:31
880-58251-8	B-8-2'	Solid	05/15/25 10:10	05/16/25 13:31
880-58251-9	B-9-3'	Solid	05/15/25 11:20	05/16/25 13:31
880-58251-10	B-10-4'	Solid	05/15/25 11:30	05/16/25 13:31
880-58251-11	B-11-4'	Solid	05/15/25 11:40	05/16/25 13:31
880-58251-12	B-12-2'	Solid	05/15/25 00:00	05/16/25 13:31
880-58251-13	B-13-2'	Solid	05/15/25 00:00	05/16/25 13:31
880-58251-14	B-14-2'	Solid	05/15/25 00:00	05/16/25 13:31
880-58251-15	B-15-2'	Solid	05/15/25 00:00	05/16/25 13:31
880-58251-16	B-16-2'	Solid	05/15/25 00:00	05/16/25 13:31
880-58251-17	SW-1-0-2.5'	Solid	05/15/25 00:00	05/16/25 13:31
880-58251-18	SW-2-0-2.5'	Solid	05/15/25 00:00	05/16/25 13:31
880-58251-19	SW-3-0-4'	Solid	05/15/25 00:00	05/16/25 13:31
880-58251-20	SW-4-0-4'	Solid	05/15/25 00:00	05/16/25 13:31
880-58251-21	SW-5-0-2'	Solid	05/15/25 00:00	05/16/25 13:31

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Phone: 432-704-5440

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Heath B.	Lab PM: Builes, John	Carrier Tracking No(s):	COC No: 880-11167-1628.2
Client Contact: Mr. Morgan Jordan	Phone: 575-942-0292	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: NM	Page: Page [redacted] 1 of 2
Company: Arcadis US Inc.	PWSID:			Job #:
Address: 1004 North Big Spring Suite 300	Due Date Requested:			
City: Midland	TAT Requested (days): 24 hr TPH, Hold BTEX, Cl'			
State, Zip: TX, 79701	Compliance Project: Δ Yes Δ No			
Phone: 281-644-9437(Tel)	PO #: Purchase Order Requested			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: [redacted] WLU 57	Project #: [redacted] 30280645.00004			
Site: Lea County, NM	SSOW#:			

880-58251 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D, 8015MOD_NM, 8021B	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
B-1-2.5'	5/15/25	900	C	Solid			X		24 hr TPH
B-2-2.5'		910		Solid			X		
B-3-2.5'		920		Solid			X		Hold BTEX, Cl'
B-4-2.5'		930		Solid			X		
B-5-2'		940		Solid			X		
B-6-3'		1110		Solid			X		
B-7-2'		1000		Solid			X		
B-8-2'		1010		Solid			X		
B-9-3'		1120		Solid			X		
B-10-4'		1130		Solid			X		
B-11-4'	X	1140	X	Solid			X		

Other:

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
[redacted]	05/16/25	ANA	[redacted]	5.16.25	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 1331	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: 2.6/25 IR8

Ver: 10/10/2024

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Phone: 432-704-5440

Chain of Custody Record

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Client Information	Sampler: Heath B	Lab PM: Builes, John	Carrier Tracking No(s):	COC No: 880-11167-1628.2
Client Contact: Mr. Morgan Jordan	Phone: 575-942-0292	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: NM	Page: Page 2 of 2
Company: Arcadis US Inc.	PWSID:			Job #:

Address: 1004 North Big Spring Suite 300	Due Date Requested:
City: Midland	TAT Requested (days): 24 hr TPH, Hold BTEX, Cl'
State, Zip: TX, 79701	Compliance Project: Δ Yes Δ No
Phone: 281-644-9437(Tel)	PO #: Purchase Order Requested
Email: douglas.jordan@arcadis.com	WO #:
Project Name: [redacted] WLU 57	Project #: [redacted] 30280645.00004
Site: Lea County, NM	SSOW#:

Analysis Requested

Preservation Codes: N - None

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/	300_ORGFM_28D, 8015MOD_NM, 8021B	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
B-12-2'	5/15/25		C	Solid			X		24 hr TPH
B-13-2'				Solid			X		
B-14-2'				Solid			X		Hold BTEX, Cl'
B-15-2'				Solid			X		
B-16-2'				Solid			X		
SW-1-Ø-2.5'				Solid			X		
SW-2-Ø-2.5'				Solid			X		
SW-3-Ø-4'				Solid			X		
SW-4-Ø-4'				Solid			X		
SW-5-Ø-2'	X		X	Solid			X		
				Solid					

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
[redacted]	05/16/25	ANA			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Arcadis US Inc.

