Chris Brand
Environmental Remediation/ Facility Decom Advisor

VIA ELECTRONIC MAIL

September 26, 2024

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

Re: West Lovington Unit #056
Soil Remediation Summary and Closure Request Report
Incident No. nPAC0617348887
Case No. 1RP-930

Dear Whom it May Concern:

Please find enclosed for your files, copies of the following:
West Lovington Unit #056 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 #056

cc. Scott Foord – Arcadis
Morgan Jordan – Arcadis

Chris Brand
Environmental Remediation/ Facility Decom Advisor
6301 Deauville Blvd, Midland, TX 79706
Mobile 661 401 0359
chrisbrand@chevron.com

ARCADIS

Chevron Environmental Management Company

2024 Soil Remediation Summary and Closure Request Report

West Lovington Unit #056

Incident # nPAC0617348887

Lea County, New Mexico

September 2024

2024 Soil Remediation Summary and Closure Request Report

West Lovington Unit #056
Incident # nPAC0617348887
Lea County, New Mexico

September 2024

Prepared By:
Arcadis U.S., Inc.
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Phone: 713 953 4800

Prepared For:
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Project Manager
CEMC
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Midland, TX 79706

Morgan Jordan
Project Manager

Scott Foord, PG
Program Manager

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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 #056 (Site) located at coordinates: 32.851291, -103.375084.

2 Project Summary

The Site is located on privately owned land approximately 6-miles southwest of the City of Lovington in Unit G, 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 26, 2006, internal and external corrosion of a 1-inch plastic coated steel riser caused a split and a release of approximately 25 barrels (bbls) of produced water at the Site. According to the Initial C-141 Form submitted on April 27, 2006, the amount recovered was approximately 20 bbls of produced water. The Initial C-141 Form was approved in June 2006 and assigned remediation permit number 1RP-930 and incident number nPAC0617348887.

3 Soil Assessment Activities

In March 2023, Arcadis performed soil assessment activities to evaluate soil impacts stemming from the release. A total of three (3) sample points (SB-1 through SB-3) were advanced to depths ranging from the surface to 2 feet bgs inside and surrounding the release area to evaluate the vertical and horizontal 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.

On July 23, 2024, Chevron submitted the Remediation Work Plan to the New Mexico Oil Conservation Division (NMOCD), and on July 29, 2024, the NMOCD approved the Work Plan. The approved Work Plan is included as **Appendix A**.

4 Site Characterization

After a review of the New Mexico Office of State Engineers (NMOSE) and USGS databases, there are several groundwater monitoring wells located approximately 0.10 miles northeast of the Site associated with the Chevron West Lovington Unit #057 Site (Case No. 1RP-1992) with depth to groundwater verified at 58.92 feet (ft) below ground surface (bgs) by Arcadis on May 20, 2024. 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 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 0.10 miles northeast 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

6 Remediation Activities Summary

6.1 Soil Removal

Soil remediation activities were performed from September 4 through September 10, 2024. 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. Lateral 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 80 square foot (sq ft) area. Excavation activities were conducted to a maximum depth of approximately 2.5 feet bgs. Approximately 7.5 cubic yards of impacted soil was excavated from the release area. The limits of the excavation are presented on **Figure 3**. 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 Sundance Landfill facility located at 42 Sundance Lane, Eunice, 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 on September 5, 2024 for laboratory analyses. Following excavation of the impacted area, one confirmation soil sample was collected from the excavation area as needed to maintain an approximate 200 square foot sample spacing or less in accordance with NMAC 19.15.29.12(D)(1)(b). The excavation confirmation sample location is depicted in **Figure 3**.

The confirmation soil sample was 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 report is included in **Appendix B.**

6.2.1 BTEX

Benzene concentrations were reported below the NMAC standard of 10 mg/kg. BTEX concentrations were reported below the NMAC standard of 50 mg/kg.

6.2.2 TPH

TPH concentrations were reported below the NMOCD reclamation and remediation standard of 100 mg/kg for GRO, DRO, and ORO.

6.2.3 Chloride

Chloride concentrations were reported below the NMOCD reclamation and remediation standard of 600 mg/kg.

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 B**. Upon receiving laboratory analytical confirming impacted soil over the applicable restoration limits had been removed from the impacted area, the excavated area was backfilled with locally sourced, non-impacted "like" material.

Approximately 80 square feet of the area of concern was restored to 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 next applicable growing season. A separate reclamation report will be submitted to the NMOCD once reclamation activities have been completed.

Photographic documentation of the remediation activities is included in **Appendix C.**

8 Summary

Analytical results associated with the remediation activities conducted in 2024 indicate that the horizontal and vertical extent of BTEX, TPH, and chloride impact in soil above NMAC screening standards have been remediated and excavated from the impacted area. The area was backfilled with clean material and graded to match the original surface conditions and drainage. Approximately 80 square feet of the area of concern was restored to original condition.

9 Soil Closure Request

Remediation activities were conducted in accordance with the NMOCD standards outlined in Table I of NMAC part 19.15.29.12 utilizing 200 square foot composite areas. 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 #056 for Incident # nPAC0617348887.

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

Tables

Table 1
Soil Analytical Results
Chevron Environmental Management Company
WLU 56
Lea County, New Mexico

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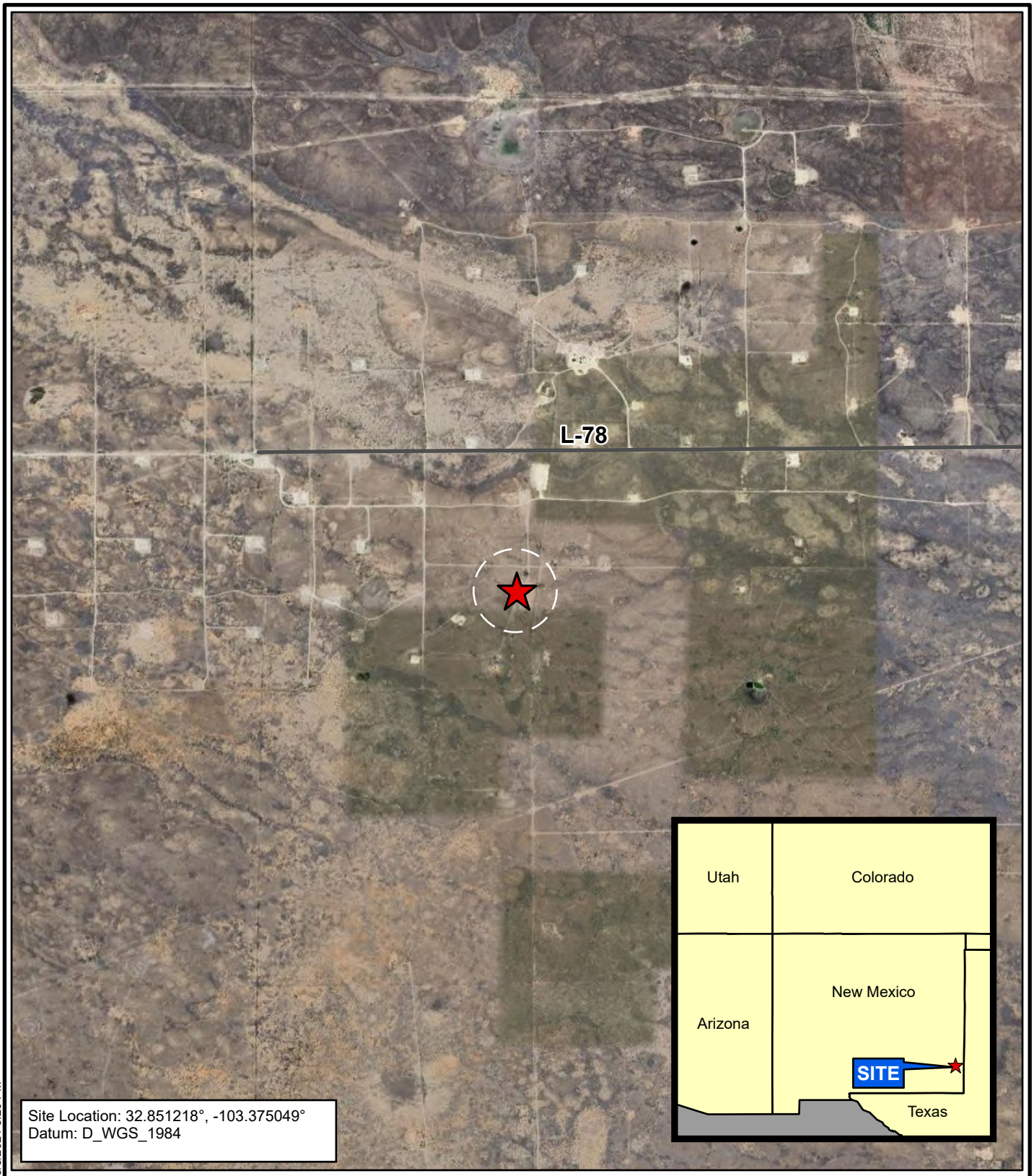
Sample I.D.	Sample Depth (feet bgs)	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	TPH-GRO	TPH-DRO	TPH GRO + DRO	TPH MRO	Total TPH	Chloride
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NMAC Standards			10	--	--	--	50	--	--	1,000	--	2,500	10,000
Restoration Requirements			10	--	--	--	50	--	--	--	--	100	600
B-1	2.5	09/05/24	<0.00141	<0.00202	<0.00110	<0.00231	<0.00231	<14.4	<15.0	<15.0	<15.0	<15.0	300
Backfill	---	08/12/24	<0.00140	<0.00201	<0.00110	<0.00230	<0.00230	<14.5	<15.1	<15.1	<15.1	<15.1	80.7

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
'<' indicates the analyte was not detected at or above the Method Detection Limit (MDL)
mg/kg: Milligram per Kilogram
feet bgs: feet below ground surface
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
B: Base sample
Backfill: 5 point composite sample collected from backfill material for confirmation prior to backfilling excavation
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 #056
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: vmn1306 ; Client (Project #)
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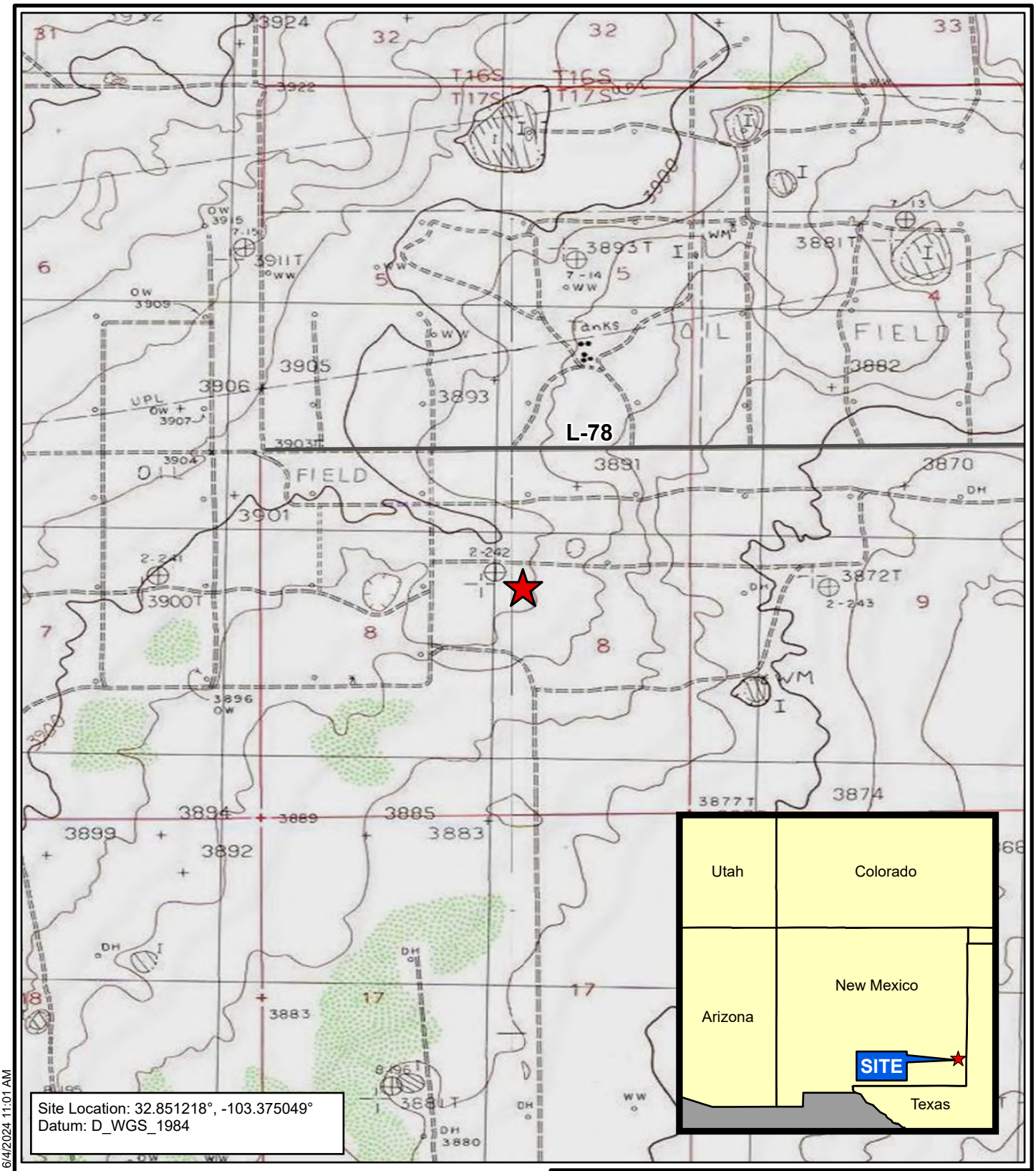


Legend

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

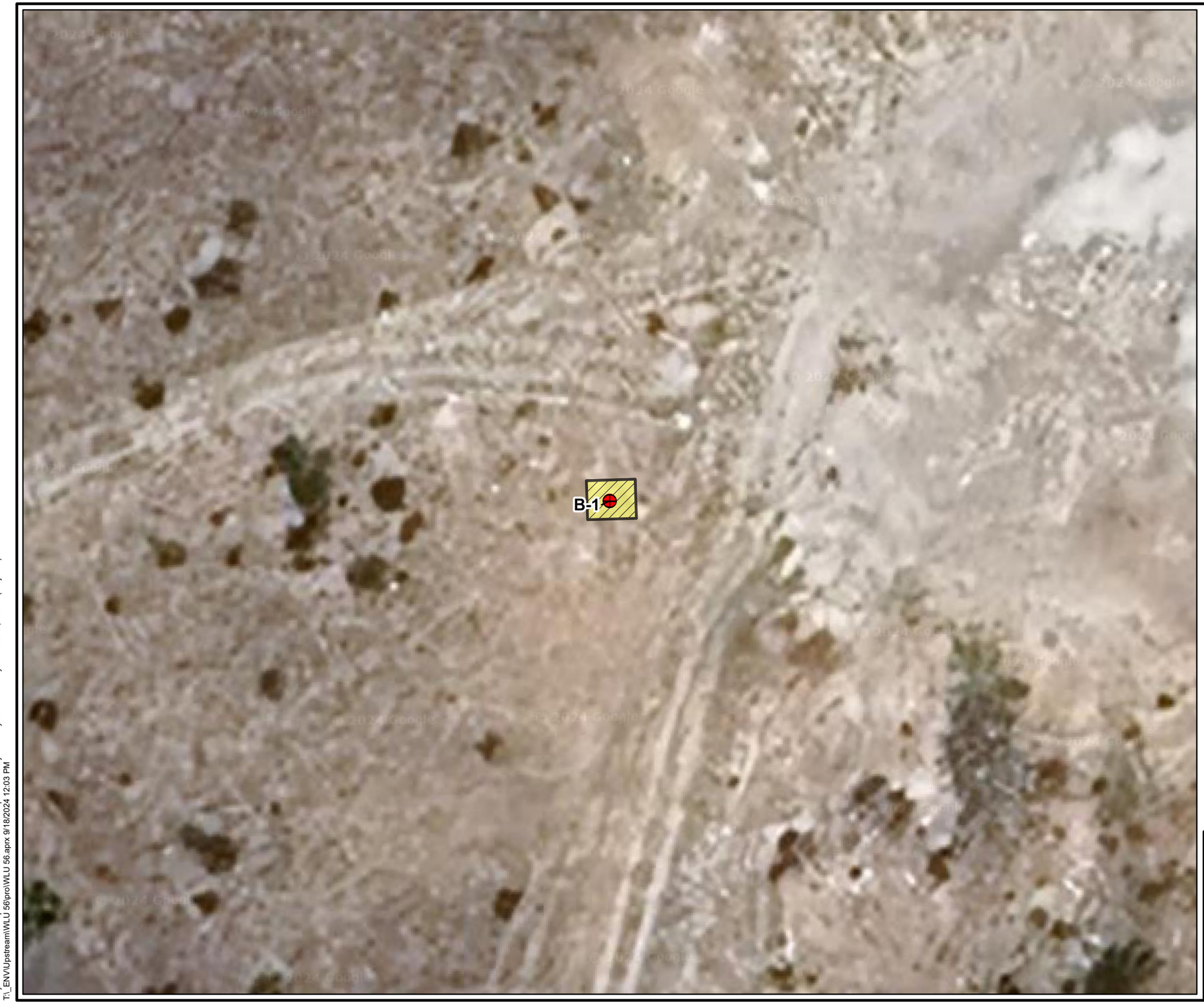
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #056
LEA COUNTY, NEW MEXICO

