Chris Brand
Environmental Remediation/ Facility Decom Advisor

VIA ELECTRONIC MAIL

July 23, 2024

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

Re: West Lovington Unit East Test Satellite
Soil Remediation Work Plan
Incident No. nLWJ1016954547
Case No. 1RP-2563

Dear Whom it May Concern:

Please find enclosed for your files, copies of the following:
West Lovington Unit East Test Satellite 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 East Test Satellite

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 Work Plan

West Lovington Unit East Test Satellite

Lea County, New Mexico

Incident # nLWJ1016954547

July 2024

2024 Work Plan

West Lovington Unit East Test Satellite
Incident # nLWJ1016954547
Lea County, New Mexico

July 2024

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

Prepared For:
Chris Brand
Project Manager
CEMC
6301 Deauville Blvd.
Midland, TX 79706

Scott Foord, PG
Program Manager

Contents

Tables

Figures

Appendices

2024 Work Plan
West Lovington Unit East Test Satellite

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 East Test Satellite (Site) located at coordinates: 32.861623, -103.366948. 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 state land approximately 5.75 miles south of the City of Lovington in Unit L, Section 4, 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 # nLWJ1016954547

According to the Initial C-141 Form, on June 10, 2010, a 4-inch diameter trunk line fuse leaked and released 0.40 barrels (bbls) of oil and 5.56 bbls of produced water. The Initial C-141 Form stated that free liquids and saturated solids were reportedly removed by a third-party contractor, but no recovered volume is noted. The Initial C-141 Form was submitted to the NMOCD on June 18, 2010, and approved by NMOCD on June 18, 2010. The release was assigned remediation permit number 1RP-2563. 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) and United States Geological Survey (USGS) databases, USGS well 325144103214701 located approximately 0.29 miles north of the Site was identified and gauged with a water level meter by Arcadis on May 2, 2024. Depth to water was verified at 66.80 feet below ground surface (bgs). Photographic documentation of gauging activities by Arcadis are included in **Appendix B (Photo No. 7 - 9)**.

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

- Shallowest depth to groundwater beneath the area affected by the release in ft bgs: Between 51 and 75 feet;
- Method used to determine the depth to groundwater: direct measurement;
- Distance to continuously flowing watercourse or any other significant watercourse: >5 miles;
- Distance to lakebed, sinkhole, or playa lake: Between 1,000 feet and 0.50 miles;
- Distance to occupied permanent residence, school, hospital, institution, or church: Between 1 and 5 miles;
- Distance to spring or private domestic fresh water well used by less than five households for domestic or stock watering purposes: Between 1 and 5 miles;
- Distance to any other fresh water well or spring: Between 1,000 feet and 0.50 miles;

- Distance to incorporated municipal boundaries or a defined municipal fresh water well field: Between 1 and 5 miles;
- Distance to wetland: Between 1,000 feet and 0.50 mile;
- 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 D**.

4 NMAC Regulatory Criteria

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

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

Per Table I of NMAC part 19.15.29.12, the following closure criteria apply to the Site for remediation activities for soils at depths greater than 4 feet bgs due to depth to groundwater measured by Arcadis at 66.80 feet bgs within USGS well 325144103214701 located approximately 0.29 miles north 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 September 2020, March 2023, and February and April 2024, Arcadis performed site assessment activities to evaluate soil impacts stemming from the release. A total of twenty-nine (29) sample points (SB-1 through SB-29) were advanced to depths ranging from the surface to 7 feet bgs inside and surrounding the release area to evaluate the horizontal and vertical extents of the release. Soil sample locations are shown on **Figure 3**. A photo log is included in **Appendix B**. Boring logs are included in **Appendix C**. Soil samples were collected for chemical analyses, placed directly into laboratory-provided sample containers, stored on ice, and transported under the proper chain-of-custody protocol to Eurofins Laboratories in Midland, Texas.

The soil samples were analyzed for BTEX by United States Environmental Protection Agency (EPA) Method 8021B, TPH by EPA Method 8015, and chloride by EPA method 300.0. Soil samples analyzed for BTEX were reported with concentrations ranging from 0.00289 J mg/kg (S-19) to 0.00525 mg/kg (S-21). Soil samples analyzed for TPH were reported with concentrations ranging from 16.5 J mg/kg (S-9) to 618 mg/kg (S-2). Soil samples analyzed for chloride were reported with concentrations ranging from 1.78 J mg/kg (S-24) to 3,260 mg/kg (S-16).

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

6 Proposed Work Plan

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

The proposed excavation area encompasses a surface area of approximately 10,500 square feet. An estimated 800 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 10,500 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 setup field work and confirm sub-contractors, 30 days to complete on-site remediation activities, and 30 days to prepare a soil remediation summary and closure request report.

7 Work Plan Approval Request

Upon completion of the above proposed soil remediation activities, a 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 East Test Sat
Lea County, New Mexico

Sample I.D.	Sample Depth (feet bgs)	Date	Total TPH (mg/kg)	Chloride (mg/kg)
NMAC Standards >4 ft			2,500	10,000
Restoration Requirements <4 ft			100	600
SB-1	0-.5'	9/1/2020	***123***	16.5
	1-2'	9/1/2020	42.4	***699***
SB-2	0-.5'	9/1/2020	***618***	169
	1-2'	9/1/2020	82.7	***1,350***
	2-3'	9/1/2020	73.7	***647***
SB-3	0-.5'	9/1/2020	61.3	4.16 J
	1-2'	9/1/2020	57.6	2.40 J
SB-4	0-.5'	9/1/2020	***122***	90.1
	1-2'	9/1/2020	***123***	***793***
	3-4'	9/1/2020	45.4	599
SB-5	0-.5'	9/1/2020	***105***	16.7
	1-2'	9/1/2020	46.8	404
	2-3'	9/1/2020	38.9	337
SB-6	0-0.5'	3/23/2023	53.7	443
	2'	3/23/2023	22.3 J	513
	4'	3/23/2023	40.1 J	***1,500***
SB-7	0-0.5'	3/23/2023	23.4 J	66.9
	2'	3/23/2023	<15.0	73.7
SB-8	0-0.5'	3/23/2023	33.5 J	76.1
	2'	3/23/2023	50.7	141
	4'	3/23/2023	33.1 J	83.2
SB-9	0-0.5'	3/23/2023	16.5 J	43.5
	2'	3/23/2023	19.5 J	56.6
	4'	3/23/2023	19.3 J	79.7
SB-10	1'	2/13/2024	--	84.1
	2'	2/13/2024	72.2	88.4
SB-11	1'	2/13/2024	--	70.2
	2'	2/13/2024	66.8	56.4
SB-12	1'	2/13/2024	--	146
	2'	2/13/2024	74.9	***830***
SB-13	1'	2/13/2024	--	80.4
	2'	2/13/2024	70.9	***1,980***
SB-14	1'	2/13/2024	--	175
	2'	2/13/2024	67.4	***2,260***
SB-15	1'	2/13/2024	--	125
	2'	2/13/2024	69.6	151
SB-16	1'	2/13/2024	--	103
	2'	2/13/2024	45.3 J	***3,260***
SB-17	1'	2/13/2024	--	134
	2'	2/13/2024	48.5 J	75.4
SB-18	1'	2/13/2024	--	92.1
	3'	2/13/2024	61.6	***2,010***
SB-19	1'	2/15/2024	--	79.6 B
	2'	2/15/2024	78.2	90.0 B
SB-20	1'	2/15/2024	--	114 B
	2'	2/15/2024	71	***1,920 B***
SB-21	1'	2/15/2024	--	358 B
	2'	2/15/2024	73.6	***2,630 B***
SB-22	1'	2/15/2024	--	109 B
	2'	2/15/2024	72.1	***1,680 B***
SB-23	0-1'	4/10/2024	--	385
	2-3'	4/10/2024	--	41.9

Table 1
Soil Analytical Results
Chevron Environmental Management Company
WLU East Test Sat
Lea County, New Mexico

Sample I.D.	Sample Depth (feet bgs)	Date	Total TPH	Chloride
			(mg/kg)	(mg/kg)
NMAC Standards >4 ft			2,500	10,000
Restoration Requirements <4 ft			100	600
SB-24	0-1'	4/10/2024	--	1.78 J
	2-3'	4/10/2024	--	21.4
SB-25	0-1'	4/10/2024	--	3.70 J
	2-3'	4/10/2024	--	2.44 J
SB-26	0-1'	4/10/2024	--	5.24
	2-3'	4/10/2024	--	153
SB-27	2-3'	4/11/2024	--	4.70 J
	4-5'	4/11/2024	--	5.35
	6-7'	4/11/2024	--	22.4
SB-28	2-3'	4/11/2024	--	111
	4-5'	4/11/2024	--	490
	6-7'	4/11/2024	--	300
SB-29	2-3'	4/11/2024	--	***1,540***
	4-5'	4/11/2024	--	1,010
	6-7'	4/11/2024	--	859

F1: Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) recovery exceeds control limits.

'<' indicates the analyte was not detected at or above the Method Detection Limit (MDL)

mg/kg: Milligram per Kilogram

BTEX : Benzene, Toluene, Ethylbenzene, and Total Xylenes

NMAC : New Mexico Administration Code. Criteria based off groundwater depth of less than 50 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

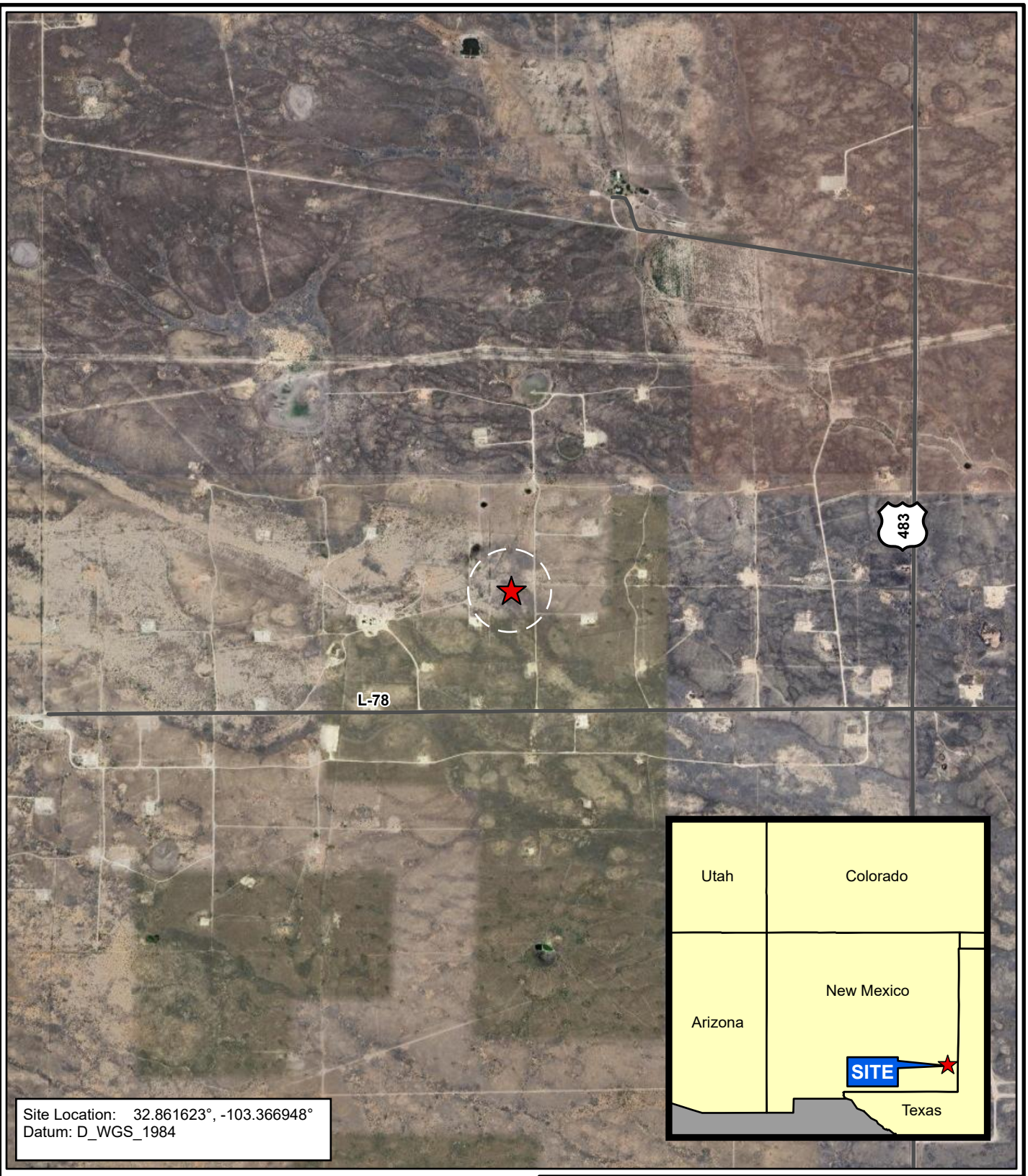
*Revised screening limit and restoration criteria within the first 4 feet below ground surface per Rule 19.15.29 effective August 14, 2018

DUP : Duplicate sample

Notes:

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

Figures



Legend

Site Location

Credits: ESRI Online, Google Earth

0 2,000 4,000 Feet

GRAPHIC SCALE

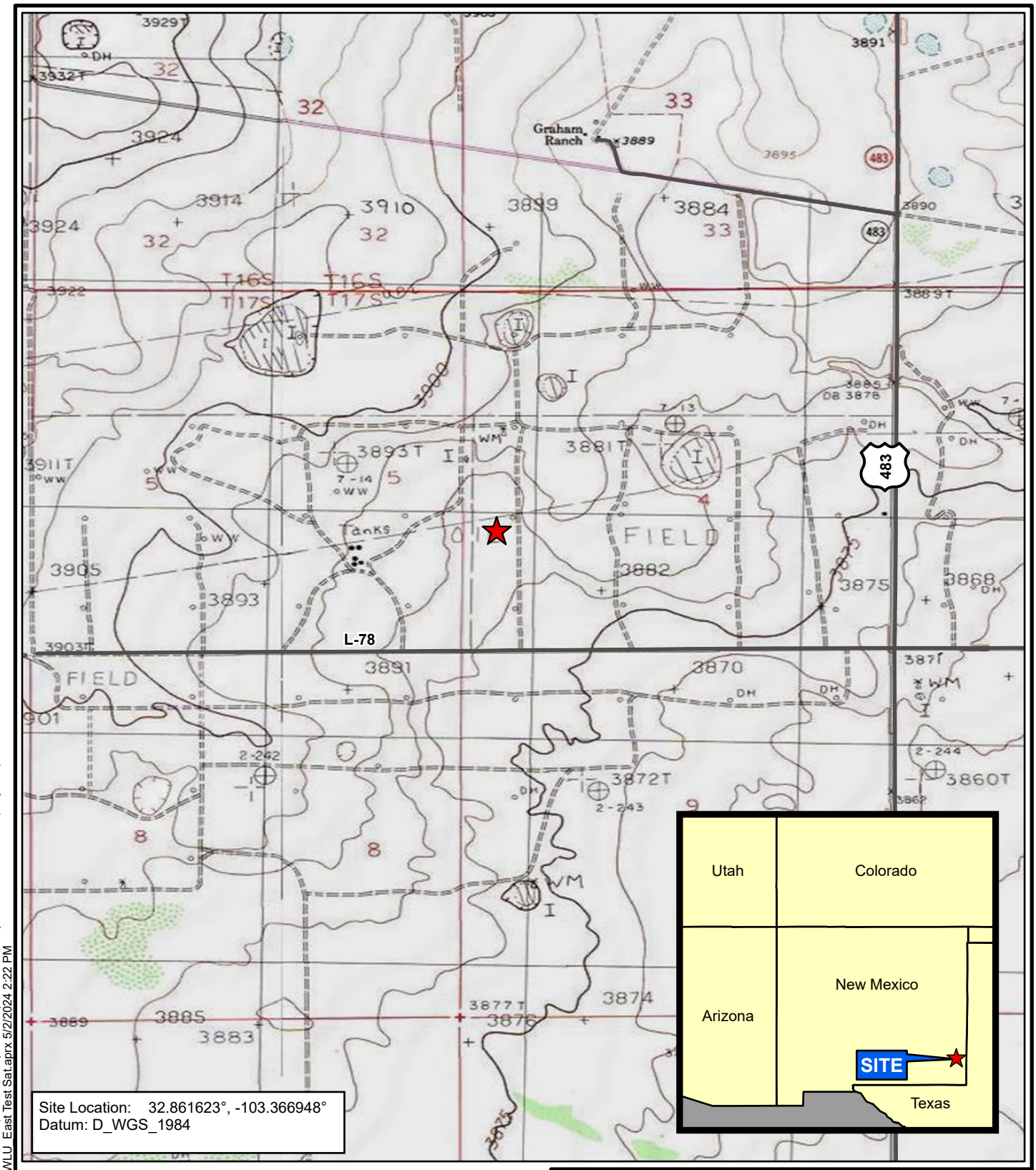
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT EAST TEST SATELLITE
LEA COUNTY, NEW MEXICO

SITE LOCATION MAP

ARCADIS

FIGURE 1

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: avi00976 ; Client (Project #)
T:_ENV\Chevron\WLU_East_Test_Sat_Pro\WLU_East Test Sat aprx 5/2/2024 2:22 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

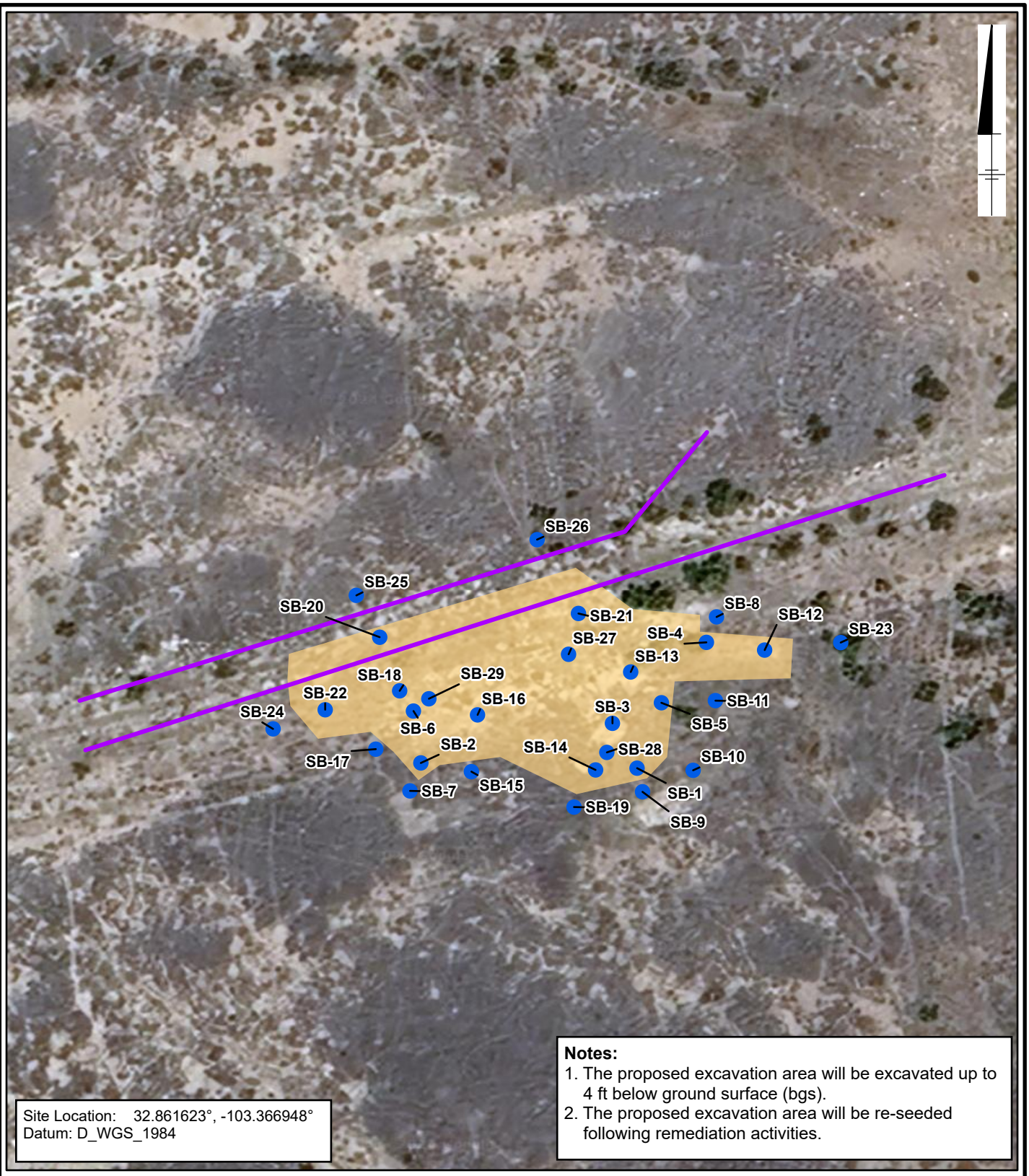
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT EAST TEST SATELLITE
LEA COUNTY, NEW MEXICO

TOPOGRAPHIC MAP

ARCADIS

FIGURE 2

City: Houston Div/Group: Remediation West -Air Group Created By: W Berry Last Saved By: avi00976 ; Client (Project #)
T:_ENV\Chevron\WLU_East_Test_Sat_Pro\WLU_East Test Sat aprx 5/2/2024 2:22 PM



Site Location: 32.861623°, -103.366948°
Datum: D_WGS_1984

Notes:
1. The proposed excavation area will be excavated up to 4 ft below ground surface (bgs).
2. The proposed excavation area will be re-seeded following remediation activities.

Legend

- Previous Assessment Sample Location
- Pipeline
- Proposed Excavation area (up to 4 ft bgs)

0 60 120 Feet
GRAPHIC SCALE

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
WEST LOVINGTON UNIT EAST TEST SATELLITE
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: avi00976 ; Client (Project #)
T:_ENV\Chevron\WLU_East_Test_Sat_Pro\WLU_East Test Sat aprx 5/10/2024 9:18 PM

Appendix A

Initial C-141 Form Incident # nLWJ1016954547

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 Mid-Continent LP	Contact Kim Klahsen
Address HCR 60 Box 423 Lovington, NM 88260	Telephone No. 575-396-4414 X 128 432-894-3298 (Cell)
Facility Name West Lovington Unit East Test Satellite Trunk line	Facility Type Trunkline

Surface Owner Chevron	Mineral Owner State of NM	~~Lease No.~~ B-4120-1

30025038T3

LOCATION OF RELEASE- The closest well is WLU # 23: Currently looking for coordinates

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	4	17	36					Lea

Latitude N 32degree 51.701minutes **Longitude** W 103degrees 22.019 minutes

NATURE OF RELEASE

Type of Release Oil and Produced Water	Volume of Release 0.40 bbl oil and 5.56 bbls water	Volume Recovered None
Source of Release Trunk line	Date and Hour of Occurrence 6-10-10 ~ 12:30	Date and Hour of Discovery 6-10-10~ 14:00
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD- Larry Ridenour notified Mr. Leking	
By Whom? Larry Ridenour	Date and Hour 6-10-10 @ 3:50 PM by E- Mail	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
No Impact to watercourse.

Describe Cause of Problem and Remedial Action Taken.*

CHLORIDE ??

A 4 inch diameter trunk line fuse leaked resulting in a 0.4 bl oil spill and a 5.56 bbl produced water spill to soil.

Describe Area Affected and Cleanup Action Taken.*

Liquid and saturated solids were removed by a 3rd party contract company. Soil samples will be collected to determine if additional remediation will be performed to meet recommended thresholds for oil and chloride contamination in soil.

SPILL AREA ?

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: Kim Klahsen	OIL CONSERVATION DIVISION
Printed Name: Kim Klahsen	Approved by District Supervisor: Johnson ENVIRONMENTAL ENGINEER
Title: HES Specialist	Approval Date: 6-18-10 Expiration Date: 8-18-10
E-mail Address: KDKL@chevron.com	Conditions of Approval: SUBMIT FINAL C-141 W/ DOCS BY Attached ☐ IRP # 10.6.2563
Date: 6/18/10 Phone:575-396-4414	

NLOST 1016954547

Appendix B

Photo Log

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU East Test Sat	Lea County, TX	nLWJ1016954547

Photo No.	Date:
1	9/01/2020

Direction Photo Taken:

Facing North

Description:

In vicinity of HA-1

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU East Test Sat	Lea County, TX	nLWJ1016954547

Photo No.	Date:
2	9/01/2020

Direction Photo Taken:

Facing West

Description:

East side of release area

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU East Test Sat	Lea County, TX	nLWJ1016954547

Photo No.	Date:
3	9/01/2020

Direction Photo Taken:

Facing South

Description:

Directly north of release area

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU East Test Sat	Lea County, TX	nLWJ1016954547

Photo No.	Date:
4	9/01/2020

Direction Photo Taken:

Facing East

Description:

Release area in vicinity of HA-2, on west side

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU East Test Sat	Lea County, TX	nLWJ1016954547

Photo No.	Date:
5	9/01/2020

Direction Photo Taken:

Facing East

Description:

Release area

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU East Test Sat	Lea County, TX	nLWJ1016954547

Photo No.	Date:
6	9/01/2020

Direction Photo Taken:

Facing East

Description:

Center of release area

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU East Test Sat	Lea County, TX	nLWJ1016954547

Photo No.	Date:
7	5/02/2024

Direction Photo Taken:

Facing West

Description:

USGS well 325144103214701 located approximately 0.29 miles north of the Site was gauged with a water meter by Arcadis on May 2, 2024, and depth to water was verified at 66.80 ft below ground surface (bgs).

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU East Test Sat	Lea County, TX	nLWJ1016954547

Photo No.	Date:
8	5/02/2024

Direction Photo Taken:

Facing West

Description:

USGS well 325144103214701 being gauged by Arcadis on May 2, 2024, and depth to water was verified at 66.80 ft below ground surface (bgs).

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Incident No.
WLU East Test Sat	Lea County, TX	nLWJ1016954547

Photo No.	Date:
9	5/02/2024

Direction Photo Taken:

Facing West

Description:

USGS well 325144103214701 being gauged by Arcadis on May 2, 2024. Meter lighting up for water detection at 66.80 ft below ground surface (bgs).

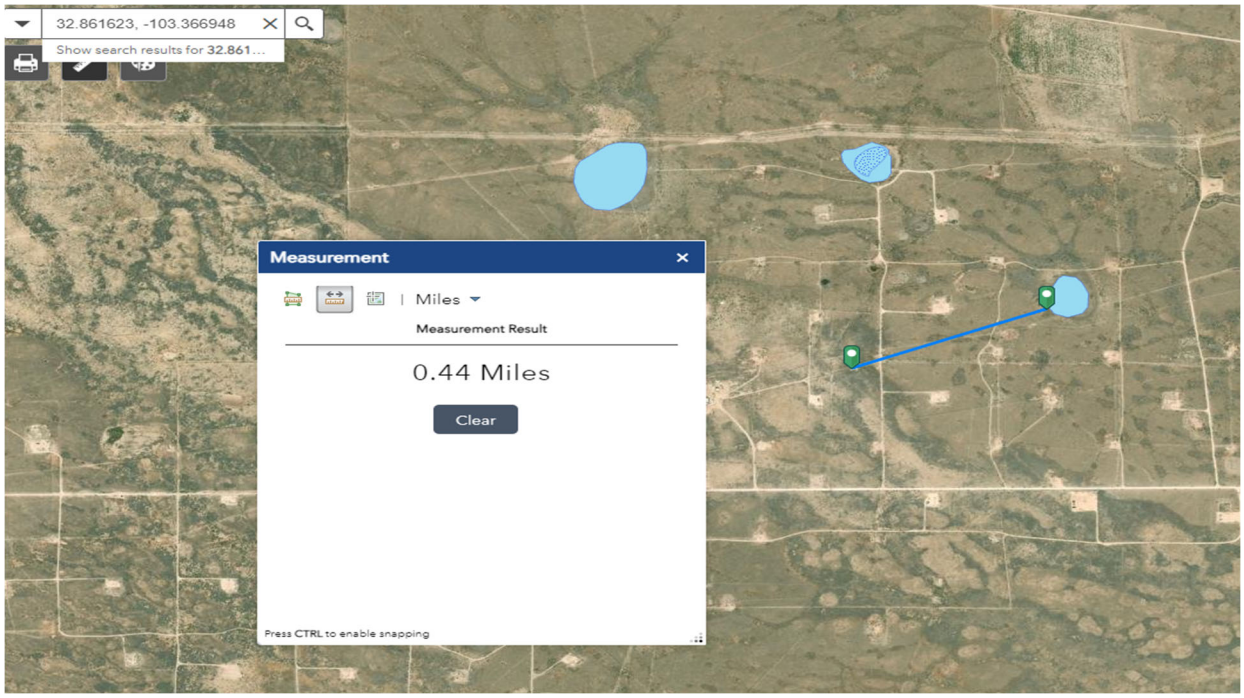
Appendix C

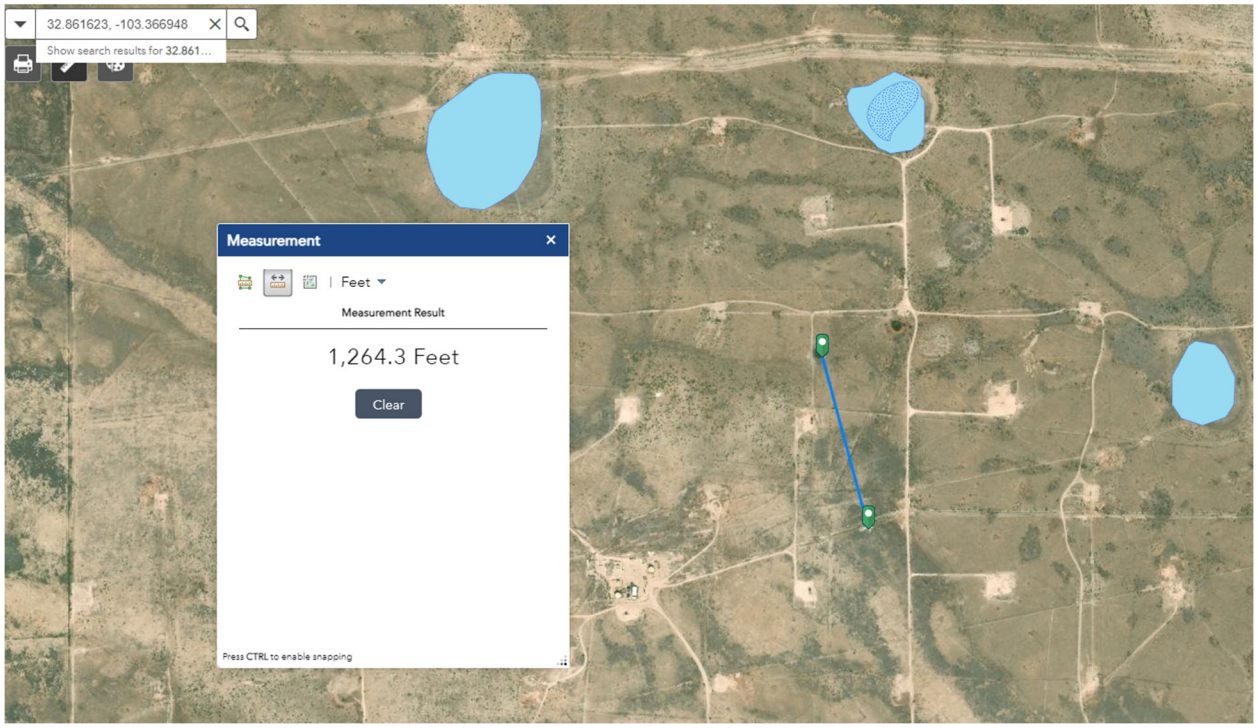
Boring Logs

Appendix D

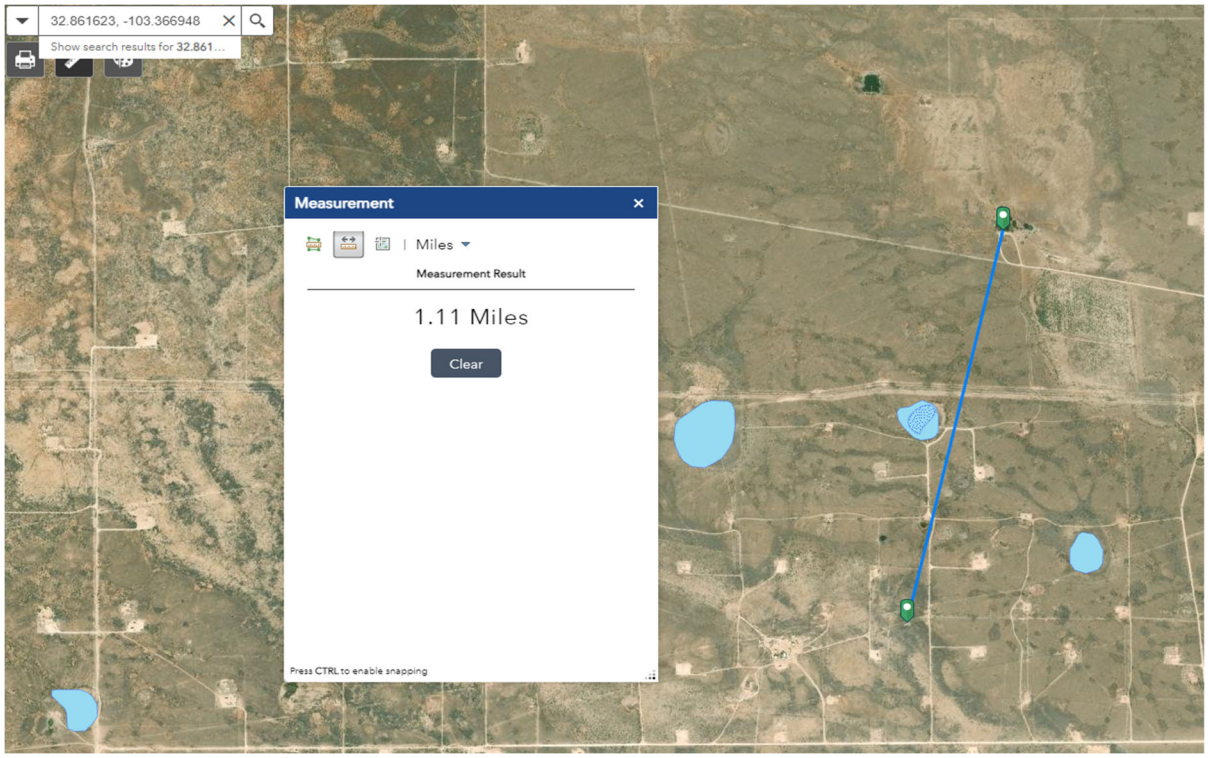
Site Characterization Data

Distance to lakebed, sinkhole, or playa lake.