Job Number: 880-58251-1
SDG Number: Lea County NM

Login Number: 58251
List Number: 1
Creator: Kramer, Jessica

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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Morgan Jordan
Arcadis US Inc.
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 4/1/2025 1:13:42 PM

JOB DESCRIPTION

WLU 72
Lea County nm

JOB NUMBER

880-56186-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

Eurofins Midland

Job Notes

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

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

Authorization

Generated
4/1/2025 1:13:42 PM

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

Client: Arcadis US Inc.
Project/Site: WLU 72

Laboratory Job ID: 880-56186-1
SDG: Lea County nm

Table of Contents

Definitions/Glossary

Client: Arcadis US Inc. Job ID: 880-56186-1
Project/Site: WLU 72 SDG: Lea County nm

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Arcadis US Inc.
Project: WLU 72

Job ID: 880-56186-1

Job ID: 880-56186-1 Eurofins Midland

Job Narrative
880-56186-1

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

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

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

Receipt
The sample was received on 3/28/2025 2:00 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.3°C.

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

Diesel Range Organics
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-106445/2-A). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 72

Job ID: 880-56186-1
SDG: Lea County nm

Client Sample ID: Backfill

Date Collected: 03/28/25 08:05
Date Received: 03/28/25 14:00

Lab Sample ID: 880-56186-1

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		03/28/25 15:10	03/29/25 04:11	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		03/28/25 15:10	03/29/25 04:11	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		03/28/25 15:10	03/29/25 04:11	1
m-Xylene & p-Xylene	<0.00228	U	0.00399	0.00228	mg/Kg		03/28/25 15:10	03/29/25 04:11	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		03/28/25 15:10	03/29/25 04:11	1
Xylenes, Total	<0.00228	U	0.00399	0.00228	mg/Kg		03/28/25 15:10	03/29/25 04:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*03/28/25 15:10*	*03/29/25 04:11*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*03/28/25 15:10*	*03/29/25 04:11*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00228	U	0.00399	0.00228	mg/Kg			03/29/25 04:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.1	U	50.0	15.1	mg/Kg			03/31/25 17:34	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	<14.5	U	50.0	14.5	mg/Kg		03/31/25 08:18	03/31/25 17:34	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		03/31/25 08:18	03/31/25 17:34	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		03/31/25 08:18	03/31/25 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*03/31/25 08:18*	*03/31/25 17:34*	*1*
o-Terphenyl	*81*		*70 - 130*	*03/31/25 08:18*	*03/31/25 17:34*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**529**		49.9	1.97	mg/Kg			03/29/25 17:29	5

Surrogate Summary

Client: Arcadis US Inc.
Project/Site: WLU 72

Job ID: 880-56186-1
SDG: Lea County nm

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-56186-1	Backfill	112	88										
LCS 880-106364/1-A	Lab Control Sample	101	93										
LCSD 880-106364/2-A	Lab Control Sample Dup	102	94										
MB 880-106307/5-A	Method Blank	106	83										
MB 880-106364/5-A	Method Blank	95	85										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-56186-1	Backfill	85	81										
LCS 880-106445/2-A	Lab Control Sample	133 S1+	126										
LCSD 880-106445/3-A	Lab Control Sample Dup	118	111										
MB 880-106445/1-A	Method Blank	89	86										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 72

Job ID: 880-56186-1
SDG: Lea County nm

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-106307/5-A
Matrix: Solid
Analysis Batch: 106301

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 106307

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		03/28/25 09:15	03/28/25 11:51	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		03/28/25 09:15	03/28/25 11:51	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		03/28/25 09:15	03/28/25 11:51	1
m-Xylene & p-Xylene	<0.00229	U	0.00400	0.00229	mg/Kg		03/28/25 09:15	03/28/25 11:51	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		03/28/25 09:15	03/28/25 11:51	1
Xylenes, Total	<0.00229	U	0.00400	0.00229	mg/Kg		03/28/25 09:15	03/28/25 11:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/28/25 09:15*	*03/28/25 11:51*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*03/28/25 09:15*	*03/28/25 11:51*	*1*

Lab Sample ID: MB 880-106364/5-A
Matrix: Solid
Analysis Batch: 106301

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 106364

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		03/28/25 15:10	03/28/25 22:50	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		03/28/25 15:10	03/28/25 22:50	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		03/28/25 15:10	03/28/25 22:50	1
m-Xylene & p-Xylene	<0.00229	U	0.00400	0.00229	mg/Kg		03/28/25 15:10	03/28/25 22:50	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		03/28/25 15:10	03/28/25 22:50	1
Xylenes, Total	<0.00229	U	0.00400	0.00229	mg/Kg		03/28/25 15:10	03/28/25 22:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*03/28/25 15:10*	*03/28/25 22:50*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*03/28/25 15:10*	*03/28/25 22:50*	*1*