TOPOGRAPHIC MAP

ARCADIS

FIGURE 2

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: vmn1306 ; Client (Project #)
T:_ENV\Upstream\WLU 56\pro\WLU 56.aprx 6/4/2024 11:01 AM



LEGEND:

- Base Soil Sample Location (2.5' Sample Depth)
- Excavated Area

0 20 40 Feet

GRAPHIC SCALE

Datum: D_WGS_1984
Source: ESRI Online, Google Earth
Site Location: 32.851218°, -103.375049°

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #056
LEA COUNTY, NEW MEXICO

EXCAVATION BASE SOIL SAMPLE LOCATION

ARCADIS

FIGURE 3

City: Houston Div/Group: Remediation West Air Group Created By: W Berry Last Saved By: avi00976 ; Client (Project #)
T:_ENV\Upstream\WLU 56\pro\WLU 56.aprx 9/18/2024 12:03 PM

Appendix A

Work Plan

Chris Brand
Environmental Remediation/ Facility Decom Advisor

VIA ELECTRONIC MAIL

June 11, 2024

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

Re: West Lovington Unit #056
Soil Remediation Work Plan
Incident No. nPAC0617348887
Case No. 1RP-930

Dear Whom it May Concern:

Please find enclosed for your files, copies of the following:
West Lovington Unit #056 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 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. 2024 Work Plan
West Lovington Unit #056

cc. Scott Foord – Arcadis
Morgan Jordan – Arcadis

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ARCADIS

Chevron Environmental Management Company

2024 Work Plan

West Lovington Unit #056

Lea County, New Mexico

Incident # nPAC0617348887

June 2024

2024 Work Plan

West Lovington Unit #056
Incident # nPAC0617348887
Lea County, New Mexico

June 2024

Prepared By:
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Prepared For:
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Scott Foord, PG
Program Manager

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2024 Work Plan
West Lovington Unit #056

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 #056 (Site) located at coordinates: 32.851291, -103.375084. 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 privately owned land approximately 6-miles southwest of the City of Lovington in Unit G, 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 # nPAC0617348887

According to the Initial C-141 Form, on April 26, 2006, internal and external corrosion of a 1-inch plastic coated steel riser caused a split and a release of approximately 25 barrels (bbls) of produced water at the Site. According to the Initial C-141 Form submitted on April 27, 2006, the amount recovered was approximately 20 bbls of produced water. The Initial C-141 Form was approved in June 2006 and assigned remediation permit number 1RP-930 and incident number nPAC0617348887. The Initial C-141 Form is included as **Appendix A**.

3 Site Characterization

After a review of the New Mexico Office of State Engineers (NMOSE) database, there are several groundwater monitoring wells located approximately 0.10 miles northeast of the Site associated with the Chevron West Lovington Unit #057 Site (Case No. 1RP-1992) with depth to groundwater verified at 58.92 feet (ft) below ground surface (bgs) by Arcadis on May 20, 2024. Photographic documentation of gauging activities by Arcadis are included in **Appendix B.**

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 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? Yes

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

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 0.10 miles northeast 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 March 2023, Arcadis performed site assessment activities to evaluate soil impacts stemming from the release. A total of three (3) sample points (SB-1 through SB-3) were advanced to depths ranging from the surface to 2 feet bgs inside and surrounding the release area to evaluate the vertical and horizontal extents of the release. Soil sample locations are shown on **Figure 3**. 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 samples were analyzed for TPH by United States Environmental Protection Agency (EPA) Method 8015, modified BTEX by EPA Method 8021B, and chloride by EPA method 300.0. There were no detections in soil samples analyzed for BTEX. Soil samples analyzed for TPH were reported with concentrations ranging from 41.5 J mg/kg (S-2) to 57.2 mg/kg (S-3). Soil samples analyzed for chloride were reported with concentrations ranging from 59.3 mg/kg (S-1) to 769 mg/kg (S-3).

Horizontal and vertical assessment will be continued during remediation 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 D.** NMOCD correspondence is shown 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 2,750 square feet. An estimated 300 cubic yards of soil will be removed and transported to the R360 CRI Facility, which is listed as an NMOCD approved disposal facility.

In accordance with NMAC 19.15.29.12(D)(1)(b), CEMC proposes the following confirmation sampling plan to adhere with NMOCD requirements. Five-point composite confirmation soil samples will be collected from the excavation floor and sidewalls at 200 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).

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 (R360) 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 2,750 square feet of the area of concern located within the pasture 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 prepare and schedule 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 final closure request report describing the 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

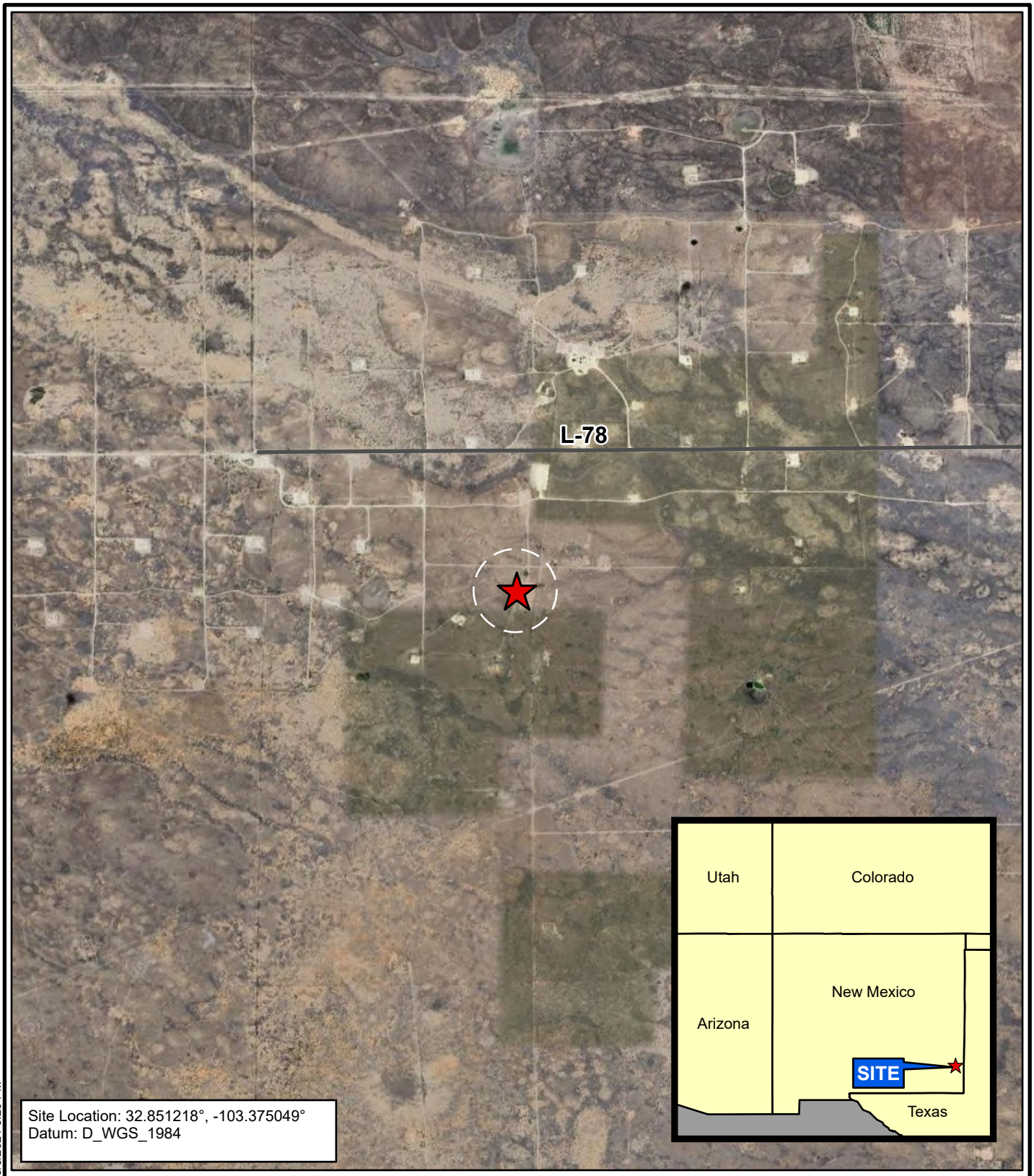
Table 1
Soil Analytical Results
Chevron Environmental Management Company
WLU 56
Lea County, New Mexico

ARCADIS

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			--	--	--	--	--	--	--	--	--	100	600
SB-1	0-0.5'	03/22/23	<0.000386	<0.000457	<0.000566	<0.000345	<0.000345	19.1 J	28.9 J	48.0 J	<15.0	48.0 J	59.3
	2'	03/22/23	<0.000381	<0.000451	<0.000559	<0.000341	<0.000341	20.5 J	21.3 J	41.8 J	<15.0	41.8 J	185
SB-2	0-0.5'	03/22/23	<0.000383	<0.000454	<0.000563	<0.000343	<0.000343	19.9 J	21.6 J	41.5 J	<15.0	41.5 J	210
	2'	03/22/23	<0.000383	<0.000453	<0.000562	<0.000342	<0.000342	20.9 J	20.6 J	41.5 J	<15.0	41.5 J	493
SB-3	0-0.5'	03/22/23	<0.000384	<0.000455	<0.000564	<0.000343	<0.000343	41.4 J	15.8 J	57.2 J	<15.0	57.2	427
	2'	03/22/23	<0.000387	<0.000459	<0.000568	<0.000346	<0.000346	23.8 J	19.6 J	43.4 J	<15.0	43.4 J	***769***

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
'<' 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
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

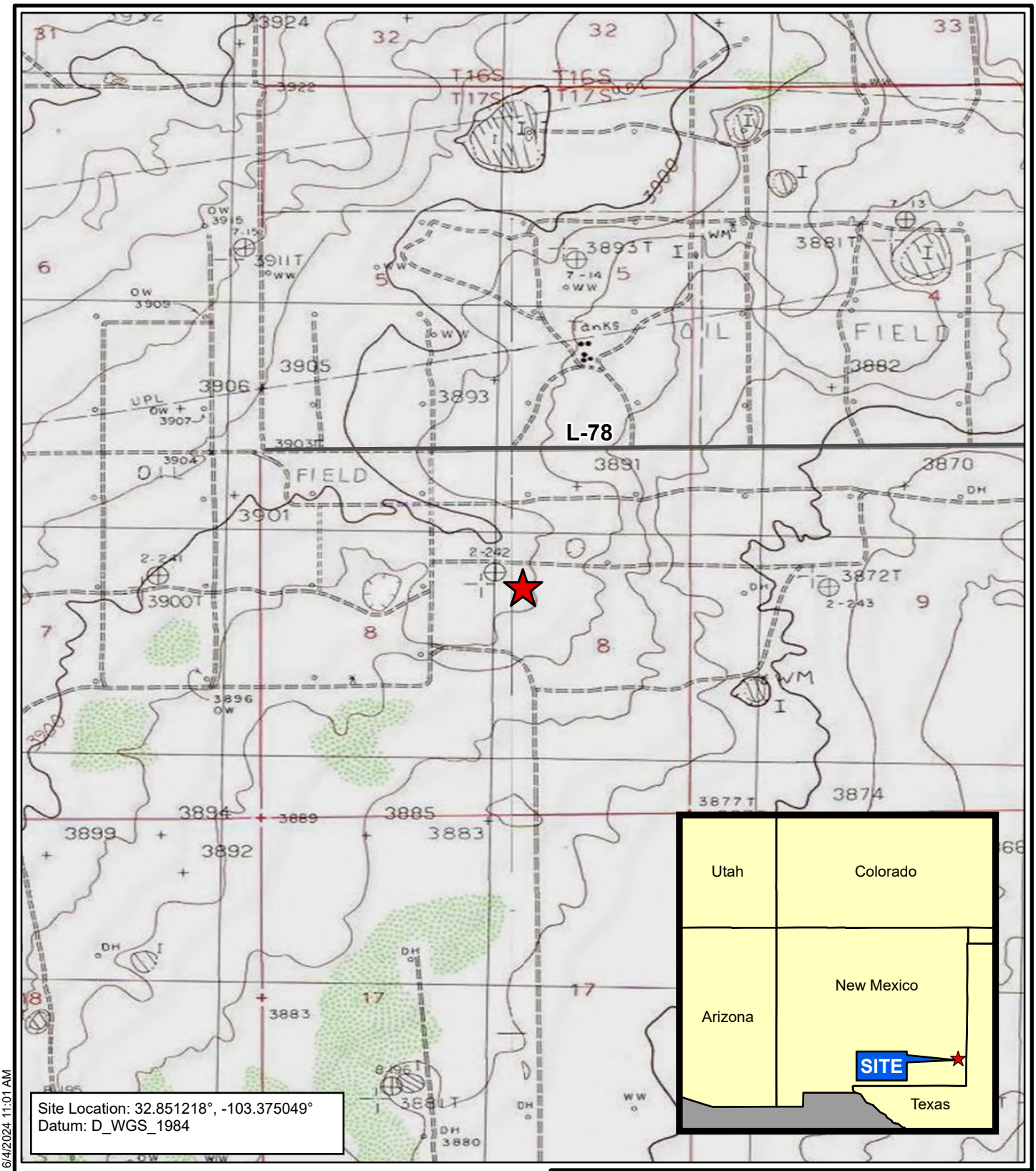
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #056
LEA COUNTY, NEW MEXICO

SITE LOCATION MAP

ARCADIS

FIGURE 1

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: vmn1306 ; Client (Project #)
T:_ENV\Upstream\WLU 56\pro\WLU 56.aprx 6/3/2024 6:20 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