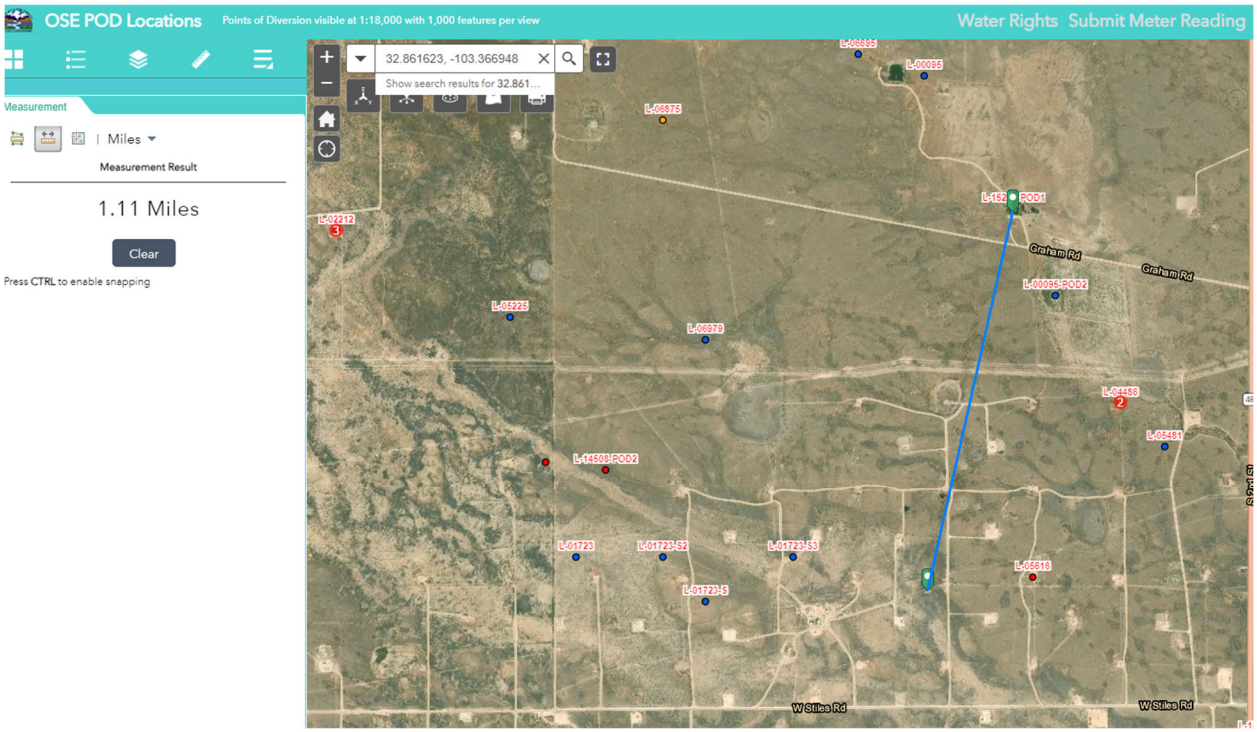




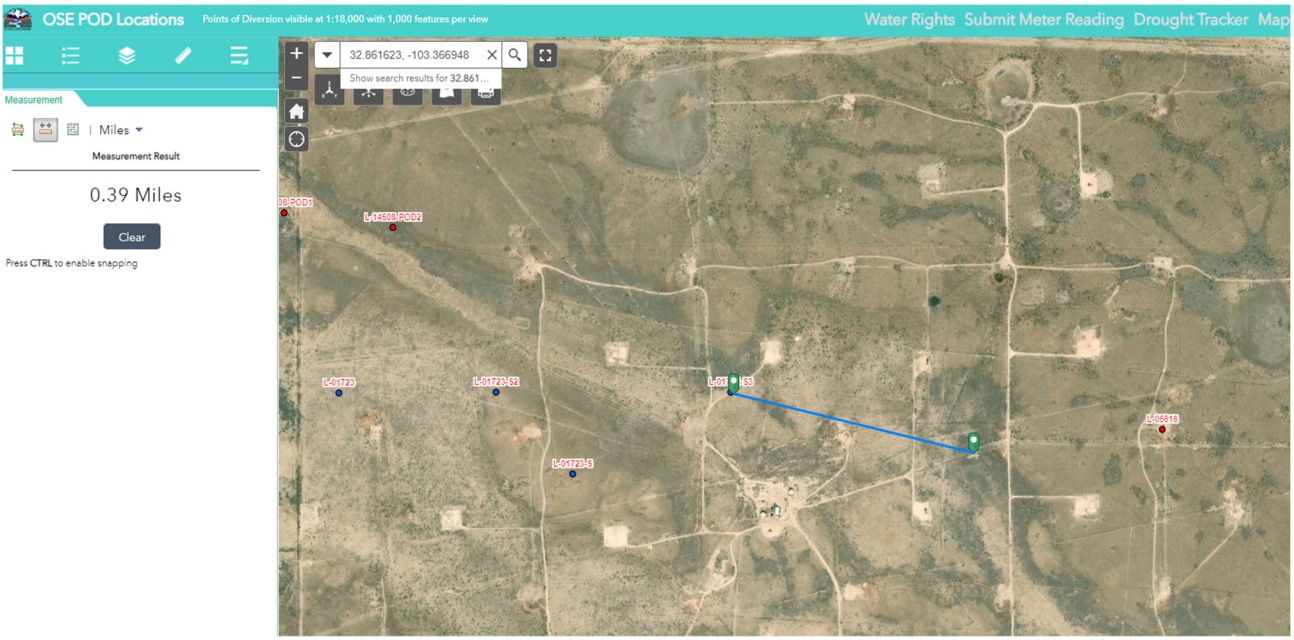
Distance to occupied permanent residence, school, hospital, institution, or church.



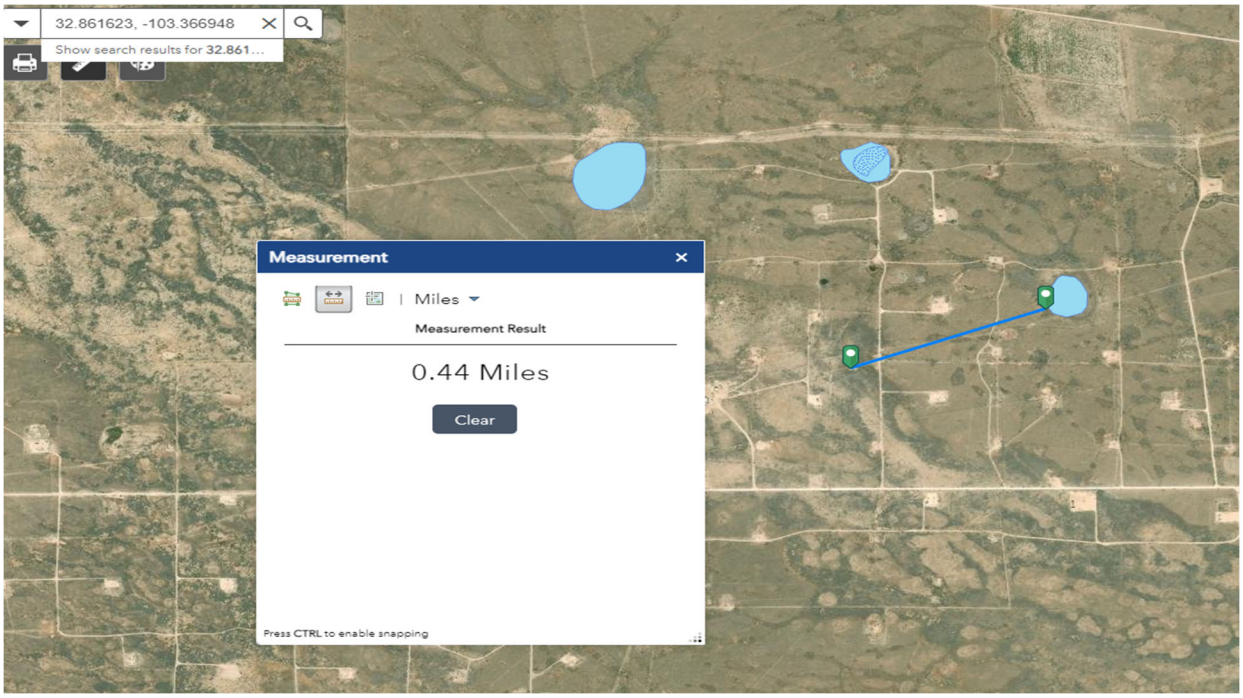
Distance to spring or private domestic fresh water well used by less than five households for domestic or stock watering purposes (L-15262-POD1).



Distance to any other fresh water well or spring (L-01723-S3).



Distance to a wetland.



Appendix E

Laboratory Analytical Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Tel: (713)690-4444

Laboratory Job ID: 600-210633-1
Client Project/Site: Chevron - WLU East Test Sat Site

For:
ARCADIS U.S., Inc.
1004 North Big Spring
Suite 121
Midland, Texas 79701

Attn: Justin Nixon

Authorized for release by:
9/23/2020 4:46:24 PM

Sachin Kudchadkar, Senior Project Manager
(713)690-4444
Sachin.Kudchadkar@Eurofinset.com

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - WLU East Test Sat Site

Laboratory Job ID: 600-210633-1

Table of Contents

Method Summary

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL HOU
8015D	Gasoline Range Organics (GRO) (GC)	SW846	TAL HOU
8015D	Diesel Range Organics (DRO) (GC)	SW846	TAL HOU
300.0	Anions, Ion Chromatography	MCAWW	TAL HOU
2540B	Percent Moisture	SM20	TAL HOU
3546	Microwave Extraction	SW846	TAL HOU
5030C	Purge and Trap for Solids	SW846	TAL HOU
5030C	Purge and Trap Methanol Dilution	SW846	TAL HOU
DI Leach	Deionized Water Leaching Procedure (Routine)	ASTM	TAL HOU

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - WLU East Test Sat Site

Job ID: 600-210633-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
600-210633-1	HA-1-S-0-.5-200901	Solid	09/01/20 11:30	09/02/20 10:35	
600-210633-2	HA-1-S-1-2-200901	Solid	09/01/20 11:42	09/02/20 10:35	
600-210633-3	HA-2-S-0-.5-200901	Solid	09/01/20 11:52	09/02/20 10:35	
600-210633-4	HA-2-S-1-2-200901	Solid	09/01/20 11:57	09/02/20 10:35	
600-210633-5	HA-2-SD-1-2-200901	Solid	09/01/20 11:57	09/02/20 10:35	
600-210633-6	HA-2-S-2-3-200901	Solid	09/01/20 12:00	09/02/20 10:35	
600-210633-7	HA-3-S-0-.5-200901	Solid	09/01/20 12:08	09/02/20 10:35	
600-210633-8	HA-3-S-1-2-200901	Solid	09/01/20 12:11	09/02/20 10:35	
600-210633-9	HA-4-S-0-.5-200901	Solid	09/01/20 12:20	09/02/20 10:35	
600-210633-10	HA-4-S-1-2-200901	Solid	09/01/20 12:37	09/02/20 10:35	
600-210633-11	HA-4-S-3-4-200901	Solid	09/01/20 12:48	09/02/20 10:35	
600-210633-12	HA-5-S-0-.5-200901	Solid	09/01/20 12:54	09/02/20 10:35	
600-210633-13	HA-5-S-1-2-200901	Solid	09/01/20 12:58	09/02/20 10:35	
600-210633-14	HA-5-S-2-3-200901	Solid	09/01/20 13:04	09/02/20 10:35	

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-1-S-0-.5-200901 — Lab Sample ID: 600-210633-1

Date Collected: 09/01/20 11:30 — **Matrix: Solid**
Date Received: 09/02/20 10:35 — **Percent Solids: 94.9**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.696	U	5.52	0.696	ug/Kg	☼	09/02/20 15:07	09/04/20 14:39	1
Ethylbenzene	1.13	U	5.52	1.13	ug/Kg	☼	09/02/20 15:07	09/04/20 14:39	1
Toluene	1.52	U	5.52	1.52	ug/Kg	☼	09/02/20 15:07	09/04/20 14:39	1
Xylenes, Total	1.25	U	5.52	1.25	ug/Kg	☼	09/02/20 15:07	09/04/20 14:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*61 - 130*	*09/02/20 15:07*	*09/04/20 14:39*	*1*
4-Bromofluorobenzene	*92*		*57 - 140*	*09/02/20 15:07*	*09/04/20 14:39*	*1*
Dibromofluoromethane	*99*		*68 - 140*	*09/02/20 15:07*	*09/04/20 14:39*	*1*
Toluene-d8 (Surr)	*100*		*50 - 130*	*09/02/20 15:07*	*09/04/20 14:39*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.633	U	1.08	0.633	mg/Kg	☼	09/04/20 07:03	09/04/20 11:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*91*		*70 - 130*	*09/04/20 07:03*	*09/04/20 11:02*	*1*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**18.6**		8.73	1.80	mg/Kg	☼	09/10/20 14:35	09/15/20 19:14	1
Oil Range Organics (C28-C36)	**104**		8.73	5.26	mg/Kg	☼	09/10/20 14:35	09/15/20 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*129*		*60 - 140*	*09/10/20 14:35*	*09/15/20 19:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.5**		4.21	0.563	mg/Kg	☼		09/17/20 22:30	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**5.1**		1.0	1.0	%			09/03/20 09:00	1
Percent Solids	**94.9**		1.0	1.0	%			09/03/20 09:00	1

Client Sample ID: HA-1-S-1-2-200901 — Lab Sample ID: 600-210633-2

Date Collected: 09/01/20 11:42 — **Matrix: Solid**
Date Received: 09/02/20 10:35 — **Percent Solids: 91.2**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.658	U	5.22	0.658	ug/Kg	☼	09/02/20 15:07	09/04/20 15:02	1
Ethylbenzene	1.06	U	5.22	1.06	ug/Kg	☼	09/02/20 15:07	09/04/20 15:02	1
Toluene	1.44	U	5.22	1.44	ug/Kg	☼	09/02/20 15:07	09/04/20 15:02	1
Xylenes, Total	1.18	U	5.22	1.18	ug/Kg	☼	09/02/20 15:07	09/04/20 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 130*	*09/02/20 15:07*	*09/04/20 15:02*	*1*
4-Bromofluorobenzene	*102*		*57 - 140*	*09/02/20 15:07*	*09/04/20 15:02*	*1*
Dibromofluoromethane	*99*		*68 - 140*	*09/02/20 15:07*	*09/04/20 15:02*	*1*
Toluene-d8 (Surr)	*101*		*50 - 130*	*09/02/20 15:07*	*09/04/20 15:02*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-1-S-1-2-200901 — Lab Sample ID: 600-210633-2

Date Collected: 09/01/20 11:42 — **Matrix: Solid**
Date Received: 09/02/20 10:35 — **Percent Solids: 91.2**

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.680	U	1.16	0.680	mg/Kg	☼	09/04/20 07:03	09/04/20 11:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*97*		*70 - 130*	*09/04/20 07:03*	*09/04/20 11:27*	*1*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**7.78**	**J**	9.08	1.87	mg/Kg	☼	09/10/20 14:35	09/15/20 19:45	1
Oil Range Organics (C28-C36)	**42.4**		9.08	5.47	mg/Kg	☼	09/10/20 14:35	09/15/20 19:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*120*		*60 - 140*	*09/10/20 14:35*	*09/15/20 19:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**699**		21.9	2.93	mg/Kg	☼		09/17/20 23:32	5

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**8.8**		1.0	1.0	%			09/03/20 09:00	1
Percent Solids	**91.2**		1.0	1.0	%			09/03/20 09:00	1

Client Sample ID: HA-2-S-0-.5-200901 — Lab Sample ID: 600-210633-3

Date Collected: 09/01/20 11:52 — **Matrix: Solid**
Date Received: 09/02/20 10:35 — **Percent Solids: 79.3**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.829	U	6.58	0.829	ug/Kg	☼	09/02/20 15:07	09/04/20 15:25	1
Ethylbenzene	1.34	U	6.58	1.34	ug/Kg	☼	09/02/20 15:07	09/04/20 15:25	1
Toluene	1.82	U	6.58	1.82	ug/Kg	☼	09/02/20 15:07	09/04/20 15:25	1
Xylenes, Total	1.49	U	6.58	1.49	ug/Kg	☼	09/02/20 15:07	09/04/20 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*61 - 130*	*09/02/20 15:07*	*09/04/20 15:25*	*1*
4-Bromofluorobenzene	*109*		*57 - 140*	*09/02/20 15:07*	*09/04/20 15:25*	*1*
Dibromofluoromethane	*101*		*68 - 140*	*09/02/20 15:07*	*09/04/20 15:25*	*1*
Toluene-d8 (Surr)	*98*		*50 - 130*	*09/02/20 15:07*	*09/04/20 15:25*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.737	U	1.26	0.737	mg/Kg	☼	09/04/20 07:03	09/04/20 11:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*94*		*70 - 130*	*09/04/20 07:03*	*09/04/20 11:52*	*1*

Method: 8015D - Diesel Range Organics (DRO) (GC) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**104**		20.8	4.29	mg/Kg	☼	09/10/20 14:35	09/16/20 09:09	2
Oil Range Organics (C28-C36)	**514**		20.8	12.5	mg/Kg	☼	09/10/20 14:35	09/16/20 09:09	2

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-2-S-0-.5-200901 — Lab Sample ID: 600-210633-3

Date Collected: 09/01/20 11:52 — **Matrix: Solid**
Date Received: 09/02/20 10:35 — **Percent Solids: 79.3**

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*60 - 140*	*09/10/20 14:35*	*09/16/20 09:09*	*2*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**169**		5.04	0.673	mg/Kg	☼		09/17/20 23:52	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**20.7**		1.0	1.0	%			09/03/20 09:00	1
Percent Solids	**79.3**		1.0	1.0	%			09/03/20 09:00	1

Client Sample ID: HA-2-S-1-2-200901 — Lab Sample ID: 600-210633-4

Date Collected: 09/01/20 11:57 — **Matrix: Solid**
Date Received: 09/02/20 10:35 — **Percent Solids: 85.8**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.816	U	6.48	0.816	ug/Kg	☼	09/02/20 15:07	09/04/20 15:49	1
Ethylbenzene	1.32	U	6.48	1.32	ug/Kg	☼	09/02/20 15:07	09/04/20 15:49	1
Toluene	1.79	U	6.48	1.79	ug/Kg	☼	09/02/20 15:07	09/04/20 15:49	1
Xylenes, Total	1.46	U	6.48	1.46	ug/Kg	☼	09/02/20 15:07	09/04/20 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*61 - 130*	*09/02/20 15:07*	*09/04/20 15:49*	*1*
4-Bromofluorobenzene	*117*		*57 - 140*	*09/02/20 15:07*	*09/04/20 15:49*	*1*
Dibromofluoromethane	*102*		*68 - 140*	*09/02/20 15:07*	*09/04/20 15:49*	*1*
Toluene-d8 (Surr)	*104*		*50 - 130*	*09/02/20 15:07*	*09/04/20 15:49*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.707	U	1.21	0.707	mg/Kg	☼	09/04/20 07:03	09/04/20 12:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*70 - 130*	*09/04/20 07:03*	*09/04/20 12:17*	*1*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**16.2**		9.66	1.99	mg/Kg	☼	09/10/20 14:35	09/15/20 20:47	1
Oil Range Organics (C28-C36)	**66.5**		9.66	5.82	mg/Kg	☼	09/10/20 14:35	09/15/20 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*129*		*60 - 140*	*09/10/20 14:35*	*09/15/20 20:47*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1350**		46.6	6.23	mg/Kg	☼		09/18/20 00:13	10

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**14.2**		1.0	1.0	%			09/03/20 09:00	1
Percent Solids	**85.8**		1.0	1.0	%			09/03/20 09:00	1

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-2-SD-1-2-200901 — Lab Sample ID: 600-210633-5

Date Collected: 09/01/20 11:57 — **Matrix: Solid**
Date Received: 09/02/20 10:35 — **Percent Solids: 85.9**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.765	U	6.07	0.765	ug/Kg	☼	09/02/20 15:07	09/05/20 10:19	1
Ethylbenzene	1.24	U	6.07	1.24	ug/Kg	☼	09/02/20 15:07	09/05/20 10:19	1
Toluene	1.68	U	6.07	1.68	ug/Kg	☼	09/02/20 15:07	09/05/20 10:19	1
Xylenes, Total	1.37	U	6.07	1.37	ug/Kg	☼	09/02/20 15:07	09/05/20 10:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 130*	*09/02/20 15:07*	*09/05/20 10:19*	*1*
4-Bromofluorobenzene	*114*		*57 - 140*	*09/02/20 15:07*	*09/05/20 10:19*	*1*
Dibromofluoromethane	*100*		*68 - 140*	*09/02/20 15:07*	*09/05/20 10:19*	*1*
Toluene-d8 (Surr)	*93*		*50 - 130*	*09/02/20 15:07*	*09/05/20 10:19*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.729	U	1.24	0.729	mg/Kg	☼	09/04/20 07:03	09/04/20 12:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*96*		*70 - 130*	*09/04/20 07:03*	*09/04/20 12:42*	*1*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**12.5**		9.60	1.98	mg/Kg	☼	09/10/20 14:35	09/15/20 21:19	1
Oil Range Organics (C28-C36)	**68.9**		9.60	5.78	mg/Kg	☼	09/10/20 14:35	09/15/20 21:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*133*		*60 - 140*	*09/10/20 14:35*	*09/15/20 21:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1320**		46.6	6.21	mg/Kg	☼		09/18/20 00:33	10

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**14.1**		1.0	1.0	%			09/03/20 09:00	1
Percent Solids	**85.9**		1.0	1.0	%			09/03/20 09:00	1

Client Sample ID: HA-2-S-2-3-200901 — Lab Sample ID: 600-210633-6

Date Collected: 09/01/20 12:00 — **Matrix: Solid**
Date Received: 09/02/20 10:35 — **Percent Solids: 80.7**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.748	U	5.94	0.748	ug/Kg	☼	09/02/20 15:07	09/04/20 16:34	1
Ethylbenzene	1.21	U	5.94	1.21	ug/Kg	☼	09/02/20 15:07	09/04/20 16:34	1
Toluene	1.64	U	5.94	1.64	ug/Kg	☼	09/02/20 15:07	09/04/20 16:34	1
Xylenes, Total	1.34	U	5.94	1.34	ug/Kg	☼	09/02/20 15:07	09/04/20 16:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*61 - 130*	*09/02/20 15:07*	*09/04/20 16:34*	*1*
4-Bromofluorobenzene	*115*		*57 - 140*	*09/02/20 15:07*	*09/04/20 16:34*	*1*
Dibromofluoromethane	*104*		*68 - 140*	*09/02/20 15:07*	*09/04/20 16:34*	*1*
Toluene-d8 (Surr)	*101*		*50 - 130*	*09/02/20 15:07*	*09/04/20 16:34*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-2-S-2-3-200901 — Lab Sample ID: 600-210633-6

Date Collected: 09/01/20 12:00 — **Matrix: Solid**
Date Received: 09/02/20 10:35 — **Percent Solids: 80.7**

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.740	U	1.26	0.740	mg/Kg	☼	09/04/20 07:03	09/04/20 13:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*98*		*70 - 130*	*09/04/20 07:03*	*09/04/20 13:08*	*1*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**11.4**		10.3	2.12	mg/Kg	☼	09/10/20 14:35	09/15/20 21:50	1
Oil Range Organics (C28-C36)	**62.3**		10.3	6.19	mg/Kg	☼	09/10/20 14:35	09/15/20 21:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*118*		*60 - 140*	*09/10/20 14:35*	*09/15/20 21:50*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**647**		24.8	3.31	mg/Kg	☼		09/18/20 00:53	5

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**19.3**		1.0	1.0	%			09/03/20 09:00	1
Percent Solids	**80.7**		1.0	1.0	%			09/03/20 09:00	1

Client Sample ID: HA-3-S-0-.5-200901 — Lab Sample ID: 600-210633-7

Date Collected: 09/01/20 12:08 — **Matrix: Solid**
Date Received: 09/02/20 10:35 — **Percent Solids: 84.3**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.821	U	6.52	0.821	ug/Kg	☼	09/02/20 15:07	09/04/20 16:57	1
Ethylbenzene	1.33	U	6.52	1.33	ug/Kg	☼	09/02/20 15:07	09/04/20 16:57	1
Toluene	1.80	U	6.52	1.80	ug/Kg	☼	09/02/20 15:07	09/04/20 16:57	1
Xylenes, Total	1.47	U	6.52	1.47	ug/Kg	☼	09/02/20 15:07	09/04/20 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*61 - 130*	*09/02/20 15:07*	*09/04/20 16:57*	*1*
4-Bromofluorobenzene	*113*		*57 - 140*	*09/02/20 15:07*	*09/04/20 16:57*	*1*
Dibromofluoromethane	*102*		*68 - 140*	*09/02/20 15:07*	*09/04/20 16:57*	*1*
Toluene-d8 (Surr)	*99*		*50 - 130*	*09/02/20 15:07*	*09/04/20 16:57*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.695	U	1.19	0.695	mg/Kg	☼	09/04/20 07:03	09/04/20 13:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*95*		*70 - 130*	*09/04/20 07:03*	*09/04/20 13:33*	*1*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**8.45**	**J**	9.80	2.02	mg/Kg	☼	09/10/20 14:35	09/15/20 22:21	1
Oil Range Organics (C28-C36)	**61.3**		9.80	5.90	mg/Kg	☼	09/10/20 14:35	09/15/20 22:21	1

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-3-S-0-.5-200901 Lab Sample ID: 600-210633-7

Date Collected: 09/01/20 12:08 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 84.3**

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*122*		*60 - 140*	*09/10/20 14:35*	*09/15/20 22:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.16	J	4.75	0.634	mg/Kg	☼		09/18/20 01:55	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.7		1.0	1.0	%			09/03/20 09:00	1
Percent Solids	84.3		1.0	1.0	%			09/03/20 09:00	1

Client Sample ID: HA-3-S-1-2-200901 Lab Sample ID: 600-210633-8

Date Collected: 09/01/20 12:11 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 92.4**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.713	U	5.66	0.713	ug/Kg	☼	09/02/20 15:07	09/04/20 17:20	1
Ethylbenzene	1.15	U	5.66	1.15	ug/Kg	☼	09/02/20 15:07	09/04/20 17:20	1
Toluene	1.56	U	5.66	1.56	ug/Kg	☼	09/02/20 15:07	09/04/20 17:20	1
Xylenes, Total	1.28	U	5.66	1.28	ug/Kg	☼	09/02/20 15:07	09/04/20 17:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*61 - 130*	*09/02/20 15:07*	*09/04/20 17:20*	*1*
4-Bromofluorobenzene	*115*		*57 - 140*	*09/02/20 15:07*	*09/04/20 17:20*	*1*
Dibromofluoromethane	*105*		*68 - 140*	*09/02/20 15:07*	*09/04/20 17:20*	*1*
Toluene-d8 (Surr)	*98*		*50 - 130*	*09/02/20 15:07*	*09/04/20 17:20*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.647	U	1.10	0.647	mg/Kg	☼	09/04/20 07:03	09/04/20 13:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*70 - 130*	*09/04/20 07:03*	*09/04/20 13:58*	*1*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	10.8		8.97	1.85	mg/Kg	☼	09/10/20 14:35	09/15/20 23:24	1
Oil Range Organics (C28-C36)	46.8		8.97	5.40	mg/Kg	☼	09/10/20 14:35	09/15/20 23:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*103*		*60 - 140*	*09/10/20 14:35*	*09/15/20 23:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.40	J	4.33	0.578	mg/Kg	☼		09/18/20 02:15	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.6		1.0	1.0	%			09/03/20 09:00	1
Percent Solids	92.4		1.0	1.0	%			09/03/20 09:00	1

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-4-S-0-.5-200901 — Lab Sample ID: 600-210633-9

Date Collected: 09/01/20 12:20 — **Matrix: Solid**
Date Received: 09/02/20 10:35 — **Percent Solids: 81.0**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.793	U	6.29	0.793	ug/Kg	☼	09/02/20 15:07	09/04/20 17:43	1
Ethylbenzene	1.28	U	6.29	1.28	ug/Kg	☼	09/02/20 15:07	09/04/20 17:43	1
Toluene	1.74	U	6.29	1.74	ug/Kg	☼	09/02/20 15:07	09/04/20 17:43	1
Xylenes, Total	1.42	U	6.29	1.42	ug/Kg	☼	09/02/20 15:07	09/04/20 17:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*61 - 130*	*09/02/20 15:07*	*09/04/20 17:43*	*1*
4-Bromofluorobenzene	*118*		*57 - 140*	*09/02/20 15:07*	*09/04/20 17:43*	*1*
Dibromofluoromethane	*104*		*68 - 140*	*09/02/20 15:07*	*09/04/20 17:43*	*1*
Toluene-d8 (Surr)	*98*		*50 - 130*	*09/02/20 15:07*	*09/04/20 17:43*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.712	U	1.22	0.712	mg/Kg	☼	09/04/20 07:03	09/04/20 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*94*		*70 - 130*	*09/04/20 07:03*	*09/04/20 14:23*	*1*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**24.1**		10.2	2.10	mg/Kg	☼	09/10/20 14:35	09/15/20 23:56	1
Oil Range Organics (C28-C36)	**98.0**		10.2	6.15	mg/Kg	☼	09/10/20 14:35	09/15/20 23:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*132*		*60 - 140*	*09/10/20 14:35*	*09/15/20 23:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**90.1**		24.7	3.30	mg/Kg	☼		09/18/20 02:35	5