Lab Sample ID: LCS 880-106364/1-A
Matrix: Solid
Analysis Batch: 106301

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 106364

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08567		mg/Kg		86	70 - 130		
Toluene			0.100	0.07562		mg/Kg		76	70 - 130		
Ethylbenzene			0.100	0.07896		mg/Kg		79	70 - 130		
m-Xylene & p-Xylene			0.200	0.1683		mg/Kg		84	70 - 130		
o-Xylene			0.100	0.08620		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: LCSD 880-106364/2-A
Matrix: Solid
Analysis Batch: 106301

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 106364

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09394		mg/Kg		94	70 - 130	9	35

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 72

Job ID: 880-56186-1
SDG: Lea County nm

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

Lab Sample ID: LCSD 880-106364/2-A
Matrix: Solid
Analysis Batch: 106301

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 106364

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.08332		mg/Kg		83	70 - 130	10	35
Ethylbenzene			0.100	0.08661		mg/Kg		87	70 - 130	9	35
m-Xylene & p-Xylene			0.200	0.1836		mg/Kg		92	70 - 130	9	35
o-Xylene			0.100	0.09378		mg/Kg		94	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

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

Lab Sample ID: MB 880-106445/1-A
Matrix: Solid
Analysis Batch: 106488

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 106445

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	50.0	14.5	mg/Kg		03/31/25 08:18	03/31/25 10:17	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		03/31/25 08:18	03/31/25 10:17	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		03/31/25 08:18	03/31/25 10:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*03/31/25 08:18*	*03/31/25 10:17*	*1*
o-Terphenyl	*86*		*70 - 130*	*03/31/25 08:18*	*03/31/25 10:17*	*1*

Lab Sample ID: LCS 880-106445/2-A
Matrix: Solid
Analysis Batch: 106488

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 106445

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	845.3		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)			1000	993.0		mg/Kg		99	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*133*	*S1+*	*70 - 130*
o-Terphenyl	*126*		*70 - 130*

Lab Sample ID: LCSD 880-106445/3-A
Matrix: Solid
Analysis Batch: 106488

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 106445

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	774.6		mg/Kg		77	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	889.0		mg/Kg		89	70 - 130	11	20

QC Sample Results

Client: Arcadis US Inc.
Project/Site: WLU 72

Job ID: 880-56186-1
SDG: Lea County nm

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

Lab Sample ID: LCSD 880-106445/3-A
Matrix: Solid
Analysis Batch: 106488

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 106445

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*118*		*70 - 130*
o-Terphenyl	*111*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-106358/1-A
Matrix: Solid
Analysis Batch: 106413

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	10.0	0.395	mg/Kg			03/29/25 14:33	1

Lab Sample ID: LCS 880-106358/2-A
Matrix: Solid
Analysis Batch: 106413

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	256.0		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-106358/3-A
Matrix: Solid
Analysis Batch: 106413

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	256.9		mg/Kg		103	90 - 110	0	20

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 72

Job ID: 880-56186-1
SDG: Lea County nm

GC VOA

Analysis Batch: 106301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-56186-1	Backfill	Total/NA	Solid	8021B	106364
MB 880-106307/5-A	Method Blank	Total/NA	Solid	8021B	106307
MB 880-106364/5-A	Method Blank	Total/NA	Solid	8021B	106364
LCS 880-106364/1-A	Lab Control Sample	Total/NA	Solid	8021B	106364
LCSD 880-106364/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	106364

Prep Batch: 106307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-106307/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 106364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-56186-1	Backfill	Total/NA	Solid	5030B	
MB 880-106364/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-106364/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-106364/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 106569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-56186-1	Backfill	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 106445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-56186-1	Backfill	Total/NA	Solid	8015NM Prep	
MB 880-106445/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-106445/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-106445/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 106488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-56186-1	Backfill	Total/NA	Solid	8015B NM	106445
MB 880-106445/1-A	Method Blank	Total/NA	Solid	8015B NM	106445
LCS 880-106445/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	106445
LCSD 880-106445/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	106445

Analysis Batch: 106653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-56186-1	Backfill	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 106358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-56186-1	Backfill	Soluble	Solid	DI Leach	
MB 880-106358/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-106358/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-106358/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Arcadis US Inc.
Project/Site: WLU 72

Job ID: 880-56186-1
SDG: Lea County nm

HPLC/IC

Analysis Batch: 106413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-56186-1	Backfill	Soluble	Solid	300.0	106358
MB 880-106358/1-A	Method Blank	Soluble	Solid	300.0	106358
LCS 880-106358/2-A	Lab Control Sample	Soluble	Solid	300.0	106358
LCSD 880-106358/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	106358