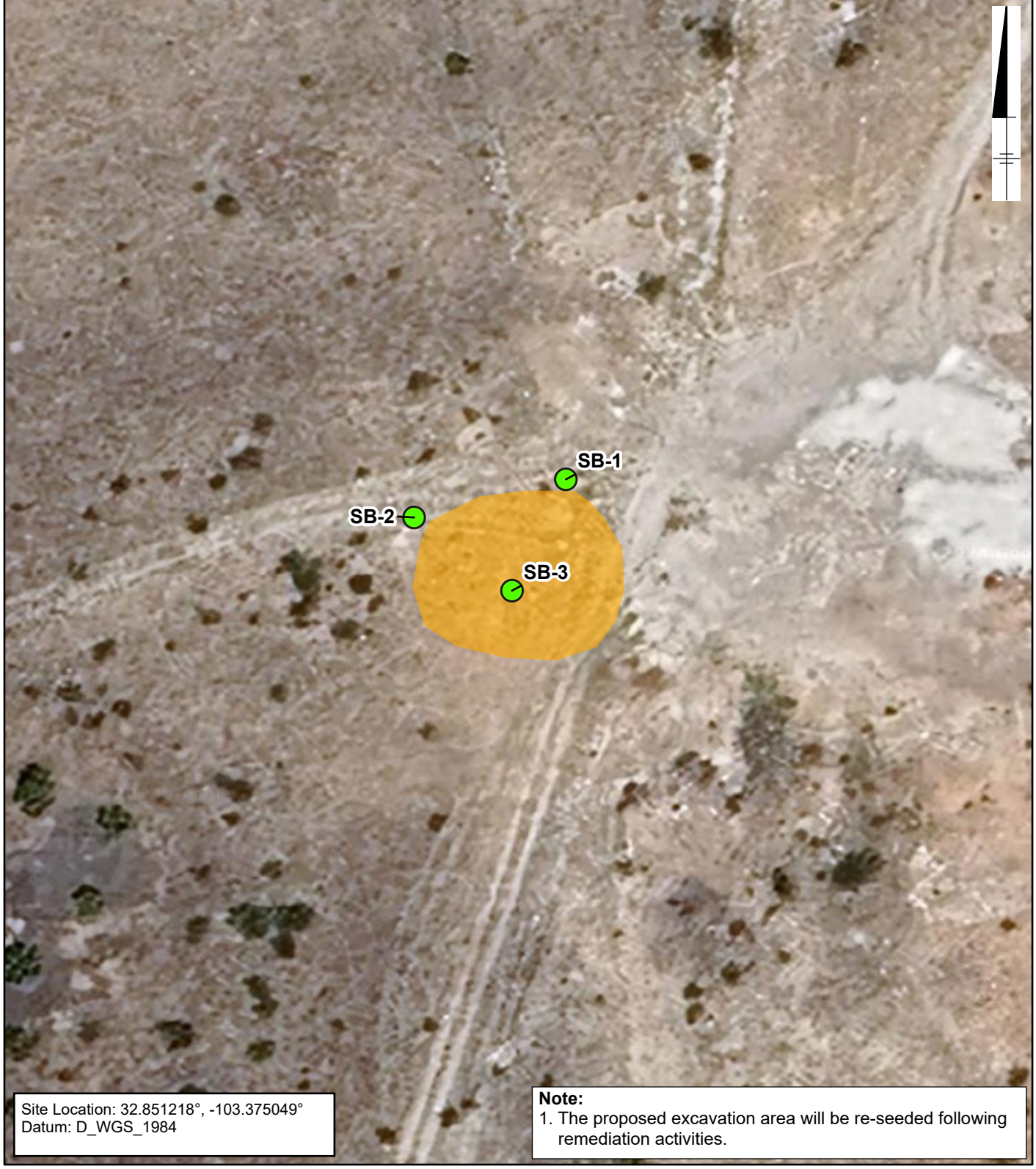
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT #056
LEA COUNTY, NEW MEXICO

TOPOGRAPHIC MAP

ARCADIS

FIGURE 2

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: vmn1306 ; Client (Project #)
T:_ENV\Upstream\WLU 56\pro\WLU 56.aprx 6/4/2024 11:01 AM



Site Location: 32.851218°, -103.375049°
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 #056
LEA COUNTY, NEW MEXICO

PROPOSED EXCAVATION AND SAMPLE LOCATION MAP

ARCADIS

FIGURE
3

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: vmn1306 ; Client (Project #)
T:_ENV\Upstream\WLU 56\pro\WLU 56.aprx 6/4/2024 11:01 AM

Appendix A

Initial C-141 Form Incident # nPAC0617348887

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

☐ Initial Report ☒ Final Report

Name of Company Chevron USA Inc.	Contact Wayne Minchew
Address HCR 60 Box 423 Lovington, NM 88260	Telephone No. 505-396-4414
Facility Name West Lovington Unit #56	Facility Type Injection Well

Surface Owner Darr Angel	Mineral Owner State of NM	Lease No. B-4704

AP I#3002503911000

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	8	17S	36E	1980	North	1980	East	Lea

Latitude Longitude

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 25 bbls	Volume Recovered 20 bbls
Source of Release Injection Line	Date and Hour of Occurrence 04-26-06 1230	Date and Hour of Discovery 04-26-06 1230
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Pat Caperton	
By Whom? Larry Ridenour	Date and Hour 04-26-06 1400	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Received Hobbs OCD JUN 2006

Describe Cause of Problem and Remedial Action Taken.*

Internal and External corrosion. 1" plastic coated steel riser split. Well shut in.

Describe Area Affected and Cleanup Action Taken.*

Pasture and mesquite, water stayed on location. Vacuum truck picked up standing water.

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: P.W. Minchew	OIL CONSERVATION DIVISION
Printed Name: Wayne Minchew	Approved by District Supervisor:
Title: Operations Supervisor	Approval Date: / Expiration Date:
E-mail Address: pminchew@chevron.com	Conditions of Approval: / Attached ☐
Date: Phone: 505-396-4414	

* Attach Additional Sheets If Necessary

incident - nPAC0617348887
application - pPAC0617349054

RP#930

Appendix B

Photo Log

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
West Lovington Unit #056	Lea County, TX	nPAC0617348887

Photo No.	Date:
1	5/20/2024

Direction Photo Taken:

Facing West

Description:

Chevron West Lovington Unit #057 Site (Case No. 1RP-1992) with depth to groundwater verified at 58.92 feet (ft) below ground surface (bgs) by Arcadis on May 20, 2024.

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
West Lovington Unit #056	Lea County, TX	nPAC0617348887

Photo No.	Date:
2	5/20/2024

Direction Photo Taken:

Facing West

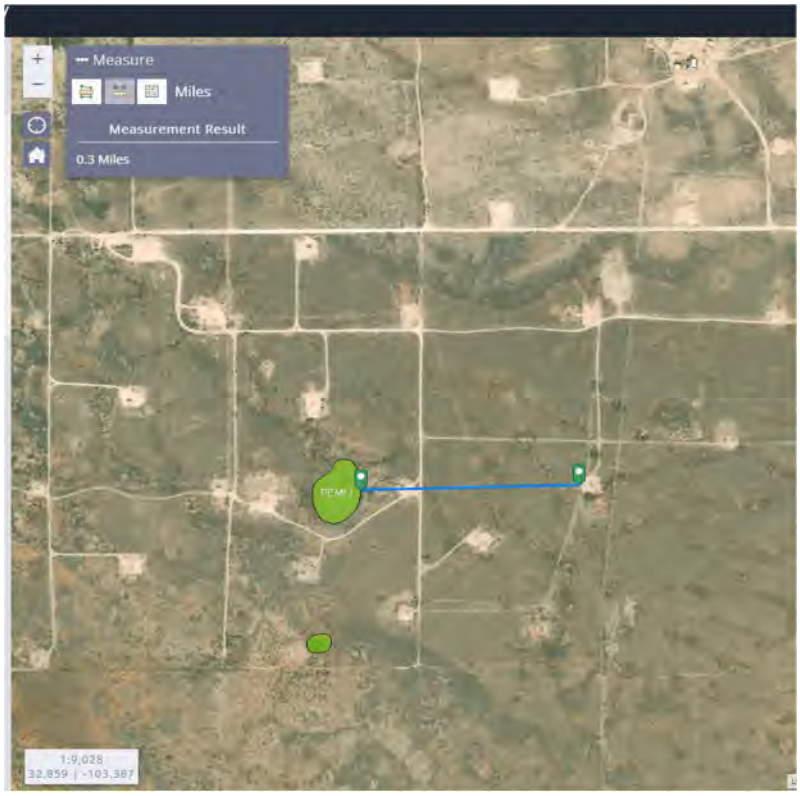
Description:

Chevron West Lovington Unit #057 Site (Case No. 1RP-1992) with depth to groundwater verified at 58.92 feet (ft) below ground surface (bgs) by Arcadis on May 20, 2024.

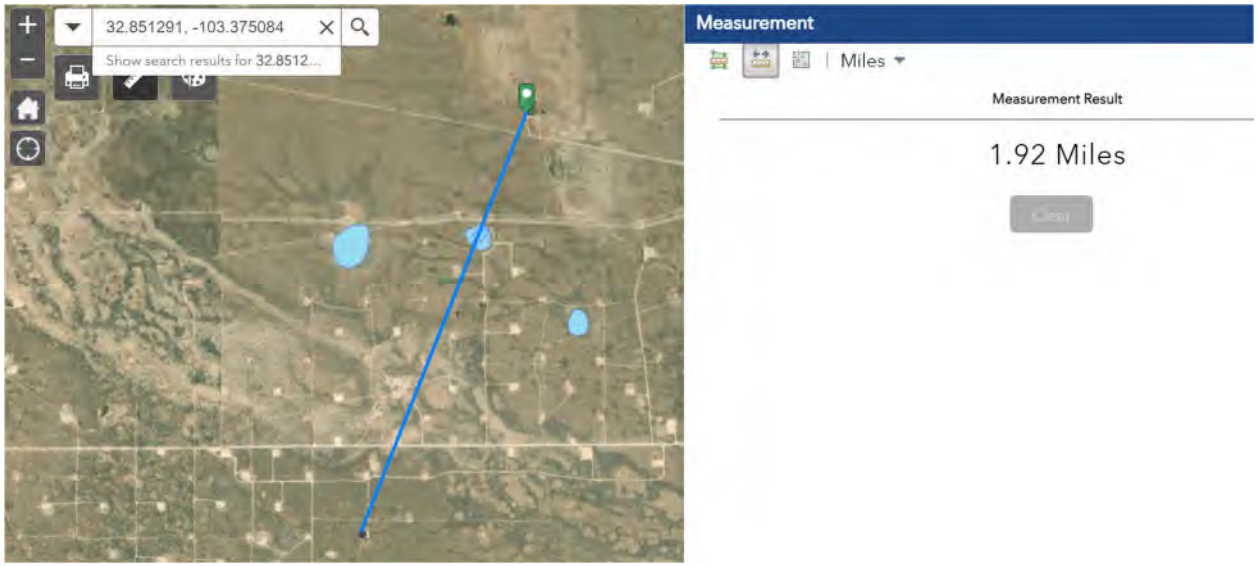
Appendix C

Site Characterization Data

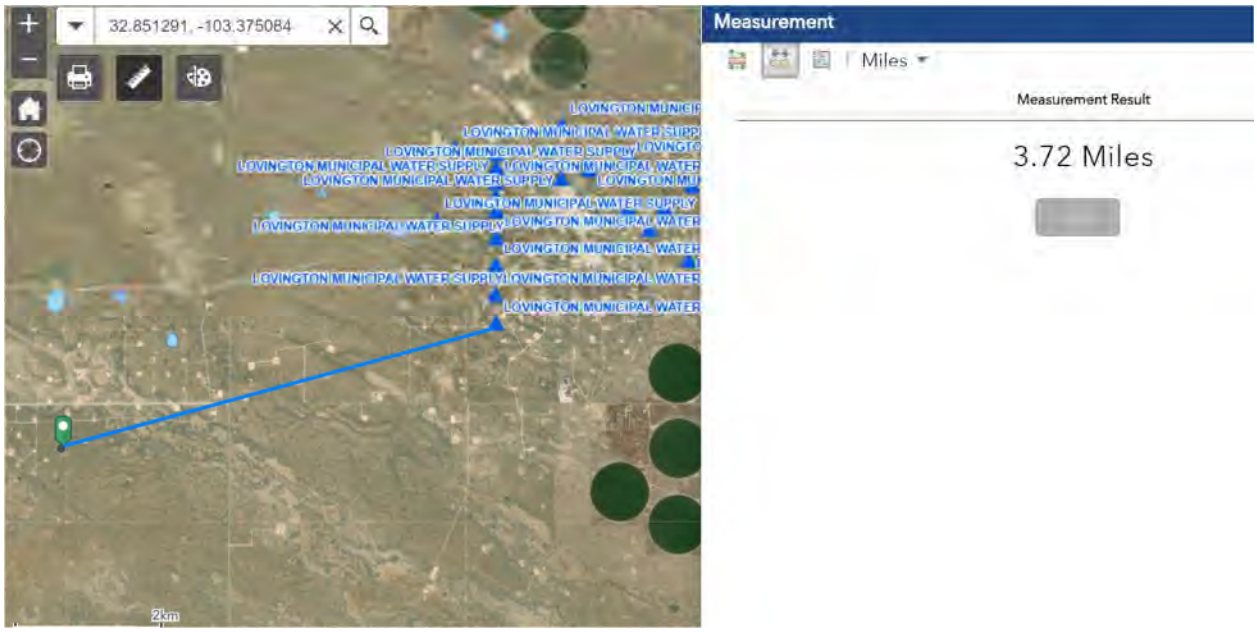
Distance to lakebed, sinkhole, or playa lake.



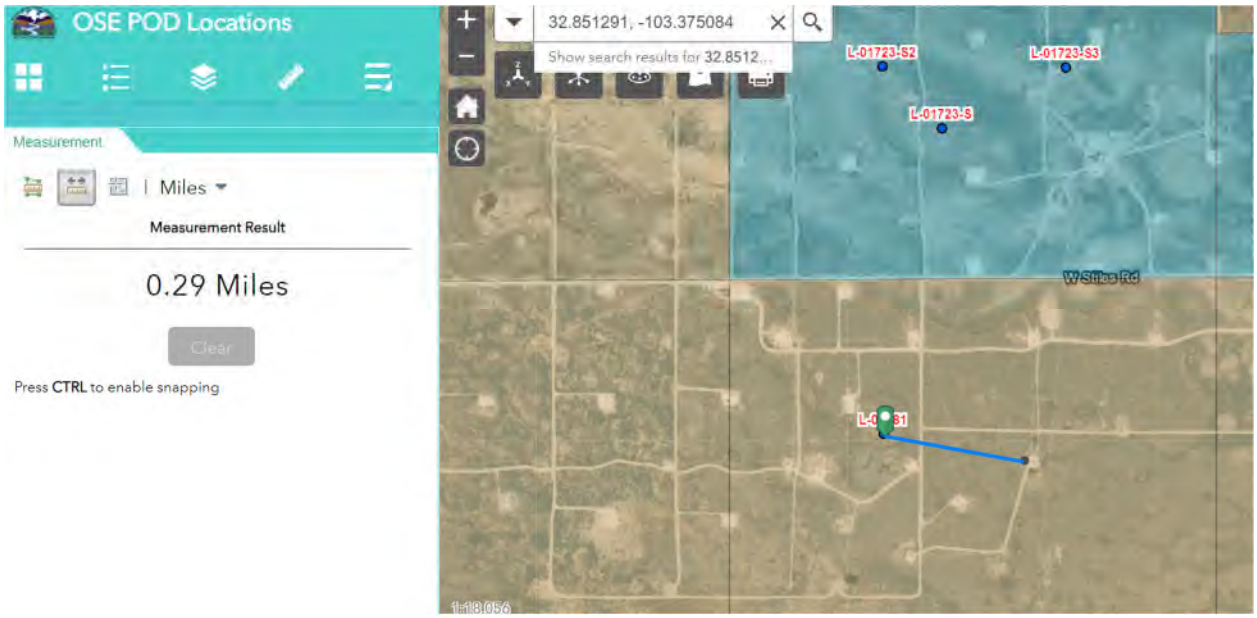
Distance to occupied permanent residence, school, hospital, institution, or church.