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**19.0**		1.0	1.0	%			09/03/20 09:00	1
Percent Solids	**81.0**		1.0	1.0	%			09/03/20 09:00	1

Client Sample ID: HA-4-S-1-2-200901 — Lab Sample ID: 600-210633-10

Date Collected: 09/01/20 12:37 — **Matrix: Solid**
Date Received: 09/02/20 10:35 — **Percent Solids: 89.5**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.699	U	5.54	0.699	ug/Kg	☼	09/02/20 15:07	09/04/20 18:05	1
Ethylbenzene	1.13	U	5.54	1.13	ug/Kg	☼	09/02/20 15:07	09/04/20 18:05	1
Toluene	1.53	U	5.54	1.53	ug/Kg	☼	09/02/20 15:07	09/04/20 18:05	1
Xylenes, Total	1.25	U	5.54	1.25	ug/Kg	☼	09/02/20 15:07	09/04/20 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*61 - 130*	*09/02/20 15:07*	*09/04/20 18:05*	*1*
4-Bromofluorobenzene	*115*		*57 - 140*	*09/02/20 15:07*	*09/04/20 18:05*	*1*
Dibromofluoromethane	*107*		*68 - 140*	*09/02/20 15:07*	*09/04/20 18:05*	*1*
Toluene-d8 (Surr)	*100*		*50 - 130*	*09/02/20 15:07*	*09/04/20 18:05*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-4-S-1-2-200901 Lab Sample ID: 600-210633-10

Date Collected: 09/01/20 12:37 Matrix: Solid
Date Received: 09/02/20 10:35 Percent Solids: 89.5

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.654	U	1.12	0.654	mg/Kg	☼	09/04/20 07:03	09/04/20 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*96*		*70 - 130*	*09/04/20 07:03*	*09/04/20 14:48*	*1*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**25.8**		9.26	1.91	mg/Kg	☼	09/10/20 14:35	09/16/20 00:28	1
Oil Range Organics (C28-C36)	**97.1**		9.26	5.58	mg/Kg	☼	09/10/20 14:35	09/16/20 00:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*147*	*X*	*60 - 140*	*09/10/20 14:35*	*09/16/20 00:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**793**		22.4	2.98	mg/Kg	☼		09/18/20 02:56	5

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**10.5**		1.0	1.0	%			09/03/20 09:00	1
Percent Solids	**89.5**		1.0	1.0	%			09/03/20 09:00	1

Client Sample ID: HA-4-S-3-4-200901 Lab Sample ID: 600-210633-11

Date Collected: 09/01/20 12:48 Matrix: Solid
Date Received: 09/02/20 10:35 Percent Solids: 90.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.708	U	5.62	0.708	ug/Kg	☼	09/02/20 15:07	09/04/20 18:28	1
Ethylbenzene	1.15	U	5.62	1.15	ug/Kg	☼	09/02/20 15:07	09/04/20 18:28	1
Toluene	1.55	U	5.62	1.55	ug/Kg	☼	09/02/20 15:07	09/04/20 18:28	1
Xylenes, Total	1.27	U	5.62	1.27	ug/Kg	☼	09/02/20 15:07	09/04/20 18:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*61 - 130*	*09/02/20 15:07*	*09/04/20 18:28*	*1*
4-Bromofluorobenzene	*119*		*57 - 140*	*09/02/20 15:07*	*09/04/20 18:28*	*1*
Dibromofluoromethane	*105*		*68 - 140*	*09/02/20 15:07*	*09/04/20 18:28*	*1*
Toluene-d8 (Surr)	*98*		*50 - 130*	*09/02/20 15:07*	*09/04/20 18:28*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.697	U	1.19	0.697	mg/Kg	☼	09/04/20 07:03	09/04/20 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*98*		*70 - 130*	*09/04/20 07:03*	*09/04/20 15:39*	*1*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**7.58**	**J**	9.12	1.88	mg/Kg	☼	09/10/20 14:35	09/16/20 01:00	1
Oil Range Organics (C28-C36)	**45.4**		9.12	5.49	mg/Kg	☼	09/10/20 14:35	09/16/20 01:00	1

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-4-S-3-4-200901 Lab Sample ID: 600-210633-11

Date Collected: 09/01/20 12:48 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 90.8**

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*107*		*60 - 140*	*09/10/20 14:35*	*09/16/20 01:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**599**		22.0	2.94	mg/Kg	☼		09/18/20 03:16	5

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**9.2**		1.0	1.0	%			09/03/20 09:00	1
Percent Solids	**90.8**		1.0	1.0	%			09/03/20 09:00	1

Client Sample ID: HA-5-S-0-.5-200901 Lab Sample ID: 600-210633-12

Date Collected: 09/01/20 12:54 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 90.9**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.717	U	5.69	0.717	ug/Kg	☼	09/02/20 15:07	09/04/20 13:05	1
Ethylbenzene	1.16	U	5.69	1.16	ug/Kg	☼	09/02/20 15:07	09/04/20 13:05	1
Toluene	1.57	U	5.69	1.57	ug/Kg	☼	09/02/20 15:07	09/04/20 13:05	1
Xylenes, Total	1.29	U	5.69	1.29	ug/Kg	☼	09/02/20 15:07	09/04/20 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*61 - 130*	*09/02/20 15:07*	*09/04/20 13:05*	*1*
4-Bromofluorobenzene	*106*		*57 - 140*	*09/02/20 15:07*	*09/04/20 13:05*	*1*
Dibromofluoromethane	*97*		*68 - 140*	*09/02/20 15:07*	*09/04/20 13:05*	*1*
Toluene-d8 (Surr)	*97*		*50 - 130*	*09/02/20 15:07*	*09/04/20 13:05*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.672	U	1.15	0.672	mg/Kg	☼	09/04/20 07:03	09/04/20 16:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*99*		*70 - 130*	*09/04/20 07:03*	*09/04/20 16:04*	*1*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**16.3**		9.10	1.87	mg/Kg	☼	09/10/20 14:35	09/16/20 01:32	1
Oil Range Organics (C28-C36)	**89.1**		9.10	5.48	mg/Kg	☼	09/10/20 14:35	09/16/20 01:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*138*		*60 - 140*	*09/10/20 14:35*	*09/16/20 01:32*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.7**		4.40	0.587	mg/Kg	☼		09/18/20 04:17	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**9.1**		1.0	1.0	%			09/03/20 09:00	1
Percent Solids	**90.9**		1.0	1.0	%			09/03/20 09:00	1

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-5-S-1-2-200901 Lab Sample ID: 600-210633-13

Date Collected: 09/01/20 12:58 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 90.6**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.724	U	5.75	0.724	ug/Kg	☼	09/02/20 15:07	09/04/20 18:51	1
Ethylbenzene	1.17	U	5.75	1.17	ug/Kg	☼	09/02/20 15:07	09/04/20 18:51	1
Toluene	1.59	U	5.75	1.59	ug/Kg	☼	09/02/20 15:07	09/04/20 18:51	1
Xylenes, Total	1.30	U	5.75	1.30	ug/Kg	☼	09/02/20 15:07	09/04/20 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*61 - 130*	*09/02/20 15:07*	*09/04/20 18:51*	*1*
4-Bromofluorobenzene	*115*		*57 - 140*	*09/02/20 15:07*	*09/04/20 18:51*	*1*
Dibromofluoromethane	*102*		*68 - 140*	*09/02/20 15:07*	*09/04/20 18:51*	*1*
Toluene-d8 (Surr)	*97*		*50 - 130*	*09/02/20 15:07*	*09/04/20 18:51*	*1*

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.654	U	1.12	0.654	mg/Kg	☼	09/04/20 07:03	09/04/20 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*97*		*70 - 130*	*09/04/20 07:03*	*09/04/20 16:29*	*1*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**6.60**	**J**	9.10	1.88	mg/Kg	☼	09/10/20 14:36	09/16/20 02:03	1
Oil Range Organics (C28-C36)	**46.8**		9.10	5.48	mg/Kg	☼	09/10/20 14:36	09/16/20 02:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*119*		*60 - 140*	*09/10/20 14:36*	*09/16/20 02:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**404**		22.1	2.95	mg/Kg	☼		09/18/20 14:24	5

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**9.4**		1.0	1.0	%			09/03/20 09:00	1
Percent Solids	**90.6**		1.0	1.0	%			09/03/20 09:00	1

Client Sample ID: HA-5-S-2-3-200901 Lab Sample ID: 600-210633-14

Date Collected: 09/01/20 13:04 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 89.1**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.764	U	6.06	0.764	ug/Kg	☼	09/02/20 15:07	09/04/20 19:13	1
Ethylbenzene	1.24	U	6.06	1.24	ug/Kg	☼	09/02/20 15:07	09/04/20 19:13	1
Toluene	1.67	U	6.06	1.67	ug/Kg	☼	09/02/20 15:07	09/04/20 19:13	1
Xylenes, Total	1.37	U	6.06	1.37	ug/Kg	☼	09/02/20 15:07	09/04/20 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*61 - 130*	*09/02/20 15:07*	*09/04/20 19:13*	*1*
4-Bromofluorobenzene	*121*		*57 - 140*	*09/02/20 15:07*	*09/04/20 19:13*	*1*
Dibromofluoromethane	*101*		*68 - 140*	*09/02/20 15:07*	*09/04/20 19:13*	*1*
Toluene-d8 (Surr)	*103*		*50 - 130*	*09/02/20 15:07*	*09/04/20 19:13*	*1*

Client Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-5-S-2-3-200901 **Lab Sample ID: 600-210633-14**
Date Collected: 09/01/20 13:04 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 89.1**

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.685	U	1.17	0.685	mg/Kg	☼	09/04/20 07:03	09/04/20 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*88*		*70 - 130*	*09/04/20 07:03*	*09/04/20 16:54*	*1*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	**6.89**	**J**	9.28	1.91	mg/Kg	☼	09/10/20 14:36	09/16/20 02:35	1
Oil Range Organics (C28-C36)	**38.9**		9.28	5.59	mg/Kg	☼	09/10/20 14:36	09/16/20 02:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*153*	*X*	*60 - 140*	*09/10/20 14:36*	*09/16/20 02:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**337**		22.5	3.00	mg/Kg	☼		09/18/20 15:25	5

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**10.9**		1.0	1.0	%			09/03/20 09:00	1
Percent Solids	**89.1**		1.0	1.0	%			09/03/20 09:00	1

Definitions/Glossary

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Qualifiers

GC/MS VOA

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

GC VOA

Qualifier	Qualifier Description
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.
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate recovery exceeds control limits

HPLC/IC

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

Glossary

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

Surrogate Summary

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Method: 8260C - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(61-130)	(57-140)	(68-140)	(50-130)
600-210633-1	HA-1-S-0-.5-200901	92	92	99	100
600-210633-2	HA-1-S-1-2-200901	93	102	99	101
600-210633-3	HA-2-S-0-.5-200901	89	109	101	98
600-210633-4	HA-2-S-1-2-200901	96	117	102	104
600-210633-5	HA-2-SD-1-2-200901	93	114	100	93
600-210633-6	HA-2-S-2-3-200901	95	115	104	101
600-210633-7	HA-3-S-0-.5-200901	93	113	102	99
600-210633-8	HA-3-S-1-2-200901	96	115	105	98
600-210633-9	HA-4-S-0-.5-200901	97	118	104	98
600-210633-10	HA-4-S-1-2-200901	101	115	107	100
600-210633-11	HA-4-S-3-4-200901	99	119	105	98
600-210633-12	HA-5-S-0-.5-200901	96	106	97	97
600-210633-13	HA-5-S-1-2-200901	98	115	102	97
600-210633-14	HA-5-S-2-3-200901	100	121	101	103
LCS 600-302885/3	Lab Control Sample	96	117	102	96
LCS 600-302930/3	Lab Control Sample	94	115	102	99
LCSD 600-302885/4	Lab Control Sample Dup	95	116	101	92
LCSD 600-302930/4	Lab Control Sample Dup	85	118	103	104
MB 600-302885/6	Method Blank	100	113	100	96
MB 600-302930/6	Method Blank	102	119	107	98

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8015D - Gasoline Range Organics (GRO) (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)
		TFT1
Lab Sample ID	Client Sample ID	(70-130)
600-210633-1	HA-1-S-0-.5-200901	91
600-210633-2	HA-1-S-1-2-200901	97
600-210633-3	HA-2-S-0-.5-200901	94
600-210633-4	HA-2-S-1-2-200901	99
600-210633-5	HA-2-SD-1-2-200901	96
600-210633-6	HA-2-S-2-3-200901	98
600-210633-7	HA-3-S-0-.5-200901	95
600-210633-8	HA-3-S-1-2-200901	99
600-210633-9	HA-4-S-0-.5-200901	94
600-210633-10	HA-4-S-1-2-200901	96
600-210633-11	HA-4-S-3-4-200901	98
600-210633-12	HA-5-S-0-.5-200901	99
600-210633-13	HA-5-S-1-2-200901	97
600-210633-14	HA-5-S-2-3-200901	88
LCS 600-302715/1-A	Lab Control Sample	89
LCSD 600-302715/2-A	Lab Control Sample Dup	89
MB 600-302715/3-A	Method Blank	88

Surrogate Summary

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Surrogate Legend

TFT = a,a,a-Trifluorotoluene

Method: 8015D - Diesel Range Organics (DRO) (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	OTPH (60-140)						
600-210633-1	HA-1-S-0-.5-200901	129						
600-210633-2	HA-1-S-1-2-200901	120						
600-210633-3 - DL	HA-2-S-0-.5-200901	84						
600-210633-4	HA-2-S-1-2-200901	129						
600-210633-5	HA-2-SD-1-2-200901	133						
600-210633-6	HA-2-S-2-3-200901	118						
600-210633-7	HA-3-S-0-.5-200901	122						
600-210633-8	HA-3-S-1-2-200901	103						
600-210633-9	HA-4-S-0-.5-200901	132						
600-210633-10	HA-4-S-1-2-200901	147 X						
600-210633-11	HA-4-S-3-4-200901	107						
600-210633-12	HA-5-S-0-.5-200901	138						
600-210633-13	HA-5-S-1-2-200901	119						
600-210633-14	HA-5-S-2-3-200901	153 X						
LCS 600-303251/2-A	Lab Control Sample	128						
LCSD 600-303251/3-A	Lab Control Sample Dup	118						
MB 600-303251/1-A	Method Blank	118						

Surrogate Legend

OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - WLU East Test Sat Site

Job ID: 600-210633-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 600-302885/6
Matrix: Solid
Analysis Batch: 302885

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			09/04/20 11:07	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			09/04/20 11:07	1
Toluene	1.38	U	5.00	1.38	ug/Kg			09/04/20 11:07	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			09/04/20 11:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*61 - 130*		*09/04/20 11:07*	*1*
4-Bromofluorobenzene	*113*		*57 - 140*		*09/04/20 11:07*	*1*
Dibromofluoromethane	*100*		*68 - 140*		*09/04/20 11:07*	*1*
Toluene-d8 (Surr)	*96*		*50 - 130*		*09/04/20 11:07*	*1*

Lab Sample ID: LCS 600-302885/3
Matrix: Solid
Analysis Batch: 302885

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	51.62		ug/Kg		103	70 - 131		
Ethylbenzene			50.0	43.51		ug/Kg		87	66 - 130		
m-Xylene & p-Xylene			50.0	43.94		ug/Kg		88	64 - 130		
o-Xylene			50.0	44.00		ug/Kg		88	62 - 130		
Toluene			50.0	44.66		ug/Kg		89	67 - 130		
Xylenes, Total			100	87.94		ug/Kg		88	63 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*61 - 130*
4-Bromofluorobenzene	*117*		*57 - 140*
Dibromofluoromethane	*102*		*68 - 140*
Toluene-d8 (Surr)	*96*		*50 - 130*

Lab Sample ID: LCSD 600-302885/4
Matrix: Solid
Analysis Batch: 302885

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			50.0	50.29		ug/Kg		101	70 - 131	3	30
Ethylbenzene			50.0	41.95		ug/Kg		84	66 - 130	4	30
m-Xylene & p-Xylene			50.0	40.75		ug/Kg		81	64 - 130	8	30
o-Xylene			50.0	41.40		ug/Kg		83	62 - 130	6	30
Toluene			50.0	43.03		ug/Kg		86	67 - 130	4	30
Xylenes, Total			100	82.15		ug/Kg		82	63 - 130	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*61 - 130*
4-Bromofluorobenzene	*116*		*57 - 140*
Dibromofluoromethane	*101*		*68 - 140*
Toluene-d8 (Surr)	*92*		*50 - 130*

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - WLU East Test Sat Site

Job ID: 600-210633-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 600-302930/6
Matrix: Solid
Analysis Batch: 302930

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

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.630	U	5.00	0.630	ug/Kg			09/05/20 09:34	1
Ethylbenzene	1.02	U	5.00	1.02	ug/Kg			09/05/20 09:34	1
Toluene	1.38	U	5.00	1.38	ug/Kg			09/05/20 09:34	1
Xylenes, Total	1.13	U	5.00	1.13	ug/Kg			09/05/20 09:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*61 - 130*		*09/05/20 09:34*	*1*
4-Bromofluorobenzene	*119*		*57 - 140*		*09/05/20 09:34*	*1*
Dibromofluoromethane	*107*		*68 - 140*		*09/05/20 09:34*	*1*
Toluene-d8 (Surr)	*98*		*50 - 130*		*09/05/20 09:34*	*1*

Lab Sample ID: LCS 600-302930/3
Matrix: Solid
Analysis Batch: 302930

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			50.0	55.49		ug/Kg		111	70 - 131		
Ethylbenzene			50.0	48.44		ug/Kg		97	66 - 130		
m-Xylene & p-Xylene			50.0	47.00		ug/Kg		94	64 - 130		
o-Xylene			50.0	48.75		ug/Kg		98	62 - 130		
Toluene			50.0	48.43		ug/Kg		97	67 - 130		
Xylenes, Total			100	95.75		ug/Kg		96	63 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*61 - 130*
4-Bromofluorobenzene	*115*		*57 - 140*
Dibromofluoromethane	*102*		*68 - 140*
Toluene-d8 (Surr)	*99*		*50 - 130*

Lab Sample ID: LCSD 600-302930/4
Matrix: Solid
Analysis Batch: 302930

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			50.0	49.81		ug/Kg		100	70 - 131	11	30
Ethylbenzene			50.0	45.32		ug/Kg		91	66 - 130	7	30
m-Xylene & p-Xylene			50.0	44.22		ug/Kg		88	64 - 130	6	30
o-Xylene			50.0	44.75		ug/Kg		90	62 - 130	9	30
Toluene			50.0	46.00		ug/Kg		92	67 - 130	5	30
Xylenes, Total			100	88.97		ug/Kg		89	63 - 130	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*85*		*61 - 130*
4-Bromofluorobenzene	*118*		*57 - 140*
Dibromofluoromethane	*103*		*68 - 140*
Toluene-d8 (Surr)	*104*		*50 - 130*

QC Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 600-302715/3-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 302845 — **Prep Batch: 302715**

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	0.586	U	1.00	0.586	mg/Kg		09/04/20 07:03	09/04/20 10:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*88*		*70 - 130*	*09/04/20 07:03*	*09/04/20 10:37*	*1*

Lab Sample ID: LCS 600-302715/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 302845 — **Prep Batch: 302715**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics [C6 - C10]	5.04	5.121		mg/Kg		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*89*		*70 - 130*

Lab Sample ID: LCSD 600-302715/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 302845 — **Prep Batch: 302715**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics [C6 - C10]	5.04	4.263		mg/Kg		85	70 - 130	18	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*89*		*70 - 130*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 600-303251/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 303527 — **Prep Batch: 303251**

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.70	U	8.26	1.70	mg/Kg		09/10/20 14:35	09/15/20 17:40	1
Oil Range Organics (C28-C36)	4.97	U	8.26	4.97	mg/Kg		09/10/20 14:35	09/15/20 17:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*118*		*60 - 140*	*09/10/20 14:35*	*09/15/20 17:40*	*1*

Lab Sample ID: LCS 600-303251/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 303527 — **Prep Batch: 303251**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	66.6	69.88		mg/Kg		105	66 - 134

QC Sample Results

Client: ARCADIS U.S., Inc.
Project/Site: Chevron - WLU East Test Sat Site

Job ID: 600-210633-1

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

Lab Sample ID: LCS 600-303251/2-A
Matrix: Solid
Analysis Batch: 303527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 303251

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	128		60 - 140

Lab Sample ID: LCSD 600-303251/3-A
Matrix: Solid
Analysis Batch: 303527

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 303251

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			66.4	69.97		mg/Kg		105	66 - 134	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	118		60 - 140

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 600-303533/1-A
Matrix: Solid
Analysis Batch: 303725

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.534	U	4.00	0.534	mg/Kg			09/17/20 21:50	1

Lab Sample ID: LCS 600-303533/2-A
Matrix: Solid
Analysis Batch: 303725

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			200	192.6		mg/Kg		96	90 - 110		

Lab Sample ID: 600-210633-1 MS
Matrix: Solid
Analysis Batch: 303725

Client Sample ID: HA-1-S-0-.5-200901
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	16.5		105	103.0		mg/Kg	☼	82	80 - 120		

Lab Sample ID: 600-210633-1 MSD
Matrix: Solid
Analysis Batch: 303725

Client Sample ID: HA-1-S-0-.5-200901
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	16.5		105	103.1		mg/Kg	☼	82	80 - 120	0	20

Lab Sample ID: 600-210633-11 MS
Matrix: Solid
Analysis Batch: 303725

Client Sample ID: HA-4-S-3-4-200901
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	599		550	1043		mg/Kg	☼	81	80 - 120		

QC Sample Results

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 600-210633-11 MSD — **Client Sample ID: HA-4-S-3-4-200901**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 303725

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	599		550	1038		mg/Kg	☼	80	80 - 120	0	20

Lab Sample ID: MB 600-303533/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 303819

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.534	U	4.00	0.534	mg/Kg			09/18/20 12:19	1

Lab Sample ID: LCS 600-303533/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 303819

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	200	183.7		mg/Kg		92	90 - 110

Lab Sample ID: 600-210633-13 MS — **Client Sample ID: HA-5-S-1-2-200901**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 303819

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	404		552	866.6		mg/Kg	☼	84	80 - 120

Lab Sample ID: 600-210633-13 MSD — **Client Sample ID: HA-5-S-1-2-200901**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 303819

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	404		552	862.6		mg/Kg	☼	83	80 - 120	0	20

Method: 2540B - Percent Moisture

Lab Sample ID: 600-210633-10 DU — **Client Sample ID: HA-4-S-1-2-200901**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 302758

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	10.5		10.3		%		2	20
Percent Solids	89.5		89.7		%		0.2	20

Unadjusted Detection Limits

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Method: 8260C - Volatile Organic Compounds by GC/MS

Prep: 5030C

Analyte	MQL	MDL	Units
Benzene	5.00	0.630	ug/Kg
Ethylbenzene	5.00	1.02	ug/Kg
Toluene	5.00	1.38	ug/Kg
Xylenes, Total	5.00	1.13	ug/Kg

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Prep: 5030C

Analyte	MQL	MDL	Units
Gasoline Range Organics [C6 - C10]	1.00	0.586	mg/Kg

Method: 8015D - Diesel Range Organics (DRO) (GC)

Prep: 3546

Analyte	MQL	MDL	Units
Diesel Range Organics [C10-C28]	8.30	1.71	mg/Kg
Oil Range Organics (C28-C36)	8.30	5.00	mg/Kg

Method: 300.0 - Anions, Ion Chromatography - Soluble

Leach: DI Leach

Analyte	MQL	MDL	Units
Chloride	4.00	0.534	mg/Kg

General Chemistry

Analyte	MQL	MDL	Units
Percent Moisture	1.0	1.0	%
Percent Solids	1.0	1.0	%

QC Association Summary

Client: ARCADIS U.S., Inc.
Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

GC/MS VOA

Prep Batch: 302716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-210633-1	HA-1-S-0-.5-200901	Total/NA	Solid	5030C	
600-210633-2	HA-1-S-1-2-200901	Total/NA	Solid	5030C	
600-210633-3	HA-2-S-0-.5-200901	Total/NA	Solid	5030C	
600-210633-4	HA-2-S-1-2-200901	Total/NA	Solid	5030C	
600-210633-5	HA-2-SD-1-2-200901	Total/NA	Solid	5030C	
600-210633-6	HA-2-S-2-3-200901	Total/NA	Solid	5030C	
600-210633-7	HA-3-S-0-.5-200901	Total/NA	Solid	5030C	
600-210633-8	HA-3-S-1-2-200901	Total/NA	Solid	5030C	
600-210633-9	HA-4-S-0-.5-200901	Total/NA	Solid	5030C	
600-210633-10	HA-4-S-1-2-200901	Total/NA	Solid	5030C	
600-210633-11	HA-4-S-3-4-200901	Total/NA	Solid	5030C	
600-210633-12	HA-5-S-0-.5-200901	Total/NA	Solid	5030C	
600-210633-13	HA-5-S-1-2-200901	Total/NA	Solid	5030C	
600-210633-14	HA-5-S-2-3-200901	Total/NA	Solid	5030C	

Analysis Batch: 302885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-210633-1	HA-1-S-0-.5-200901	Total/NA	Solid	8260C	302716
600-210633-2	HA-1-S-1-2-200901	Total/NA	Solid	8260C	302716
600-210633-3	HA-2-S-0-.5-200901	Total/NA	Solid	8260C	302716
600-210633-4	HA-2-S-1-2-200901	Total/NA	Solid	8260C	302716
600-210633-6	HA-2-S-2-3-200901	Total/NA	Solid	8260C	302716
600-210633-7	HA-3-S-0-.5-200901	Total/NA	Solid	8260C	302716
600-210633-8	HA-3-S-1-2-200901	Total/NA	Solid	8260C	302716
600-210633-9	HA-4-S-0-.5-200901	Total/NA	Solid	8260C	302716
600-210633-10	HA-4-S-1-2-200901	Total/NA	Solid	8260C	302716
600-210633-11	HA-4-S-3-4-200901	Total/NA	Solid	8260C	302716
600-210633-12	HA-5-S-0-.5-200901	Total/NA	Solid	8260C	302716
600-210633-13	HA-5-S-1-2-200901	Total/NA	Solid	8260C	302716
600-210633-14	HA-5-S-2-3-200901	Total/NA	Solid	8260C	302716
MB 600-302885/6	Method Blank	Total/NA	Solid	8260C	
LCS 600-302885/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 600-302885/4	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 302930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-210633-5	HA-2-SD-1-2-200901	Total/NA	Solid	8260C	302716
MB 600-302930/6	Method Blank	Total/NA	Solid	8260C	
LCS 600-302930/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 600-302930/4	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC VOA

Prep Batch: 302715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-210633-1	HA-1-S-0-.5-200901	Total/NA	Solid	5030C	
600-210633-2	HA-1-S-1-2-200901	Total/NA	Solid	5030C	
600-210633-3	HA-2-S-0-.5-200901	Total/NA	Solid	5030C	
600-210633-4	HA-2-S-1-2-200901	Total/NA	Solid	5030C	
600-210633-5	HA-2-SD-1-2-200901	Total/NA	Solid	5030C	
600-210633-6	HA-2-S-2-3-200901	Total/NA	Solid	5030C	

QC Association Summary

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

GC VOA (Continued)

Prep Batch: 302715 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-210633-7	HA-3-S-0-.5-200901	Total/NA	Solid	5030C	
600-210633-8	HA-3-S-1-2-200901	Total/NA	Solid	5030C	
600-210633-9	HA-4-S-0-.5-200901	Total/NA	Solid	5030C	
600-210633-10	HA-4-S-1-2-200901	Total/NA	Solid	5030C	
600-210633-11	HA-4-S-3-4-200901	Total/NA	Solid	5030C	
600-210633-12	HA-5-S-0-.5-200901	Total/NA	Solid	5030C	
600-210633-13	HA-5-S-1-2-200901	Total/NA	Solid	5030C	
600-210633-14	HA-5-S-2-3-200901	Total/NA	Solid	5030C	
MB 600-302715/3-A	Method Blank	Total/NA	Solid	5030C	
LCS 600-302715/1-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 600-302715/2-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

Analysis Batch: 302845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-210633-1	HA-1-S-0-.5-200901	Total/NA	Solid	8015D	302715
600-210633-2	HA-1-S-1-2-200901	Total/NA	Solid	8015D	302715
600-210633-3	HA-2-S-0-.5-200901	Total/NA	Solid	8015D	302715
600-210633-4	HA-2-S-1-2-200901	Total/NA	Solid	8015D	302715
600-210633-5	HA-2-SD-1-2-200901	Total/NA	Solid	8015D	302715
600-210633-6	HA-2-S-2-3-200901	Total/NA	Solid	8015D	302715
600-210633-7	HA-3-S-0-.5-200901	Total/NA	Solid	8015D	302715
600-210633-8	HA-3-S-1-2-200901	Total/NA	Solid	8015D	302715
600-210633-9	HA-4-S-0-.5-200901	Total/NA	Solid	8015D	302715
600-210633-10	HA-4-S-1-2-200901	Total/NA	Solid	8015D	302715
600-210633-11	HA-4-S-3-4-200901	Total/NA	Solid	8015D	302715
600-210633-12	HA-5-S-0-.5-200901	Total/NA	Solid	8015D	302715
600-210633-13	HA-5-S-1-2-200901	Total/NA	Solid	8015D	302715
600-210633-14	HA-5-S-2-3-200901	Total/NA	Solid	8015D	302715
MB 600-302715/3-A	Method Blank	Total/NA	Solid	8015D	302715
LCS 600-302715/1-A	Lab Control Sample	Total/NA	Solid	8015D	302715
LCSD 600-302715/2-A	Lab Control Sample Dup	Total/NA	Solid	8015D	302715

GC Semi VOA

Prep Batch: 303251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-210633-1	HA-1-S-0-.5-200901	Total/NA	Solid	3546	
600-210633-2	HA-1-S-1-2-200901	Total/NA	Solid	3546	
600-210633-3 - DL	HA-2-S-0-.5-200901	Total/NA	Solid	3546	
600-210633-4	HA-2-S-1-2-200901	Total/NA	Solid	3546	
600-210633-5	HA-2-SD-1-2-200901	Total/NA	Solid	3546	
600-210633-6	HA-2-S-2-3-200901	Total/NA	Solid	3546	
600-210633-7	HA-3-S-0-.5-200901	Total/NA	Solid	3546	
600-210633-8	HA-3-S-1-2-200901	Total/NA	Solid	3546	
600-210633-9	HA-4-S-0-.5-200901	Total/NA	Solid	3546	
600-210633-10	HA-4-S-1-2-200901	Total/NA	Solid	3546	
600-210633-11	HA-4-S-3-4-200901	Total/NA	Solid	3546	
600-210633-12	HA-5-S-0-.5-200901	Total/NA	Solid	3546	
600-210633-13	HA-5-S-1-2-200901	Total/NA	Solid	3546	
600-210633-14	HA-5-S-2-3-200901	Total/NA	Solid	3546	
MB 600-303251/1-A	Method Blank	Total/NA	Solid	3546	

QC Association Summary

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

GC Semi VOA (Continued)

Prep Batch: 303251 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-303251/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 600-303251/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	

Analysis Batch: 303527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-210633-1	HA-1-S-0-.5-200901	Total/NA	Solid	8015D	303251
600-210633-2	HA-1-S-1-2-200901	Total/NA	Solid	8015D	303251
600-210633-3 - DL	HA-2-S-0-.5-200901	Total/NA	Solid	8015D	303251
600-210633-4	HA-2-S-1-2-200901	Total/NA	Solid	8015D	303251
600-210633-5	HA-2-SD-1-2-200901	Total/NA	Solid	8015D	303251
600-210633-6	HA-2-S-2-3-200901	Total/NA	Solid	8015D	303251
600-210633-7	HA-3-S-0-.5-200901	Total/NA	Solid	8015D	303251
600-210633-8	HA-3-S-1-2-200901	Total/NA	Solid	8015D	303251
600-210633-9	HA-4-S-0-.5-200901	Total/NA	Solid	8015D	303251
600-210633-10	HA-4-S-1-2-200901	Total/NA	Solid	8015D	303251
600-210633-11	HA-4-S-3-4-200901	Total/NA	Solid	8015D	303251
600-210633-12	HA-5-S-0-.5-200901	Total/NA	Solid	8015D	303251
600-210633-13	HA-5-S-1-2-200901	Total/NA	Solid	8015D	303251
600-210633-14	HA-5-S-2-3-200901	Total/NA	Solid	8015D	303251
MB 600-303251/1-A	Method Blank	Total/NA	Solid	8015D	303251
LCS 600-303251/2-A	Lab Control Sample	Total/NA	Solid	8015D	303251
LCSD 600-303251/3-A	Lab Control Sample Dup	Total/NA	Solid	8015D	303251