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: WLU 72

Job ID: 880-56186-1
SDG: Lea County nm

Client Sample ID: Backfill

Date Collected: 03/28/25 08:05
Date Received: 03/28/25 14:00

Lab Sample ID: 880-56186-1

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			5.01 g	5 mL	106364	03/28/25 15:10	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	106301	03/29/25 04:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			106569	03/29/25 04:11	AJ	EET MID
Total/NA	Analysis	8015 NM		1			106653	03/31/25 17:34	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	106445	03/31/25 08:18	FC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	106488	03/31/25 17:34	TKC	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	106358	03/28/25 16:30	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	106413	03/29/25 17:29	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 US Inc.
Project/Site: WLU 72

Job ID: 880-56186-1
SDG: Lea County nm

Laboratory: Eurofins Midland

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

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

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

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

Method Summary

Client: Arcadis US Inc.
Project/Site: WLU 72

Job ID: 880-56186-1
SDG: Lea County nm

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 US Inc.
Project/Site: WLU 72

Job ID: 880-56186-1
SDG: Lea County nm

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-56186-1	Backfill	Solid	03/28/25 08:05	03/28/25 14:00

Eurofins Midland
1211 W. Florida Ave
Midland, TX 79701
Phone: 432-704-5440

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Heath Boyd	Lab PM: Builes, John	Carrier Tracking No(s):	COC No: 880-11167-1628.1
Client Contact: Mr. Morgan Jordan	Phone: 575-942-0297	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: NM	Page: Page ~~4 of 14~~ 1 of 1
Company: Arcadis US Inc.	PWSID:			Job #:
Address: 1004 North Big Spring Suite 300	Due Date Requested:			
City: Midland	TAT Requested (days): 3 Day			
State, Zip: TX, 79701	Compliance Project: Δ Yes Δ No			
Phone: 281-644-9437(Tel)	PO #: Purchase Order Requested			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: NM Sites WLU 72	Project #: 88002020 30237098.00004			
Site: Lea County, NM	SSOW#:			

Analysis Requeste

880-56186 Chain of Custody

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	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
Backfill	3/28/25	805	C	Solid			X		
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					
				Solid					

Other:

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
[redacted]	3/28/25 1400	Arcadis	[redacted]	3.28.25 1400	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.4/4.3

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Arcadis US Inc.

Job Number: 880-56186-1
SDG Number: Lea County nm

Login Number: 56186
List Number: 1
Creator: Vasquez, Julisa

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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Appendix D

Photo Log

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
West Lovington Unit #57	Lea County, NM	nPLM0830342476

Photo No.	Date:
1	5/22/2025

Coordinates:

32.852161, -103.371459

Description:

Excavation completed.

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
West Lovington Unit #57	Lea County, NM	nPLM0830342476

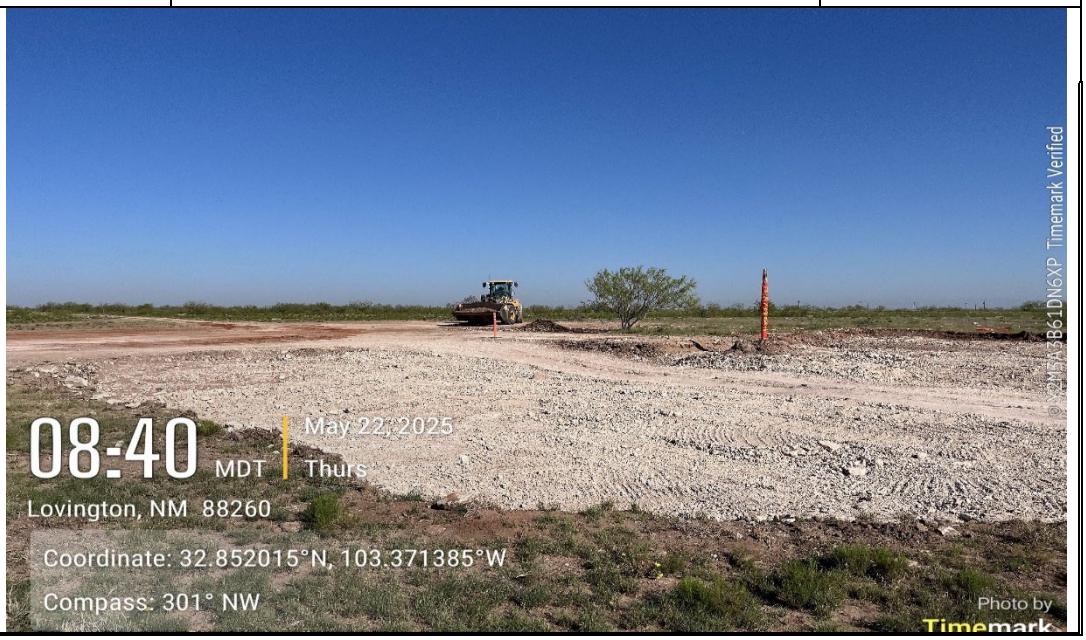
Photo No.	Date:
2	5/22/2025

Coordinates:

32.852161, -103.371459

Description:

Excavation completed.



ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
West Lovington Unit #57	Lea County, NM	nPLM0830342476

Photo No.	Date:
3	5/27/2025

Coordinates:

32.852161, -103.371459

Description:

Excavation backfill complete.

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
West Lovington Unit #57	Lea County, NM	nPLM0830342476

Photo No.	Date:
4	5/27/2025

Coordinates:

32.852161, -103.371459

Description:

Excavation backfilled and restored.

Arcadis U.S., Inc.
1330 Post Oak Blvd., Suite 2250
Houston
Texas 77056
Phone: 713 953 4800
www.arcadis.com

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

QUESTIONS

Action 481602

QUESTIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 481602
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nPLM0830342476**
Incident Name	**NPLM0830342476 WEST LOVINGTON UNIT #057 @ 30-025-21885**
Incident Type	**Other**
Incident Status	**Reclamation Report Received**
Incident Well	**[30-025-21885] WEST LOVINGTON UNIT #057**

Location of Release Source *Please answer all the questions in this group.*	
Site Name	WEST LOVINGTON UNIT #057
Date Release Discovered	01/01/1999
Surface Owner	Private

Incident Details *Please answer all the questions in this group.*	
Incident Type	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	Yes

Nature and Volume of Release *Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.*	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	*Not answered.*
Is the concentration of chloride in the produced water >10,000 mg/l	No
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	Cause: Other | Unknown | Unknown | Released: 0 BBL | Recovered: 0 BBL | Lost: 0 BBL.
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.*

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 481602
	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)	**More info needed to determine if this will be treated as 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:** **(4) a release of a volume that may with reasonable probability be detrimental to fresh water.**
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	n/a
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: Chris Brand Title: Lead Environmental Specialist Email: Chrisbrand@chevron.com Date: 07/03/2025

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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: 481602
	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 51 and 75 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1000 (ft.) and ½ (mi.)
An occupied permanent residence, school, hospital, institution, or church	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 1000 (ft.) and ½ (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Between 1 and 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	917
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	1240
GRO+DRO (EPA SW-846 Method 8015M)	947
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	05/12/2025
On what date will (or did) the final sampling or liner inspection occur	06/09/2025
On what date will (or was) the remediation complete(d)	06/13/2025
What is the estimated surface area (in square feet) that will be reclaimed	10500
What is the estimated volume (in cubic yards) that will be reclaimed	1600
What is the estimated surface area (in square feet) that will be remediated	10500
What is the estimated volume (in cubic yards) that will be remediated	1600
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)

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	Action Number: 481602
	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	GANDY MARLEY LANDFARM/LANDFILL [fEEM0112338393]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	No
OR is the **off-site** disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	No
(In Situ) Soil Vapor Extraction	No
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	No
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	No
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	No
Ground Water Abatement pursuant to 19.15.30 NMAC	No
OTHER (Non-listed remedial process)	No
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Chris Brand Title: Lead Environmental Specialist Email: Chrisbrand@chevron.com Date: 04/23/2025
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 481602
	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: 481602
	Action Type: [C-141] Reclamation Report C-141 (C-141-v-Reclamation)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**460121**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**05/13/2025**
What was the (estimated) number of samples that were to be gathered	**27**
What was the sampling surface area in square feet	**10500**

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	6060
What was the total volume (cubic yards) remediated	700
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	6060
What was the total volume (in cubic yards) reclaimed	700
Summarize any additional remediation activities not included by answers (above)	see attached report for further details.

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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I hereby agree and sign off to the above statement	Name: Chris Brand Title: Lead Environmental Specialist Email: Chrisbrand@chevron.com Date: 07/03/2025

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QUESTIONS (continued)

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	Action Number: 481602
	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	6060
What was the total volume of replacement material (in cubic yards) for this site	700
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)	07/31/2025
Summarize any additional reclamation activities not included by answers (above)	Please see attached for further details.
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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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

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

Created By	Condition	Condition Date
nvelez	None	8/6/2025