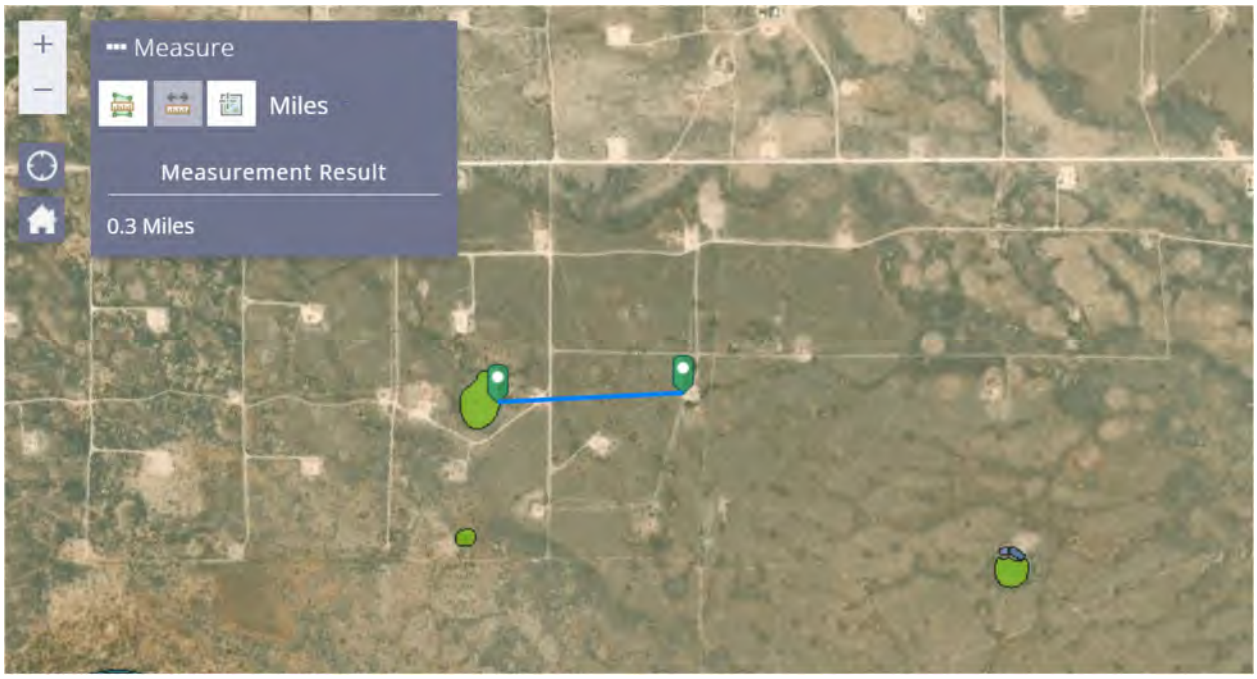
Distance to spring or private domestic fresh water well used by less than five households for domestic or stock watering purposes (Lovington Municipal Water Supply Well NM3521813).



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



Distance to a wetland.



Appendix D

Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 4/5/2023 12:02:46 PM

JOB DESCRIPTION

Lovington Field Assessment
SDG NUMBER WLU 56

JOB NUMBER

880-26269-1

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 12:02:46 PM

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

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

Laboratory Job ID: 880-26269-1
SDG: WLU 56

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc Job ID: 880-26269-1
Project/Site: Lovington Field Assessment SDG: WLU 56

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

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

Job ID: 880-26269-1
SDG: WLU 56

Job ID: 880-26269-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-26269-1

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
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-49794 and 880-49931 and analytical batch 880-49998 was outside the upper control limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-49771 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
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: 880-26269-1
SDG: WLU 56

Client Sample ID: SB-1-S-0.5'-20230322

Lab Sample ID: 880-26269-1

Date Collected: 03/22/23 13:10
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		03/30/23 12:19	04/03/23 02:56	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		03/30/23 12:19	04/03/23 02:56	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		03/30/23 12:19	04/03/23 02:56	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		03/30/23 12:19	04/03/23 02:56	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		03/30/23 12:19	04/03/23 02:56	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		03/30/23 12:19	04/03/23 02:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*03/30/23 12:19*	*04/03/23 02:56*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*03/30/23 12:19*	*04/03/23 02:56*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**48.0**	**J**	50.0	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	**19.1**	**J**	50.0	15.0	mg/Kg		03/28/23 17:17	03/29/23 16:02	1
Diesel Range Organics (Over C10-C28)	**28.9**	**J**	50.0	15.0	mg/Kg		03/28/23 17:17	03/29/23 16:02	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/28/23 17:17	03/29/23 16:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*03/28/23 17:17*	*03/29/23 16:02*	*1*
o-Terphenyl	*95*		*70 - 130*	*03/28/23 17:17*	*03/29/23 16:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**59.3**		5.03	0.397	mg/Kg			04/04/23 22:36	1

Client Sample ID: SB-1-S-2'-20230322

Lab Sample ID: 880-26269-2

Date Collected: 03/22/23 14:00
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		03/30/23 12:19	04/03/23 03:22	1
Toluene	<0.000451	U	0.00198	0.000451	mg/Kg		03/30/23 12:19	04/03/23 03:22	1
Ethylbenzene	<0.000559	U	0.00198	0.000559	mg/Kg		03/30/23 12:19	04/03/23 03:22	1
m-Xylene & p-Xylene	<0.00100	U	0.00396	0.00100	mg/Kg		03/30/23 12:19	04/03/23 03:22	1
o-Xylene	<0.000341	U	0.00198	0.000341	mg/Kg		03/30/23 12:19	04/03/23 03:22	1
Xylenes, Total	<0.00100	U	0.00396	0.00100	mg/Kg		03/30/23 12:19	04/03/23 03:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*03/30/23 12:19*	*04/03/23 03:22*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/30/23 12:19*	*04/03/23 03:22*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**41.8**	**J**	50.0	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: 880-26269-1
SDG: WLU 56

Client Sample ID: SB-1-S-2'-20230322

Lab Sample ID: 880-26269-2
Matrix: Solid
Date Collected: 03/22/23 14:00
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	20.5	J	50.0	15.0	mg/Kg		03/28/23 17:17	03/29/23 16:23	1
Diesel Range Organics (Over C10-C28)	21.3	J	50.0	15.0	mg/Kg		03/28/23 17:17	03/29/23 16:23	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/28/23 17:17	03/29/23 16:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*03/28/23 17:17*	*03/29/23 16:23*	*1*
o-Terphenyl	*100*		*70 - 130*	*03/28/23 17:17*	*03/29/23 16:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	185		5.04	0.398	mg/Kg			04/04/23 22:41	1

Client Sample ID: SB-2-S-0.5'-20230322

Lab Sample ID: 880-26269-3
Matrix: Solid
Date Collected: 03/22/23 14:30
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		03/30/23 12:19	04/03/23 03:49	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		03/30/23 12:19	04/03/23 03:49	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		03/30/23 12:19	04/03/23 03:49	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		03/30/23 12:19	04/03/23 03:49	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		03/30/23 12:19	04/03/23 03:49	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		03/30/23 12:19	04/03/23 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*03/30/23 12:19*	*04/03/23 03:49*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*03/30/23 12:19*	*04/03/23 03:49*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	41.5	J	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	19.9	J	49.9	15.0	mg/Kg		03/28/23 17:17	03/29/23 16:45	1
Diesel Range Organics (Over C10-C28)	21.6	J	49.9	15.0	mg/Kg		03/28/23 17:17	03/29/23 16:45	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/28/23 17:17	03/29/23 16:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*03/28/23 17:17*	*03/29/23 16:45*	*1*
o-Terphenyl	*106*		*70 - 130*	*03/28/23 17:17*	*03/29/23 16:45*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	210		4.98	0.393	mg/Kg			04/04/23 22:45	1

Client Sample Results

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

Job ID: 880-26269-1
SDG: WLU 56

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

Lab Sample ID: 880-26269-4
Matrix: Solid
Date Collected: 03/22/23 14:45
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	<0.000383	U	0.00199	0.000383	mg/Kg		03/30/23 12:19	04/03/23 04:15	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		03/30/23 12:19	04/03/23 04:15	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		03/30/23 12:19	04/03/23 04:15	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		03/30/23 12:19	04/03/23 04:15	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		03/30/23 12:19	04/03/23 04:15	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		03/30/23 12:19	04/03/23 04:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*03/30/23 12:19*	*04/03/23 04:15*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*03/30/23 12:19*	*04/03/23 04:15*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**41.5**	**J**	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	**20.9**	**J**	49.9	15.0	mg/Kg		03/28/23 17:17	03/29/23 17:06	1
Diesel Range Organics (Over C10-C28)	**20.6**	**J**	49.9	15.0	mg/Kg		03/28/23 17:17	03/29/23 17:06	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/28/23 17:17	03/29/23 17:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*03/28/23 17:17*	*03/29/23 17:06*	*1*
o-Terphenyl	*100*		*70 - 130*	*03/28/23 17:17*	*03/29/23 17:06*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**493**		4.96	0.392	mg/Kg			04/04/23 22:50	1

Client Sample ID: SB-3-S-0.5'-20230322

Lab Sample ID: 880-26269-5
Matrix: Solid
Date Collected: 03/22/23 14:05
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	<0.000384	U	0.00200	0.000384	mg/Kg		03/30/23 12:19	04/03/23 04:42	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		03/30/23 12:19	04/03/23 04:42	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		03/30/23 12:19	04/03/23 04:42	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		03/30/23 12:19	04/03/23 04:42	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		03/30/23 12:19	04/03/23 04:42	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		03/30/23 12:19	04/03/23 04:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*03/30/23 12:19*	*04/03/23 04:42*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*03/30/23 12:19*	*04/03/23 04:42*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**57.2**		49.8	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: 880-26269-1
SDG: WLU 56

Client Sample ID: SB-3-S-0.5'-20230322

Lab Sample ID: 880-26269-5

Date Collected: 03/22/23 14:05
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	41.4	J	49.8	15.0	mg/Kg		03/28/23 17:17	03/29/23 17:28	1
Diesel Range Organics (Over C10-C28)	15.8	J	49.8	15.0	mg/Kg		03/28/23 17:17	03/29/23 17:28	1
OII Range Organics (Over C28-C36)	<15.0	U	49.8	15.0	mg/Kg		03/28/23 17:17	03/29/23 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*03/28/23 17:17*	*03/29/23 17:28*	*1*
o-Terphenyl	*83*		*70 - 130*	*03/28/23 17:17*	*03/29/23 17:28*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	427		4.96	0.392	mg/Kg			04/04/23 22:55	1

Client Sample ID: SB-3-S-2'-20230322

Lab Sample ID: 880-26269-6

Date Collected: 03/22/23 14:20
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	<0.000387	U	0.00201	0.000387	mg/Kg		03/30/23 12:19	04/03/23 05:08	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		03/30/23 12:19	04/03/23 05:08	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		03/30/23 12:19	04/03/23 05:08	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		03/30/23 12:19	04/03/23 05:08	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg		03/30/23 12:19	04/03/23 05:08	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		03/30/23 12:19	04/03/23 05:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*03/30/23 12:19*	*04/03/23 05:08*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*03/30/23 12:19*	*04/03/23 05:08*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	43.4	J	50.0	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	23.8	J	50.0	15.0	mg/Kg		03/28/23 17:17	03/29/23 17:50	1
Diesel Range Organics (Over C10-C28)	19.6	J	50.0	15.0	mg/Kg		03/28/23 17:17	03/29/23 17:50	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/28/23 17:17	03/29/23 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*03/28/23 17:17*	*03/29/23 17:50*	*1*
o-Terphenyl	*105*		*70 - 130*	*03/28/23 17:17*	*03/29/23 17:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	769		5.02	0.397	mg/Kg			04/04/23 23:00	1

Surrogate Summary

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

Job ID: 880-26269-1
SDG: WLU 56

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)										
880-26269-1	SB-1-S-0.5'-20230322	107	92										
880-26269-2	SB-1-S-2'-20230322	122	93										
880-26269-3	SB-2-S-0.5'-20230322	120	93										
880-26269-4	SB-2-S-2'-20230322	113	85										
880-26269-5	SB-3-S-0.5'-20230322	109	81										
880-26269-6	SB-3-S-2'-20230322	122	95										
LCS 880-49931/1-A	Lab Control Sample	108	106										
LCSD 880-49931/2-A	Lab Control Sample Dup	109	104										
MB 880-49794/5-A	Method Blank	66 S1-	86										
MB 880-49931/5-A	Method Blank	68 S1-	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)										
880-26269-1	SB-1-S-0.5'-20230322	97	95										
880-26269-2	SB-1-S-2'-20230322	101	100										
880-26269-3	SB-2-S-0.5'-20230322	108	106										
880-26269-4	SB-2-S-2'-20230322	100	100										
880-26269-5	SB-3-S-0.5'-20230322	90	83										
880-26269-6	SB-3-S-2'-20230322	107	105										
LCS 880-49771/2-A	Lab Control Sample	123	115										
LCSD 880-49771/3-A	Lab Control Sample Dup	118	113										
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: 880-26269-1
SDG: WLU 56

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-49794/5-A
Matrix: Solid
Analysis Batch: 49998

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49794

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 09:13	04/02/23 05:12	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		03/29/23 09:13	04/02/23 05:12	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		03/29/23 09:13	04/02/23 05:12	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		03/29/23 09:13	04/02/23 05:12	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		03/29/23 09:13	04/02/23 05:12	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		03/29/23 09:13	04/02/23 05:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*66*	*S1-*	*70 - 130*	*03/29/23 09:13*	*04/02/23 05:12*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*03/29/23 09:13*	*04/02/23 05:12*	*1*

Lab Sample ID: MB 880-49931/5-A
Matrix: Solid
Analysis Batch: 49998

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49931

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		03/30/23 12:19	04/02/23 19:01	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		03/30/23 12:19	04/02/23 19:01	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		03/30/23 12:19	04/02/23 19:01	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		03/30/23 12:19	04/02/23 19:01	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		03/30/23 12:19	04/02/23 19:01	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		03/30/23 12:19	04/02/23 19:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*03/30/23 12:19*	*04/02/23 19:01*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*03/30/23 12:19*	*04/02/23 19:01*	*1*

Lab Sample ID: LCS 880-49931/1-A
Matrix: Solid
Analysis Batch: 49998

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49931

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1292		mg/Kg		129	70 - 130
Toluene	0.100	0.1097		mg/Kg		110	70 - 130
Ethylbenzene	0.100	0.1101		mg/Kg		110	70 - 130
m-Xylene & p-Xylene	0.200	0.2217		mg/Kg		111	70 - 130
o-Xylene	0.100	0.1146		mg/Kg		115	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: LCSD 880-49931/2-A
Matrix: Solid
Analysis Batch: 49998

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49931

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1277		mg/Kg		128	70 - 130	1	35

QC Sample Results

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

Job ID: 880-26269-1
SDG: WLU 56

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

Lab Sample ID: LCSD 880-49931/2-A
Matrix: Solid
Analysis Batch: 49998

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49931

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1131		mg/Kg		113	70 - 130	3	35
Ethylbenzene			0.100	0.1140		mg/Kg		114	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2302		mg/Kg		115	70 - 130	4	35
o-Xylene			0.100	0.1231		mg/Kg		123	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

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

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

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

Eurofins Midland

QC Sample Results

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

Job ID: 880-26269-1
SDG: WLU 56

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

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

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

Method: 300.0 - Anions, Ion Chromatography

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

QC Association Summary

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

Job ID: 880-26269-1
SDG: WLU 56

GC VOA

Prep Batch: 49794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-49794/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 49931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26269-1	SB-1-S-0.5'-20230322	Total/NA	Solid	5030B	
880-26269-2	SB-1-S-2'-20230322	Total/NA	Solid	5030B	
880-26269-3	SB-2-S-0.5'-20230322	Total/NA	Solid	5030B	
880-26269-4	SB-2-S-2'-20230322	Total/NA	Solid	5030B	
880-26269-5	SB-3-S-0.5'-20230322	Total/NA	Solid	5030B	
880-26269-6	SB-3-S-2'-20230322	Total/NA	Solid	5030B	
MB 880-49931/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-49931/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-49931/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 49998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26269-1	SB-1-S-0.5'-20230322	Total/NA	Solid	8021B	49931
880-26269-2	SB-1-S-2'-20230322	Total/NA	Solid	8021B	49931
880-26269-3	SB-2-S-0.5'-20230322	Total/NA	Solid	8021B	49931
880-26269-4	SB-2-S-2'-20230322	Total/NA	Solid	8021B	49931
880-26269-5	SB-3-S-0.5'-20230322	Total/NA	Solid	8021B	49931
880-26269-6	SB-3-S-2'-20230322	Total/NA	Solid	8021B	49931
MB 880-49794/5-A	Method Blank	Total/NA	Solid	8021B	49794
MB 880-49931/5-A	Method Blank	Total/NA	Solid	8021B	49931
LCS 880-49931/1-A	Lab Control Sample	Total/NA	Solid	8021B	49931
LCSD 880-49931/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	49931