HPLC/IC

Leach Batch: 303533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-210633-1	HA-1-S-0-.5-200901	Soluble	Solid	DI Leach	
600-210633-2	HA-1-S-1-2-200901	Soluble	Solid	DI Leach	
600-210633-3	HA-2-S-0-.5-200901	Soluble	Solid	DI Leach	
600-210633-4	HA-2-S-1-2-200901	Soluble	Solid	DI Leach	
600-210633-5	HA-2-SD-1-2-200901	Soluble	Solid	DI Leach	
600-210633-6	HA-2-S-2-3-200901	Soluble	Solid	DI Leach	
600-210633-7	HA-3-S-0-.5-200901	Soluble	Solid	DI Leach	
600-210633-8	HA-3-S-1-2-200901	Soluble	Solid	DI Leach	
600-210633-9	HA-4-S-0-.5-200901	Soluble	Solid	DI Leach	
600-210633-10	HA-4-S-1-2-200901	Soluble	Solid	DI Leach	
600-210633-11	HA-4-S-3-4-200901	Soluble	Solid	DI Leach	
600-210633-12	HA-5-S-0-.5-200901	Soluble	Solid	DI Leach	
600-210633-13	HA-5-S-1-2-200901	Soluble	Solid	DI Leach	
600-210633-14	HA-5-S-2-3-200901	Soluble	Solid	DI Leach	
MB 600-303533/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 600-303533/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
600-210633-1 MS	HA-1-S-0-.5-200901	Soluble	Solid	DI Leach	
600-210633-1 MSD	HA-1-S-0-.5-200901	Soluble	Solid	DI Leach	
600-210633-11 MS	HA-4-S-3-4-200901	Soluble	Solid	DI Leach	
600-210633-11 MSD	HA-4-S-3-4-200901	Soluble	Solid	DI Leach	
600-210633-13 MS	HA-5-S-1-2-200901	Soluble	Solid	DI Leach	
600-210633-13 MSD	HA-5-S-1-2-200901	Soluble	Solid	DI Leach	

QC Association Summary

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

HPLC/IC

Analysis Batch: 303725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-210633-1	HA-1-S-0-.5-200901	Soluble	Solid	300.0	303533
600-210633-2	HA-1-S-1-2-200901	Soluble	Solid	300.0	303533
600-210633-3	HA-2-S-0-.5-200901	Soluble	Solid	300.0	303533
600-210633-4	HA-2-S-1-2-200901	Soluble	Solid	300.0	303533
600-210633-5	HA-2-SD-1-2-200901	Soluble	Solid	300.0	303533
600-210633-6	HA-2-S-2-3-200901	Soluble	Solid	300.0	303533
600-210633-7	HA-3-S-0-.5-200901	Soluble	Solid	300.0	303533
600-210633-8	HA-3-S-1-2-200901	Soluble	Solid	300.0	303533
600-210633-9	HA-4-S-0-.5-200901	Soluble	Solid	300.0	303533
600-210633-10	HA-4-S-1-2-200901	Soluble	Solid	300.0	303533
600-210633-11	HA-4-S-3-4-200901	Soluble	Solid	300.0	303533
600-210633-12	HA-5-S-0-.5-200901	Soluble	Solid	300.0	303533
MB 600-303533/1-A	Method Blank	Soluble	Solid	300.0	303533
LCS 600-303533/2-A	Lab Control Sample	Soluble	Solid	300.0	303533
600-210633-1 MS	HA-1-S-0-.5-200901	Soluble	Solid	300.0	303533
600-210633-1 MSD	HA-1-S-0-.5-200901	Soluble	Solid	300.0	303533
600-210633-11 MS	HA-4-S-3-4-200901	Soluble	Solid	300.0	303533
600-210633-11 MSD	HA-4-S-3-4-200901	Soluble	Solid	300.0	303533

Analysis Batch: 303819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-210633-13	HA-5-S-1-2-200901	Soluble	Solid	300.0	303533
600-210633-14	HA-5-S-2-3-200901	Soluble	Solid	300.0	303533
MB 600-303533/1-A	Method Blank	Soluble	Solid	300.0	303533
LCS 600-303533/2-A	Lab Control Sample	Soluble	Solid	300.0	303533
600-210633-13 MS	HA-5-S-1-2-200901	Soluble	Solid	300.0	303533
600-210633-13 MSD	HA-5-S-1-2-200901	Soluble	Solid	300.0	303533

General Chemistry

Analysis Batch: 302758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-210633-1	HA-1-S-0-.5-200901	Total/NA	Solid	2540B	
600-210633-2	HA-1-S-1-2-200901	Total/NA	Solid	2540B	
600-210633-3	HA-2-S-0-.5-200901	Total/NA	Solid	2540B	
600-210633-4	HA-2-S-1-2-200901	Total/NA	Solid	2540B	
600-210633-5	HA-2-SD-1-2-200901	Total/NA	Solid	2540B	
600-210633-6	HA-2-S-2-3-200901	Total/NA	Solid	2540B	
600-210633-7	HA-3-S-0-.5-200901	Total/NA	Solid	2540B	
600-210633-8	HA-3-S-1-2-200901	Total/NA	Solid	2540B	
600-210633-9	HA-4-S-0-.5-200901	Total/NA	Solid	2540B	
600-210633-10	HA-4-S-1-2-200901	Total/NA	Solid	2540B	
600-210633-11	HA-4-S-3-4-200901	Total/NA	Solid	2540B	
600-210633-12	HA-5-S-0-.5-200901	Total/NA	Solid	2540B	
600-210633-13	HA-5-S-1-2-200901	Total/NA	Solid	2540B	
600-210633-14	HA-5-S-2-3-200901	Total/NA	Solid	2540B	
600-210633-10 DU	HA-4-S-1-2-200901	Total/NA	Solid	2540B	

Lab Chronicle

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-1-S-0-.5-200901 Lab Sample ID: 600-210633-1

Date Collected: 09/01/20 11:30 **Matrix: Solid**
Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1	302758	09/03/20 09:00	HAS	TAL HOU

Client Sample ID: HA-1-S-0-.5-200901 Lab Sample ID: 600-210633-1

Date Collected: 09/01/20 11:30 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 94.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			302716	09/02/20 15:07	WS1	TAL HOU
Total/NA	Analysis	8260C		1	302885	09/04/20 14:39	WS1	TAL HOU
Total/NA	Prep	5030C			302715	09/04/20 07:03	WS1	TAL HOU
Total/NA	Analysis	8015D		1	302845	09/04/20 11:02	WS1	TAL HOU
Total/NA	Prep	3546			303251	09/10/20 14:35	SMB	TAL HOU
Total/NA	Analysis	8015D		1	303527	09/15/20 19:14	RJV	TAL HOU
Soluble	Leach	DI Leach			303533	09/15/20 14:09	HAS	TAL HOU
Soluble	Analysis	300.0		1	303725	09/17/20 22:30	W1N	TAL HOU

Client Sample ID: HA-1-S-1-2-200901 Lab Sample ID: 600-210633-2

Date Collected: 09/01/20 11:42 **Matrix: Solid**
Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1	302758	09/03/20 09:00	HAS	TAL HOU

Client Sample ID: HA-1-S-1-2-200901 Lab Sample ID: 600-210633-2

Date Collected: 09/01/20 11:42 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 91.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			302716	09/02/20 15:07	WS1	TAL HOU
Total/NA	Analysis	8260C		1	302885	09/04/20 15:02	WS1	TAL HOU
Total/NA	Prep	5030C			302715	09/04/20 07:03	WS1	TAL HOU
Total/NA	Analysis	8015D		1	302845	09/04/20 11:27	WS1	TAL HOU
Total/NA	Prep	3546			303251	09/10/20 14:35	SMB	TAL HOU
Total/NA	Analysis	8015D		1	303527	09/15/20 19:45	RJV	TAL HOU
Soluble	Leach	DI Leach			303533	09/15/20 14:09	HAS	TAL HOU
Soluble	Analysis	300.0		5	303725	09/17/20 23:32	W1N	TAL HOU

Client Sample ID: HA-2-S-0-.5-200901 Lab Sample ID: 600-210633-3

Date Collected: 09/01/20 11:52 **Matrix: Solid**
Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1	302758	09/03/20 09:00	HAS	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-2-S-0-.5-200901 — Lab Sample ID: 600-210633-3

Date Collected: 09/01/20 11:52 — **Matrix: Solid**
Date Received: 09/02/20 10:35 — **Percent Solids: 79.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			302716	09/02/20 15:07	WS1	TAL HOU
Total/NA	Analysis	8260C		1	302885	09/04/20 15:25	WS1	TAL HOU
Total/NA	Prep	5030C			302715	09/04/20 07:03	WS1	TAL HOU
Total/NA	Analysis	8015D		1	302845	09/04/20 11:52	WS1	TAL HOU
Total/NA	Prep	3546	DL		303251	09/10/20 14:35	SMB	TAL HOU
Total/NA	Analysis	8015D	DL	2	303527	09/16/20 09:09	RJV	TAL HOU
Soluble	Leach	DI Leach			303533	09/15/20 14:09	HAS	TAL HOU
Soluble	Analysis	300.0		1	303725	09/17/20 23:52	W1N	TAL HOU

Client Sample ID: HA-2-S-1-2-200901 — Lab Sample ID: 600-210633-4

Date Collected: 09/01/20 11:57 — **Matrix: Solid**
Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1	302758	09/03/20 09:00	HAS	TAL HOU

Client Sample ID: HA-2-S-1-2-200901 — Lab Sample ID: 600-210633-4

Date Collected: 09/01/20 11:57 — **Matrix: Solid**
Date Received: 09/02/20 10:35 — **Percent Solids: 85.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			302716	09/02/20 15:07	WS1	TAL HOU
Total/NA	Analysis	8260C		1	302885	09/04/20 15:49	WS1	TAL HOU
Total/NA	Prep	5030C			302715	09/04/20 07:03	WS1	TAL HOU
Total/NA	Analysis	8015D		1	302845	09/04/20 12:17	WS1	TAL HOU
Total/NA	Prep	3546			303251	09/10/20 14:35	SMB	TAL HOU
Total/NA	Analysis	8015D		1	303527	09/15/20 20:47	RJV	TAL HOU
Soluble	Leach	DI Leach			303533	09/15/20 14:09	HAS	TAL HOU
Soluble	Analysis	300.0		10	303725	09/18/20 00:13	W1N	TAL HOU

Client Sample ID: HA-2-SD-1-2-200901 — Lab Sample ID: 600-210633-5

Date Collected: 09/01/20 11:57 — **Matrix: Solid**
Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1	302758	09/03/20 09:00	HAS	TAL HOU

Client Sample ID: HA-2-SD-1-2-200901 — Lab Sample ID: 600-210633-5

Date Collected: 09/01/20 11:57 — **Matrix: Solid**
Date Received: 09/02/20 10:35 — **Percent Solids: 85.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			302716	09/02/20 15:07	WS1	TAL HOU
Total/NA	Analysis	8260C		1	302930	09/05/20 10:19	WS1	TAL HOU
Total/NA	Prep	5030C			302715	09/04/20 07:03	WS1	TAL HOU
Total/NA	Analysis	8015D		1	302845	09/04/20 12:42	WS1	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-2-SD-1-2-200901 Lab Sample ID: 600-210633-5

Date Collected: 09/01/20 11:57 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 85.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			303251	09/10/20 14:35	SMB	TAL HOU
Total/NA	Analysis	8015D		1	303527	09/15/20 21:19	RJV	TAL HOU
Soluble	Leach	DI Leach			303533	09/15/20 14:09	HAS	TAL HOU
Soluble	Analysis	300.0		10	303725	09/18/20 00:33	W1N	TAL HOU

Client Sample ID: HA-2-S-2-3-200901 Lab Sample ID: 600-210633-6

Date Collected: 09/01/20 12:00 **Matrix: Solid**
Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1	302758	09/03/20 09:00	HAS	TAL HOU

Client Sample ID: HA-2-S-2-3-200901 Lab Sample ID: 600-210633-6

Date Collected: 09/01/20 12:00 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 80.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			302716	09/02/20 15:07	WS1	TAL HOU
Total/NA	Analysis	8260C		1	302885	09/04/20 16:34	WS1	TAL HOU
Total/NA	Prep	5030C			302715	09/04/20 07:03	WS1	TAL HOU
Total/NA	Analysis	8015D		1	302845	09/04/20 13:08	WS1	TAL HOU
Total/NA	Prep	3546			303251	09/10/20 14:35	SMB	TAL HOU
Total/NA	Analysis	8015D		1	303527	09/15/20 21:50	RJV	TAL HOU
Soluble	Leach	DI Leach			303533	09/15/20 14:09	HAS	TAL HOU
Soluble	Analysis	300.0		5	303725	09/18/20 00:53	W1N	TAL HOU

Client Sample ID: HA-3-S-0-.5-200901 Lab Sample ID: 600-210633-7

Date Collected: 09/01/20 12:08 **Matrix: Solid**
Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1	302758	09/03/20 09:00	HAS	TAL HOU

Client Sample ID: HA-3-S-0-.5-200901 Lab Sample ID: 600-210633-7

Date Collected: 09/01/20 12:08 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 84.3**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			302716	09/02/20 15:07	WS1	TAL HOU
Total/NA	Analysis	8260C		1	302885	09/04/20 16:57	WS1	TAL HOU
Total/NA	Prep	5030C			302715	09/04/20 07:03	WS1	TAL HOU
Total/NA	Analysis	8015D		1	302845	09/04/20 13:33	WS1	TAL HOU
Total/NA	Prep	3546			303251	09/10/20 14:35	SMB	TAL HOU
Total/NA	Analysis	8015D		1	303527	09/15/20 22:21	RJV	TAL HOU
Soluble	Leach	DI Leach			303533	09/15/20 14:09	HAS	TAL HOU
Soluble	Analysis	300.0		1	303725	09/18/20 01:55	W1N	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-3-S-1-2-200901 Lab Sample ID: 600-210633-8

Date Collected: 09/01/20 12:11 **Matrix: Solid**
Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1	302758	09/03/20 09:00	HAS	TAL HOU

Client Sample ID: HA-3-S-1-2-200901 Lab Sample ID: 600-210633-8

Date Collected: 09/01/20 12:11 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 92.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			302716	09/02/20 15:07	WS1	TAL HOU
Total/NA	Analysis	8260C		1	302885	09/04/20 17:20	WS1	TAL HOU
Total/NA	Prep	5030C			302715	09/04/20 07:03	WS1	TAL HOU
Total/NA	Analysis	8015D		1	302845	09/04/20 13:58	WS1	TAL HOU
Total/NA	Prep	3546			303251	09/10/20 14:35	SMB	TAL HOU
Total/NA	Analysis	8015D		1	303527	09/15/20 23:24	RJV	TAL HOU
Soluble	Leach	DI Leach			303533	09/15/20 14:09	HAS	TAL HOU
Soluble	Analysis	300.0		1	303725	09/18/20 02:15	W1N	TAL HOU

Client Sample ID: HA-4-S-0-.5-200901 Lab Sample ID: 600-210633-9

Date Collected: 09/01/20 12:20 **Matrix: Solid**
Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1	302758	09/03/20 09:00	HAS	TAL HOU

Client Sample ID: HA-4-S-0-.5-200901 Lab Sample ID: 600-210633-9

Date Collected: 09/01/20 12:20 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 81.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			302716	09/02/20 15:07	WS1	TAL HOU
Total/NA	Analysis	8260C		1	302885	09/04/20 17:43	WS1	TAL HOU
Total/NA	Prep	5030C			302715	09/04/20 07:03	WS1	TAL HOU
Total/NA	Analysis	8015D		1	302845	09/04/20 14:23	WS1	TAL HOU
Total/NA	Prep	3546			303251	09/10/20 14:35	SMB	TAL HOU
Total/NA	Analysis	8015D		1	303527	09/15/20 23:56	RJV	TAL HOU
Soluble	Leach	DI Leach			303533	09/15/20 14:09	HAS	TAL HOU
Soluble	Analysis	300.0		5	303725	09/18/20 02:35	W1N	TAL HOU

Client Sample ID: HA-4-S-1-2-200901 Lab Sample ID: 600-210633-10

Date Collected: 09/01/20 12:37 **Matrix: Solid**
Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1	302758	09/03/20 09:00	HAS	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-4-S-1-2-200901 Lab Sample ID: 600-210633-10

Date Collected: 09/01/20 12:37 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 89.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			302716	09/02/20 15:07	WS1	TAL HOU
Total/NA	Analysis	8260C		1	302885	09/04/20 18:05	WS1	TAL HOU
Total/NA	Prep	5030C			302715	09/04/20 07:03	WS1	TAL HOU
Total/NA	Analysis	8015D		1	302845	09/04/20 14:48	WS1	TAL HOU
Total/NA	Prep	3546			303251	09/10/20 14:35	SMB	TAL HOU
Total/NA	Analysis	8015D		1	303527	09/16/20 00:28	RJV	TAL HOU
Soluble	Leach	DI Leach			303533	09/15/20 14:09	HAS	TAL HOU
Soluble	Analysis	300.0		5	303725	09/18/20 02:56	W1N	TAL HOU

Client Sample ID: HA-4-S-3-4-200901 Lab Sample ID: 600-210633-11

Date Collected: 09/01/20 12:48 **Matrix: Solid**
Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1	302758	09/03/20 09:00	HAS	TAL HOU

Client Sample ID: HA-4-S-3-4-200901 Lab Sample ID: 600-210633-11

Date Collected: 09/01/20 12:48 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 90.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			302716	09/02/20 15:07	WS1	TAL HOU
Total/NA	Analysis	8260C		1	302885	09/04/20 18:28	WS1	TAL HOU
Total/NA	Prep	5030C			302715	09/04/20 07:03	WS1	TAL HOU
Total/NA	Analysis	8015D		1	302845	09/04/20 15:39	WS1	TAL HOU
Total/NA	Prep	3546			303251	09/10/20 14:35	SMB	TAL HOU
Total/NA	Analysis	8015D		1	303527	09/16/20 01:00	RJV	TAL HOU
Soluble	Leach	DI Leach			303533	09/15/20 14:09	HAS	TAL HOU
Soluble	Analysis	300.0		5	303725	09/18/20 03:16	W1N	TAL HOU

Client Sample ID: HA-5-S-0-.5-200901 Lab Sample ID: 600-210633-12

Date Collected: 09/01/20 12:54 **Matrix: Solid**
Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1	302758	09/03/20 09:00	HAS	TAL HOU

Client Sample ID: HA-5-S-0-.5-200901 Lab Sample ID: 600-210633-12

Date Collected: 09/01/20 12:54 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 90.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			302716	09/02/20 15:07	WS1	TAL HOU
Total/NA	Analysis	8260C		1	302885	09/04/20 13:05	WS1	TAL HOU
Total/NA	Prep	5030C			302715	09/04/20 07:03	WS1	TAL HOU
Total/NA	Analysis	8015D		1	302845	09/04/20 16:04	WS1	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Client Sample ID: HA-5-S-0-.5-200901 Lab Sample ID: 600-210633-12

Date Collected: 09/01/20 12:54 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 90.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			303251	09/10/20 14:35	SMB	TAL HOU
Total/NA	Analysis	8015D		1	303527	09/16/20 01:32	RJV	TAL HOU
Soluble	Leach	DI Leach			303533	09/15/20 14:09	HAS	TAL HOU
Soluble	Analysis	300.0		1	303725	09/18/20 04:17	W1N	TAL HOU

Client Sample ID: HA-5-S-1-2-200901 Lab Sample ID: 600-210633-13

Date Collected: 09/01/20 12:58 **Matrix: Solid**
Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1	302758	09/03/20 09:00	HAS	TAL HOU

Client Sample ID: HA-5-S-1-2-200901 Lab Sample ID: 600-210633-13

Date Collected: 09/01/20 12:58 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 90.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			302716	09/02/20 15:07	WS1	TAL HOU
Total/NA	Analysis	8260C		1	302885	09/04/20 18:51	WS1	TAL HOU
Total/NA	Prep	5030C			302715	09/04/20 07:03	WS1	TAL HOU
Total/NA	Analysis	8015D		1	302845	09/04/20 16:29	WS1	TAL HOU
Total/NA	Prep	3546			303251	09/10/20 14:36	SMB	TAL HOU
Total/NA	Analysis	8015D		1	303527	09/16/20 02:03	RJV	TAL HOU
Soluble	Leach	DI Leach			303533	09/15/20 14:09	HAS	TAL HOU
Soluble	Analysis	300.0		5	303819	09/18/20 14:24	W1N	TAL HOU

Client Sample ID: HA-5-S-2-3-200901 Lab Sample ID: 600-210633-14

Date Collected: 09/01/20 13:04 **Matrix: Solid**
Date Received: 09/02/20 10:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540B		1	302758	09/03/20 09:00	HAS	TAL HOU

Client Sample ID: HA-5-S-2-3-200901 Lab Sample ID: 600-210633-14

Date Collected: 09/01/20 13:04 **Matrix: Solid**
Date Received: 09/02/20 10:35 **Percent Solids: 89.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			302716	09/02/20 15:07	WS1	TAL HOU
Total/NA	Analysis	8260C		1	302885	09/04/20 19:13	WS1	TAL HOU
Total/NA	Prep	5030C			302715	09/04/20 07:03	WS1	TAL HOU
Total/NA	Analysis	8015D		1	302845	09/04/20 16:54	WS1	TAL HOU
Total/NA	Prep	3546			303251	09/10/20 14:36	SMB	TAL HOU
Total/NA	Analysis	8015D		1	303527	09/16/20 02:35	RJV	TAL HOU
Soluble	Leach	DI Leach			303533	09/15/20 14:09	HAS	TAL HOU
Soluble	Analysis	300.0		5	303819	09/18/20 15:25	W1N	TAL HOU

Lab Chronicle

Client: ARCADIS U.S., Inc.
Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Laboratory References:

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Accreditation/Certification Summary

Client: ARCADIS U.S., Inc. Job ID: 600-210633-1
Project/Site: Chevron - WLU East Test Sat Site

Laboratory: Eurofins TestAmerica, Houston

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704223-20-26	10-31-20

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
2540B		Solid	Percent Moisture
2540B		Solid	Percent Solids
8015D	3546	Solid	Oil Range Organics (C28-C36)

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

Midland #264

eurofins

Client Information	Sampler: J. Steinmann	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-78645-21182.1
Client Contact: Justin Nixon	Phone: 619 851 8792	E-Mail: Sachin.Kudchadkar@Eurofinset.com		Page: Page 2 of 2
Company: ARCADIS U.S., Inc.				Job #:
Address: 1004 North Big Spring Suite 121	Due Date Requested: —			
City: Midland	TAT Requested (days): Std			
State, Zip: TX, 79701				
Phone: —	PO #: 30057179			
Email: Justin.Nixon@arcadis.com	WO #:			
Project Name: Chevron - WLU East Test Sat Site	Project #: 60012618			
Site: WLU East Test Sat	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, 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)	8015D_DRO/ ORO	8015D_GRO	8260B- BTEX	300- Chloride	moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N		
HA-1-S-0-.5-200901	9/01/20	1130	G	Solid								9	
HA-1-S-1-2-200901		1142		Solid									
HA-2-S-0-.5-200901		1152		Solid									
HA-2-S-1-2-200901		1157		Solid									
HA-2-SD-1-2-200901		1157		Solid									
~~HA-2-2~~ HA-2-S-2-3-200901		1200		Solid									
HA-3-S-0-.5-200901		1208		Solid									
HA-3-S-1-2-200901		1211		Solid									
HA-4-S-0-.5-200901		1220		Solid									
HA-4-S-1-2-200901		1237		Solid									
HA-4-S-3-4-200901		1248		Solid									

600-210633 Chain of Custody

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		9/01/20 1600	Arcadis		9/2/20 1035	ETA
2						
3						

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

Ver: 01/16/2019

Eurofins TestAmerica, Houston
6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

Midland #264

eurofins

Client Information	Sampler: J. Steinmann	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-78645-21182.1
Client Contact: Justin Nixon	Phone: 619 851 8792	E-Mail: Sachin.Kudchadkar@Eurofinset.com		Page: Page 2 of 2
Company: ARCADIS U S., Inc.				Job #:
Address: 1004 North Big Spring Suite 121	Due Date Requested: —	Analysis Requested		
City: Midland	TAT Requested (days): Std			
State, Zip: TX, 79701				
Phone: —	PO #: 30057179			
Email: Justin.Nixon@arcadis.com	WO #:			
Project Name: Chevron - WLU East Test Sat Site	Project #: 60012618			
Site: WLU East Test Sat	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, 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)	8015D_DRO/ ORO	8015D_GRO	8260B- BTEX	300- Chloride	moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code				N	N	N	N	N		
HA-5-S-0-.5-200901	9/01/20	1254	G	Solid								2	
HA-5-S-1-2-200901	9/01/20	1258	G	Solid								1	
HA-5-S-2-3-200901	9/01/20	1304	G	Solid								1	
				Solid									
				Solid									
				Solid									
				Solid									
				Solid									
				Solid									
				Solid									
				Solid									
				Solid									

gs 9/01/20

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		9/01/20 1600	Arcadis		9/2/20 1035	ETA
2						
3						

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

Ver: 01/16/2019

Loc: 600
210633

eurofins | Environment Testing TestAmerica

Eurofins TestAmerica Houston

Sample Receipt Checklist

'20 SEP 2 10:35

Date/Time Received: 9/2/20 10:35

JOB NUMBER: _____ CLIENT: Arcadis

UNPACKED BY: _____ CARRIER/DRIVER: Fedex

Custody Seal Present: ☒YES ☐NO Number of Coolers Received: 1

Cooler ID	Temp Blank	Trip Blank	Observed Temp (°C)	Therm ID	Therm CF	Corrected Temp (°C)
8086	Y / N	Y / N	1.1	68	+0.1	1.2
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				
	Y / N	Y / N				9/2/20
	Y / N	Y / N				

CF = correction factor

Samples received on ice? ☒YES ☐NO

LABORATORY PRESERVATION OF SAMPLES REQUIRED: ☒NO ☐YES

Base samples are>pH 12: ☐YES ☐NO Acid preserved are<pH 2: ☐YES ☐NO

TX1005 samples frozen upon receipt: ☐ YES DATE & TIME PUT IN FREEZER: _____

pH paper Lot #_____ VOA headspace acceptable (5-6mm): ☐YES ☐NO ☒NA

Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	☒YES	☐ NO

COMMENTS:

9/2/20

HS-SA-WI-013 Rev. 4A; 08/26/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc. Job Number: 600-210633-1

Login Number: 210633 **List Source: Eurofins TestAmerica, Houston**
List Number: 1
Creator: Rubio, Yuri

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 4/6/2023 8:28:27 AM

JOB DESCRIPTION

WLU 23

JOB NUMBER

880-26347-1

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
4/6/2023 8:28:27 AM

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

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Laboratory Job ID: 880-26347-1

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 880-26347-1
Project/Site: WLU 23

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

Job ID: 880-26347-1

Laboratory: Eurofins Midland

Narrative

Job Narrative
880-26347-1

Receipt
The samples were received on 3/24/2023 3:09 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-50229 and analytical batch 880-50423 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-49838 and analytical batch 880-49908 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-49908/5), (LCS 880-49838/2-A) and (LCSD 880-49838/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The method blank for preparation batch 880-49838 and analytical batch 880-49908 contained Diesel Range Organics (Over C10-C28) and OII Range Organics (Over C28-C36) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-49995/5), (LCS 880-49932/2-A) and (LCSD 880-49932/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SB-8-S-.5'-20230323 (880-26347-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SB-8-S-4'-20230323 (880-26347-11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-49932 and analytical batch 880-49995 contained Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-49932 and analytical batch 880-49995 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.

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 23

Job ID: 880-26347-1

Client Sample ID: SB-9-S-0-.5'-20230323

Lab Sample ID: 880-26347-1

Date Collected: 03/23/23 14:55
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000381	U F1	0.00198	0.000381	mg/Kg		04/03/23 15:36	04/05/23 21:20	1
Toluene	<0.000451	U	0.00198	0.000451	mg/Kg		04/03/23 15:36	04/05/23 21:20	1
Ethylbenzene	<0.000559	U	0.00198	0.000559	mg/Kg		04/03/23 15:36	04/05/23 21:20	1
m-Xylene & p-Xylene	<0.00100	U	0.00396	0.00100	mg/Kg		04/03/23 15:36	04/05/23 21:20	1
o-Xylene	<0.000341	U	0.00198	0.000341	mg/Kg		04/03/23 15:36	04/05/23 21:20	1
Xylenes, Total	<0.00100	U	0.00396	0.00100	mg/Kg		04/03/23 15:36	04/05/23 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*04/03/23 15:36*	*04/05/23 21:20*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*04/03/23 15:36*	*04/05/23 21:20*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**16.5**	**J**	49.9	15.0	mg/Kg			03/31/23 11:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**16.5**	**J**	49.9	15.0	mg/Kg		03/29/23 12:35	03/30/23 21:11	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		03/29/23 12:35	03/30/23 21:11	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/29/23 12:35	03/30/23 21:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*03/29/23 12:35*	*03/30/23 21:11*	*1*
o-Terphenyl	*119*		*70 - 130*	*03/29/23 12:35*	*03/30/23 21:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**43.5**		4.95	0.391	mg/Kg			04/04/23 20:56	1

Client Sample ID: SB-9-S-2'-20230323

Lab Sample ID: 880-26347-2

Date Collected: 03/23/23 15:00
Matrix: Solid
Date Received: 03/24/23 15:09

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		04/03/23 15:36	04/06/23 01:49	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		04/03/23 15:36	04/06/23 01:49	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		04/03/23 15:36	04/06/23 01:49	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		04/03/23 15:36	04/06/23 01:49	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		04/03/23 15:36	04/06/23 01:49	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		04/03/23 15:36	04/06/23 01:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*04/03/23 15:36*	*04/06/23 01:49*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*04/03/23 15:36*	*04/06/23 01:49*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**19.5**	**J**	50.0	15.0	mg/Kg			03/31/23 11:54	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

Client Sample ID: SB-9-S-2'-20230323

Lab Sample ID: 880-26347-2
Matrix: Solid
Date Collected: 03/23/23 15:00
Date Received: 03/24/23 15:09

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	19.5	J	50.0	15.0	mg/Kg		03/29/23 12:35	03/30/23 21:33	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		03/29/23 12:35	03/30/23 21:33	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/29/23 12:35	03/30/23 21:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*03/29/23 12:35*	*03/30/23 21:33*	*1*
o-Terphenyl	*109*		*70 - 130*	*03/29/23 12:35*	*03/30/23 21:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.6		5.01	0.396	mg/Kg			04/04/23 21:01	1

Client Sample ID: SB-9-S-4'-20230323

Lab Sample ID: 880-26347-3
Matrix: Solid
Date Collected: 03/23/23 15:10
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		04/03/23 15:36	04/06/23 02:10	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		04/03/23 15:36	04/06/23 02:10	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		04/03/23 15:36	04/06/23 02:10	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		04/03/23 15:36	04/06/23 02:10	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		04/03/23 15:36	04/06/23 02:10	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		04/03/23 15:36	04/06/23 02:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*04/03/23 15:36*	*04/06/23 02:10*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*04/03/23 15:36*	*04/06/23 02:10*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	19.3	J	49.9	15.0	mg/Kg			03/31/23 11:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	19.3	J	49.9	15.0	mg/Kg		03/29/23 12:35	03/30/23 21:55	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		03/29/23 12:35	03/30/23 21:55	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/29/23 12:35	03/30/23 21:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*03/29/23 12:35*	*03/30/23 21:55*	*1*
o-Terphenyl	*104*		*70 - 130*	*03/29/23 12:35*	*03/30/23 21:55*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	79.7		5.02	0.397	mg/Kg			04/04/23 21:05	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

Client Sample ID: SB-8-S-.5'-20230323

Lab Sample ID: 880-26347-4

Date Collected: 03/23/23 15:15
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		04/03/23 15:36	04/06/23 02:30	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		04/03/23 15:36	04/06/23 02:30	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		04/03/23 15:36	04/06/23 02:30	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		04/03/23 15:36	04/06/23 02:30	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg		04/03/23 15:36	04/06/23 02:30	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		04/03/23 15:36	04/06/23 02:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*04/03/23 15:36*	*04/06/23 02:30*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*04/03/23 15:36*	*04/06/23 02:30*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**33.5**	**J**	49.9	15.0	mg/Kg			04/03/23 14:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**33.5**	**J *+**	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 12:01	1
Diesel Range Organics (Over C10-C28)	<15.0	U *+	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 12:01	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 12:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*03/30/23 12:21*	*03/31/23 12:01*	*1*
o-Terphenyl	*133*	*S1+*	*70 - 130*	*03/30/23 12:21*	*03/31/23 12:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**76.1**		4.99	0.394	mg/Kg			04/04/23 21:10	1

Client Sample ID: SB-8-S-2'-20230323

Lab Sample ID: 880-26347-5

Date Collected: 03/23/23 15:20
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000389	U	0.00202	0.000389	mg/Kg		04/03/23 15:36	04/06/23 02:51	1
Toluene	<0.000461	U	0.00202	0.000461	mg/Kg		04/03/23 15:36	04/06/23 02:51	1
Ethylbenzene	<0.000571	U	0.00202	0.000571	mg/Kg		04/03/23 15:36	04/06/23 02:51	1
m-Xylene & p-Xylene	<0.00102	U	0.00404	0.00102	mg/Kg		04/03/23 15:36	04/06/23 02:51	1
o-Xylene	<0.000347	U	0.00202	0.000347	mg/Kg		04/03/23 15:36	04/06/23 02:51	1
Xylenes, Total	<0.00102	U	0.00404	0.00102	mg/Kg		04/03/23 15:36	04/06/23 02:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*04/03/23 15:36*	*04/06/23 02:51*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*04/03/23 15:36*	*04/06/23 02:51*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**50.7**		49.9	15.0	mg/Kg			04/03/23 14:09	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

Client Sample ID: SB-8-S-2'-20230323

Lab Sample ID: 880-26347-5
Matrix: Solid
Date Collected: 03/23/23 15:20
Date Received: 03/24/23 15:09

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	26.6	J *+	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 13:08	1
Diesel Range Organics (Over C10-C28)	24.1	J B *+	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 13:08	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 13:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*03/30/23 12:21*	*03/31/23 13:08*	*1*
o-Terphenyl	*128*		*70 - 130*	*03/30/23 12:21*	*03/31/23 13:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	141		4.98	0.393	mg/Kg			04/04/23 21:46	1

Client Sample ID: SB-8-S-4'-20230323

Lab Sample ID: 880-26347-6
Matrix: Solid
Date Collected: 03/23/23 15:25
Date Received: 03/24/23 15:09

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		04/03/23 15:36	04/06/23 03:11	1
Toluene	<0.000451	U	0.00198	0.000451	mg/Kg		04/03/23 15:36	04/06/23 03:11	1
Ethylbenzene	<0.000559	U	0.00198	0.000559	mg/Kg		04/03/23 15:36	04/06/23 03:11	1
m-Xylene & p-Xylene	<0.00100	U	0.00396	0.00100	mg/Kg		04/03/23 15:36	04/06/23 03:11	1
o-Xylene	<0.000341	U	0.00198	0.000341	mg/Kg		04/03/23 15:36	04/06/23 03:11	1
Xylenes, Total	<0.00100	U	0.00396	0.00100	mg/Kg		04/03/23 15:36	04/06/23 03:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*04/03/23 15:36*	*04/06/23 03:11*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*04/03/23 15:36*	*04/06/23 03:11*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	33.1	J	49.9	15.0	mg/Kg			04/03/23 14:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	33.1	J *+	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 13:30	1
Diesel Range Organics (Over C10-C28)	<15.0	U *+	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 13:30	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 13:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*03/30/23 12:21*	*03/31/23 13:30*	*1*
o-Terphenyl	*125*		*70 - 130*	*03/30/23 12:21*	*03/31/23 13:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	83.2		5.03	0.397	mg/Kg			04/04/23 22:00	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

Client Sample ID: SB-7-S-.5'-20230323

Lab Sample ID: 880-26347-7

Date Collected: 03/23/23 15:30
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		04/03/23 15:36	04/06/23 03:32	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		04/03/23 15:36	04/06/23 03:32	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		04/03/23 15:36	04/06/23 03:32	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		04/03/23 15:36	04/06/23 03:32	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		04/03/23 15:36	04/06/23 03:32	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		04/03/23 15:36	04/06/23 03:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*04/03/23 15:36*	*04/06/23 03:32*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*04/03/23 15:36*	*04/06/23 03:32*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**23.4**	**J**	49.9	15.0	mg/Kg			04/03/23 14:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**23.4**	**J *+**	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 13:51	1
Diesel Range Organics (Over C10-C28)	<15.0	U *+	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 13:51	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*03/30/23 12:21*	*03/31/23 13:51*	*1*
o-Terphenyl	*129*		*70 - 130*	*03/30/23 12:21*	*03/31/23 13:51*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**66.9**		5.01	0.396	mg/Kg			04/04/23 22:05	1

Client Sample ID: SB-7-S-2'-20230323

Lab Sample ID: 880-26347-8

Date Collected: 03/23/23 15:35
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000388	U	0.00202	0.000388	mg/Kg		04/03/23 15:36	04/06/23 03:53	1
Toluene	<0.000460	U	0.00202	0.000460	mg/Kg		04/03/23 15:36	04/06/23 03:53	1
Ethylbenzene	<0.000570	U	0.00202	0.000570	mg/Kg		04/03/23 15:36	04/06/23 03:53	1
m-Xylene & p-Xylene	<0.00102	U	0.00403	0.00102	mg/Kg		04/03/23 15:36	04/06/23 03:53	1
o-Xylene	<0.000347	U	0.00202	0.000347	mg/Kg		04/03/23 15:36	04/06/23 03:53	1
Xylenes, Total	<0.00102	U	0.00403	0.00102	mg/Kg		04/03/23 15:36	04/06/23 03:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*04/03/23 15:36*	*04/06/23 03:53*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*04/03/23 15:36*	*04/06/23 03:53*	*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	49.9	15.0	mg/Kg			04/03/23 14:09	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

Client Sample ID: SB-7-S-2'-20230323

Lab Sample ID: 880-26347-8

Date Collected: 03/23/23 15:35
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U *+	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 14:13	1
Diesel Range Organics (Over C10-C28)	<15.0	U *+	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 14:13	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*03/30/23 12:21*	*03/31/23 14:13*	*1*
o-Terphenyl	*125*		*70 - 130*	*03/30/23 12:21*	*03/31/23 14:13*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**73.7**		5.01	0.396	mg/Kg			04/04/23 22:09	1

Client Sample ID: SB-8-S-.5'-20230323

Lab Sample ID: 880-26347-9

Date Collected: 03/23/23 15:40
Matrix: Solid
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		04/03/23 15:36	04/06/23 04:13	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		04/03/23 15:36	04/06/23 04:13	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		04/03/23 15:36	04/06/23 04:13	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		04/03/23 15:36	04/06/23 04:13	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		04/03/23 15:36	04/06/23 04:13	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		04/03/23 15:36	04/06/23 04:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*04/03/23 15:36*	*04/06/23 04:13*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*04/03/23 15:36*	*04/06/23 04:13*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**53.7**		50.0	15.0	mg/Kg			04/03/23 14:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**26.2**	**J *+**	50.0	15.0	mg/Kg		03/30/23 12:21	03/31/23 14:35	1
Diesel Range Organics (Over C10-C28)	**27.5**	**J B *+**	50.0	15.0	mg/Kg		03/30/23 12:21	03/31/23 14:35	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/30/23 12:21	03/31/23 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*03/30/23 12:21*	*03/31/23 14:35*	*1*
o-Terphenyl	*126*		*70 - 130*	*03/30/23 12:21*	*03/31/23 14:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**443**		4.97	0.393	mg/Kg			04/04/23 22:14	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

Client Sample ID: SB-8-S-2'-20230323

Lab Sample ID: 880-26347-10
Matrix: Solid
Date Collected: 03/23/23 15:45
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		04/03/23 15:36	04/06/23 04:34	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		04/03/23 15:36	04/06/23 04:34	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		04/03/23 15:36	04/06/23 04:34	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		04/03/23 15:36	04/06/23 04:34	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg		04/03/23 15:36	04/06/23 04:34	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		04/03/23 15:36	04/06/23 04:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*04/03/23 15:36*	*04/06/23 04:34*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*04/03/23 15:36*	*04/06/23 04:34*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**22.3**	**J**	50.0	15.0	mg/Kg			04/03/23 14:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**22.3**	**J *+**	50.0	15.0	mg/Kg		03/30/23 12:21	03/31/23 14:56	1
Diesel Range Organics (Over C10-C28)	<15.0	U *+	50.0	15.0	mg/Kg		03/30/23 12:21	03/31/23 14:56	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/30/23 12:21	03/31/23 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*03/30/23 12:21*	*03/31/23 14:56*	*1*
o-Terphenyl	*130*		*70 - 130*	*03/30/23 12:21*	*03/31/23 14:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**513**		4.95	0.391	mg/Kg			04/04/23 22:27	1

Client Sample ID: SB-8-S-4'-20230323

Lab Sample ID: 880-26347-11
Matrix: Solid
Date Collected: 03/23/23 15:50
Date Received: 03/24/23 15:09

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		04/03/23 15:36	04/06/23 04:54	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		04/03/23 15:36	04/06/23 04:54	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		04/03/23 15:36	04/06/23 04:54	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		04/03/23 15:36	04/06/23 04:54	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		04/03/23 15:36	04/06/23 04:54	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		04/03/23 15:36	04/06/23 04:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*04/03/23 15:36*	*04/06/23 04:54*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*04/03/23 15:36*	*04/06/23 04:54*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**40.1**	**J**	49.9	15.0	mg/Kg			04/03/23 14:09	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

Client Sample ID: SB-8-S-4'-20230323

Lab Sample ID: 880-26347-11

Date Collected: 03/23/23 15:50
Matrix: Solid
Date Received: 03/24/23 15:09

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	**40.1**	**J *+**	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 15:18	1
Diesel Range Organics (Over C10-C28)	<15.0	U *+	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 15:18	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		03/30/23 12:21	03/31/23 15:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*03/30/23 12:21*	*03/31/23 15:18*	*1*
o-Terphenyl	*149*	*S1+*	*70 - 130*	*03/30/23 12:21*	*03/31/23 15:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1500**		25.2	1.99	mg/Kg			04/04/23 22:32	5

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-26347-1	SB-9-S-0-.5'-20230323	107	86
880-26347-1 MS	SB-9-S-0-.5'-20230323	122	87
880-26347-1 MSD	SB-9-S-0-.5'-20230323	117	91
880-26347-2	SB-9-S-2'-20230323	99	87
880-26347-3	SB-9-S-4'-20230323	110	97
880-26347-4	SB-8-S-.5'-20230323	116	99
880-26347-5	SB-8-S-2'-20230323	119	95
880-26347-6	SB-8-S-4'-20230323	107	92
880-26347-7	SB-7-S-.5'-20230323	110	93
880-26347-8	SB-7-S-2'-20230323	108	85
880-26347-9	SB-8-S-.5'-20230323	111	90
880-26347-10	SB-8-S-2'-20230323	118	95
880-26347-11	SB-8-S-4'-20230323	123	89
LCS 880-50229/1-A	Lab Control Sample	108	89
LCSD 880-50229/2-A	Lab Control Sample Dup	108	85
MB 880-50229/5-A	Method Blank	97	78

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-26347-1	SB-9-S-0-.5'-20230323	100	119
880-26347-2	SB-9-S-2'-20230323	90	109
880-26347-3	SB-9-S-4'-20230323	87	104
880-26347-4	SB-8-S-.5'-20230323	107	133 S1+
880-26347-4 MS	SB-8-S-.5'-20230323	112	122
880-26347-4 MSD	SB-8-S-.5'-20230323	109	119
880-26347-5	SB-8-S-2'-20230323	104	128
880-26347-6	SB-8-S-4'-20230323	102	125
880-26347-7	SB-7-S-.5'-20230323	103	129
880-26347-8	SB-7-S-2'-20230323	101	125
880-26347-9	SB-8-S-.5'-20230323	102	126
880-26347-10	SB-8-S-2'-20230323	104	130
880-26347-11	SB-8-S-4'-20230323	122	149 S1+
LCS 880-49838/2-A	Lab Control Sample	122	149 S1+
LCS 880-49932/2-A	Lab Control Sample	139 S1+	159 S1+
LCSD 880-49838/3-A	Lab Control Sample Dup	120	143 S1+
LCSD 880-49932/3-A	Lab Control Sample Dup	167 S1+	187 S1+
MB 880-49838/1-A	Method Blank	120	141 S1+
MB 880-49932/1-A	Method Blank	104	130

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-50229/5-A
Matrix: Solid
Analysis Batch: 50423

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 50229

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		04/03/23 15:36	04/05/23 20:58	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		04/03/23 15:36	04/05/23 20:58	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		04/03/23 15:36	04/05/23 20:58	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		04/03/23 15:36	04/05/23 20:58	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		04/03/23 15:36	04/05/23 20:58	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		04/03/23 15:36	04/05/23 20:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*04/03/23 15:36*	*04/05/23 20:58*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*04/03/23 15:36*	*04/05/23 20:58*	*1*

Lab Sample ID: LCS 880-50229/1-A
Matrix: Solid
Analysis Batch: 50423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 50229

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07768		mg/Kg		78	70 - 130
Toluene	0.100	0.09031		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.09161		mg/Kg		92	70 - 130
m-Xylene & p-Xylene	0.200	0.1957		mg/Kg		98	70 - 130
o-Xylene	0.100	0.09986		mg/Kg		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: LCSD 880-50229/2-A
Matrix: Solid
Analysis Batch: 50423

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 50229

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07797		mg/Kg		78	70 - 130	0	35
Toluene	0.100	0.09036		mg/Kg		90	70 - 130	0	35
Ethylbenzene	0.100	0.09239		mg/Kg		92	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.1975		mg/Kg		99	70 - 130	1	35
o-Xylene	0.100	0.1009		mg/Kg		101	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*

Lab Sample ID: 880-26347-1 MS
Matrix: Solid
Analysis Batch: 50423

Client Sample ID: SB-9-S-0-.5'-20230323
Prep Type: Total/NA
Prep Batch: 50229

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.000381	U F1	0.0998	0.06725	F1	mg/Kg		67	70 - 130
Toluene	<0.000451	U	0.0998	0.08105		mg/Kg		81	70 - 130

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

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

Lab Sample ID: 880-26347-1 MS — **Client Sample ID: SB-9-S-0-.5'-20230323**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 50423 — **Prep Batch: 50229**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.000559	U	0.0998	0.08311		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00100	U	0.200	0.1774		mg/Kg		89	70 - 130
o-Xylene	<0.000341	U	0.0998	0.08992		mg/Kg		90	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*

Lab Sample ID: 880-26347-1 MSD — **Client Sample ID: SB-9-S-0-.5'-20230323**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 50423 — **Prep Batch: 50229**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.000381	U F1	0.100	0.07093		mg/Kg		71	70 - 130	5	35
Toluene	<0.000451	U	0.100	0.08218		mg/Kg		82	70 - 130	1	35
Ethylbenzene	<0.000559	U	0.100	0.08167		mg/Kg		82	70 - 130	2	35
m-Xylene & p-Xylene	<0.00100	U	0.200	0.1693		mg/Kg		84	70 - 130	5	35
o-Xylene	<0.000341	U	0.100	0.08650		mg/Kg		86	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

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

Lab Sample ID: MB 880-49838/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 49908 — **Prep Batch: 49838**

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		03/29/23 12:35	03/30/23 08:23	1
Diesel Range Organics (Over C10-C28)	22.09	J	50.0	15.0	mg/Kg		03/29/23 12:35	03/30/23 08:23	1
OII Range Organics (Over C28-C36)	20.40	J	50.0	15.0	mg/Kg		03/29/23 12:35	03/30/23 08:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*03/29/23 12:35*	*03/30/23 08:23*	*1*
o-Terphenyl	*141*	*S1+*	*70 - 130*	*03/29/23 12:35*	*03/30/23 08:23*	*1*

Lab Sample ID: LCS 880-49838/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 49908 — **Prep Batch: 49838**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	856.5		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	1000	885.5		mg/Kg		89	70 - 130

Eurofins Midland

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

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

Lab Sample ID: LCS 880-49838/2-A
Matrix: Solid
Analysis Batch: 49908

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49838

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	122		70 - 130
o-Terphenyl	149	S1+	70 - 130

Lab Sample ID: LCSD 880-49838/3-A
Matrix: Solid
Analysis Batch: 49908

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49838

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	870.2		mg/Kg		87	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	886.2		mg/Kg		89	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	120		70 - 130
o-Terphenyl	143	S1+	70 - 130

Lab Sample ID: MB 880-49932/1-A
Matrix: Solid
Analysis Batch: 49995

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 49932

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		03/30/23 12:21	03/31/23 09:25	1
Diesel Range Organics (Over C10-C28)	19.53	J	50.0	15.0	mg/Kg		03/30/23 12:21	03/31/23 09:25	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		03/30/23 12:21	03/31/23 09:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	03/30/23 12:21	03/31/23 09:25	1
o-Terphenyl	130		70 - 130	03/30/23 12:21	03/31/23 09:25	1

Lab Sample ID: LCS 880-49932/2-A
Matrix: Solid
Analysis Batch: 49995

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 49932

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1204		mg/Kg		120	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1703	*+	mg/Kg		170	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	139	S1+	70 - 130
o-Terphenyl	159	S1+	70 - 130

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

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

Lab Sample ID: LCSD 880-49932/3-A
Matrix: Solid
Analysis Batch: 49995

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 49932

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1476	*+	mg/Kg		148	70 - 130	20	20
Diesel Range Organics (Over C10-C28)			1000	2050	*+	mg/Kg		205	70 - 130	18	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*167*	*S1+*	*70 - 130*
o-Terphenyl	*187*	*S1+*	*70 - 130*

Lab Sample ID: 880-26347-4 MS
Matrix: Solid
Analysis Batch: 49995

Client Sample ID: SB-8-S-.5'-20230323
Prep Type: Total/NA
Prep Batch: 49932

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	33.5	J *+	999	982.9		mg/Kg		95	70 - 130
Diesel Range Organics (Over C10-C28)	<15.0	U *+	999	1170		mg/Kg		117	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*122*		*70 - 130*

Lab Sample ID: 880-26347-4 MSD
Matrix: Solid
Analysis Batch: 49995

Client Sample ID: SB-8-S-.5'-20230323
Prep Type: Total/NA
Prep Batch: 49932

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	33.5	J *+	999	949.3		mg/Kg		92	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<15.0	U *+	999	1153		mg/Kg		115	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*109*		*70 - 130*
o-Terphenyl	*119*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-50169/1-A
Matrix: Solid
Analysis Batch: 50389

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 18:53	1

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-50169/2-A
Matrix: Solid
Analysis Batch: 50389

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	252.0		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-50169/3-A
Matrix: Solid
Analysis Batch: 50389

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	246.6		mg/Kg		99	90 - 110	2	20

Lab Sample ID: MB 880-50170/1-A
Matrix: Solid
Analysis Batch: 50390

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 21:32	1

Lab Sample ID: LCS 880-50170/2-A
Matrix: Solid
Analysis Batch: 50390

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	248.0		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-50170/3-A
Matrix: Solid
Analysis Batch: 50390

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	246.1		mg/Kg		98	90 - 110	1	20

Lab Sample ID: 880-26347-5 MS
Matrix: Solid
Analysis Batch: 50390

Client Sample ID: SB-8-S-2'-20230323
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	141		249	394.4		mg/Kg		102	90 - 110		

Lab Sample ID: 880-26347-5 MSD
Matrix: Solid
Analysis Batch: 50390

Client Sample ID: SB-8-S-2'-20230323
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	141		249	388.4		mg/Kg		99	90 - 110	2	20

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

GC VOA

Prep Batch: 50229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26347-1	SB-9-S-0-.5'-20230323	Total/NA	Solid	5030B	
880-26347-2	SB-9-S-2'-20230323	Total/NA	Solid	5030B	
880-26347-3	SB-9-S-4'-20230323	Total/NA	Solid	5030B	
880-26347-4	SB-8-S-.5'-20230323	Total/NA	Solid	5030B	
880-26347-5	SB-8-S-2'-20230323	Total/NA	Solid	5030B	
880-26347-6	SB-8-S-4'-20230323	Total/NA	Solid	5030B	
880-26347-7	SB-7-S-.5'-20230323	Total/NA	Solid	5030B	
880-26347-8	SB-7-S-2'-20230323	Total/NA	Solid	5030B	
880-26347-9	SB-8-S-.5'-20230323	Total/NA	Solid	5030B	
880-26347-10	SB-8-S-2'-20230323	Total/NA	Solid	5030B	
880-26347-11	SB-8-S-4'-20230323	Total/NA	Solid	5030B	
MB 880-50229/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-50229/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-50229/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
880-26347-1 MS	SB-9-S-0-.5'-20230323	Total/NA	Solid	5030B	
880-26347-1 MSD	SB-9-S-0-.5'-20230323	Total/NA	Solid	5030B	

Analysis Batch: 50423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26347-1	SB-9-S-0-.5'-20230323	Total/NA	Solid	8021B	50229
880-26347-2	SB-9-S-2'-20230323	Total/NA	Solid	8021B	50229
880-26347-3	SB-9-S-4'-20230323	Total/NA	Solid	8021B	50229
880-26347-4	SB-8-S-.5'-20230323	Total/NA	Solid	8021B	50229
880-26347-5	SB-8-S-2'-20230323	Total/NA	Solid	8021B	50229
880-26347-6	SB-8-S-4'-20230323	Total/NA	Solid	8021B	50229
880-26347-7	SB-7-S-.5'-20230323	Total/NA	Solid	8021B	50229
880-26347-8	SB-7-S-2'-20230323	Total/NA	Solid	8021B	50229
880-26347-9	SB-8-S-.5'-20230323	Total/NA	Solid	8021B	50229
880-26347-10	SB-8-S-2'-20230323	Total/NA	Solid	8021B	50229
880-26347-11	SB-8-S-4'-20230323	Total/NA	Solid	8021B	50229
MB 880-50229/5-A	Method Blank	Total/NA	Solid	8021B	50229
LCS 880-50229/1-A	Lab Control Sample	Total/NA	Solid	8021B	50229
LCSD 880-50229/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	50229
880-26347-1 MS	SB-9-S-0-.5'-20230323	Total/NA	Solid	8021B	50229
880-26347-1 MSD	SB-9-S-0-.5'-20230323	Total/NA	Solid	8021B	50229

GC Semi VOA

Prep Batch: 49838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26347-1	SB-9-S-0-.5'-20230323	Total/NA	Solid	8015NM Prep	
880-26347-2	SB-9-S-2'-20230323	Total/NA	Solid	8015NM Prep	
880-26347-3	SB-9-S-4'-20230323	Total/NA	Solid	8015NM Prep	
MB 880-49838/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49838/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49838/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26347-1	SB-9-S-0-.5'-20230323	Total/NA	Solid	8015B NM	49838
880-26347-2	SB-9-S-2'-20230323	Total/NA	Solid	8015B NM	49838

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

GC Semi VOA (Continued)

Analysis Batch: 49908 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26347-3	SB-9-S-4'-20230323	Total/NA	Solid	8015B NM	49838
MB 880-49838/1-A	Method Blank	Total/NA	Solid	8015B NM	49838
LCS 880-49838/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49838
LCSD 880-49838/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49838

Prep Batch: 49932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26347-4	SB-8-S-.5'-20230323	Total/NA	Solid	8015NM Prep	
880-26347-5	SB-8-S-2'-20230323	Total/NA	Solid	8015NM Prep	
880-26347-6	SB-8-S-4'-20230323	Total/NA	Solid	8015NM Prep	
880-26347-7	SB-7-S-.5'-20230323	Total/NA	Solid	8015NM Prep	
880-26347-8	SB-7-S-2'-20230323	Total/NA	Solid	8015NM Prep	
880-26347-9	SB-8-S-.5'-20230323	Total/NA	Solid	8015NM Prep	
880-26347-10	SB-8-S-2'-20230323	Total/NA	Solid	8015NM Prep	
880-26347-11	SB-8-S-4'-20230323	Total/NA	Solid	8015NM Prep	
MB 880-49932/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-49932/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-49932/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-26347-4 MS	SB-8-S-.5'-20230323	Total/NA	Solid	8015NM Prep	
880-26347-4 MSD	SB-8-S-.5'-20230323	Total/NA	Solid	8015NM Prep	

Analysis Batch: 49995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26347-4	SB-8-S-.5'-20230323	Total/NA	Solid	8015B NM	49932
880-26347-5	SB-8-S-2'-20230323	Total/NA	Solid	8015B NM	49932
880-26347-6	SB-8-S-4'-20230323	Total/NA	Solid	8015B NM	49932
880-26347-7	SB-7-S-.5'-20230323	Total/NA	Solid	8015B NM	49932
880-26347-8	SB-7-S-2'-20230323	Total/NA	Solid	8015B NM	49932
880-26347-9	SB-8-S-.5'-20230323	Total/NA	Solid	8015B NM	49932
880-26347-10	SB-8-S-2'-20230323	Total/NA	Solid	8015B NM	49932
880-26347-11	SB-8-S-4'-20230323	Total/NA	Solid	8015B NM	49932
MB 880-49932/1-A	Method Blank	Total/NA	Solid	8015B NM	49932
LCS 880-49932/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	49932
LCSD 880-49932/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	49932
880-26347-4 MS	SB-8-S-.5'-20230323	Total/NA	Solid	8015B NM	49932
880-26347-4 MSD	SB-8-S-.5'-20230323	Total/NA	Solid	8015B NM	49932

Analysis Batch: 50032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26347-1	SB-9-S-0-.5'-20230323	Total/NA	Solid	8015 NM	
880-26347-2	SB-9-S-2'-20230323	Total/NA	Solid	8015 NM	
880-26347-3	SB-9-S-4'-20230323	Total/NA	Solid	8015 NM	
880-26347-4	SB-8-S-.5'-20230323	Total/NA	Solid	8015 NM	
880-26347-5	SB-8-S-2'-20230323	Total/NA	Solid	8015 NM	
880-26347-6	SB-8-S-4'-20230323	Total/NA	Solid	8015 NM	
880-26347-7	SB-7-S-.5'-20230323	Total/NA	Solid	8015 NM	
880-26347-8	SB-7-S-2'-20230323	Total/NA	Solid	8015 NM	
880-26347-9	SB-8-S-.5'-20230323	Total/NA	Solid	8015 NM	
880-26347-10	SB-8-S-2'-20230323	Total/NA	Solid	8015 NM	
880-26347-11	SB-8-S-4'-20230323	Total/NA	Solid	8015 NM	

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

HPLC/IC

Leach Batch: 50169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26347-1	SB-9-S-0-.5'-20230323	Soluble	Solid	DI Leach	
880-26347-2	SB-9-S-2'-20230323	Soluble	Solid	DI Leach	
880-26347-3	SB-9-S-4'-20230323	Soluble	Solid	DI Leach	
880-26347-4	SB-8-S-.5'-20230323	Soluble	Solid	DI Leach	
MB 880-50169/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-50169/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-50169/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 50170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26347-5	SB-8-S-2'-20230323	Soluble	Solid	DI Leach	
880-26347-6	SB-8-S-4'-20230323	Soluble	Solid	DI Leach	
880-26347-7	SB-7-S-.5'-20230323	Soluble	Solid	DI Leach	
880-26347-8	SB-7-S-2'-20230323	Soluble	Solid	DI Leach	
880-26347-9	SB-8-S-.5'-20230323	Soluble	Solid	DI Leach	
880-26347-10	SB-8-S-2'-20230323	Soluble	Solid	DI Leach	
880-26347-11	SB-8-S-4'-20230323	Soluble	Solid	DI Leach	
MB 880-50170/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-50170/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-50170/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-26347-5 MS	SB-8-S-2'-20230323	Soluble	Solid	DI Leach	
880-26347-5 MSD	SB-8-S-2'-20230323	Soluble	Solid	DI Leach	

Analysis Batch: 50389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26347-1	SB-9-S-0-.5'-20230323	Soluble	Solid	300.0	50169
880-26347-2	SB-9-S-2'-20230323	Soluble	Solid	300.0	50169
880-26347-3	SB-9-S-4'-20230323	Soluble	Solid	300.0	50169
880-26347-4	SB-8-S-.5'-20230323	Soluble	Solid	300.0	50169
MB 880-50169/1-A	Method Blank	Soluble	Solid	300.0	50169
LCS 880-50169/2-A	Lab Control Sample	Soluble	Solid	300.0	50169
LCSD 880-50169/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	50169

Analysis Batch: 50390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-26347-5	SB-8-S-2'-20230323	Soluble	Solid	300.0	50170
880-26347-6	SB-8-S-4'-20230323	Soluble	Solid	300.0	50170
880-26347-7	SB-7-S-.5'-20230323	Soluble	Solid	300.0	50170
880-26347-8	SB-7-S-2'-20230323	Soluble	Solid	300.0	50170
880-26347-9	SB-8-S-.5'-20230323	Soluble	Solid	300.0	50170
880-26347-10	SB-8-S-2'-20230323	Soluble	Solid	300.0	50170
880-26347-11	SB-8-S-4'-20230323	Soluble	Solid	300.0	50170
MB 880-50170/1-A	Method Blank	Soluble	Solid	300.0	50170
LCS 880-50170/2-A	Lab Control Sample	Soluble	Solid	300.0	50170
LCSD 880-50170/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	50170
880-26347-5 MS	SB-8-S-2'-20230323	Soluble	Solid	300.0	50170
880-26347-5 MSD	SB-8-S-2'-20230323	Soluble	Solid	300.0	50170

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

Client Sample ID: SB-9-S-0-.5'-20230323

Lab Sample ID: 880-26347-1

Date Collected: 03/23/23 14:55
Matrix: Solid
Date Received: 03/24/23 15:09

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	50229	04/03/23 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50423	04/05/23 21:20	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50032	03/31/23 11:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49838	03/29/23 12:35	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49908	03/30/23 21:11	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	50169	04/03/23 11:15	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50389	04/04/23 20:56	SMC	EET MID

Client Sample ID: SB-9-S-2'-20230323

Lab Sample ID: 880-26347-2

Date Collected: 03/23/23 15:00
Matrix: Solid
Date Received: 03/24/23 15:09

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	50229	04/03/23 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50423	04/06/23 01:49	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50032	03/31/23 11:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49838	03/29/23 12:35	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49908	03/30/23 21:33	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	50169	04/03/23 11:15	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50389	04/04/23 21:01	SMC	EET MID

Client Sample ID: SB-9-S-4'-20230323

Lab Sample ID: 880-26347-3

Date Collected: 03/23/23 15:10
Matrix: Solid
Date Received: 03/24/23 15:09

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	50229	04/03/23 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50423	04/06/23 02:10	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50032	03/31/23 11:54	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49838	03/29/23 12:35	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49908	03/30/23 21:55	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	50169	04/03/23 11:15	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50389	04/04/23 21:05	SMC	EET MID

Client Sample ID: SB-8-S-.5'-20230323

Lab Sample ID: 880-26347-4

Date Collected: 03/23/23 15:15
Matrix: Solid
Date Received: 03/24/23 15:09

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	50229	04/03/23 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50423	04/06/23 02:30	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50032	04/03/23 14:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49932	03/30/23 12:21	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49995	03/31/23 12:01	SM	EET MID