GC Semi VOA

Prep Batch: 49771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26269-1	SB-1-S-0.5'-20230322	Total/NA	Solid	8015NM Prep	
880-26269-2	SB-1-S-2'-20230322	Total/NA	Solid	8015NM Prep	
880-26269-3	SB-2-S-0.5'-20230322	Total/NA	Solid	8015NM Prep	
880-26269-4	SB-2-S-2'-20230322	Total/NA	Solid	8015NM Prep	
880-26269-5	SB-3-S-0.5'-20230322	Total/NA	Solid	8015NM Prep	
880-26269-6	SB-3-S-2'-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	

Analysis Batch: 49783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26269-1	SB-1-S-0.5'-20230322	Total/NA	Solid	8015B NM	49771
880-26269-2	SB-1-S-2'-20230322	Total/NA	Solid	8015B NM	49771
880-26269-3	SB-2-S-0.5'-20230322	Total/NA	Solid	8015B NM	49771
880-26269-4	SB-2-S-2'-20230322	Total/NA	Solid	8015B NM	49771
880-26269-5	SB-3-S-0.5'-20230322	Total/NA	Solid	8015B NM	49771
880-26269-6	SB-3-S-2'-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

QC Association Summary

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

Job ID: 880-26269-1
SDG: WLU 56

GC Semi VOA (Continued)

Analysis Batch: 49783 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-49771/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49771

Analysis Batch: 49937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26269-1	SB-1-S-0.5'-20230322	Total/NA	Solid	8015 NM	
880-26269-2	SB-1-S-2'-20230322	Total/NA	Solid	8015 NM	
880-26269-3	SB-2-S-0.5'-20230322	Total/NA	Solid	8015 NM	
880-26269-4	SB-2-S-2'-20230322	Total/NA	Solid	8015 NM	
880-26269-5	SB-3-S-0.5'-20230322	Total/NA	Solid	8015 NM	
880-26269-6	SB-3-S-2'-20230322	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 50160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26269-1	SB-1-S-0.5'-20230322	Soluble	Solid	DI Leach	
880-26269-2	SB-1-S-2'-20230322	Soluble	Solid	DI Leach	
880-26269-3	SB-2-S-0.5'-20230322	Soluble	Solid	DI Leach	
880-26269-4	SB-2-S-2'-20230322	Soluble	Solid	DI Leach	
880-26269-5	SB-3-S-0.5'-20230322	Soluble	Solid	DI Leach	
880-26269-6	SB-3-S-2'-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	

Analysis Batch: 50338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26269-1	SB-1-S-0.5'-20230322	Soluble	Solid	300.0	50160
880-26269-2	SB-1-S-2'-20230322	Soluble	Solid	300.0	50160
880-26269-3	SB-2-S-0.5'-20230322	Soluble	Solid	300.0	50160
880-26269-4	SB-2-S-2'-20230322	Soluble	Solid	300.0	50160
880-26269-5	SB-3-S-0.5'-20230322	Soluble	Solid	300.0	50160
880-26269-6	SB-3-S-2'-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

Lab Chronicle

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

Job ID: 880-26269-1
SDG: WLU 56

Client Sample ID: SB-1-S-0.5'-20230322

Lab Sample ID: 880-26269-1
Matrix: Solid
Date Collected: 03/22/23 13:10
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	49931	03/30/23 12:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49998	04/03/23 02:56	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49937	03/30/23 12:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 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 16:02	SM	EET MID
Soluble	Leach	DI Leach			4.97 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 22:36	SMC	EET MID

Client Sample ID: SB-1-S-2'-20230322

Lab Sample ID: 880-26269-2
Matrix: Solid
Date Collected: 03/22/23 14:00
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	49931	03/30/23 12:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49998	04/03/23 03:22	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49937	03/30/23 12:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 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 16:23	SM	EET MID
Soluble	Leach	DI Leach			4.96 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 22:41	SMC	EET MID

Client Sample ID: SB-2-S-0.5'-20230322

Lab Sample ID: 880-26269-3
Matrix: Solid
Date Collected: 03/22/23 14:30
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	49931	03/30/23 12:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49998	04/03/23 03:49	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49937	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 16:45	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		1	50 mL	50 mL	50338	04/04/23 22:45	SMC	EET MID

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

Lab Sample ID: 880-26269-4
Matrix: Solid
Date Collected: 03/22/23 14:45
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			5.03 g	5 mL	49931	03/30/23 12:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49998	04/03/23 04:15	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49937	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 17:06	SM	EET MID

Lab Chronicle

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

Job ID: 880-26269-1
SDG: WLU 56

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

Lab Sample ID: 880-26269-4
Matrix: Solid
Date Collected: 03/22/23 14:45
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
Soluble	Leach	DI Leach			5.04 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 22:50	SMC	EET MID

Client Sample ID: SB-3-S-0.5'-20230322

Lab Sample ID: 880-26269-5
Matrix: Solid
Date Collected: 03/22/23 14:05
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			5.01 g	5 mL	49931	03/30/23 12:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49998	04/03/23 04:42	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49937	03/30/23 12:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.031 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 17:28	SM	EET MID
Soluble	Leach	DI Leach			5.04 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 22:55	SMC	EET MID

Client Sample ID: SB-3-S-2'-20230322

Lab Sample ID: 880-26269-6
Matrix: Solid
Date Collected: 03/22/23 14:20
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			4.97 g	5 mL	49931	03/30/23 12:19	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	49998	04/03/23 05:08	MNR	EET MID
Total/NA	Analysis	8015 NM		1			49937	03/30/23 12:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 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 17:50	SM	EET MID
Soluble	Leach	DI Leach			4.98 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 23:00	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: 880-26269-1
SDG: WLU 56

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: 880-26269-1
SDG: WLU 56

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: 880-26269-1
SDG: WLU 56

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-26269-1	SB-1-S-0.5'-20230322	Solid	03/22/23 13:10	03/23/23 08:20
880-26269-2	SB-1-S-2'-20230322	Solid	03/22/23 14:00	03/23/23 08:20
880-26269-3	SB-2-S-0.5'-20230322	Solid	03/22/23 14:30	03/23/23 08:20
880-26269-4	SB-2-S-2'-20230322	Solid	03/22/23 14:45	03/23/23 08:20
880-26269-5	SB-3-S-0.5'-20230322	Solid	03/22/23 14:05	03/23/23 08:20
880-26269-6	SB-3-S-2'-20230322	Solid	03/22/23 14:20	03/23/23 08:20

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

Chain of Custody Record

262269

eurofins | Environment Testing

Client Information	Sampler: David McBee	Lab PM: Builes, John	Carrier Tracking No(s):	COC No.: 880-5488-721 2
Client Contact: Douglas Jordan	Phone: 432-999-2980	E-Mail: John Builes@et.eurofinsus com	State of Origin: NM	Page: Page ~~2 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 56	Project #: 88001697			
Site:	SSOW#:			

Analysis Requested

880-26269 Chain of Custody

Preservation Codes

A HCL
B - NaOH
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 conta	Special Instructions/Note
			Preservation Code:				N		
SB-1-S-05'-20230322	3-22-23	1340	G	Solid			X	1	402
SB-1-S-2'-20230322		1400		Solid			X	1	
SB-2-S-0.5'-20230322		1430		Solid			X	1	
SB-2-S-1'-20230322		1445		Solid			X	1	
SB-3-S-0.5'-20230322		1405		Solid			X	1	
SB-3-S-1'-20230322	3-22-23	1420	G	Solid			X	1	
				Solid					
				Solid					
				Solid					

AM 3-22-23

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: 880-26269-1
SDG Number: WLU 56

Login Number: 26269
List Number: 1
Creator: Teel, Brianna

List Source: Eurofins Midland

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

Appendix E

NMOCD Correspondence

From: Jordan, Morgan
Sent: Monday, May 6, 2024 10:52 AM
To: Krueger, Lauren
Subject: FW: [EXTERNAL] NMOCD Deadline Extension Requests - Chevron Sites

Thank You,

Morgan Jordan | Project Manager | douglas.jordan@arcadis.com
Arcadis | Arcadis U.S., Inc.
98 San Jacinto Blvd, Suite 414 | Austin, TX | 78701 | USA
M. +1 281 644 9437

From: Maxwell, Ashley, EMNRD <Ashley.Maxwell@emnrd.nm.gov>
Sent: Thursday, May 2, 2024 12:54 PM
To: Foord, Scott <William.Foord@arcadis.com>
Cc: Chrisbrand@chevron.com; Michelson, Jason C <jmichelson@chevron.com>; Jordan, Morgan <Douglas.Jordan@arcadis.com>; Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: RE: [EXTERNAL] NMOCD Deadline Extension Requests - Chevron Sites

Good Afternoon Scott,

The incidents below have been granted a **final** 60 day extension of July 24, 2024. Please submit all reports via the OCD permitting portal by July 24, 2024.

1. Inc. No. nLWJ1016954547 – WLU East Test Sat (State Land) - Additional soil assessment activities completed in February and April 2024. The Site Characterization and Remediation Work Plan is currently under development and will be submitted to NMOCD.
2. Inc. No. nPAC0614230052 & nPAC0718639351 – WLU Water Inj Station (State Land) - Additional soil assessment activities completed in January and April 2024. The Site Characterization and Remediation Work Plan is currently under development and will be submitted to NMOCD.
3. Inc. No. nGRL1006731469 – WLU 41 (Private) - Additional soil assessment activities conducted in January and February 2024. Vertical delineation was not completed, additional assessment will be required and will be conducted within 30 days. A Site Characterization and Remediation Work Plan will be prepared and submitted to NMOCD following completion of assessment activities within the next 30 days.
4. Inc. No. nPAC0708526071 – WLU 47 (Private) - Additional soil assessment activities completed in January and February 2024. The Site Characterization and Remediation Work Plan is currently under development and will be submitted to NMOCD.

5. Inc. No. nPAC0617348887 – WLU 56 (Private) - The latest soil assessment was completed in March 2023 and a Site Characterization and Remediation Work Plan was submitted to NMOCD in December 2023. The 2023 Site Characterization and Remediation Work Plan was rejected and is currently being revised to address NMOCD comments for resubmittal to the Portal.
6. Inc. No. nTO1424533890 – Keel Fed Battery (BLM) - Closure request report was submitted in December of 2023 and denied by NMOCD on December 22, 2023. The Closure Request Report is currently being revised to address NMOCD comments and will be resubmitted to the Portal.
7. Inc. No. nKJ1515353221 – Moran 2-6 Tank Battery (State Land) – Closure request report was submitted in December of 2023 and denied by NMOCD on December 22, 2023. The Closure Request Report is currently being revised to address NMOCD comments and will be resubmitted to the Portal.

Ashley Maxwell ● Environmental Specialist
Environmental Bureau Projects Group
EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87110
505.635.5000 | Ashley.Maxwell@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMRND Website prior to submitting any C-141s. The guidance documents can be found at https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/or https://www.emnrd.nm.gov/ocd/ocd-forms/.

From: Foord, Scott <William.Foord@arcadis.com>
Sent: Thursday, May 2, 2024 11:02 AM
To: Maxwell, Ashley, EMNRD <Ashley.Maxwell@emnrd.nm.gov>
Cc: Chrisbrand@chevron.com; Michelson, Jason C <jmichelson@chevron.com>; Jordan, Morgan <Douglas.Jordan@arcadis.com>; Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: RE: [EXTERNAL] NMOCD Deadline Extension Requests - Chevron Sites

Ashley,

Just following up. Please let me know if you have any questions or need anything additional information.

Thanks,
Scott
Direct 713-953-4853
Cell 281-725-7477

From: Foord, Scott
Sent: Monday, April 29, 2024 9:13 AM
To: Maxwell, Ashley, EMNRD <Ashley.Maxwell@emnrd.nm.gov>
Cc: Chrisbrand@chevron.com; Michelson, Jason C <jmichelson@chevron.com>; Jordan, Morgan <Douglas.Jordan@arcadis.com>; Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: RE: [EXTERNAL] NMOCD Deadline Extension Requests - Chevron Sites

Ashley,

Please see responses below and let me know if you need any additional information.

1. Inc. No. nLWJ1016954547 – WLU East Test Sat (State Land) - Additional soil assessment activities completed in February and April 2024. The Site Characterization and Remediation Work Plan is currently under development and will be submitted to NMOCD.
2. Inc. No. nPAC0614230052 & nPAC0718639351 – WLU Water Inj Station (State Land) - Additional soil assessment activities completed in January and April 2024. The Site Characterization and Remediation Work Plan is currently under development and will be submitted to NMOCD.
3. Inc. No. nGRL1006731469 – WLU 41 (Private) - Additional soil assessment activities conducted in January and February 2024. Vertical delineation was not completed, additional assessment will be required and will be conducted within 30 days. A Site Characterization and Remediation Work Plan will be prepared and submitted to NMOCD following completion of assessment activities within the next 30 days.
4. Inc. No. nPAC0708526071 – WLU 47 (Private) - Additional soil assessment activities completed in January and February 2024. The Site Characterization and Remediation Work Plan is currently under development and will be submitted to NMOCD.
5. Inc. No. nPAC0617348887 – WLU 56 (Private) - The latest soil assessment was completed in March 2023 and a Site Characterization and Remediation Work Plan was submitted to NMOCD in December 2023. The 2023 Site Characterization and Remediation Work Plan was rejected and is currently being revised to address NMOCD comments for resubmittal to the Portal.
6. Inc. No. nTO1424533890 – Keel Fed Battery (BLM) - Closure request report was submitted in December of 2023 and denied by NMOCD on December 22, 2023. The Closure Request Report is currently being revised to address NMOCD comments and will be resubmitted to the Portal.
7. Inc. No. nKJ1515353221 – Moran 2-6 Tank Battery (State Land) – Closure request report was submitted in December of 2023 and denied by NMOCD on December 22, 2023. The Closure Request Report is currently being revised to address NMOCD comments and will be resubmitted to the Portal.

Thanks,
Scott
Direct 713-953-4853
Cell 281-725-7477

From: Maxwell, Ashley, EMNRD <Ashley.Maxwell@emnrd.nm.gov>
Sent: Wednesday, April 24, 2024 9:27 AM
To: Foord, Scott <William.Foord@arcadis.com>
Cc: Chrisbrand@chevron.com; Michelson, Jason C <jmichelson@chevron.com>; Jordan, Morgan <Douglas.Jordan@arcadis.com>; Hall, Brittany, EMNRD <Brittany.Hall@emnrd.nm.gov>; Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Subject: RE: [EXTERNAL] NMOCD Deadline Extension Requests - Chevron Sites

Good Morning,

Please see the notes below for the requested extensions:

1. Inc. No. nLWJ1016954547 – WLU East Test Sat (State Land)-Before an extension can be granted, describe what work has been completed and specify why work has not been completed within the initial time granted.
2. Inc. No. nPAC0614230052 & nPAC0718639351 – WLU Water Inj Station (State Land)- Before an extension can be granted, describe what work has been completed and specify why work has not been completed within the initial time granted.

3. Inc. No. nGRL1006731469 – WLU 41 (Private)- Before an extension can be granted, describe what work has been completed and specify why work has not been completed within the initial time granted.
4. Inc. No. nPAC0712954774 – WLU 47 (Private)-Incident nPAC0712954774 is a duplicate incident. Refer to incident NPAC0708526071 for current status.
5. Inc. No. nPAC0617348887 – WLU 56 (Private)- Before an extension can be granted, describe what work has been completed and specify why work has not been completed within the initial time granted.
6. Inc. No. nTO1424533890 – Keel Fed Battery (BLM)- Before an extension can be granted, describe what work has been completed and specify why work has not been completed within the initial time granted.
7. Inc. No. nKJ1515353221 – Moran 2-6 Tank Battery (State Land)- Before an extension can be granted, describe what work has been completed and specify why work has not been completed within the initial time granted.