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

Client Sample ID: SB-8-S-.5'-20230323

Lab Sample ID: 880-26347-4

Date Collected: 03/23/23 15:15
Matrix: Solid
Date Received: 03/24/23 15:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	50169	04/03/23 11:15	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50389	04/04/23 21:10	SMC	EET MID

Client Sample ID: SB-8-S-2'-20230323

Lab Sample ID: 880-26347-5

Date Collected: 03/23/23 15:20
Matrix: Solid
Date Received: 03/24/23 15:09

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	50229	04/03/23 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50423	04/06/23 02:51	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50032	04/03/23 14:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49932	03/30/23 12:21	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49995	03/31/23 13:08	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 21:46	SMC	EET MID

Client Sample ID: SB-8-S-4'-20230323

Lab Sample ID: 880-26347-6

Date Collected: 03/23/23 15:25
Matrix: Solid
Date Received: 03/24/23 15:09

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	50229	04/03/23 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50423	04/06/23 03:11	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50032	04/03/23 14:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49932	03/30/23 12:21	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49995	03/31/23 13:30	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 22:00	SMC	EET MID

Client Sample ID: SB-7-S-.5'-20230323

Lab Sample ID: 880-26347-7

Date Collected: 03/23/23 15:30
Matrix: Solid
Date Received: 03/24/23 15:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.00 g	5 mL	50229	04/03/23 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50423	04/06/23 03:32	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50032	04/03/23 14:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	49932	03/30/23 12:21	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49995	03/31/23 13:51	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 22:05	SMC	EET MID

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

Client Sample ID: SB-7-S-2'-20230323

Lab Sample ID: 880-26347-8
Matrix: Solid
Date Collected: 03/23/23 15:35
Date Received: 03/24/23 15:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.96 g	5 mL	50229	04/03/23 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50423	04/06/23 03:53	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50032	04/03/23 14:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49932	03/30/23 12:21	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49995	03/31/23 14:13	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 22:09	SMC	EET MID

Client Sample ID: SB-8-S-.5'-20230323

Lab Sample ID: 880-26347-9
Matrix: Solid
Date Collected: 03/23/23 15:40
Date Received: 03/24/23 15:09

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	50229	04/03/23 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50423	04/06/23 04:13	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50032	04/03/23 14:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49932	03/30/23 12:21	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49995	03/31/23 14:35	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 22:14	SMC	EET MID

Client Sample ID: SB-8-S-2'-20230323

Lab Sample ID: 880-26347-10
Matrix: Solid
Date Collected: 03/23/23 15:45
Date Received: 03/24/23 15:09

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	50229	04/03/23 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50423	04/06/23 04:34	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50032	04/03/23 14:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	49932	03/30/23 12:21	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49995	03/31/23 14:56	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	50390	04/04/23 22:27	SMC	EET MID

Client Sample ID: SB-8-S-4'-20230323

Lab Sample ID: 880-26347-11
Matrix: Solid
Date Collected: 03/23/23 15:50
Date Received: 03/24/23 15:09

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	50229	04/03/23 15:36	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	50423	04/06/23 04:54	MNR	EET MID
Total/NA	Analysis	8015 NM		1			50032	04/03/23 14:09	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	49932	03/30/23 12:21	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	49995	03/31/23 15:18	SM	EET MID

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: WLU 23

Job ID: 880-26347-1

Client Sample ID: SB-8-S-4'-20230323

Date Collected: 03/23/23 15:50
Date Received: 03/24/23 15:09

Lab Sample ID: 880-26347-11

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	50170	04/03/23 11:16	KS	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	50390	04/04/23 22:32	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: WLU 23

Job ID: 880-26347-1

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: WLU 23

Job ID: 880-26347-1

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: WLU 23

Job ID: 880-26347-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-26347-1	SB-9-S-0-.5'-20230323	Solid	03/23/23 14:55	03/24/23 15:09
880-26347-2	SB-9-S-2'-20230323	Solid	03/23/23 15:00	03/24/23 15:09
880-26347-3	SB-9-S-4'-20230323	Solid	03/23/23 15:10	03/24/23 15:09
880-26347-4	SB-8-S-.5'-20230323	Solid	03/23/23 15:15	03/24/23 15:09
880-26347-5	SB-8-S-2'-20230323	Solid	03/23/23 15:20	03/24/23 15:09
880-26347-6	SB-8-S-4'-20230323	Solid	03/23/23 15:25	03/24/23 15:09
880-26347-7	SB-7-S-.5'-20230323	Solid	03/23/23 15:30	03/24/23 15:09
880-26347-8	SB-7-S-2'-20230323	Solid	03/23/23 15:35	03/24/23 15:09
880-26347-9	SB-8-S-.5'-20230323	Solid	03/23/23 15:40	03/24/23 15:09
880-26347-10	SB-8-S-2'-20230323	Solid	03/23/23 15:45	03/24/23 15:09
880-26347-11	SB-8-S-4'-20230323	Solid	03/23/23 15:50	03/24/23 15:09

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

Chain of Custody Record

eurofins | Environment Testing

20347

Client Information	Sampler: Daniel Mcbee	Lab PM: Builes, John	Carrier Tracking No(s):	COC No: 880-5478-717 1
Client Contact: Douglas Jordan	Phone: 432-999-2980	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: NM	Page: Page ~~1 of 2~~ 1 of 1
Company: ARCADIS U S Inc	PWSID:	Analysis Requested		Job #:
Address: 10205 Westheimer Rd Suite 800	Due Date Requested:			Preservation Codes: A HCL, B NaOH, C - Zn Acetate, D Nitric Acid, E NaHSO4, F - MeOH, G Amchlor, H Ascorbic Acid, I - Ice, J - DI Water, K EDTA, L EDA, M Hexane, N - None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T - TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)
City: Houston	TAT Requested (days): Standard			
State Zip: TX, 77042	Compliance Project: Δ Yes Δ No			
Phone: 713-953-4739(Tel)	PO #: PN 30172230			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: ~~Lovington~~ WLU 23	Project #: 88001697			
Site:	SSOW#:			Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D, 8015MOD_NM, 8021B	Total Number of containers	Special Instructions/Note
			Preservation Code				N		
SB-9-S-0-.5'-20230323	3-23-23	1455	G	Solid			X	1	402
SB-9-S-2'-20230323		1500		Solid			X	1	
SB-9-S-4'-20230323		1510		Solid			X	1	
SB-8-S-0-.5'-20230323		1515		Solid			X	1	
SB-8-S-2'-20230323		1520		Solid			X	1	
SB-8-S-4'-20230323		1525		Solid			X	1	
SB-7-S-0-.5'-20230323		1530		Solid			X		
SB-7-S-2'-20230323		1535		Solid			X		
SB-8-S-0-.5'-20230323		1540		Solid			X		
SB-8-S-2'-20230323		1545		Solid			X		
SB-8-S-4'-20230323	3-23-23	1550	G	Solid			X	1	

880-26347 Chain of Custody

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

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

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		3-24-23 / 1500	Arcadis		3/24/23	
2					1509	
3						

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

Cooler Temperature(s) °C and Other Remarks: 1.3 | 1.0

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc Job Number: 880-26347-1

Login Number: 26347 **List Source: Eurofins Midland**
List Number: 1
Creator: Rodriguez, Leticia

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

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 4/18/2024 10:53:38 PM

JOB DESCRIPTION

WLU 23
Lovington, NM

JOB NUMBER

880-42180-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Eurofins Midland

Job Notes

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

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

Authorization

Generated
4/18/2024 10:53:38 PM

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

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Laboratory Job ID: 880-42180-1
SDG: Lovington, NM

Table of Contents

Definitions/Glossary

Client: Arcadis U.S., Inc. Job ID: 880-42180-1
Project/Site: WLU 23 SDG: Lovington, NM

Qualifiers

HPLC/IC

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

Glossary

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

Case Narrative

Client: Arcadis U.S., Inc.
Project: WLU 23

Job ID: 880-42180-1

Job ID: 880-42180-1 Eurofins Midland

Job Narrative
880-42180-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/12/2024 11:08 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.7°C.

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 23

Job ID: 880-42180-1
SDG: Lovington, NM

Client Sample ID: SB-23-0-1'
Lab Sample ID: 880-42180-1
Date Collected: 04/10/24 13:50
Matrix: Solid
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	385		4.99	0.394	mg/Kg			04/17/24 06:33	1

Client Sample ID: SB-23-2'-3'
Lab Sample ID: 880-42180-2
Date Collected: 04/10/24 13:55
Matrix: Solid
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.9		5.04	0.398	mg/Kg			04/17/24 06:40	1

Client Sample ID: SB-24-0-1'
Lab Sample ID: 880-42180-3
Date Collected: 04/10/24 14:10
Matrix: Solid
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.78	J	4.96	0.392	mg/Kg			04/17/24 06:46	1

Client Sample ID: SB-24-2'-3'
Lab Sample ID: 880-42180-4
Date Collected: 04/10/24 14:15
Matrix: Solid
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.4		5.04	0.398	mg/Kg			04/17/24 06:52	1

Client Sample ID: SB-25-0-1'
Lab Sample ID: 880-42180-5
Date Collected: 04/10/24 14:30
Matrix: Solid
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.70	J	5.03	0.397	mg/Kg			04/17/24 06:59	1

Client Sample ID: SB-25-2'-3'
Lab Sample ID: 880-42180-6
Date Collected: 04/10/24 14:35
Matrix: Solid
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.44	J	4.99	0.394	mg/Kg			04/17/24 07:18	1

Client Sample ID: SB-26-0-1'
Lab Sample ID: 880-42180-7
Date Collected: 04/10/24 14:50
Matrix: Solid
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.24		5.00	0.395	mg/Kg			04/17/24 07:24	1

Client Sample Results

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Job ID: 880-42180-1
SDG: Lovington, NM

Client Sample ID: SB-26-2'-3'
Date Collected: 04/10/24 14:55
Date Received: 04/12/24 11:08

Lab Sample ID: 880-42180-8
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	153		5.04	0.398	mg/Kg			04/17/24 07:43	1

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Job ID: 880-42180-1
SDG: Lovington, NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-78295/1-A
Matrix: Solid
Analysis Batch: 78405

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			04/17/24 05:11	1

Lab Sample ID: LCS 880-78295/2-A
Matrix: Solid
Analysis Batch: 78405

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	247.5		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-78295/3-A
Matrix: Solid
Analysis Batch: 78405

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	248.8		mg/Kg		100	90 - 110	1	20

Lab Sample ID: 880-42180-5 MS
Matrix: Solid
Analysis Batch: 78405

Client Sample ID: SB-25-0-1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	3.70	J	252	266.3		mg/Kg		104	90 - 110		

Lab Sample ID: 880-42180-5 MSD
Matrix: Solid
Analysis Batch: 78405

Client Sample ID: SB-25-0-1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	3.70	J	252	263.9		mg/Kg		103	90 - 110	1	20

QC Association Summary

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Job ID: 880-42180-1
SDG: Lovington, NM

HPLC/IC

Leach Batch: 78295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-42180-1	SB-23-0-1'	Soluble	Solid	DI Leach	
880-42180-2	SB-23-2'-3'	Soluble	Solid	DI Leach	
880-42180-3	SB-24-0-1'	Soluble	Solid	DI Leach	
880-42180-4	SB-24-2'-3'	Soluble	Solid	DI Leach	
880-42180-5	SB-25-0-1'	Soluble	Solid	DI Leach	
880-42180-6	SB-25-2'-3'	Soluble	Solid	DI Leach	
880-42180-7	SB-26-0-1'	Soluble	Solid	DI Leach	
880-42180-8	SB-26-2'-3'	Soluble	Solid	DI Leach	
MB 880-78295/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-78295/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-78295/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-42180-5 MS	SB-25-0-1'	Soluble	Solid	DI Leach	
880-42180-5 MSD	SB-25-0-1'	Soluble	Solid	DI Leach	

Analysis Batch: 78405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-42180-1	SB-23-0-1'	Soluble	Solid	300.0	78295
880-42180-2	SB-23-2'-3'	Soluble	Solid	300.0	78295
880-42180-3	SB-24-0-1'	Soluble	Solid	300.0	78295
880-42180-4	SB-24-2'-3'	Soluble	Solid	300.0	78295
880-42180-5	SB-25-0-1'	Soluble	Solid	300.0	78295
880-42180-6	SB-25-2'-3'	Soluble	Solid	300.0	78295
880-42180-7	SB-26-0-1'	Soluble	Solid	300.0	78295
880-42180-8	SB-26-2'-3'	Soluble	Solid	300.0	78295
MB 880-78295/1-A	Method Blank	Soluble	Solid	300.0	78295
LCS 880-78295/2-A	Lab Control Sample	Soluble	Solid	300.0	78295
LCSD 880-78295/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	78295
880-42180-5 MS	SB-25-0-1'	Soluble	Solid	300.0	78295
880-42180-5 MSD	SB-25-0-1'	Soluble	Solid	300.0	78295

Lab Chronicle

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Job ID: 880-42180-1
SDG: Lovington, NM

Client Sample ID: SB-23-0-1'
Lab Sample ID: 880-42180-1
Date Collected: 04/10/24 13:50
Matrix: Solid
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	78295	04/15/24 17:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78405	04/17/24 06:33	SMC	EET MID

Client Sample ID: SB-23-2'-3'
Lab Sample ID: 880-42180-2
Date Collected: 04/10/24 13:55
Matrix: Solid
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	78295	04/15/24 17:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78405	04/17/24 06:40	SMC	EET MID

Client Sample ID: SB-24-0-1'
Lab Sample ID: 880-42180-3
Date Collected: 04/10/24 14:10
Matrix: Solid
Date Received: 04/12/24 11:08

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	78295	04/15/24 17:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78405	04/17/24 06:46	SMC	EET MID

Client Sample ID: SB-24-2'-3'
Lab Sample ID: 880-42180-4
Date Collected: 04/10/24 14:15
Matrix: Solid
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	78295	04/15/24 17:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78405	04/17/24 06:52	SMC	EET MID

Client Sample ID: SB-25-0-1'
Lab Sample ID: 880-42180-5
Date Collected: 04/10/24 14:30
Matrix: Solid
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.97 g	50 mL	78295	04/15/24 17:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78405	04/17/24 06:59	SMC	EET MID

Client Sample ID: SB-25-2'-3'
Lab Sample ID: 880-42180-6
Date Collected: 04/10/24 14:35
Matrix: Solid
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	78295	04/15/24 17:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78405	04/17/24 07:18	SMC	EET MID

Lab Chronicle

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Job ID: 880-42180-1
SDG: Lovington, NM

Client Sample ID: SB-26-0-1'

Lab Sample ID: 880-42180-7
Matrix: Solid
Date Collected: 04/10/24 14:50
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.00 g	50 mL	78295	04/15/24 17:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78405	04/17/24 07:24	SMC	EET MID

Client Sample ID: SB-26-2'-3'

Lab Sample ID: 880-42180-8
Matrix: Solid
Date Collected: 04/10/24 14:55
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	78295	04/15/24 17:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78405	04/17/24 07:43	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: WLU 23

Job ID: 880-42180-1
SDG: Lovington, NM

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

Method Summary

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Job ID: 880-42180-1
SDG: Lovington, NM

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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 23

Job ID: 880-42180-1
SDG: Lovington, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-42180-1	SB-23-0-1'	Solid	04/10/24 13:50	04/12/24 11:08
880-42180-2	SB-23-2'-3'	Solid	04/10/24 13:55	04/12/24 11:08
880-42180-3	SB-24-0-1'	Solid	04/10/24 14:10	04/12/24 11:08
880-42180-4	SB-24-2'-3'	Solid	04/10/24 14:15	04/12/24 11:08
880-42180-5	SB-25-0-1'	Solid	04/10/24 14:30	04/12/24 11:08
880-42180-6	SB-25-2'-3'	Solid	04/10/24 14:35	04/12/24 11:08
880-42180-7	SB-26-0-1'	Solid	04/10/24 14:50	04/12/24 11:08
880-42180-8	SB-26-2'-3'	Solid	04/10/24 14:55	04/12/24 11:08

eurofins | Environment Testing Xenco

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

V

880-42180 Chain of Custody

Project Manager:	Morgan Jordan	Bill to: (if different)	
Company Name:	Arcadis	Company Name:	
Address:	1004 N Big Springs Suite 300	Address:	
City, State ZIP:	Midland, TX 79701	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 23	Turn Around	
Project Number:	30209681	☑ Routine ☐ Rush	
Project Location:	Lovington, 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:	-.10
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	3.8
Total Containers:		Corrected Temperature:	3.7

ANALYSIS REQUEST

Pres. Code

Parameters: 300.0/9056M_280

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	
SB-23-0-1'	S	4/10/24	1350		G	1	X
SB-23-2'-3'			1355			1	X
SB-24-0-1'			1410			1	X
SB-24-2'-3'			1415			1	X
SB-25-0-1'			1430			1	X
SB-25-2'-3'			1435			1	X
SB-26-0-1'			1450			1	X
SB-26-2'-3'	"	"	1455		"	1	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

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	2 BCox	4/11/24 1430	2 BCox		4/12/24 1108
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Arcadis U.S., Inc.

Job Number: 880-42180-1
SDG Number: Lovington, NM

Login Number: 42180
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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

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 4/18/2024 10:53:38 PM

JOB DESCRIPTION

WLU 23
Lovington, NM

JOB NUMBER

880-42181-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

Eurofins Midland

Job Notes

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

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

Authorization

Generated
4/18/2024 10:53:38 PM

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

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Laboratory Job ID: 880-42181-1
SDG: Lovington, NM

Table of Contents

Definitions/Glossary

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Job ID: 880-42181-1
SDG: Lovington, NM

Qualifiers

HPLC/IC

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

Glossary

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

Case Narrative

Client: Arcadis U.S., Inc.
Project: WLU 23

Job ID: 880-42181-1

Job ID: 880-42181-1 Eurofins Midland

Job Narrative
880-42181-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/12/2024 11:08 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.7°C.

HPLC/IC
Method 300_ORGFM_28D - Soluble: The Chloride matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-78085 and analytical batch 880-78101 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

SB-29-2'-3' (880-42181-7), SB-29-4'-5' (880-42181-8), SB-29-6'-7' (880-42181-9), (880-42179-A-1-B), (880-42179-A-1-C MS) and (880-42179-A-1-D MSD)

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

Client Sample Results

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Job ID: 880-42181-1
SDG: Lovington, NM

Client Sample ID: SB-27-2'-3'
Lab Sample ID: 880-42181-1
Date Collected: 04/11/24 08:40
Matrix: Solid
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.70	J	5.05	0.399	mg/Kg			04/17/24 07:49	1

Client Sample ID: SB-27-4'-5'
Lab Sample ID: 880-42181-2
Date Collected: 04/11/24 08:55
Matrix: Solid
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.35		4.98	0.393	mg/Kg			04/17/24 07:55	1

Client Sample ID: SB-27-6'-7'
Lab Sample ID: 880-42181-3
Date Collected: 04/11/24 09:10
Matrix: Solid
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.4		4.99	0.394	mg/Kg			04/17/24 08:02	1

Client Sample ID: SB-28-2'-3'
Lab Sample ID: 880-42181-4
Date Collected: 04/11/24 09:55
Matrix: Solid
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	111		5.02	0.397	mg/Kg			04/17/24 08:08	1

Client Sample ID: SB-28-4'-5'
Lab Sample ID: 880-42181-5
Date Collected: 04/11/24 10:20
Matrix: Solid
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	490		4.98	0.393	mg/Kg			04/17/24 08:14	1

Client Sample ID: SB-28-6'-7'
Lab Sample ID: 880-42181-6
Date Collected: 04/11/24 10:55
Matrix: Solid
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	300		5.02	0.397	mg/Kg			04/17/24 08:21	1

Client Sample ID: SB-29-2'-3'
Lab Sample ID: 880-42181-7
Date Collected: 04/11/24 11:20
Matrix: Solid
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1540		24.9	1.96	mg/Kg			04/12/24 21:49	5

Client Sample Results

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Job ID: 880-42181-1
SDG: Lovington, NM

Client Sample ID: SB-29-4'-5'

Lab Sample ID: 880-42181-8
Matrix: Solid
Date Collected: 04/11/24 11:40
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1010		4.98	0.393	mg/Kg			04/12/24 21:55	1

Client Sample ID: SB-29-6'-7'

Lab Sample ID: 880-42181-9
Matrix: Solid
Date Collected: 04/11/24 12:00
Date Received: 04/12/24 11:08

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	859		5.02	0.397	mg/Kg			04/12/24 22:01	1

QC Sample Results

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Job ID: 880-42181-1
SDG: Lovington, NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-78085/1-A
Matrix: Solid
Analysis Batch: 78101

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			04/12/24 21:12	1

Lab Sample ID: LCS 880-78085/2-A
Matrix: Solid
Analysis Batch: 78101

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	249.7		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-78085/3-A
Matrix: Solid
Analysis Batch: 78101

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	242.1		mg/Kg		97	90 - 110	3	20

Lab Sample ID: MB 880-78295/1-A
Matrix: Solid
Analysis Batch: 78405

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			04/17/24 05:11	1

Lab Sample ID: LCS 880-78295/2-A
Matrix: Solid
Analysis Batch: 78405

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	247.5		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-78295/3-A
Matrix: Solid
Analysis Batch: 78405

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	248.8		mg/Kg		100	90 - 110	1	20

QC Association Summary

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Job ID: 880-42181-1
SDG: Lovington, NM

HPLC/IC

Leach Batch: 78085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-42181-7	SB-29-2'-3'	Soluble	Solid	DI Leach	
880-42181-8	SB-29-4'-5'	Soluble	Solid	DI Leach	
880-42181-9	SB-29-6'-7'	Soluble	Solid	DI Leach	
MB 880-78085/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-78085/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-78085/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 78101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-42181-7	SB-29-2'-3'	Soluble	Solid	300.0	78085
880-42181-8	SB-29-4'-5'	Soluble	Solid	300.0	78085
880-42181-9	SB-29-6'-7'	Soluble	Solid	300.0	78085
MB 880-78085/1-A	Method Blank	Soluble	Solid	300.0	78085
LCS 880-78085/2-A	Lab Control Sample	Soluble	Solid	300.0	78085
LCSD 880-78085/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	78085

Leach Batch: 78295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-42181-1	SB-27-2'-3'	Soluble	Solid	DI Leach	
880-42181-2	SB-27-4'-5'	Soluble	Solid	DI Leach	
880-42181-3	SB-27-6'-7'	Soluble	Solid	DI Leach	
880-42181-4	SB-28-2'-3'	Soluble	Solid	DI Leach	
880-42181-5	SB-28-4'-5'	Soluble	Solid	DI Leach	
880-42181-6	SB-28-6'-7'	Soluble	Solid	DI Leach	
MB 880-78295/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-78295/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-78295/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 78405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-42181-1	SB-27-2'-3'	Soluble	Solid	300.0	78295
880-42181-2	SB-27-4'-5'	Soluble	Solid	300.0	78295
880-42181-3	SB-27-6'-7'	Soluble	Solid	300.0	78295
880-42181-4	SB-28-2'-3'	Soluble	Solid	300.0	78295
880-42181-5	SB-28-4'-5'	Soluble	Solid	300.0	78295
880-42181-6	SB-28-6'-7'	Soluble	Solid	300.0	78295
MB 880-78295/1-A	Method Blank	Soluble	Solid	300.0	78295
LCS 880-78295/2-A	Lab Control Sample	Soluble	Solid	300.0	78295
LCSD 880-78295/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	78295

Lab Chronicle

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Job ID: 880-42181-1
SDG: Lovington, NM

Client Sample ID: SB-27-2'-3'
Lab Sample ID: 880-42181-1
Date Collected: 04/11/24 08:40
Matrix: Solid
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	78295	04/15/24 17:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78405	04/17/24 07:49	SMC	EET MID

Client Sample ID: SB-27-4'-5'
Lab Sample ID: 880-42181-2
Date Collected: 04/11/24 08:55
Matrix: Solid
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	78295	04/15/24 17:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78405	04/17/24 07:55	SMC	EET MID

Client Sample ID: SB-27-6'-7'
Lab Sample ID: 880-42181-3
Date Collected: 04/11/24 09:10
Matrix: Solid
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	78295	04/15/24 17:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78405	04/17/24 08:02	SMC	EET MID

Client Sample ID: SB-28-2'-3'
Lab Sample ID: 880-42181-4
Date Collected: 04/11/24 09:55
Matrix: Solid
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	78295	04/15/24 17:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78405	04/17/24 08:08	SMC	EET MID

Client Sample ID: SB-28-4'-5'
Lab Sample ID: 880-42181-5
Date Collected: 04/11/24 10:20
Matrix: Solid
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	78295	04/15/24 17:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78405	04/17/24 08:14	SMC	EET MID

Client Sample ID: SB-28-6'-7'
Lab Sample ID: 880-42181-6
Date Collected: 04/11/24 10:55
Matrix: Solid
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	78295	04/15/24 17:11	SA	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78405	04/17/24 08:21	SMC	EET MID

Lab Chronicle

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Job ID: 880-42181-1
SDG: Lovington, NM

Client Sample ID: SB-29-2'-3'

Lab Sample ID: 880-42181-7
Matrix: Solid
Date Collected: 04/11/24 11:20
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	78085	04/12/24 15:41	SMC	EET MID
Soluble	Analysis	300.0		5	50 mL	50 mL	78101	04/12/24 21:49	SMC	EET MID

Client Sample ID: SB-29-4'-5'

Lab Sample ID: 880-42181-8
Matrix: Solid
Date Collected: 04/11/24 11:40
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	78085	04/12/24 15:41	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78101	04/12/24 21:55	SMC	EET MID

Client Sample ID: SB-29-6'-7'

Lab Sample ID: 880-42181-9
Matrix: Solid
Date Collected: 04/11/24 12:00
Date Received: 04/12/24 11:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	78085	04/12/24 15:41	SMC	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	78101	04/12/24 22:01	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: WLU 23

Job ID: 880-42181-1
SDG: Lovington, NM

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

Method Summary

Client: Arcadis U.S., Inc.
Project/Site: WLU 23

Job ID: 880-42181-1
SDG: Lovington, NM

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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 23

Job ID: 880-42181-1
SDG: Lovington, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-42181-1	SB-27-2'-3'	Solid	04/11/24 08:40	04/12/24 11:08
880-42181-2	SB-27-4'-5'	Solid	04/11/24 08:55	04/12/24 11:08
880-42181-3	SB-27-6'-7'	Solid	04/11/24 09:10	04/12/24 11:08
880-42181-4	SB-28-2'-3'	Solid	04/11/24 09:55	04/12/24 11:08
880-42181-5	SB-28-4'-5'	Solid	04/11/24 10:20	04/12/24 11:08
880-42181-6	SB-28-6'-7'	Solid	04/11/24 10:55	04/12/24 11:08
880-42181-7	SB-29-2'-3'	Solid	04/11/24 11:20	04/12/24 11:08
880-42181-8	SB-29-4'-5'	Solid	04/11/24 11:40	04/12/24 11:08
880-42181-9	SB-29-6'-7'	Solid	04/11/24 12:00	04/12/24 11:08

eurofins | Environment Testing Xenco

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

880-42181 Chain of Custody

Project Manager:	Morgan Jordan	Bill to: (if different)	
Company Name:	Arcadis	Company Name:	
Address:	1004 N Big Springs Suite 300	Address:	
City, State ZIP:	Midland, TX 79701	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 23	Turn Around	☑ Routine ☐ Rush
Project Number:	30209681	Due Date:	
Project Location:	Lovington, NM	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Heath Boyd		
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:	-.10
Sample Custody Seals:	Yes No (N/A)		Temperature Reading:	3.8
Total Containers:			Corrected Temperature:	3.7

ANALYSIS REQUEST — Parameters: 300_ORG_FML_28D

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	300_ORG_FML_28D	Sample Comments
SB-27-2-3'	S	4/11/24	840		G	1	X	
SB-27-4-5'			855			1	X	
SB-27-6-7'			910			1	X	
SB-28-2-3'			955			1	X	
SB-28-4-5'			1020			1	X	
SB-28-6-7'			1055			1	X	
SB-29-2-3'			1120			1	X	
SB-29-4-5'			1140			1	X	
SB-29-6-7'	X	X	1200		X	1	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]	[signature]	4/11/24 1430	2 [signature]	[signature]	4/12/24 1108
3			4		
5			6		

Revised Date: 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Arcadis U.S., Inc.