Ashley Maxwell • Environmental Specialist
Environmental Bureau Projects Group
EMNRD - Oil Conservation Division
1000 Rio Brazos Road | Aztec, NM 87110
505.635.5000 | Ashley.Maxwell@emnrd.nm.gov
http://www.emnrd.state.nm.us/OCD/

Please be advised that the new Digital C-141 is live as of December 1, 2023. Please review the new Digital C-141 submission Dec 1, 2023 Guidance document posted on the EMRND Website prior to submitting any C-141s. The guidance documents can be found at https://www.emnrd.nm.gov/ocd/ocd-announcements-and-notifications/or https://www.emnrd.nm.gov/ocd/ocd-forms/.

From: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Sent: Wednesday, April 24, 2024 8:04 AM
To: Maxwell, Ashley, EMNRD <Ashley.Maxwell@emnrd.nm.gov>
Subject: Fw: [EXTERNAL] NMOCD Deadline Extension Requests - Chevron Sites

FYI. All are under your review except for the second one.

Nelson V

From: Foord, Scott <William.Foord@arcadis.com>
Sent: Wednesday, April 3, 2024 3:43 PM
To: Velez, Nelson, EMNRD <Nelson.Velez@emnrd.nm.gov>
Cc: Brand, Chris M <Chrisbrand@chevron.com>; Michelson, Jason C <jmichelson@chevron.com>; Jordan, Morgan <Douglas.Jordan@arcadis.com>
Subject: [EXTERNAL] NMOCD Deadline Extension Requests - Chevron Sites

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

Nelson,

We would like to please request 90-day extensions on the 4/30/2024 deadlines for the following sites. Additional assessments are currently ongoing and remediation work plans or closure requests will be submitted within that timeline. We are also working with the other agencies if applicable.

1. Inc. No. nLWJ1016954547 – WLU East Test Sat (State Land)
2. Inc. No. nPAC0614230052 & nPAC0718639351 – WLU Water Inj Station (State Land)

3. Inc. No. nGRL1006731469 – WLU 41 (Private)
4. Inc. No. nPAC0712954774 – WLU 47 (Private)
5. Inc. No. nPAC0617348887 – WLU 56 (Private)
6. Inc. No. nTO1424533890 – Keel Fed Battery (BLM)
7. Inc. No. nKJ1515353221 – Moran 2-6 Tank Battery (State Land)

Thanks,
Scott

Scott Foord PG, RSO, CPM
AFS Group Service Leader
Arcadis U.S., Inc.
10205 Westheimer Road Suite 800 | Houston, Texas | 77042 | USA
T +1 713 953 4853
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www.arcadis.com

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Houston
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Phone: 713 953 4800
Fax: 713 977 4620
www.arcadis.com

Appendix B

Laboratory Analytical Reports

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Morgan Jordan
Arcadis U.S., Inc.
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 9/26/2024 9:11:53 AM Revision 1

JOB DESCRIPTION

LPU 89
Lea County, NM

JOB NUMBER

880-47195-1

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
9/26/2024 9:11:53 AM
Revision 1

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

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Laboratory Job ID: 880-47195-1
SDG: Lea County, NM

Table of Contents

Definitions/Glossary

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
SDG: Lea County, NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

Glossary

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

Case Narrative

Client: Arcadis U.S., Inc.
Project: LPU 89

Job ID: 880-47195-1

Job ID: 880-47195-1 Eurofins Midland

Job Narrative
880-47195-1

REVISION

The report being provided is a revision of the original report sent on 8/23/2024. The report (revision 1) is being revised due to Revised report to split samples into multiple reports 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 8/13/2024 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.1°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SW-3-2' (880-47195-1), SW-4-2' (880-47195-2), B-1-4' (880-47195-3), B-2-4' (880-47195-4), B-3-4' (880-47195-5), B-4-4' (880-47195-6), B-5-4' (880-47195-7), B-6-4' (880-47195-8), B-7-4' (880-47195-9), B-8-4' (880-47195-10), B-9-4' (880-47195-11), B-10-4' (880-47195-12), B-11-4' (880-47195-13), B-12-4' (880-47195-14), B-13-4' (880-47195-15), B-14-4' (880-47195-16), B-15-4' (880-47195-17), B-16-4' (880-47195-18), B-17-4' (880-47195-19), B-18-4' (880-47195-20), B-19-4' (880-47195-21), B-20-4' (880-47195-22), B-21-4' (880-47195-23), B-22-4' (880-47195-24), B-23-4' (880-47195-25), B-24-4' (880-47195-26), B-25-4' (880-47195-27), B-26-4' (880-47195-28), B-27-4' (880-47195-29), B-28-4' (880-47195-30), B-29-4' (880-47195-31), B-30-4' (880-47195-32), B-31-4' (880-47195-33), B-32-4' (880-47195-34), B-34-4' (880-47195-35), B-35-4' (880-47195-36), B-36-4' (880-47195-37), B-37-4' (880-47195-38), B-38-4' (880-47195-39), B-39-4' (880-47195-40), B-39-4' (880-47195-41) and Backfill (880-47195-42).

GC VOA
Method 8021B: The laboratory control sample duplicate (LCSD) for preparation batch 880-88376 and analytical batch 880-88350 recovered outside control limits for the following analytes: o-Xylene. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-88376 and analytical batch 880-88350 was outside the upper control limits.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-88366 and analytical batch 880-88351 was outside control limits. Sample non-homogeneity is suspected.

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: B-17-4' (880-47195-19). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The continuing calibration verification (CCV) associated with batch 880-88295 recovered above the upper control limit for Diesel Range Organics (Over C10-C28) and 1-Chlorooctane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: B-22-4' (880-47195-24), B-26-4' (880-47195-28), B-36-4' (880-47195-37), (880-47112-A-1-E MS), (880-47112-A-1-F MSD) and (880-47195-A-21-E MS). Evidence of matrix interferences is not obvious.

Eurofins Midland

Case Narrative

Client: Arcadis U.S., Inc.
Project: LPU 89

Job ID: 880-47195-1

Job ID: 880-47195-1 (Continued) Eurofins Midland

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-88308 and analytical batch 880-88292 was outside the upper control limits.

Method 8015MOD_NM: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: B-20-4' (880-47195-22), B-23-4' (880-47195-25), B-24-4' (880-47195-26), B-27-4' (880-47195-29), B-31-4' (880-47195-33), B-34-4' (880-47195-35), B-37-4' (880-47195-38) and B-39-4' (880-47195-40). Percent recoveries are based on the amount spiked.

Method 8015MOD_NM: The continuing calibration verification (CCV) associated with batch 880-88292 recovered above the upper control limit for Diesel Range Organics (Over C10-C28). An acceptable CCV was ran within the 12 hour window, therefore the data has been qualified and reported.

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

HPLC/IC
Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-88305 and analytical batch 880-88322 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 300_ORGFM_28D - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-88305 and analytical batch 880-88322 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
SDG: Lea County, NM

Client Sample ID: Backfill

Date Collected: 08/12/24 15:20
Date Received: 08/13/24 10:30

Lab Sample ID: 880-47195-42

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		08/14/24 09:38	08/14/24 16:46	1
Toluene	<0.00201	U	0.00201	0.00201	mg/Kg		08/14/24 09:38	08/14/24 16:46	1
Ethylbenzene	<0.00110	U	0.00201	0.00110	mg/Kg		08/14/24 09:38	08/14/24 16:46	1
m-Xylene & p-Xylene	<0.00230	U	0.00402	0.00230	mg/Kg		08/14/24 09:38	08/14/24 16:46	1
o-Xylene	<0.00159	U *+	0.00201	0.00159	mg/Kg		08/14/24 09:38	08/14/24 16:46	1
Xylenes, Total	<0.00230	U *+	0.00402	0.00230	mg/Kg		08/14/24 09:38	08/14/24 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*08/14/24 09:38*	*08/14/24 16:46*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*08/14/24 09:38*	*08/14/24 16:46*	*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	0.00402	0.00230	mg/Kg			08/14/24 16:46	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			08/13/24 21:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.5	U	49.8	14.5	mg/Kg		08/12/24 08:30	08/13/24 21:36	1
Diesel Range Organics (Over C10-C28)	<15.1	U	49.8	15.1	mg/Kg		08/12/24 08:30	08/13/24 21:36	1
Oil Range Organics (Over C28-C36)	<15.1	U	49.8	15.1	mg/Kg		08/12/24 08:30	08/13/24 21:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*08/12/24 08:30*	*08/13/24 21:36*	*1*
o-Terphenyl	*108*		*70 - 130*	*08/12/24 08:30*	*08/13/24 21:36*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**80.7**		5.00	0.395	mg/Kg			08/13/24 20:38	1

Surrogate Summary

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
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)
880-47195-42	Backfill	98	115

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)
880-47195-42	Backfill	106	108

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-88365/5-A
Matrix: Solid
Analysis Batch: 88352

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88365

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		08/14/24 09:11	08/14/24 12:08	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		08/14/24 09:11	08/14/24 12:08	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		08/14/24 09:11	08/14/24 12:08	1
m-Xylene & p-Xylene	<0.00228	U	0.00399	0.00228	mg/Kg		08/14/24 09:11	08/14/24 12:08	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		08/14/24 09:11	08/14/24 12:08	1
Xylenes, Total	<0.00228	U	0.00399	0.00228	mg/Kg		08/14/24 09:11	08/14/24 12:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*08/14/24 09:11*	*08/14/24 12:08*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*08/14/24 09:11*	*08/14/24 12:08*	*1*

Lab Sample ID: LCS 880-88365/1-A
Matrix: Solid
Analysis Batch: 88352

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88365

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1150		mg/Kg		115	70 - 130
Toluene	0.100	0.1039		mg/Kg		104	70 - 130
Ethylbenzene	0.100	0.1074		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	0.200	0.2287		mg/Kg		114	70 - 130
o-Xylene	0.100	0.1124		mg/Kg		112	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-88365/2-A
Matrix: Solid
Analysis Batch: 88352

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 88365

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1220		mg/Kg		122	70 - 130	6	35
Toluene	0.100	0.1099		mg/Kg		110	70 - 130	6	35
Ethylbenzene	0.100	0.1133		mg/Kg		113	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2409		mg/Kg		120	70 - 130	5	35
o-Xylene	0.100	0.1183		mg/Kg		118	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: MB 880-88366/5-A
Matrix: Solid
Analysis Batch: 88351

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88366

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		08/14/24 09:22	08/14/24 13:04	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		08/14/24 09:22	08/14/24 13:04	1

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-88366/5-A
Matrix: Solid
Analysis Batch: 88351

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88366

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		08/14/24 09:22	08/14/24 13:04	1
m-Xylene & p-Xylene	<0.00228	U	0.00399	0.00228	mg/Kg		08/14/24 09:22	08/14/24 13:04	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		08/14/24 09:22	08/14/24 13:04	1
Xylenes, Total	<0.00228	U	0.00399	0.00228	mg/Kg		08/14/24 09:22	08/14/24 13:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*73*		*70 - 130*	*08/14/24 09:22*	*08/14/24 13:04*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*08/14/24 09:22*	*08/14/24 13:04*	*1*

Lab Sample ID: LCS 880-88366/1-A
Matrix: Solid
Analysis Batch: 88351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88366

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1012		mg/Kg		101	70 - 130
Toluene	0.100	0.09407		mg/Kg		94	70 - 130
Ethylbenzene	0.100	0.1021		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2050		mg/Kg		102	70 - 130
o-Xylene	0.100	0.1016		mg/Kg		102	70 - 130

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

Lab Sample ID: LCSD 880-88366/2-A
Matrix: Solid
Analysis Batch: 88351

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 88366

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1052		mg/Kg		105	70 - 130	4	35
Toluene	0.100	0.09693		mg/Kg		97	70 - 130	3	35
Ethylbenzene	0.100	0.1030		mg/Kg		103	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2037		mg/Kg		102	70 - 130	1	35
o-Xylene	0.100	0.1008		mg/Kg		101	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 880-47195-14 MS
Matrix: Solid
Analysis Batch: 88351

Client Sample ID: B-12-4'
Prep Type: Total/NA
Prep Batch: 88366

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00140	U	0.100	0.08366		mg/Kg		84	70 - 130
Toluene	<0.00201	U	0.100	0.09580		mg/Kg		96	70 - 130
Ethylbenzene	<0.00109	U	0.100	0.08670		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	<0.00229	U F2	0.200	0.1479		mg/Kg		74	70 - 130

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
SDG: Lea County, NM

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

Lab Sample ID: 880-47195-14 MS
Matrix: Solid
Analysis Batch: 88351

Client Sample ID: B-12-4'
Prep Type: Total/NA
Prep Batch: 88366

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	<0.00159	U F2	0.100	0.07387		mg/Kg		74	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*

Lab Sample ID: 880-47195-14 MSD
Matrix: Solid
Analysis Batch: 88351

Client Sample ID: B-12-4'
Prep Type: Total/NA
Prep Batch: 88366

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00140	U	0.100	0.1093		mg/Kg		109	70 - 130	27	35
Toluene	<0.00201	U	0.100	0.09343		mg/Kg		93	70 - 130	3	35
Ethylbenzene	<0.00109	U	0.100	0.1113		mg/Kg		111	70 - 130	25	35
m-Xylene & p-Xylene	<0.00229	U F2	0.200	0.2192	F2	mg/Kg		110	70 - 130	39	35
o-Xylene	<0.00159	U F2	0.100	0.1072	F2	mg/Kg		107	70 - 130	37	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: MB 880-88376/5-A
Matrix: Solid
Analysis Batch: 88350

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88376

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00141	U	0.00202	0.00141	mg/Kg		08/14/24 09:38	08/14/24 13:33	1
Toluene	<0.00202	U	0.00202	0.00202	mg/Kg		08/14/24 09:38	08/14/24 13:33	1
Ethylbenzene	<0.00110	U	0.00202	0.00110	mg/Kg		08/14/24 09:38	08/14/24 13:33	1
m-Xylene & p-Xylene	<0.00231	U	0.00404	0.00231	mg/Kg		08/14/24 09:38	08/14/24 13:33	1
o-Xylene	<0.00160	U	0.00202	0.00160	mg/Kg		08/14/24 09:38	08/14/24 13:33	1
Xylenes, Total	<0.00231	U	0.00404	0.00231	mg/Kg		08/14/24 09:38	08/14/24 13:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*162*	*S1+*	*70 - 130*	*08/14/24 09:38*	*08/14/24 13:33*	*1*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*	*08/14/24 09:38*	*08/14/24 13:33*	*1*

Lab Sample ID: LCS 880-88376/1-A
Matrix: Solid
Analysis Batch: 88350

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88376

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1203		mg/Kg		120	70 - 130
Toluene	0.100	0.1200		mg/Kg		120	70 - 130
Ethylbenzene	0.100	0.1103		mg/Kg		110	70 - 130
m-Xylene & p-Xylene	0.200	0.2257		mg/Kg		113	70 - 130
o-Xylene	0.100	0.1257		mg/Kg		126	70 - 130

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
SDG: Lea County, NM

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

Lab Sample ID: LCS 880-88376/1-A
Matrix: Solid
Analysis Batch: 88350

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88376

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: LCSD 880-88376/2-A
Matrix: Solid
Analysis Batch: 88350

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 88376

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1214		mg/Kg		121	70 - 130	1	35
Toluene			0.100	0.1148		mg/Kg		115	70 - 130	4	35
Ethylbenzene			0.100	0.1135		mg/Kg		114	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2517		mg/Kg		126	70 - 130	11	35
o-Xylene			0.100	0.1404	*+	mg/Kg		140	70 - 130	11	35

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

Lab Sample ID: 880-47195-34 MS
Matrix: Solid
Analysis Batch: 88350

Client Sample ID: B-32-4'
Prep Type: Total/NA
Prep Batch: 88376

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00140	U	0.100	0.1140		mg/Kg		114	70 - 130
Toluene	<0.00201	U	0.100	0.1060		mg/Kg		106	70 - 130
Ethylbenzene	<0.00109	U	0.100	0.08744		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	<0.00229	U	0.200	0.1909		mg/Kg		95	70 - 130
o-Xylene	<0.00159	U *+	0.100	0.1184		mg/Kg		118	70 - 130

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

Lab Sample ID: 880-47195-34 MSD
Matrix: Solid
Analysis Batch: 88350

Client Sample ID: B-32-4'
Prep Type: Total/NA
Prep Batch: 88376

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00140	U	0.100	0.1148		mg/Kg		115	70 - 130	1	35
Toluene	<0.00201	U	0.100	0.1136		mg/Kg		114	70 - 130	7	35
Ethylbenzene	<0.00109	U	0.100	0.1049		mg/Kg		105	70 - 130	18	35
m-Xylene & p-Xylene	<0.00229	U	0.200	0.2229		mg/Kg		111	70 - 130	15	35
o-Xylene	<0.00159	U *+	0.100	0.1243		mg/Kg		124	70 - 130	5	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-88142/1-A
Matrix: Solid
Analysis Batch: 88292

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88142

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		08/12/24 08:30	08/13/24 09:44	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		08/12/24 08:30	08/13/24 09:44	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		08/12/24 08:30	08/13/24 09:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*08/12/24 08:30*	*08/13/24 09:44*	*1*
o-Terphenyl	*110*		*70 - 130*	*08/12/24 08:30*	*08/13/24 09:44*	*1*

Lab Sample ID: LCS 880-88142/2-A
Matrix: Solid
Analysis Batch: 88292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88142

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1088		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1138		mg/Kg		114	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*111*		*70 - 130*
o-Terphenyl	*126*		*70 - 130*

Lab Sample ID: LCSD 880-88142/3-A
Matrix: Solid
Analysis Batch: 88292

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 88142

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1072		mg/Kg		107	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	1097		mg/Kg		110	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*120*		*70 - 130*

Lab Sample ID: MB 880-88307/1-A
Matrix: Solid
Analysis Batch: 88295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88307

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		08/13/24 11:53	08/14/24 00:33	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		08/13/24 11:53	08/14/24 00:33	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		08/13/24 11:53	08/14/24 00:33	1

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
SDG: Lea County, NM

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

Lab Sample ID: MB 880-88307/1-A
Matrix: Solid
Analysis Batch: 88295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88307

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	08/13/24 11:53	08/14/24 00:33	1
o-Terphenyl	101		70 - 130	08/13/24 11:53	08/14/24 00:33	1

Lab Sample ID: LCS 880-88307/2-A
Matrix: Solid
Analysis Batch: 88295

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88307

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	923.1		mg/Kg		92	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	749.8		mg/Kg		75	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	83		70 - 130
o-Terphenyl	80		70 - 130

Lab Sample ID: LCSD 880-88307/3-A
Matrix: Solid
Analysis Batch: 88295

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 88307

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	926.9		mg/Kg		93	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	789.6		mg/Kg		79	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: 880-47195-1 MS
Matrix: Solid
Analysis Batch: 88295

Client Sample ID: SW-3-2'
Prep Type: Total/NA
Prep Batch: 88307

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	998	857.4		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)	<15.1	U	998	741.2		mg/Kg		74	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	96		70 - 130

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
SDG: Lea County, NM

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

Lab Sample ID: 880-47195-1 MSD
Matrix: Solid
Analysis Batch: 88295

Client Sample ID: SW-3-2'
Prep Type: Total/NA
Prep Batch: 88307

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	998	814.1		mg/Kg		82	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<15.1	U	998	714.2		mg/Kg		72	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*101*		*70 - 130*
o-Terphenyl	*95*		*70 - 130*

Lab Sample ID: MB 880-88308/1-A
Matrix: Solid
Analysis Batch: 88292

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88308

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		08/13/24 11:57	08/14/24 00:17	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		08/13/24 11:57	08/14/24 00:17	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		08/13/24 11:57	08/14/24 00:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*154*	*S1+*	*70 - 130*	*08/13/24 11:57*	*08/14/24 00:17*	*1*
o-Terphenyl	*160*	*S1+*	*70 - 130*	*08/13/24 11:57*	*08/14/24 00:17*	*1*

Lab Sample ID: LCS 880-88308/2-A
Matrix: Solid
Analysis Batch: 88292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88308

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	981.1		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	973.9		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*97*		*70 - 130*
o-Terphenyl	*109*		*70 - 130*

Lab Sample ID: LCSD 880-88308/3-A
Matrix: Solid
Analysis Batch: 88292

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 88308

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	971.7		mg/Kg		97	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	957.0		mg/Kg		96	70 - 130	2	20

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-88308/3-A
Matrix: Solid
Analysis Batch: 88292

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 88308

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 880-47195-21 MS
Matrix: Solid
Analysis Batch: 88292

Client Sample ID: B-19-4'
Prep Type: Total/NA
Prep Batch: 88308

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<14.4	U	999	870.7		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	<15.0	U	999	918.7		mg/Kg		92	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	120		70 - 130
o-Terphenyl	131	S1+	70 - 130

Lab Sample ID: 880-47195-21 MSD
Matrix: Solid
Analysis Batch: 88292

Client Sample ID: B-19-4'
Prep Type: Total/NA
Prep Batch: 88308

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	<14.4	U	999	880.9		mg/Kg		88	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<15.0	U	999	941.7		mg/Kg		94	70 - 130	2	20

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-88107/1-A
Matrix: Solid
Analysis Batch: 88304

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			08/13/24 17:54	1

Lab Sample ID: LCS 880-88107/2-A
Matrix: Solid
Analysis Batch: 88304

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	253.2		mg/Kg		101	90 - 110

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-88107/3-A
Matrix: Solid
Analysis Batch: 88304

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	253.6		mg/Kg		101	90 - 110	0	20

Lab Sample ID: MB 880-88303/1-A
Matrix: Solid
Analysis Batch: 88314

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			08/13/24 21:08	1

Lab Sample ID: LCS 880-88303/2-A
Matrix: Solid
Analysis Batch: 88314

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	253.9		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-88303/3-A
Matrix: Solid
Analysis Batch: 88314

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	254.2		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 880-47195-1 MS
Matrix: Solid
Analysis Batch: 88314

Client Sample ID: SW-3-2'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	80.5		250	340.0		mg/Kg		104	90 - 110		

Lab Sample ID: 880-47195-1 MSD
Matrix: Solid
Analysis Batch: 88314

Client Sample ID: SW-3-2'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	80.5		250	340.8		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 880-47195-11 MS
Matrix: Solid
Analysis Batch: 88314

Client Sample ID: B-9-4'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	29.0		252	280.1		mg/Kg		100	90 - 110		

Lab Sample ID: 880-47195-11 MSD
Matrix: Solid
Analysis Batch: 88314

Client Sample ID: B-9-4'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	29.0		252	280.1		mg/Kg		100	90 - 110	0	20

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
SDG: Lea County, NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-88305/1-A
Matrix: Solid
Analysis Batch: 88322

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			08/14/24 02:42	1

Lab Sample ID: LCS 880-88305/2-A
Matrix: Solid
Analysis Batch: 88322

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	231.4		mg/Kg		93	90 - 110		

Lab Sample ID: LCSD 880-88305/3-A
Matrix: Solid
Analysis Batch: 88322

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	231.8		mg/Kg		93	90 - 110	0	20

Lab Sample ID: 880-47195-21 MS
Matrix: Solid
Analysis Batch: 88322

Client Sample ID: B-19-4'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	712	F1	252	933.0	F1	mg/Kg		88	90 - 110		

Lab Sample ID: 880-47195-21 MSD
Matrix: Solid
Analysis Batch: 88322

Client Sample ID: B-19-4'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	712	F1	252	934.2	F1	mg/Kg		88	90 - 110	0	20

Lab Sample ID: 880-47195-31 MS
Matrix: Solid
Analysis Batch: 88322

Client Sample ID: B-29-4'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	1200		249	1375	4	mg/Kg		71	90 - 110		

Lab Sample ID: 880-47195-31 MSD
Matrix: Solid
Analysis Batch: 88322

Client Sample ID: B-29-4'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1200		249	1372	4	mg/Kg		70	90 - 110	0	20

QC Association Summary

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
SDG: Lea County, NM

GC VOA

Analysis Batch: 88350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-47195-42	Backfill	Total/NA	Solid	8021B	88376

Prep Batch: 88376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-47195-42	Backfill	Total/NA	Solid	5030B	

Analysis Batch: 88491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-47195-42	Backfill	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 88142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-47195-42	Backfill	Total/NA	Solid	8015NM Prep	

Analysis Batch: 88292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-47195-42	Backfill	Total/NA	Solid	8015B NM	88142

Analysis Batch: 88405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-47195-42	Backfill	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 88107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-47195-42	Backfill	Soluble	Solid	DI Leach	

Analysis Batch: 88304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-47195-42	Backfill	Soluble	Solid	300.0	88107

Lab Chronicle

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
SDG: Lea County, NM

Client Sample ID: Backfill
Date Collected: 08/12/24 15:20
Date Received: 08/13/24 10:30

Lab Sample ID: 880-47195-42
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	88376	08/14/24 09:38	AA	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	88350	08/14/24 16:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			88491	08/14/24 16:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			88405	08/13/24 21:36	SM	EET MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	88142	08/12/24 08:30	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	88292	08/13/24 21:36	TKC	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	88107	08/13/24 11:33	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	88304	08/13/24 20:38	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Arcadis U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
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 U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
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 U.S., Inc.
Project/Site: LPU 89

Job ID: 880-47195-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-47195-42	Backfill	Solid	08/12/24 15:20	08/13/24 10:30

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Chain of Custody

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

Work Order No: 880-47195 Chain of Custody

www.xenco.com Page 1 of 5

Project Manager:	Morgan Jordan	Bill to: (if different)	
Company Name:	Arcadis	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	281-644-9437	Email:	Douglas.Jordan@Arcadis.com

Work Order Comments

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

Project Name:	LPU 89	Turn Around	
Project Number:	30209864	☒ Routine BTEX TPH ☒ Rush C1'	
Project Location:	Lea County, NM	Due Date:	
Sampler's Name:	Heath Boyd	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	IR8
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-1
Sample Custody Seals:	Yes No N/A	Temperature Reading:	3.2
Total Containers:		Corrected Temperature:	3.1

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: 300_ORGFM_28D	8015 Mod_NM	8021B	Sample Comments
SW-3-2'	S	8/12/24	815		C	1		X	X	X	
SW-4-2'			820			1		X	X	X	
B-1-4'			825			1		X	X	X	
B-2-4'			830			1		X	X	X	
B-3-4'			840			1		X	X	X	
B-4-4'			850			1		X	X	X	
B-5-4'			900			1		X	X	X	
B-6-4'			910			1		X	X	X	
B-7-4'			920			1		X	X	X	
B-8-4'	X	X	930		X	1		X	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	EC	8/12/24 1555	2 EC 8/12/24		8/13/24 1030
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: 47195

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Project Manager:	Morgan Jordan	Bill to: (if different)	
Company Name:	Arcadis	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	Douglas.Jordan@Arcadis.com
Phone:	281-644-9437	Email:	

Work Order Comments

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

Project Name:	LPU 89	Turn Around	
Project Number:	30209864	☒Routine ☐BTEX ☐TPH ☒Rush C1'	Pres. Code
Project Location:	Lea County, NM	Due Date:	
Sampler's Name:	Heath Boyd	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

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

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Parameters: 8021 B	300_ORGFM_28D	8015 Mod_NM	Sample Comments
B-9-4'	S	8/12/24	940		C	1	X	X	X	
B-10-4'			950			1	X	X	X	
B-11-4'			1000			1	X	X	X	
B-12-4'			1010			1	X	X	X	
B-13-4'			1020			1	X	X	X	
B-14-4'			1100			1	X	X	X	
B-15-4'			1110			1	X	X	X	
B-16-4'			1120			1	X	X	X	
B-17-4'			1130			1	X	X	X	
B-18-4'	↓	↓	1140		↓	1	X	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	EC	8/12/24 1555	2 EC 8/12/24		8/13/24 1030
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: 47195

www.xenco.com Page 3 of 5

Project Manager:	Morgan Jordan	Bill to: (if different)	
Company Name:	Arcadis	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	281-644-9437	Email:	Douglas.Jordan@Arcadis.com

Work Order Comments

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

Project Name:	LPH 89	Turn Around	
Project Number:	30209864	☒Routine ~~BIEX TPH~~ ☒Rush C1'	Pres. Code
Project Location:	Lea County, NM	Due Date:	
Sampler's Name:	Heath Boyd	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

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

ANALYSIS REQUEST

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	300_ORG_FM_28D	8021B	8015 Mod_NM	Sample Comments
B-19-4'	S	8/12/24	1150		C	1	X	X	X	
B-20-4'			1200			1	X	X	X	
B-21-4'			1210			1	X	X	X	
B-22-4'			1220			1	X	X	X	
B-23-4'			1230			1	X	X	X	
B-24-4'			1240			1	X	X	X	
B-25-4'			1250			1	X	X	X	
B-26-4'			1300			1	X	X	X	
B-27-4'			1310			1	X	X	X	
B-28-4'	X	X	1320		X	1	X	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	EC	8/12/24 1555	2 8/12/24 EC		8/13/24 1030
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: 47195

www.xenco.com Page 4 of 5

Project Manager:	Morgan Jordan	Bill to: (if different)	
Company Name:	Arcadis	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	281-644-9437	Email:	Douglas.Jordan@Arcadis.com

Work Order Comments

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

Project Name:	CPU 89	Turn Around	
Project Number:	30209864	☒ Routine ☒ Rush (BE/Pay TPH)	Cl'
Project Location:	Lea County, NM	Due Date:	
Sampler's Name:	Heath Boyd	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

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

ANALYSIS REQUEST (Pres. Code / Parameters)

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	300.ORG FM-28D	8021B	8015 MOD-NM	Sample Comments
B-29-4'	S	8/12/24	1330		C	1	X	X	X	
B-30-4'			1340			1	X	X	X	
B-31-4'			1350			1	X	X	X	
B-32-4'			1400			1	X	X	X	
B-33-4'			1410			1	X	X	X	
B-34-4'			1420			1	X	X	X	
B-35-4'			1430			1	X	X	X	
B-36-4'			1440			1	X	X	X	
B-37-4'			1450			1	X	X	X	
B-38-4'	↓	↓	1500		↓	1	X	X	X	

Preservative Codes

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 [signature]	EC	8/12/24 1555	2 EC 8/12/24	[signature]	8/13/24 1030
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: 47193

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Project Manager:	Morgan Jordan	Bill to: (if different)	
Company Name:	Arcadis	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	281-644-9437	Email:	Douglas.Jordan@Arcadis.com

Work Order Comments

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

Project Name:	LPU 89	Turn Around	
Project Number:	30209864	☒Routine ☒Rush CI'	
Project Location:	Lea County, NM	Due Date:	
Sampler's Name:	Heath Boyd	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

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

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: 300_ORGFM_28D	8021B	8015 MOD_NM	Sample Comments
B-39-4'	S	8/12/24	1510		C	1		X	X	X	
Backfill	S	8/12/24	1520		C	1		X	X	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	EC	8/12/24 1555	2 EC		8/13/24 1030
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Arcadis U.S., Inc.

Job Number: 880-47195-1
SDG Number: Lea County, NM

Login Number: 47195
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.	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 U.S., Inc.
98 San Jacinto Blvd.
Suite 414
Austin, Texas 78701

Generated 9/9/2024 6:05:40 PM

JOB DESCRIPTION

WLU 56
Lea County, NM

JOB NUMBER

880-48105-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

Eurofins Midland

Job Notes

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

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

Authorization

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Client: Arcadis U.S., Inc.
Project/Site: WLU 56

Laboratory Job ID: 880-48105-1
SDG: Lea County, NM

Table of Contents

Definitions/Glossary

Client: Arcadis U.S., Inc. Job ID: 880-48105-1
Project/Site: WLU 56 SDG: Lea County, NM

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Arcadis U.S., Inc.
Project: WLU 56

Job ID: 880-48105-1

Job ID: 880-48105-1 Eurofins Midland

Job Narrative
880-48105-1

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 9/6/2024 11:20 AM. 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 2.0°C.

Receipt Exceptions
The following sample was received and analyzed from an unpreserved bulk soil jar: B-1-2.5' (880-48105-1).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-90187 and 880-90211 and analytical batch 880-90173 was outside the control limits.