Job Number: 880-42181-1
SDG Number: Lovington, NM

Login Number: 42181
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Morgan Jordan
ARCADIS US Inc
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 2/26/2024 5:43:17 PM

JOB DESCRIPTION

WLU 23
Couington,NM

JOB NUMBER

880-39505-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

Eurofins Midland

Job Notes

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

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

Authorization

Generated
2/26/2024 5:43:17 PM

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

Client: ARCADIS US Inc
Project/Site: WLU 23

Laboratory Job ID: 880-39505-1
SDG: Couington,NM

Table of Contents

Definitions/Glossary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, 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)

Definitions/Glossary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: ARCADIS US Inc
Project: WLU 23

Job ID: 880-39505-1

Job ID: 880-39505-1 Eurofins Midland

Job Narrative
880-39505-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 2/16/2024 3:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.1°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SB-10-S-1'-240213 (880-39505-1), SB-10-S-2'-240213 (880-39505-2), SB-11-S-1'-240213 (880-39505-3), SB-11-S-2'-240213 (880-39505-4), SB-12-S-1'-240213 (880-39505-5), SB-12-S-2'-240213 (880-39505-6), SB-13-S-1'-240213 (880-39505-7), SB-13-S-2'-240213 (880-39505-8), SB-14-S-1'-240213 (880-39505-9), SB-14-S-2'-240213 (880-39505-10), SB-15-S-1'-240213 (880-39505-11), SB-15-S-2'-240213 (880-39505-12), SB-16-S-1'-240213 (880-39505-13), SB-16-S-2'-240213 (880-39505-14), SB-17-S-1'-240213 (880-39505-15), SB-17-S-2'-240213 (880-39505-16), SB-18-S-1'-240213 (880-39505-17) and SB-18-S-3'-240213 (880-39505-18).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SB-10-S-2'-240213 (880-39505-2), SB-11-S-2'-240213 (880-39505-4), SB-12-S-2'-240213 (880-39505-6), SB-17-S-2'-240213 (880-39505-16), (880-39505-A-2-E MS) and (880-39505-A-2-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-73803 and analytical batch 880-73992 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: Surrogate recovery for the following samples were outside control limits: SB-16-S-2'-240213 (880-39505-14) and SB-17-S-2'-240213 (880-39505-16). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73439 and analytical batch 880-73600 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (880-39505-A-2-B MS). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The method blank for preparation batch 880-73439 and analytical batch 880-73600 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-73439 and analytical batch 880-73600 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

Eurofins Midland

Case Narrative

Client: ARCADIS US Inc
Project: WLU 23

Job ID: 880-39505-1

Job ID: 880-39505-1 (Continued) Eurofins Midland

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

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Client Sample ID: SB-10-S-1'-240213

Lab Sample ID: 880-39505-1
Matrix: Solid
Date Collected: 02/13/24 10:00
Date Received: 02/16/24 15:30

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	84.1		5.01	0.396	mg/Kg			02/20/24 14:19	1

Client Sample ID: SB-10-S-2'-240213

Lab Sample ID: 880-39505-2
Matrix: Solid
Date Collected: 02/13/24 10:05
Date Received: 02/16/24 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U F2 F1	0.00199	0.000383	mg/Kg		02/21/24 15:31	02/26/24 12:26	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		02/21/24 15:31	02/26/24 12:26	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		02/21/24 15:31	02/26/24 12:26	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		02/21/24 15:31	02/26/24 12:26	1
o-Xylene	0.000962	J	0.00199	0.000343	mg/Kg		02/21/24 15:31	02/26/24 12:26	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		02/21/24 15:31	02/26/24 12:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*38*	*S1-*	*70 - 130*	*02/21/24 15:31*	*02/26/24 12:26*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*02/21/24 15:31*	*02/26/24 12:26*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			02/26/24 12:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	72.2		49.5	14.9	mg/Kg			02/20/24 21:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	43.5	J B F1	49.5	14.9	mg/Kg		02/19/24 09:07	02/20/24 21:37	1
Diesel Range Organics (Over C10-C28)	28.7	J F1	49.5	14.9	mg/Kg		02/19/24 09:07	02/20/24 21:37	1
OII Range Organics (Over C28-C36)	<14.9	U	49.5	14.9	mg/Kg		02/19/24 09:07	02/20/24 21:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*02/19/24 09:07*	*02/20/24 21:37*	*1*
o-Terphenyl	*104*		*70 - 130*	*02/19/24 09:07*	*02/20/24 21:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	88.4		5.03	0.397	mg/Kg			02/20/24 14:26	1

Client Sample ID: SB-11-S-1'-240213

Lab Sample ID: 880-39505-3
Matrix: Solid
Date Collected: 02/13/24 10:15
Date Received: 02/16/24 15:30

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70.2		4.98	0.393	mg/Kg			02/20/24 14:46	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Client Sample ID: SB-11-S-2'-240213

Lab Sample ID: 880-39505-4
Matrix: Solid
Date Collected: 02/13/24 10:20
Date Received: 02/16/24 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		02/21/24 15:31	02/26/24 12:54	1
Toluene	<0.000458	U	0.00201	0.000458	mg/Kg		02/21/24 15:31	02/26/24 12:54	1
Ethylbenzene	<0.000567	U	0.00201	0.000567	mg/Kg		02/21/24 15:31	02/26/24 12:54	1
m-Xylene & p-Xylene	<0.00101	U	0.00402	0.00101	mg/Kg		02/21/24 15:31	02/26/24 12:54	1
o-Xylene	<0.000345	U	0.00201	0.000345	mg/Kg		02/21/24 15:31	02/26/24 12:54	1
Xylenes, Total	<0.00101	U	0.00402	0.00101	mg/Kg		02/21/24 15:31	02/26/24 12:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*147*	*S1+*	*70 - 130*	*02/21/24 15:31*	*02/26/24 12:54*	*1*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*	*02/21/24 15:31*	*02/26/24 12:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00402	0.00101	mg/Kg			02/26/24 12:54	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**66.8**		50.5	15.2	mg/Kg			02/20/24 22:47	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	**38.8**	**J B**	50.5	15.2	mg/Kg		02/19/24 09:07	02/20/24 22:47	1
Diesel Range Organics (Over C10-C28)	**28.0**	**J**	50.5	15.2	mg/Kg		02/19/24 09:07	02/20/24 22:47	1
OII Range Organics (Over C28-C36)	<15.2	U	50.5	15.2	mg/Kg		02/19/24 09:07	02/20/24 22:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*02/19/24 09:07*	*02/20/24 22:47*	*1*
o-Terphenyl	*102*		*70 - 130*	*02/19/24 09:07*	*02/20/24 22:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**56.4**		4.96	0.392	mg/Kg			02/20/24 14:53	1

Client Sample ID: SB-12-S-1'-240213

Lab Sample ID: 880-39505-5
Matrix: Solid
Date Collected: 02/13/24 10:30
Date Received: 02/16/24 15:30

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**146**		4.96	0.392	mg/Kg			02/20/24 14:59	1

Client Sample ID: SB-12-S-2'-240213

Lab Sample ID: 880-39505-6
Matrix: Solid
Date Collected: 02/13/24 10:35
Date Received: 02/16/24 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000388	U	0.00202	0.000388	mg/Kg		02/21/24 15:31	02/26/24 13:23	1
Toluene	<0.000460	U	0.00202	0.000460	mg/Kg		02/21/24 15:31	02/26/24 13:23	1
Ethylbenzene	<0.000570	U	0.00202	0.000570	mg/Kg		02/21/24 15:31	02/26/24 13:23	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Client Sample ID: SB-12-S-2'-240213

Lab Sample ID: 880-39505-6
Matrix: Solid
Date Collected: 02/13/24 10:35
Date Received: 02/16/24 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<0.00102	U	0.00403	0.00102	mg/Kg		02/21/24 15:31	02/26/24 13:23	1
o-Xylene	<0.000347	U	0.00202	0.000347	mg/Kg		02/21/24 15:31	02/26/24 13:23	1
Xylenes, Total	<0.00102	U	0.00403	0.00102	mg/Kg		02/21/24 15:31	02/26/24 13:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*02/21/24 15:31*	*02/26/24 13:23*	*1*
1,4-Difluorobenzene (Surr)	*138*	*S1+*	*70 - 130*	*02/21/24 15:31*	*02/26/24 13:23*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00403	0.00102	mg/Kg			02/26/24 13:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**74.9**		49.7	14.9	mg/Kg			02/20/24 23:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**45.9**	**J B**	49.7	14.9	mg/Kg		02/19/24 09:07	02/20/24 23:10	1
Diesel Range Organics (Over C10-C28)	**29.0**	**J**	49.7	14.9	mg/Kg		02/19/24 09:07	02/20/24 23:10	1
OII Range Organics (Over C28-C36)	<14.9	U	49.7	14.9	mg/Kg		02/19/24 09:07	02/20/24 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*02/19/24 09:07*	*02/20/24 23:10*	*1*
o-Terphenyl	*99*		*70 - 130*	*02/19/24 09:07*	*02/20/24 23:10*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**830**		4.95	0.391	mg/Kg			02/20/24 15:06	1

Client Sample ID: SB-13-S-1'-240213

Lab Sample ID: 880-39505-7
Matrix: Solid
Date Collected: 02/13/24 10:45
Date Received: 02/16/24 15:30

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**80.4**		5.04	0.398	mg/Kg			02/20/24 15:13	1

Client Sample ID: SB-13-S-2'-240213

Lab Sample ID: 880-39505-8
Matrix: Solid
Date Collected: 02/13/24 10:55
Date Received: 02/16/24 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		02/21/24 15:31	02/26/24 13:51	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		02/21/24 15:31	02/26/24 13:51	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		02/21/24 15:31	02/26/24 13:51	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		02/21/24 15:31	02/26/24 13:51	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		02/21/24 15:31	02/26/24 13:51	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		02/21/24 15:31	02/26/24 13:51	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Client Sample ID: SB-13-S-2'-240213

Lab Sample ID: 880-39505-8
Matrix: Solid
Date Collected: 02/13/24 10:55
Date Received: 02/16/24 15:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*02/21/24 15:31*	*02/26/24 13:51*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*02/21/24 15:31*	*02/26/24 13:51*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00398	0.00100	mg/Kg			02/26/24 13:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**70.9**		49.9	15.0	mg/Kg			02/20/24 23:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**41.2**	**J B**	49.9	15.0	mg/Kg		02/19/24 09:07	02/20/24 23:33	1
Diesel Range Organics (Over C10-C28)	**29.7**	**J**	49.9	15.0	mg/Kg		02/19/24 09:07	02/20/24 23:33	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/19/24 09:07	02/20/24 23:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*86*		*70 - 130*	*02/19/24 09:07*	*02/20/24 23:33*	*1*
o-Terphenyl	*90*		*70 - 130*	*02/19/24 09:07*	*02/20/24 23:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1980**		25.1	1.98	mg/Kg			02/20/24 15:20	5

Client Sample ID: SB-14-S-1'-240213

Lab Sample ID: 880-39505-9
Matrix: Solid
Date Collected: 02/13/24 11:00
Date Received: 02/16/24 15:30

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**175**		4.98	0.393	mg/Kg			02/20/24 15:26	1

Client Sample ID: SB-14-S-2'-240213

Lab Sample ID: 880-39505-10
Matrix: Solid
Date Collected: 02/13/24 11:15
Date Received: 02/16/24 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		02/21/24 15:31	02/26/24 14:20	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		02/21/24 15:31	02/26/24 14:20	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		02/21/24 15:31	02/26/24 14:20	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		02/21/24 15:31	02/26/24 14:20	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		02/21/24 15:31	02/26/24 14:20	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		02/21/24 15:31	02/26/24 14:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*02/21/24 15:31*	*02/26/24 14:20*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*02/21/24 15:31*	*02/26/24 14:20*	*1*

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Client Sample ID: SB-14-S-2'-240213

Lab Sample ID: 880-39505-10
Matrix: Solid
Date Collected: 02/13/24 11:15
Date Received: 02/16/24 15:30

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			02/26/24 14:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**67.4**		49.7	14.9	mg/Kg			02/20/24 23:56	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	**37.3**	**J B**	49.7	14.9	mg/Kg		02/19/24 09:07	02/20/24 23:56	1
Diesel Range Organics (Over C10-C28)	**30.1**	**J**	49.7	14.9	mg/Kg		02/19/24 09:07	02/20/24 23:56	1
OII Range Organics (Over C28-C36)	<14.9	U	49.7	14.9	mg/Kg		02/19/24 09:07	02/20/24 23:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*02/19/24 09:07*	*02/20/24 23:56*	*1*
o-Terphenyl	*85*		*70 - 130*	*02/19/24 09:07*	*02/20/24 23:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2260**		25.2	1.99	mg/Kg			02/20/24 12:42	5

Client Sample ID: SB-15-S-1'-240213

Lab Sample ID: 880-39505-11
Matrix: Solid
Date Collected: 02/13/24 11:20
Date Received: 02/16/24 15:30

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**125**		5.00	0.395	mg/Kg			02/20/24 12:56	1

Client Sample ID: SB-15-S-2'-240213

Lab Sample ID: 880-39505-12
Matrix: Solid
Date Collected: 02/13/24 11:25
Date Received: 02/16/24 15:30

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		02/21/24 15:31	02/26/24 14:49	1
Toluene	<0.000451	U	0.00198	0.000451	mg/Kg		02/21/24 15:31	02/26/24 14:49	1
Ethylbenzene	<0.000559	U	0.00198	0.000559	mg/Kg		02/21/24 15:31	02/26/24 14:49	1
m-Xylene & p-Xylene	<0.00100	U	0.00396	0.00100	mg/Kg		02/21/24 15:31	02/26/24 14:49	1
o-Xylene	<0.000341	U	0.00198	0.000341	mg/Kg		02/21/24 15:31	02/26/24 14:49	1
Xylenes, Total	<0.00100	U	0.00396	0.00100	mg/Kg		02/21/24 15:31	02/26/24 14:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*02/21/24 15:31*	*02/26/24 14:49*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*02/21/24 15:31*	*02/26/24 14:49*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00396	0.00100	mg/Kg			02/26/24 14:49	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Client Sample ID: SB-15-S-2'-240213

Lab Sample ID: 880-39505-12
Matrix: Solid
Date Collected: 02/13/24 11:25
Date Received: 02/16/24 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**69.6**		49.9	15.0	mg/Kg			02/21/24 00:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**39.7**	**J B**	49.9	15.0	mg/Kg		02/19/24 09:07	02/21/24 00:19	1
Diesel Range Organics (Over C10-C28)	**29.9**	**J**	49.9	15.0	mg/Kg		02/19/24 09:07	02/21/24 00:19	1
Oll Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/19/24 09:07	02/21/24 00:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*02/19/24 09:07*	*02/21/24 00:19*	*1*
o-Terphenyl	*97*		*70 - 130*	*02/19/24 09:07*	*02/21/24 00:19*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**151**		4.96	0.392	mg/Kg			02/20/24 13:01	1

Client Sample ID: SB-16-S-1'-240213

Lab Sample ID: 880-39505-13
Matrix: Solid
Date Collected: 02/13/24 11:35
Date Received: 02/16/24 15:30

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**103**		4.98	0.393	mg/Kg			02/20/24 13:06	1

Client Sample ID: SB-16-S-2'-240213

Lab Sample ID: 880-39505-14
Matrix: Solid
Date Collected: 02/13/24 11:40
Date Received: 02/16/24 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		02/21/24 15:31	02/26/24 15:17	1
Toluene	<0.000458	U	0.00201	0.000458	mg/Kg		02/21/24 15:31	02/26/24 15:17	1
Ethylbenzene	<0.000567	U	0.00201	0.000567	mg/Kg		02/21/24 15:31	02/26/24 15:17	1
m-Xylene & p-Xylene	<0.00101	U	0.00402	0.00101	mg/Kg		02/21/24 15:31	02/26/24 15:17	1
o-Xylene	<0.000345	U	0.00201	0.000345	mg/Kg		02/21/24 15:31	02/26/24 15:17	1
Xylenes, Total	<0.00101	U	0.00402	0.00101	mg/Kg		02/21/24 15:31	02/26/24 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*02/21/24 15:31*	*02/26/24 15:17*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/21/24 15:31*	*02/26/24 15:17*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00402	0.00101	mg/Kg			02/26/24 15:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**45.3**	**J**	50.2	15.1	mg/Kg			02/19/24 03:46	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Client Sample ID: SB-16-S-2'-240213

Lab Sample ID: 880-39505-14
Matrix: Solid
Date Collected: 02/13/24 11:40
Date Received: 02/16/24 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	24.1	J	50.2	15.1	mg/Kg		02/16/24 16:51	02/19/24 03:46	1
Diesel Range Organics (Over C10-C28)	21.2	J	50.2	15.1	mg/Kg		02/16/24 16:51	02/19/24 03:46	1
OII Range Organics (Over C28-C36)	<15.1	U	50.2	15.1	mg/Kg		02/16/24 16:51	02/19/24 03:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*139*	*S1+*	*70 - 130*	*02/16/24 16:51*	*02/19/24 03:46*	*1*
o-Terphenyl	*114*		*70 - 130*	*02/16/24 16:51*	*02/19/24 03:46*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3260		25.3	1.99	mg/Kg			02/20/24 13:10	5

Client Sample ID: SB-17-S-1'-240213

Lab Sample ID: 880-39505-15
Matrix: Solid
Date Collected: 02/13/24 11:45
Date Received: 02/16/24 15:30

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	134		5.01	0.396	mg/Kg			02/20/24 13:24	1

Client Sample ID: SB-17-S-2'-240213

Lab Sample ID: 880-39505-16
Matrix: Solid
Date Collected: 02/13/24 11:50
Date Received: 02/16/24 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000389	U	0.00202	0.000389	mg/Kg		02/21/24 15:31	02/26/24 15:46	1
Toluene	<0.000461	U	0.00202	0.000461	mg/Kg		02/21/24 15:31	02/26/24 15:46	1
Ethylbenzene	<0.000571	U	0.00202	0.000571	mg/Kg		02/21/24 15:31	02/26/24 15:46	1
m-Xylene & p-Xylene	<0.00102	U	0.00404	0.00102	mg/Kg		02/21/24 15:31	02/26/24 15:46	1
o-Xylene	<0.000347	U	0.00202	0.000347	mg/Kg		02/21/24 15:31	02/26/24 15:46	1
Xylenes, Total	<0.00102	U	0.00404	0.00102	mg/Kg		02/21/24 15:31	02/26/24 15:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*137*	*S1+*	*70 - 130*	*02/21/24 15:31*	*02/26/24 15:46*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*02/21/24 15:31*	*02/26/24 15:46*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00404	0.00102	mg/Kg			02/26/24 15:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	48.5	J	50.4	15.1	mg/Kg			02/19/24 04:08	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	26.7	J	50.4	15.1	mg/Kg		02/16/24 16:51	02/19/24 04:08	1
Diesel Range Organics (Over C10-C28)	21.8	J	50.4	15.1	mg/Kg		02/16/24 16:51	02/19/24 04:08	1

Eurofins Midland

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Client Sample ID: SB-17-S-2'-240213

Lab Sample ID: 880-39505-16
Matrix: Solid
Date Collected: 02/13/24 11:50
Date Received: 02/16/24 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
OII Range Organics (Over C28-C36)	<15.1	U	50.4	15.1	mg/Kg		02/16/24 16:51	02/19/24 04:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*145*	*S1+*	*70 - 130*	*02/16/24 16:51*	*02/19/24 04:08*	*1*
o-Terphenyl	*123*		*70 - 130*	*02/16/24 16:51*	*02/19/24 04:08*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**75.4**		5.00	0.395	mg/Kg			02/20/24 13:29	1

Client Sample ID: SB-18-S-1'-240213

Lab Sample ID: 880-39505-17
Matrix: Solid
Date Collected: 02/13/24 12:00
Date Received: 02/16/24 15:30

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**92.1**		4.98	0.393	mg/Kg			02/20/24 13:33	1

Client Sample ID: SB-18-S-3'-240213

Lab Sample ID: 880-39505-18
Matrix: Solid
Date Collected: 02/13/24 12:05
Date Received: 02/16/24 15:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		02/21/24 15:31	02/26/24 16:15	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		02/21/24 15:31	02/26/24 16:15	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		02/21/24 15:31	02/26/24 16:15	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		02/21/24 15:31	02/26/24 16:15	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		02/21/24 15:31	02/26/24 16:15	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		02/21/24 15:31	02/26/24 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*02/21/24 15:31*	*02/26/24 16:15*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*02/21/24 15:31*	*02/26/24 16:15*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			02/26/24 16:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**61.6**		50.5	15.2	mg/Kg			02/19/24 04:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**41.6**	**J**	50.5	15.2	mg/Kg		02/16/24 16:51	02/19/24 04:31	1
Diesel Range Organics (Over C10-C28)	**20.0**	**J**	50.5	15.2	mg/Kg		02/16/24 16:51	02/19/24 04:31	1
OII Range Organics (Over C28-C36)	<15.2	U	50.5	15.2	mg/Kg		02/16/24 16:51	02/19/24 04:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*02/16/24 16:51*	*02/19/24 04:31*	*1*

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Client Sample ID: SB-18-S-3'-240213
Date Collected: 02/13/24 12:05
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-18
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	92		70 - 130	02/16/24 16:51	02/19/24 04:31	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2010		25.1	1.98	mg/Kg			02/20/24 13:38	5

Surrogate Summary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Method: 8021B - Volatile Organic Compounds (GC)

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) BFB1 (70-130)	DFBZ1 (70-130)
880-39505-2	SB-10-S-2'-240213	38 S1-	94
880-39505-2 MS	SB-10-S-2'-240213	153 S1+	107
880-39505-2 MSD	SB-10-S-2'-240213	136 S1+	72
880-39505-4	SB-11-S-2'-240213	147 S1+	119
880-39505-6	SB-12-S-2'-240213	114	138 S1+
880-39505-8	SB-13-S-2'-240213	110	105
880-39505-10	SB-14-S-2'-240213	105	109
880-39505-12	SB-15-S-2'-240213	100	97
880-39505-14	SB-16-S-2'-240213	120	107
880-39505-16	SB-17-S-2'-240213	137 S1+	100
880-39505-18	SB-18-S-3'-240213	107	107
LCS 880-73803/1-A	Lab Control Sample	120	111
LCSD 880-73803/2-A	Lab Control Sample Dup	90	108
MB 880-73803/5-A	Method Blank	81	131 S1+

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) 1CO1 (70-130)	OTPH1 (70-130)
880-39505-2	SB-10-S-2'-240213	95	104
880-39505-2 MS	SB-10-S-2'-240213	67 S1-	66 S1-
880-39505-2 MSD	SB-10-S-2'-240213	79	75
880-39505-4	SB-11-S-2'-240213	93	102
880-39505-6	SB-12-S-2'-240213	90	99
880-39505-8	SB-13-S-2'-240213	86	90
880-39505-10	SB-14-S-2'-240213	83	85
880-39505-12	SB-15-S-2'-240213	88	97
880-39505-14	SB-16-S-2'-240213	139 S1+	114
880-39505-16	SB-17-S-2'-240213	145 S1+	123
880-39505-18	SB-18-S-3'-240213	108	92
LCS 880-73393/2-A	Lab Control Sample	103	105
LCS 880-73439/2-A	Lab Control Sample	97	99
LCSD 880-73393/3-A	Lab Control Sample Dup	102	96
LCSD 880-73439/3-A	Lab Control Sample Dup	86	86
MB 880-73393/1-A	Method Blank	127	108
MB 880-73439/1-A	Method Blank	133 S1+	152 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73803/5-A
Matrix: Solid
Analysis Batch: 73992

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73803

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		02/21/24 15:31	02/26/24 11:59	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		02/21/24 15:31	02/26/24 11:59	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		02/21/24 15:31	02/26/24 11:59	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		02/21/24 15:31	02/26/24 11:59	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		02/21/24 15:31	02/26/24 11:59	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		02/21/24 15:31	02/26/24 11:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*02/21/24 15:31*	*02/26/24 11:59*	*1*
1,4-Difluorobenzene (Surr)	*131*	*S1+*	*70 - 130*	*02/21/24 15:31*	*02/26/24 11:59*	*1*

Lab Sample ID: LCS 880-73803/1-A
Matrix: Solid
Analysis Batch: 73992

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73803

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1222		mg/Kg		122	70 - 130		
Toluene			0.100	0.1118		mg/Kg		112	70 - 130		
Ethylbenzene			0.100	0.1157		mg/Kg		116	70 - 130		
m-Xylene & p-Xylene			0.200	0.2434		mg/Kg		122	70 - 130		
o-Xylene			0.100	0.1101		mg/Kg		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: LCSD 880-73803/2-A
Matrix: Solid
Analysis Batch: 73992

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73803

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09063		mg/Kg		91	70 - 130	30	35
Toluene			0.100	0.08619		mg/Kg		86	70 - 130	26	35
Ethylbenzene			0.100	0.08392		mg/Kg		84	70 - 130	32	35
m-Xylene & p-Xylene			0.200	0.1973		mg/Kg		99	70 - 130	21	35
o-Xylene			0.100	0.09452		mg/Kg		95	70 - 130	15	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: 880-39505-2 MS
Matrix: Solid
Analysis Batch: 73992

Client Sample ID: SB-10-S-2'-240213
Prep Type: Total/NA
Prep Batch: 73803

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.000383	U F2 F1	0.101	0.1084		mg/Kg		108	70 - 130		
Toluene	<0.000454	U	0.101	0.09961		mg/Kg		99	70 - 130		

QC Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

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

Lab Sample ID: 880-39505-2 MS
Matrix: Solid
Analysis Batch: 73992

Client Sample ID: SB-10-S-2'-240213
Prep Type: Total/NA
Prep Batch: 73803

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.000563	U	0.101	0.09768		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	<0.00101	U	0.202	0.2232		mg/Kg		111	70 - 130
o-Xylene	0.000962	J	0.101	0.1028		mg/Kg		101	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*153*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: 880-39505-2 MSD
Matrix: Solid
Analysis Batch: 73992

Client Sample ID: SB-10-S-2'-240213
Prep Type: Total/NA
Prep Batch: 73803

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.000383	U F2 F1	0.100	0.1277		mg/Kg		128	70 - 130	16	35
Toluene	<0.000454	U	0.100	0.09377		mg/Kg		94	70 - 130	6	35
Ethylbenzene	<0.000563	U	0.100	0.09850		mg/Kg		98	70 - 130	1	35
m-Xylene & p-Xylene	<0.00101	U	0.200	0.2128		mg/Kg		106	70 - 130	5	35
o-Xylene	0.000962	J	0.100	0.1029		mg/Kg		102	70 - 130	0	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*

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

Lab Sample ID: MB 880-73393/1-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73393

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		02/16/24 14:56	02/18/24 19:15	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		02/16/24 14:56	02/18/24 19:15	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/16/24 14:56	02/18/24 19:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*02/16/24 14:56*	*02/18/24 19:15*	*1*
o-Terphenyl	*108*		*70 - 130*	*02/16/24 14:56*	*02/18/24 19:15*	*1*

Lab Sample ID: LCS 880-73393/2-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73393

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1092		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	1000	989.9		mg/Kg		99	70 - 130

QC Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

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

Lab Sample ID: LCS 880-73393/2-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73393

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	105		70 - 130

Lab Sample ID: LCSD 880-73393/3-A
Matrix: Solid
Analysis Batch: 73414

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73393

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1069		mg/Kg		107	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	960.5		mg/Kg		96	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: MB 880-73439/1-A
Matrix: Solid
Analysis Batch: 73600

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73439

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	18.06	J	50.0	15.0	mg/Kg		02/19/24 09:06	02/20/24 20:27	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		02/19/24 09:06	02/20/24 20:27	1
OII Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/19/24 09:06	02/20/24 20:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	133	S1+	70 - 130	02/19/24 09:06	02/20/24 20:27	1
o-Terphenyl	152	S1+	70 - 130	02/19/24 09:06	02/20/24 20:27	1

Lab Sample ID: LCS 880-73439/2-A
Matrix: Solid
Analysis Batch: 73600

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73439

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	819.0		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)			1000	897.7		mg/Kg		90	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	99		70 - 130

QC Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

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

Lab Sample ID: LCSD 880-73439/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73600 — **Prep Batch: 73439**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	802.7		mg/Kg		80	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	866.2		mg/Kg		87	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*86*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

Lab Sample ID: 880-39505-2 MS — **Client Sample ID: SB-10-S-2'-240213**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73600 — **Prep Batch: 73439**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	43.5	J B F1	1010	624.1	F1	mg/Kg		58	70 - 130
Diesel Range Organics (Over C10-C28)	28.7	J F1	1010	507.1	F1	mg/Kg		48	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*67*	*S1-*	*70 - 130*
o-Terphenyl	*66*	*S1-*	*70 - 130*

Lab Sample ID: 880-39505-2 MSD — **Client Sample ID: SB-10-S-2'-240213**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 73600 — **Prep Batch: 73439**

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	43.5	J B F1	1010	700.5	F1	mg/Kg		65	70 - 130	12	20
Diesel Range Organics (Over C10-C28)	28.7	J F1	1010	583.6	F1	mg/Kg		55	70 - 130	14	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*79*		*70 - 130*
o-Terphenyl	*75*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73472/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 73634

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			02/20/24 12:29	1

QC Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-73472/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 73634

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	241.8		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-73472/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 73634

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	242.9		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 880-39505-10 MS — **Client Sample ID: SB-14-S-2'-240213**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 73634

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	2260		1260	3471		mg/Kg		97	90 - 110		

Lab Sample ID: 880-39505-10 MSD — **Client Sample ID: SB-14-S-2'-240213**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 73634

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	2260		1260	3480		mg/Kg		97	90 - 110	0	20

Lab Sample ID: MB 880-73457/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 73640

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.395	U	5.00	0.395	mg/Kg			02/20/24 12:04	1

Lab Sample ID: LCS 880-73457/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 73640

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	252.8		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-73457/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 73640

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	254.9		mg/Kg		102	90 - 110	1	20

QC Association Summary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

GC VOA

Prep Batch: 73803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39505-2	SB-10-S-2'-240213	Total/NA	Solid	5030B	
880-39505-4	SB-11-S-2'-240213	Total/NA	Solid	5030B	
880-39505-6	SB-12-S-2'-240213	Total/NA	Solid	5030B	
880-39505-8	SB-13-S-2'-240213	Total/NA	Solid	5030B	
880-39505-10	SB-14-S-2'-240213	Total/NA	Solid	5030B	
880-39505-12	SB-15-S-2'-240213	Total/NA	Solid	5030B	
880-39505-14	SB-16-S-2'-240213	Total/NA	Solid	5030B	
880-39505-16	SB-17-S-2'-240213	Total/NA	Solid	5030B	
880-39505-18	SB-18-S-3'-240213	Total/NA	Solid	5030B	
MB 880-73803/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-73803/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-73803/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
880-39505-2 MS	SB-10-S-2'-240213	Total/NA	Solid	5030B	
880-39505-2 MSD	SB-10-S-2'-240213	Total/NA	Solid	5030B	

Analysis Batch: 73992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39505-2	SB-10-S-2'-240213	Total/NA	Solid	8021B	73803
880-39505-4	SB-11-S-2'-240213	Total/NA	Solid	8021B	73803
880-39505-6	SB-12-S-2'-240213	Total/NA	Solid	8021B	73803
880-39505-8	SB-13-S-2'-240213	Total/NA	Solid	8021B	73803
880-39505-10	SB-14-S-2'-240213	Total/NA	Solid	8021B	73803
880-39505-12	SB-15-S-2'-240213	Total/NA	Solid	8021B	73803
880-39505-14	SB-16-S-2'-240213	Total/NA	Solid	8021B	73803
880-39505-16	SB-17-S-2'-240213	Total/NA	Solid	8021B	73803
880-39505-18	SB-18-S-3'-240213	Total/NA	Solid	8021B	73803
MB 880-73803/5-A	Method Blank	Total/NA	Solid	8021B	73803
LCS 880-73803/1-A	Lab Control Sample	Total/NA	Solid	8021B	73803
LCSD 880-73803/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73803
880-39505-2 MS	SB-10-S-2'-240213	Total/NA	Solid	8021B	73803
880-39505-2 MSD	SB-10-S-2'-240213	Total/NA	Solid	8021B	73803

Analysis Batch: 74101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39505-2	SB-10-S-2'-240213	Total/NA	Solid	Total BTEX	
880-39505-4	SB-11-S-2'-240213	Total/NA	Solid	Total BTEX	
880-39505-6	SB-12-S-2'-240213	Total/NA	Solid	Total BTEX	
880-39505-8	SB-13-S-2'-240213	Total/NA	Solid	Total BTEX	
880-39505-10	SB-14-S-2'-240213	Total/NA	Solid	Total BTEX	
880-39505-12	SB-15-S-2'-240213	Total/NA	Solid	Total BTEX	
880-39505-14	SB-16-S-2'-240213	Total/NA	Solid	Total BTEX	
880-39505-16	SB-17-S-2'-240213	Total/NA	Solid	Total BTEX	
880-39505-18	SB-18-S-3'-240213	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39505-14	SB-16-S-2'-240213	Total/NA	Solid	8015NM Prep	
880-39505-16	SB-17-S-2'-240213	Total/NA	Solid	8015NM Prep	
880-39505-18	SB-18-S-3'-240213	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

GC Semi VOA (Continued)

Prep Batch: 73393 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-73393/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73393/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73393/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39505-14	SB-16-S-2'-240213	Total/NA	Solid	8015B NM	73393
880-39505-16	SB-17-S-2'-240213	Total/NA	Solid	8015B NM	73393
880-39505-18	SB-18-S-3'-240213	Total/NA	Solid	8015B NM	73393
MB 880-73393/1-A	Method Blank	Total/NA	Solid	8015B NM	73393
LCS 880-73393/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73393
LCSD 880-73393/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73393

Prep Batch: 73439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39505-2	SB-10-S-2'-240213	Total/NA	Solid	8015NM Prep	
880-39505-4	SB-11-S-2'-240213	Total/NA	Solid	8015NM Prep	
880-39505-6	SB-12-S-2'-240213	Total/NA	Solid	8015NM Prep	
880-39505-8	SB-13-S-2'-240213	Total/NA	Solid	8015NM Prep	
880-39505-10	SB-14-S-2'-240213	Total/NA	Solid	8015NM Prep	
880-39505-12	SB-15-S-2'-240213	Total/NA	Solid	8015NM Prep	
MB 880-73439/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73439/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73439/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39505-2 MS	SB-10-S-2'-240213	Total/NA	Solid	8015NM Prep	
880-39505-2 MSD	SB-10-S-2'-240213	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39505-2	SB-10-S-2'-240213	Total/NA	Solid	8015 NM	
880-39505-4	SB-11-S-2'-240213	Total/NA	Solid	8015 NM	
880-39505-6	SB-12-S-2'-240213	Total/NA	Solid	8015 NM	
880-39505-8	SB-13-S-2'-240213	Total/NA	Solid	8015 NM	
880-39505-10	SB-14-S-2'-240213	Total/NA	Solid	8015 NM	
880-39505-12	SB-15-S-2'-240213	Total/NA	Solid	8015 NM	
880-39505-14	SB-16-S-2'-240213	Total/NA	Solid	8015 NM	
880-39505-16	SB-17-S-2'-240213	Total/NA	Solid	8015 NM	
880-39505-18	SB-18-S-3'-240213	Total/NA	Solid	8015 NM	

Analysis Batch: 73600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39505-2	SB-10-S-2'-240213	Total/NA	Solid	8015B NM	73439
880-39505-4	SB-11-S-2'-240213	Total/NA	Solid	8015B NM	73439
880-39505-6	SB-12-S-2'-240213	Total/NA	Solid	8015B NM	73439
880-39505-8	SB-13-S-2'-240213	Total/NA	Solid	8015B NM	73439
880-39505-10	SB-14-S-2'-240213	Total/NA	Solid	8015B NM	73439
880-39505-12	SB-15-S-2'-240213	Total/NA	Solid	8015B NM	73439
MB 880-73439/1-A	Method Blank	Total/NA	Solid	8015B NM	73439
LCS 880-73439/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73439
LCSD 880-73439/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73439
880-39505-2 MS	SB-10-S-2'-240213	Total/NA	Solid	8015B NM	73439