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: B-1-2.5' (880-48105-1). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-90192 and analytical batch 880-90280 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 8015MOD_NM: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: (LCS 880-90192/2-A). Percent recoveries are based on the amount spiked.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-90192 and analytical batch 880-90280 was outside the upper control limits.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-90192 and analytical batch 880-90280 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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

HPLC/IC
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: WLU 56

Job ID: 880-48105-1
SDG: Lea County, NM

Client Sample ID: B-1-2.5'

Date Collected: 09/05/24 08:00
Date Received: 09/06/24 11:20
Sample Depth: 2.5'

Lab Sample ID: 880-48105-1

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		09/06/24 11:35	09/07/24 04:41	1
Toluene	<0.00202	U	0.00202	0.00202	mg/Kg		09/06/24 11:35	09/07/24 04:41	1
Ethylbenzene	<0.00110	U	0.00202	0.00110	mg/Kg		09/06/24 11:35	09/07/24 04:41	1
m-Xylene & p-Xylene	<0.00231	U	0.00404	0.00231	mg/Kg		09/06/24 11:35	09/07/24 04:41	1
o-Xylene	<0.00160	U	0.00202	0.00160	mg/Kg		09/06/24 11:35	09/07/24 04:41	1
Xylenes, Total	<0.00231	U	0.00404	0.00231	mg/Kg		09/06/24 11:35	09/07/24 04:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*09/06/24 11:35*	*09/07/24 04:41*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*09/06/24 11:35*	*09/07/24 04:41*	*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			09/07/24 04:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.0	U	49.6	15.0	mg/Kg			09/09/24 15:03	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		09/06/24 10:40	09/09/24 15:03	1
Diesel Range Organics (Over C10-C28)	<15.0	U *+ *1	49.6	15.0	mg/Kg		09/06/24 10:40	09/09/24 15:03	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.6	15.0	mg/Kg		09/06/24 10:40	09/09/24 15:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*129*		*70 - 130*	*09/06/24 10:40*	*09/09/24 15:03*	*1*
o-Terphenyl	*144*	*S1+*	*70 - 130*	*09/06/24 10:40*	*09/09/24 15:03*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**300**		4.98	0.393	mg/Kg			09/07/24 15:26	1

Surrogate Summary

Client: Arcadis U.S., Inc.
Project/Site: WLU 56

Job ID: 880-48105-1
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)
880-48105-1	B-1-2.5'	82	94
LCS 880-90211/1-A	Lab Control Sample	107	124
LCSD 880-90211/2-A	Lab Control Sample Dup	105	122
MB 880-90187/5-A	Method Blank	68 S1-	98
MB 880-90211/5-A	Method Blank	67 S1-	98

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-48105-1	B-1-2.5'	129	144 S1+
LCS 880-90192/2-A	Lab Control Sample	139 S1+	154 S1+
LCSD 880-90192/3-A	Lab Control Sample Dup	115	126
MB 880-90192/1-A	Method Blank	64 S1-	134 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: WLU 56

Job ID: 880-48105-1
SDG: Lea County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-90187/5-A
Matrix: Solid
Analysis Batch: 90173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 90187

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		09/06/24 10:31	09/06/24 13:09	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		09/06/24 10:31	09/06/24 13:09	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		09/06/24 10:31	09/06/24 13:09	1
m-Xylene & p-Xylene	<0.00228	U	0.00399	0.00228	mg/Kg		09/06/24 10:31	09/06/24 13:09	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		09/06/24 10:31	09/06/24 13:09	1
Xylenes, Total	<0.00228	U	0.00399	0.00228	mg/Kg		09/06/24 10:31	09/06/24 13:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*09/06/24 10:31*	*09/06/24 13:09*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*09/06/24 10:31*	*09/06/24 13:09*	*1*

Lab Sample ID: MB 880-90211/5-A
Matrix: Solid
Analysis Batch: 90173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 90211

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00139	U	0.00200	0.00139	mg/Kg		09/06/24 11:30	09/06/24 23:50	1
Toluene	<0.00200	U	0.00200	0.00200	mg/Kg		09/06/24 11:30	09/06/24 23:50	1
Ethylbenzene	<0.00109	U	0.00200	0.00109	mg/Kg		09/06/24 11:30	09/06/24 23:50	1
m-Xylene & p-Xylene	<0.00228	U	0.00399	0.00228	mg/Kg		09/06/24 11:30	09/06/24 23:50	1
o-Xylene	<0.00158	U	0.00200	0.00158	mg/Kg		09/06/24 11:30	09/06/24 23:50	1
Xylenes, Total	<0.00228	U	0.00399	0.00228	mg/Kg		09/06/24 11:30	09/06/24 23:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*09/06/24 11:30*	*09/06/24 23:50*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*09/06/24 11:30*	*09/06/24 23:50*	*1*

Lab Sample ID: LCS 880-90211/1-A
Matrix: Solid
Analysis Batch: 90173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 90211

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1095		mg/Kg		110	70 - 130
Toluene	0.100	0.1020		mg/Kg		102	70 - 130
Ethylbenzene	0.100	0.1150		mg/Kg		115	70 - 130
m-Xylene & p-Xylene	0.200	0.2290		mg/Kg		115	70 - 130
o-Xylene	0.100	0.1136		mg/Kg		114	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*

Lab Sample ID: LCSD 880-90211/2-A
Matrix: Solid
Analysis Batch: 90173

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 90211

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1100		mg/Kg		110	70 - 130	0	35

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: WLU 56

Job ID: 880-48105-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-90211/2-A
Matrix: Solid
Analysis Batch: 90173

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 90211

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1025		mg/Kg		102	70 - 130	0	35
Ethylbenzene			0.100	0.1126		mg/Kg		113	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.2273		mg/Kg		114	70 - 130	1	35
o-Xylene			0.100	0.1126		mg/Kg		113	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*122*		*70 - 130*

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

Lab Sample ID: MB 880-90192/1-A
Matrix: Solid
Analysis Batch: 90280

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 90192

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		09/06/24 10:40	09/09/24 11:28	1
Diesel Range Organics (Over C10-C28)	<15.1	U	50.0	15.1	mg/Kg		09/06/24 10:40	09/09/24 11:28	1
Oil Range Organics (Over C28-C36)	<15.1	U	50.0	15.1	mg/Kg		09/06/24 10:40	09/09/24 11:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*64*	*S1-*	*70 - 130*	*09/06/24 10:40*	*09/09/24 11:28*	*1*
o-Terphenyl	*134*	*S1+*	*70 - 130*	*09/06/24 10:40*	*09/09/24 11:28*	*1*

Lab Sample ID: LCS 880-90192/2-A
Matrix: Solid
Analysis Batch: 90280

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 90192

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1182		mg/Kg		118	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1563	*+	mg/Kg		156	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*139*	*S1+*	*70 - 130*
o-Terphenyl	*154*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-90192/3-A
Matrix: Solid
Analysis Batch: 90280

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 90192

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1035		mg/Kg		104	70 - 130	13	20
Diesel Range Organics (Over C10-C28)			1000	1265	*1	mg/Kg		126	70 - 130	21	20

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: WLU 56

Job ID: 880-48105-1
SDG: Lea County, NM

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

Lab Sample ID: LCSD 880-90192/3-A
Matrix: Solid
Analysis Batch: 90280

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 90192

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*115*		*70 - 130*
o-Terphenyl	*126*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-90181/1-A
Matrix: Solid
Analysis Batch: 90197

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			09/07/24 11:27	1

Lab Sample ID: LCS 880-90181/2-A
Matrix: Solid
Analysis Batch: 90197

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	244.5		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-90181/3-A
Matrix: Solid
Analysis Batch: 90197

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	243.1		mg/Kg		97	90 - 110	1	20

QC Association Summary

Client: Arcadis U.S., Inc.
Project/Site: WLU 56

Job ID: 880-48105-1
SDG: Lea County, NM

GC VOA

Analysis Batch: 90173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-48105-1	B-1-2.5'	Total/NA	Solid	8021B	90211
MB 880-90187/5-A	Method Blank	Total/NA	Solid	8021B	90187
MB 880-90211/5-A	Method Blank	Total/NA	Solid	8021B	90211
LCS 880-90211/1-A	Lab Control Sample	Total/NA	Solid	8021B	90211
LCSD 880-90211/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	90211

Prep Batch: 90187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-90187/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 90211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-48105-1	B-1-2.5'	Total/NA	Solid	5030B	
MB 880-90211/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-90211/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-90211/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 90342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-48105-1	B-1-2.5'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 90192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-48105-1	B-1-2.5'	Total/NA	Solid	8015NM Prep	
MB 880-90192/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-90192/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-90192/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 90280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-48105-1	B-1-2.5'	Total/NA	Solid	8015B NM	90192
MB 880-90192/1-A	Method Blank	Total/NA	Solid	8015B NM	90192
LCS 880-90192/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	90192
LCSD 880-90192/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	90192

Analysis Batch: 90337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-48105-1	B-1-2.5'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 90181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-48105-1	B-1-2.5'	Soluble	Solid	DI Leach	
MB 880-90181/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-90181/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-90181/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Arcadis U.S., Inc.
Project/Site: WLU 56

Job ID: 880-48105-1
SDG: Lea County, NM

HPLC/IC

Analysis Batch: 90197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-48105-1	B-1-2.5'	Soluble	Solid	300.0	90181
MB 880-90181/1-A	Method Blank	Soluble	Solid	300.0	90181
LCS 880-90181/2-A	Lab Control Sample	Soluble	Solid	300.0	90181
LCSD 880-90181/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	90181

Lab Chronicle

Client: Arcadis U.S., Inc.
Project/Site: WLU 56

Job ID: 880-48105-1
SDG: Lea County, NM

Client Sample ID: B-1-2.5'
Date Collected: 09/05/24 08:00
Date Received: 09/06/24 11:20

Lab Sample ID: 880-48105-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.95 g	5 mL	90211	09/06/24 11:35	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	90173	09/07/24 04:41	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			90342	09/07/24 04:41	SM	EET MID
Total/NA	Analysis	8015 NM		1			90337	09/09/24 15:03	SM	EET MID
Total/NA	Prep	8015NM Prep			10.08 g	10 mL	90192	09/06/24 10:40	EL	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	90280	09/09/24 15:03	TKC	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	90181	09/06/24 12:50	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	90197	09/07/24 15:26	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Arcadis U.S., Inc.
Project/Site: WLU 56

Job ID: 880-48105-1
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 U.S., Inc.
Project/Site: WLU 56

Job ID: 880-48105-1
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 U.S., Inc.
Project/Site: WLU 56

Job ID: 880-48105-1
SDG: Lea County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-48105-1	B-1-2.5'	Solid	09/05/24 08:00	09/06/24 11:20	2.5'

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Chain of Custody

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

Work (

880-48105 Chain of Custody

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Project Manager:	Morgan Jordan	Bill to: (if different)	
Company Name:	Arcadis	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	281-644-9437	Email:	Douglas.Jordan@Arcadis.com

Work Order Comments

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

Project Name:	WLN 56	Turn Around	
Project Number:	30209837	☐ Routine ☒ Rush 24hr	
Project Location:	Lea County, NM	Due Date:	
Sampler's Name:	Heath Boyd	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR8
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-1
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.1
Total Containers:		Corrected Temperature:	2.0

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Cl 300	8015 MOD_NM	80218	Sample Comments
B-1-2.5'	S	9/5	0800	2.5'	C	1		X	X	X	

Preservative Codes

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

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		9/5/24 1100	2		9/6/24 1130
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
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EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work (

880-48105 Chain of Custody

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Project Manager:	Morgan Jordan	Bill to: (if different)	
Company Name:	Arcadis	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:	281-644-9437	Email:	Douglas.Jordan@Arcadis.com

Work Order Comments

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

Project Name:	WLU 5b	Turn Around	
Project Number:	30209837	☐ Routine ☒ Rush 24h	
Project Location:	Lea County, NM	Due Date:	
Sampler's Name:	Heath Boyd	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR5
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-1
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.1
Total Containers:		Corrected Temperature:	2.0

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: Cl 300	8015 MOD_NM	80218
B-1-2.5'	S	9/5	0800	2.5'	C	1		X	X	X

Preservative Codes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		9/5/24 1120	2		9/6/24 1135
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Arcadis U.S., Inc.

Job Number: 880-48105-1
SDG Number: Lea County, NM

Login Number: 48105
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.	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	

Appendix C

Photo Log

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
West Lovington Unit #056	Lea County, NM	nPAC0617348887

Photo No.	Date:
1	9/5/2024

Coordinates:

32.851173, -103.375066

Description:

Excavation to 2.5 feet bgs in progress.

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
West Lovington Unit #056	Lea County, NM	nPAC0617348887

Photo No.	Date:
2	9/5/2024

Coordinates:

32.851173, -103.375066

Description:

excavation to 2.5 feet bgs completed.

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
West Lovington Unit #056	Lea County, NM	nPAC0617348887

Photo No.	Date:
3	9/16/2024

Coordinates:

32.851173, -103.375066

Description:

Excavation backfilled and area contoured.

Arcadis U.S., Inc.
1330 Post Oak Blvd., Suite 2250
Houston
Texas 77056
Phone: 713 953 4800
www.arcadis.com

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

QUESTIONS

Action 388653

QUESTIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 388653
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nPAC0617348887**
Incident Name	**NPAC0617348887 WEST LOVINGTON UNIT #056 @ 30-025-03911**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Closure Report Received**
Incident Well	**[30-025-03911] WEST LOVINGTON UNIT #056**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	WEST LOVINGTON UNIT #056
Date Release Discovered	04/26/2006
Surface Owner	Private

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Corrosion | Flow Line - Injection | Produced Water | Released: 25 BBL | Recovered: 20 BBL | Lost: 5 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 388653
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

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

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

I hereby agree and sign off to the above statement	Name: Chris Brand Title: Lead Environmental Specialist Email: Chrisbrand@chevron.com Date: 07/23/2024

District I
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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 388653
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 51 and 75 (ft.)
What method was used to determine the depth to ground water	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	Yes

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	769
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	57.2
GRO+DRO (EPA SW-846 Method 8015M)	57.2
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	08/24/2024
On what date will (or did) the final sampling or liner inspection occur	08/24/2024
On what date will (or was) the remediation complete(d)	09/24/2024
What is the estimated surface area (in square feet) that will be reclaimed	2750
What is the estimated volume (in cubic yards) that will be reclaimed	300
What is the estimated surface area (in square feet) that will be remediated	2750
What is the estimated volume (in cubic yards) that will be remediated	300
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation 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: 388653
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	R360 ARTESIA LLC LANDFARM [fEEM0112340644]
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: 07/23/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 388653
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

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

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

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

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 388653
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**380214**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**09/05/2024**
What was the (estimated) number of samples that were to be gathered	**20**
What was the sampling surface area in square feet	**2750**

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	80
What was the total volume (cubic yards) remediated	8
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	80
What was the total volume (in cubic yards) reclaimed	8
Summarize any additional remediation activities not included by answers (above)	Please see the attached report for all remediation activities.

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

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

I hereby agree and sign off to the above statement	Name: Chris Brand Title: Lead Environmental Specialist Email: Chrisbrand@chevron.com Date: 10/01/2024

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QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 388653
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 388653

CONDITIONS

Operator:	OGRID:
CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	4323
	Action Number: 388653
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Remediation closure approved.	10/4/2024
amaxwell	A reclamation report will not be accepted until reclamation of the release area, including areas reasonably needed for production or drilling activities, is complete and meet the requirements of 19.15.29.13 NMAC. Areas not reasonably needed for production or drilling activities will still need to be reclaimed and revegetated as early as practicable.	10/4/2024
amaxwell	The reclamation report will need to include: Executive Summary of the reclamation activities; Scaled Site Map including sampling locations; Analytical results including, but not limited to, results showing that any remaining impacts meet the reclamation standards and results to prove the backfill is non-waste containing; At least one (1) representative 5-point composite sample will need to be collected from the backfill material that will be used for the reclamation of the top four feet of the excavation. OCD reserves the right to request additional sampling if needed; pictures of the backfilled areas showing that the area is back, as nearly as practical, to the original condition or the final land use and maintain those areas to control dust and minimize erosion to the extent practical; pictures of the 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; and a revegetation plan.	10/4/2024