QC Association Summary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

GC Semi VOA (Continued)

Analysis Batch: 73600 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39505-2 MSD	SB-10-S-2'-240213	Total/NA	Solid	8015B NM	73439

HPLC/IC

Leach Batch: 73457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39505-1	SB-10-S-1'-240213	Soluble	Solid	DI Leach	
880-39505-2	SB-10-S-2'-240213	Soluble	Solid	DI Leach	
880-39505-3	SB-11-S-1'-240213	Soluble	Solid	DI Leach	
880-39505-4	SB-11-S-2'-240213	Soluble	Solid	DI Leach	
880-39505-5	SB-12-S-1'-240213	Soluble	Solid	DI Leach	
880-39505-6	SB-12-S-2'-240213	Soluble	Solid	DI Leach	
880-39505-7	SB-13-S-1'-240213	Soluble	Solid	DI Leach	
880-39505-8	SB-13-S-2'-240213	Soluble	Solid	DI Leach	
880-39505-9	SB-14-S-1'-240213	Soluble	Solid	DI Leach	
MB 880-73457/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73457/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73457/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 73472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39505-10	SB-14-S-2'-240213	Soluble	Solid	DI Leach	
880-39505-11	SB-15-S-1'-240213	Soluble	Solid	DI Leach	
880-39505-12	SB-15-S-2'-240213	Soluble	Solid	DI Leach	
880-39505-13	SB-16-S-1'-240213	Soluble	Solid	DI Leach	
880-39505-14	SB-16-S-2'-240213	Soluble	Solid	DI Leach	
880-39505-15	SB-17-S-1'-240213	Soluble	Solid	DI Leach	
880-39505-16	SB-17-S-2'-240213	Soluble	Solid	DI Leach	
880-39505-17	SB-18-S-1'-240213	Soluble	Solid	DI Leach	
880-39505-18	SB-18-S-3'-240213	Soluble	Solid	DI Leach	
MB 880-73472/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73472/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73472/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39505-10 MS	SB-14-S-2'-240213	Soluble	Solid	DI Leach	
880-39505-10 MSD	SB-14-S-2'-240213	Soluble	Solid	DI Leach	

Analysis Batch: 73634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39505-10	SB-14-S-2'-240213	Soluble	Solid	300.0	73472
880-39505-11	SB-15-S-1'-240213	Soluble	Solid	300.0	73472
880-39505-12	SB-15-S-2'-240213	Soluble	Solid	300.0	73472
880-39505-13	SB-16-S-1'-240213	Soluble	Solid	300.0	73472
880-39505-14	SB-16-S-2'-240213	Soluble	Solid	300.0	73472
880-39505-15	SB-17-S-1'-240213	Soluble	Solid	300.0	73472
880-39505-16	SB-17-S-2'-240213	Soluble	Solid	300.0	73472
880-39505-17	SB-18-S-1'-240213	Soluble	Solid	300.0	73472
880-39505-18	SB-18-S-3'-240213	Soluble	Solid	300.0	73472
MB 880-73472/1-A	Method Blank	Soluble	Solid	300.0	73472
LCS 880-73472/2-A	Lab Control Sample	Soluble	Solid	300.0	73472
LCSD 880-73472/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73472
880-39505-10 MS	SB-14-S-2'-240213	Soluble	Solid	300.0	73472

QC Association Summary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

HPLC/IC (Continued)

Analysis Batch: 73634 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39505-10 MSD	SB-14-S-2'-240213	Soluble	Solid	300.0	73472

Analysis Batch: 73640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39505-1	SB-10-S-1'-240213	Soluble	Solid	300.0	73457
880-39505-2	SB-10-S-2'-240213	Soluble	Solid	300.0	73457
880-39505-3	SB-11-S-1'-240213	Soluble	Solid	300.0	73457
880-39505-4	SB-11-S-2'-240213	Soluble	Solid	300.0	73457
880-39505-5	SB-12-S-1'-240213	Soluble	Solid	300.0	73457
880-39505-6	SB-12-S-2'-240213	Soluble	Solid	300.0	73457
880-39505-7	SB-13-S-1'-240213	Soluble	Solid	300.0	73457
880-39505-8	SB-13-S-2'-240213	Soluble	Solid	300.0	73457
880-39505-9	SB-14-S-1'-240213	Soluble	Solid	300.0	73457
MB 880-73457/1-A	Method Blank	Soluble	Solid	300.0	73457
LCS 880-73457/2-A	Lab Control Sample	Soluble	Solid	300.0	73457
LCSD 880-73457/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73457

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Client Sample ID: SB-10-S-1'-240213
Date Collected: 02/13/24 10:00
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	73457	02/19/24 11:43	SA	EET MID
Soluble	Analysis	300.0		1			73640	02/20/24 14:19	CH	EET MID

Client Sample ID: SB-10-S-2'-240213
Date Collected: 02/13/24 10:05
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.02 g	5 mL	73803	02/21/24 15:31	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73992	02/26/24 12:26	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74101	02/26/24 12:26	SM	EET MID
Total/NA	Analysis	8015 NM		1			73543	02/20/24 21:37	SM	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	73439	02/19/24 09:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73600	02/20/24 21:37	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	73457	02/19/24 11:43	SA	EET MID
Soluble	Analysis	300.0		1			73640	02/20/24 14:26	CH	EET MID

Client Sample ID: SB-11-S-1'-240213
Date Collected: 02/13/24 10:15
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	73457	02/19/24 11:43	SA	EET MID
Soluble	Analysis	300.0		1			73640	02/20/24 14:46	CH	EET MID

Client Sample ID: SB-11-S-2'-240213
Date Collected: 02/13/24 10:20
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.98 g	5 mL	73803	02/21/24 15:31	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73992	02/26/24 12:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74101	02/26/24 12:54	SM	EET MID
Total/NA	Analysis	8015 NM		1			73543	02/20/24 22:47	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73439	02/19/24 09:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73600	02/20/24 22:47	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73457	02/19/24 11:43	SA	EET MID
Soluble	Analysis	300.0		1			73640	02/20/24 14:53	CH	EET MID

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Client Sample ID: SB-12-S-1'-240213
Date Collected: 02/13/24 10:30
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	73457	02/19/24 11:43	SA	EET MID
Soluble	Analysis	300.0		1			73640	02/20/24 14:59	CH	EET MID

Client Sample ID: SB-12-S-2'-240213
Date Collected: 02/13/24 10:35
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.96 g	5 mL	73803	02/21/24 15:31	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73992	02/26/24 13:23	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74101	02/26/24 13:23	SM	EET MID
Total/NA	Analysis	8015 NM		1			73543	02/20/24 23:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	73439	02/19/24 09:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73600	02/20/24 23:10	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	73457	02/19/24 11:43	SA	EET MID
Soluble	Analysis	300.0		1			73640	02/20/24 15:06	CH	EET MID

Client Sample ID: SB-13-S-1'-240213
Date Collected: 02/13/24 10:45
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	73457	02/19/24 11:43	SA	EET MID
Soluble	Analysis	300.0		1			73640	02/20/24 15:13	CH	EET MID

Client Sample ID: SB-13-S-2'-240213
Date Collected: 02/13/24 10:55
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.03 g	5 mL	73803	02/21/24 15:31	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73992	02/26/24 13:51	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74101	02/26/24 13:51	SM	EET MID
Total/NA	Analysis	8015 NM		1			73543	02/20/24 23:33	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73439	02/19/24 09:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73600	02/20/24 23:33	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73457	02/19/24 11:43	SA	EET MID
Soluble	Analysis	300.0		5			73640	02/20/24 15:20	CH	EET MID

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Client Sample ID: SB-14-S-1'-240213
Date Collected: 02/13/24 11:00
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	73457	02/19/24 11:43	SA	EET MID
Soluble	Analysis	300.0		1			73640	02/20/24 15:26	CH	EET MID

Client Sample ID: SB-14-S-2'-240213
Date Collected: 02/13/24 11:15
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5 mL	73803	02/21/24 15:31	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73992	02/26/24 14:20	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74101	02/26/24 14:20	SM	EET MID
Total/NA	Analysis	8015 NM		1			73543	02/20/24 23:56	SM	EET MID
Total/NA	Prep	8015NM Prep			10.07 g	10 mL	73439	02/19/24 09:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73600	02/20/24 23:56	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	73472	02/19/24 11:49	SA	EET MID
Soluble	Analysis	300.0		5			73634	02/20/24 12:42	CH	EET MID

Client Sample ID: SB-15-S-1'-240213
Date Collected: 02/13/24 11:20
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.00 g	50 mL	73472	02/19/24 11:49	SA	EET MID
Soluble	Analysis	300.0		1			73634	02/20/24 12:56	CH	EET MID

Client Sample ID: SB-15-S-2'-240213
Date Collected: 02/13/24 11:25
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.05 g	5 mL	73803	02/21/24 15:31	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73992	02/26/24 14:49	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74101	02/26/24 14:49	SM	EET MID
Total/NA	Analysis	8015 NM		1			73543	02/21/24 00:19	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	73439	02/19/24 09:07	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73600	02/21/24 00:19	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	73472	02/19/24 11:49	SA	EET MID
Soluble	Analysis	300.0		1			73634	02/20/24 13:01	CH	EET MID

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Client Sample ID: SB-16-S-1'-240213
Date Collected: 02/13/24 11:35
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	73472	02/19/24 11:49	SA	EET MID
Soluble	Analysis	300.0		1			73634	02/20/24 13:06	CH	EET MID

Client Sample ID: SB-16-S-2'-240213
Date Collected: 02/13/24 11:40
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.98 g	5 mL	73803	02/21/24 15:31	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73992	02/26/24 15:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74101	02/26/24 15:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			73543	02/19/24 03:46	SM	EET MID
Total/NA	Prep	8015NM Prep			9.96 g	10 mL	73393	02/16/24 16:51	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/19/24 03:46	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	73472	02/19/24 11:49	SA	EET MID
Soluble	Analysis	300.0		5			73634	02/20/24 13:10	CH	EET MID

Client Sample ID: SB-17-S-1'-240213
Date Collected: 02/13/24 11:45
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-15
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.99 g	50 mL	73472	02/19/24 11:49	SA	EET MID
Soluble	Analysis	300.0		1			73634	02/20/24 13:24	CH	EET MID

Client Sample ID: SB-17-S-2'-240213
Date Collected: 02/13/24 11:50
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-16
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.95 g	5 mL	73803	02/21/24 15:31	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73992	02/26/24 15:46	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74101	02/26/24 15:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			73543	02/19/24 04:08	SM	EET MID
Total/NA	Prep	8015NM Prep			9.92 g	10 mL	73393	02/16/24 16:51	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/19/24 04:08	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	73472	02/19/24 11:49	SA	EET MID
Soluble	Analysis	300.0		1			73634	02/20/24 13:29	CH	EET MID

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Client Sample ID: SB-18-S-1'-240213
Date Collected: 02/13/24 12:00
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-17
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	73472	02/19/24 11:49	SA	EET MID
Soluble	Analysis	300.0		1			73634	02/20/24 13:33	CH	EET MID

Client Sample ID: SB-18-S-3'-240213
Date Collected: 02/13/24 12:05
Date Received: 02/16/24 15:30

Lab Sample ID: 880-39505-18
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.01 g	5 mL	73803	02/21/24 15:31	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73992	02/26/24 16:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74101	02/26/24 16:15	SM	EET MID
Total/NA	Analysis	8015 NM		1			73543	02/19/24 04:31	SM	EET MID
Total/NA	Prep	8015NM Prep			9.90 g	10 mL	73393	02/16/24 16:51	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73414	02/19/24 04:31	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	73472	02/19/24 11:49	SA	EET MID
Soluble	Analysis	300.0		5			73634	02/20/24 13:38	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 US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

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

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

Method Summary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5030B	Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39505-1
SDG: Couington,NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39505-1	SB-10-S-1'-240213	Solid	02/13/24 10:00	02/16/24 15:30
880-39505-2	SB-10-S-2'-240213	Solid	02/13/24 10:05	02/16/24 15:30
880-39505-3	SB-11-S-1'-240213	Solid	02/13/24 10:15	02/16/24 15:30
880-39505-4	SB-11-S-2'-240213	Solid	02/13/24 10:20	02/16/24 15:30
880-39505-5	SB-12-S-1'-240213	Solid	02/13/24 10:30	02/16/24 15:30
880-39505-6	SB-12-S-2'-240213	Solid	02/13/24 10:35	02/16/24 15:30
880-39505-7	SB-13-S-1'-240213	Solid	02/13/24 10:45	02/16/24 15:30
880-39505-8	SB-13-S-2'-240213	Solid	02/13/24 10:55	02/16/24 15:30
880-39505-9	SB-14-S-1'-240213	Solid	02/13/24 11:00	02/16/24 15:30
880-39505-10	SB-14-S-2'-240213	Solid	02/13/24 11:15	02/16/24 15:30
880-39505-11	SB-15-S-1'-240213	Solid	02/13/24 11:20	02/16/24 15:30
880-39505-12	SB-15-S-2'-240213	Solid	02/13/24 11:25	02/16/24 15:30
880-39505-13	SB-16-S-1'-240213	Solid	02/13/24 11:35	02/16/24 15:30
880-39505-14	SB-16-S-2'-240213	Solid	02/13/24 11:40	02/16/24 15:30
880-39505-15	SB-17-S-1'-240213	Solid	02/13/24 11:45	02/16/24 15:30
880-39505-16	SB-17-S-2'-240213	Solid	02/13/24 11:50	02/16/24 15:30
880-39505-17	SB-18-S-1'-240213	Solid	02/13/24 12:00	02/16/24 15:30
880-39505-18	SB-18-S-3'-240213	Solid	02/13/24 12:05	02/16/24 15:30

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

Chain of Custody Record

39505

eurofins | Environment Testing

Client Information	Sampler: Heath Boyd	Lab PM: Builes John	Carrier Tracking No(s):	COC No: 880-8032-1136 13
Client Contact: Mr Morgan Jordan	Phone: 575-942-0292	E-Mail: John Builes@et.eurofinsus com	State of Origin: NM	Page: Page ~~13 of 14~~ 1 of 2
Company: ARCADIS US Inc	PWSID:	Analysis Requested		Job #:
Address: 1004 North Big Spring Suite 300	Due Date Requested:			Preservation Codes: A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify); Other:
City: Midland	TAT Requested (days): Standard			
State Zip: TX 79701	Compliance Project: Δ Yes Δ No			
Phone: 281-644-9437(Tel)	PO #: Purchase Order Requested			
Email: douglas jordan@arcadis com	WO #:			
Project Name: WCU 23	Project #: ~~88002020~~ 30209652			
Site: Lovington, NM	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D; 8015MOD_NM, 8021B	300-ORGFM_28D	Total Number of containers	Special Instructions/Note.
			Preservation Code:				N			
SB-10-S-1'-240213	2/13/24	1000	G	Solid				X		
SB-10-S-2'-240213		1005		Solid			X	X		
SB-11-S-1'-240213		1015		Solid				X		
SB-11-S-2'-240213		1020		Solid			X	X		
SB-12-S-1'-240213		1030		Solid				X		
SB-12-S-2'-240213		1035		Solid			X	X		
SB-13-S-1'-240213		1045		Solid				X		
SB-13-S-4'-240213		1055		Solid			X	X		
SB-14-S-1-240213		1100		Solid				X		
SB-14-S-3.5'-240213		1115		Solid			X	X		
SB-15-S-1'-240213	X	1120	X	Solid				X		

880-39505 Chain of Custody

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

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

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	2/15/24 1530	Arcadis	Dailely Gonzales		
2				Dailely Gonzales		
3						

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.
		3.2/3.1

Ver: 01/16/2019

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

Chain of Custody Record

39505

eurofins | Environment Testing

Client Information	Sampler: Heath Boyd	Lab PM: Builes John	Carrier Tracking No(s):	COC No: 880-8032-1136 13
Client Contact: Mr Morgan Jordan	Phone: 575-942-0292	E-Mail: John Builes@et.eurofinsus com	State of Origin: NM	Page: Page ~~13 of 14~~ 2 of 2
Company: ARCADIS US Inc	PWSID:			Job #
Address: 1004 North Big Spring Suite 300	Due Date Requested			
City: Midland	TAT Requested (days): Standard			
State Zip: TX, 79701	Compliance Project: Δ Yes Δ No			
Phone: 281-644-9437(Tel)	PO #: Purchase Order Requested			
Email: douglas jordan@arcadis com	WO #:			
Project Name: WLN 23	Project #: ~~88002020~~ 30209652			
Site: Lovington, NM	SSOW#:			

Analysis Requested

Preservation Codes

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D, 8015MOD_NM, 8021B	300_ORGFM_28D	Total Number of containers	Special Instructions/Note.
			Preservation Code:				N			
SB-15-S-2'-240213	2/13/24	1125	G	Solid			X	X		
SB-16-S-1'-240213		1135		Solid				X		
SB-16-S-2'-240213		1140		Solid			X	X		
SB-17-S-1'-240213		1145		Solid				X		
SB-17-S-2'-240213		1150		Solid			X	X		
SB-18-S-1-240213		1200		Solid				X		
SB-18-S-3'-240213	"	1205	"	Solid			X	X		
				Solid						
				Solid						
				Solid						
				Solid						

Loc: 880
39505

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: 2/15/24 1530	Company: Arcadis	Received by: Dalleny Gonzales	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by: Dalleny Gonzales	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: 3.2 | 3.1

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS US Inc

Job Number: 880-39505-1
SDG Number: Couington,NM

Login Number: 39505
List Number: 1
Creator: Wheeler, Jazmine

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	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Morgan Jordan
ARCADIS US Inc
1004 North Big Spring
Suite 300
Midland, Texas 79701

Generated 2/27/2024 12:21:01 PM

JOB DESCRIPTION

WLU 23
Lovington NM

JOB NUMBER

880-39545-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

my EOL

Eurofins Midland

Job Notes

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

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

Authorization

Generated
2/27/2024 12:21:01 PM

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

Client: ARCADIS US Inc
Project/Site: WLU 23

Laboratory Job ID: 880-39545-1
SDG: Lovington NM

Table of Contents

Definitions/Glossary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, 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
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.

Glossary

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

Case Narrative

Client: ARCADIS US Inc
Project: WLU 23

Job ID: 880-39545-1

Job ID: 880-39545-1 Eurofins Midland

Job Narrative
880-39545-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 2/19/2024 9:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.9°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SB-19-S-1'-240215 (880-39545-1), SB-19-S-2'-240215 (880-39545-2), SB-20-S-1'-240215 (880-39545-3), SB-20-S-2'-240215 (880-39545-4), SB-21-S-1'-240215 (880-39545-5), SB-21-S-2'-240215 (880-39545-6), SB-22-S-1'-240215 (880-39545-7) and SB-22-S-2'-240215 (880-39545-8).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SB-20-S-2'-240215 (880-39545-4), SB-21-S-2'-240215 (880-39545-6) and (CCV 880-73994/33). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCSD 880-73997/2-A). Evidence of matrix interferences is not obvious.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-73653 and analytical batch 880-73706 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SB-19-S-2'-240215 (880-39545-2), SB-21-S-2'-240215 (880-39545-6), SB-22-S-2'-240215 (880-39545-8), (880-39545-A-2-C MS) and (880-39545-A-2-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-73653 and analytical batch 880-73706 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8015MOD_NM: The method blank for preparation batch 880-73653 and analytical batch 880-73706 contained Gasoline Range Organics (GRO)-C6-C10 above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

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 880-73613 and analytical batch 880-73695 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 method blank for preparation batch 880-73613 and 880-73613 and analytical batch

Case Narrative

Client: ARCADIS US Inc
Project: WLU 23

Job ID: 880-39545-1

Job ID: 880-39545-1 (Continued) Eurofins Midland

880-73695 contained Chloride above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

Client Sample ID: SB-19-S-1'-240215

Lab Sample ID: 880-39545-1
Matrix: Solid
Date Collected: 02/15/24 13:00
Date Received: 02/19/24 09:05

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	79.6	B F1	4.97	0.393	mg/Kg			02/21/24 08:45	1

Client Sample ID: SB-19-S-2'-240215

Lab Sample ID: 880-39545-2
Matrix: Solid
Date Collected: 02/15/24 13:10
Date Received: 02/19/24 09:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		02/26/24 08:31	02/26/24 19:57	1
Toluene	0.00103	J	0.00200	0.000456	mg/Kg		02/26/24 08:31	02/26/24 19:57	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		02/26/24 08:31	02/26/24 19:57	1
m-Xylene & p-Xylene	0.00133	J	0.00400	0.00101	mg/Kg		02/26/24 08:31	02/26/24 19:57	1
o-Xylene	0.000530	J	0.00200	0.000344	mg/Kg		02/26/24 08:31	02/26/24 19:57	1
Xylenes, Total	0.00186	J	0.00400	0.00101	mg/Kg		02/26/24 08:31	02/26/24 19:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*02/26/24 08:31*	*02/26/24 19:57*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*02/26/24 08:31*	*02/26/24 19:57*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00289	J	0.00400	0.00101	mg/Kg			02/26/24 19:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	78.2		49.9	15.0	mg/Kg			02/21/24 21:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	46.3	J B	49.9	15.0	mg/Kg		02/20/24 11:29	02/21/24 21:26	1
Diesel Range Organics (Over C10-C28)	31.9	J F1	49.9	15.0	mg/Kg		02/20/24 11:29	02/21/24 21:26	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/20/24 11:29	02/21/24 21:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*142*	*S1+*	*70 - 130*	*02/20/24 11:29*	*02/21/24 21:26*	*1*
o-Terphenyl	*152*	*S1+*	*70 - 130*	*02/20/24 11:29*	*02/21/24 21:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	90.0	B	5.01	0.396	mg/Kg			02/21/24 09:05	1

Client Sample ID: SB-20-S-1'-240215

Lab Sample ID: 880-39545-3
Matrix: Solid
Date Collected: 02/15/24 13:40
Date Received: 02/19/24 09:05

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	114	B	4.96	0.392	mg/Kg			02/21/24 09:12	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

Client Sample ID: SB-20-S-2'-240215

Lab Sample ID: 880-39545-4
Matrix: Solid
Date Collected: 02/15/24 13:50
Date Received: 02/19/24 09:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		02/26/24 08:31	02/26/24 20:17	1
Toluene	**0.00107**	**J**	0.00199	0.000454	mg/Kg		02/26/24 08:31	02/26/24 20:17	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		02/26/24 08:31	02/26/24 20:17	1
m-Xylene & p-Xylene	**0.00159**	**J**	0.00398	0.00101	mg/Kg		02/26/24 08:31	02/26/24 20:17	1
o-Xylene	**0.000507**	**J**	0.00199	0.000343	mg/Kg		02/26/24 08:31	02/26/24 20:17	1
Xylenes, Total	**0.00210**	**J**	0.00398	0.00101	mg/Kg		02/26/24 08:31	02/26/24 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*	*02/26/24 08:31*	*02/26/24 20:17*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*02/26/24 08:31*	*02/26/24 20:17*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00317**	**J**	0.00398	0.00101	mg/Kg			02/26/24 20:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**71.0**		50.2	15.0	mg/Kg			02/21/24 22:38	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	**40.8**	**J B**	50.2	15.0	mg/Kg		02/20/24 11:29	02/21/24 22:38	1
Diesel Range Organics (Over C10-C28)	**30.2**	**J**	50.2	15.0	mg/Kg		02/20/24 11:29	02/21/24 22:38	1
OII Range Organics (Over C28-C36)	<15.0	U	50.2	15.0	mg/Kg		02/20/24 11:29	02/21/24 22:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*02/20/24 11:29*	*02/21/24 22:38*	*1*
o-Terphenyl	*120*		*70 - 130*	*02/20/24 11:29*	*02/21/24 22:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1920**	**B**	25.0	1.98	mg/Kg			02/21/24 09:19	5

Client Sample ID: SB-21-S-1'-240215

Lab Sample ID: 880-39545-5
Matrix: Solid
Date Collected: 02/15/24 14:40
Date Received: 02/19/24 09:05

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**358**	**B**	5.05	0.399	mg/Kg			02/21/24 09:26	1

Client Sample ID: SB-21-S-2'-240215

Lab Sample ID: 880-39545-6
Matrix: Solid
Date Collected: 02/15/24 14:50
Date Received: 02/19/24 09:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		02/26/24 08:31	02/26/24 20:38	1
Toluene	**0.00141**	**J**	0.00201	0.000458	mg/Kg		02/26/24 08:31	02/26/24 20:38	1
Ethylbenzene	**0.000867**	**J**	0.00201	0.000567	mg/Kg		02/26/24 08:31	02/26/24 20:38	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

Client Sample ID: SB-21-S-2'-240215

Lab Sample ID: 880-39545-6
Matrix: Solid
Date Collected: 02/15/24 14:50
Date Received: 02/19/24 09:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	0.00218	J	0.00402	0.00101	mg/Kg		02/26/24 08:31	02/26/24 20:38	1
o-Xylene	0.000791	J	0.00201	0.000345	mg/Kg		02/26/24 08:31	02/26/24 20:38	1
Xylenes, Total	0.00297	J	0.00402	0.00101	mg/Kg		02/26/24 08:31	02/26/24 20:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*138*	*S1+*	*70 - 130*	*02/26/24 08:31*	*02/26/24 20:38*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*02/26/24 08:31*	*02/26/24 20:38*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00525		0.00402	0.00101	mg/Kg			02/26/24 20:38	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	73.6		49.9	15.0	mg/Kg			02/21/24 23:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	45.6	J B	49.9	15.0	mg/Kg		02/20/24 11:29	02/21/24 23:02	1
Diesel Range Organics (Over C10-C28)	28.0	J	49.9	15.0	mg/Kg		02/20/24 11:29	02/21/24 23:02	1
OII Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		02/20/24 11:29	02/21/24 23:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*28*	*S1-*	*70 - 130*	*02/20/24 11:29*	*02/21/24 23:02*	*1*
o-Terphenyl	*21*	*S1-*	*70 - 130*	*02/20/24 11:29*	*02/21/24 23:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2630	B	24.9	1.97	mg/Kg			02/21/24 09:46	5

Client Sample ID: SB-22-S-1'-240215

Lab Sample ID: 880-39545-7
Matrix: Solid
Date Collected: 02/15/24 15:20
Date Received: 02/19/24 09:05

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	109	B	4.97	0.393	mg/Kg			02/21/24 09:53	1

Client Sample ID: SB-22-S-2'-240215

Lab Sample ID: 880-39545-8
Matrix: Solid
Date Collected: 02/15/24 15:30
Date Received: 02/19/24 09:05

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000388	U	0.00202	0.000388	mg/Kg		02/26/24 08:31	02/26/24 20:59	1
Toluene	0.000599	J	0.00202	0.000460	mg/Kg		02/26/24 08:31	02/26/24 20:59	1
Ethylbenzene	<0.000570	U	0.00202	0.000570	mg/Kg		02/26/24 08:31	02/26/24 20:59	1
m-Xylene & p-Xylene	<0.00102	U	0.00403	0.00102	mg/Kg		02/26/24 08:31	02/26/24 20:59	1
o-Xylene	0.000393	J	0.00202	0.000347	mg/Kg		02/26/24 08:31	02/26/24 20:59	1
Xylenes, Total	<0.00102	U	0.00403	0.00102	mg/Kg		02/26/24 08:31	02/26/24 20:59	1

Client Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

Client Sample ID: SB-22-S-2'-240215

Date Collected: 02/15/24 15:30
Date Received: 02/19/24 09:05

Lab Sample ID: 880-39545-8

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*02/26/24 08:31*	*02/26/24 20:59*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*02/26/24 08:31*	*02/26/24 20:59*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00403	0.00102	mg/Kg			02/26/24 20:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**72.1**		49.7	14.9	mg/Kg			02/21/24 23:25	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**46.9**	**J B**	49.7	14.9	mg/Kg		02/20/24 11:29	02/21/24 23:25	1
Diesel Range Organics (Over C10-C28)	**25.2**	**J**	49.7	14.9	mg/Kg		02/20/24 11:29	02/21/24 23:25	1
Oil Range Organics (Over C28-C36)	<14.9	U	49.7	14.9	mg/Kg		02/20/24 11:29	02/21/24 23:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*63*	*S1-*	*70 - 130*	*02/20/24 11:29*	*02/21/24 23:25*	*1*
o-Terphenyl	*60*	*S1-*	*70 - 130*	*02/20/24 11:29*	*02/21/24 23:25*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1680**	**B**	24.8	1.96	mg/Kg			02/21/24 09:59	5

Surrogate Summary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-39545-2	SB-19-S-2'-240215	107	96
880-39545-4	SB-20-S-2'-240215	135 S1+	102
880-39545-6	SB-21-S-2'-240215	138 S1+	98
880-39545-8	SB-22-S-2'-240215	119	103
LCS 880-73997/1-A	Lab Control Sample	118	99
LCSD 880-73997/2-A	Lab Control Sample Dup	135 S1+	101
MB 880-73997/5-A	Method Blank	125	110

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)
880-39545-2	SB-19-S-2'-240215	142 S1+	152 S1+
880-39545-2 MS	SB-19-S-2'-240215	74	68 S1-
880-39545-2 MSD	SB-19-S-2'-240215	74	68 S1-
880-39545-4	SB-20-S-2'-240215	113	120
880-39545-6	SB-21-S-2'-240215	28 S1-	21 S1-
880-39545-8	SB-22-S-2'-240215	63 S1-	60 S1-
LCS 880-73653/2-A	Lab Control Sample	88	88
LCSD 880-73653/3-A	Lab Control Sample Dup	88	87
MB 880-73653/1-A	Method Blank	148 S1+	159 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-73997/5-A
Matrix: Solid
Analysis Batch: 73994

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73997

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		02/26/24 08:31	02/26/24 14:28	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		02/26/24 08:31	02/26/24 14:28	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		02/26/24 08:31	02/26/24 14:28	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		02/26/24 08:31	02/26/24 14:28	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		02/26/24 08:31	02/26/24 14:28	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		02/26/24 08:31	02/26/24 14:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*02/26/24 08:31*	*02/26/24 14:28*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*02/26/24 08:31*	*02/26/24 14:28*	*1*

Lab Sample ID: LCS 880-73997/1-A
Matrix: Solid
Analysis Batch: 73994

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73997

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1132		mg/Kg		113	70 - 130
Toluene	0.100	0.1070		mg/Kg		107	70 - 130
Ethylbenzene	0.100	0.1069		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	0.200	0.1889		mg/Kg		94	70 - 130
o-Xylene	0.100	0.1042		mg/Kg		104	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-73997/2-A
Matrix: Solid
Analysis Batch: 73994

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73997

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1119		mg/Kg		112	70 - 130	1	35
Toluene	0.100	0.1024		mg/Kg		102	70 - 130	4	35
Ethylbenzene	0.100	0.1185		mg/Kg		118	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.2601		mg/Kg		130	70 - 130	32	35
o-Xylene	0.100	0.1194		mg/Kg		119	70 - 130	14	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

QC Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

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

Lab Sample ID: MB 880-73653/1-A
Matrix: Solid
Analysis Batch: 73706

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 73653

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	21.68	J	50.0	15.0	mg/Kg		02/20/24 11:29	02/21/24 20:15	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		02/20/24 11:29	02/21/24 20:15	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		02/20/24 11:29	02/21/24 20:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*148*	*S1+*	*70 - 130*	*02/20/24 11:29*	*02/21/24 20:15*	*1*
o-Terphenyl	*159*	*S1+*	*70 - 130*	*02/20/24 11:29*	*02/21/24 20:15*	*1*

Lab Sample ID: LCS 880-73653/2-A
Matrix: Solid
Analysis Batch: 73706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 73653

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	944.0		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	979.2		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*88*		*70 - 130*

Lab Sample ID: LCSD 880-73653/3-A
Matrix: Solid
Analysis Batch: 73706

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 73653

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	964.6		mg/Kg		96	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	984.1		mg/Kg		98	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Lab Sample ID: 880-39545-2 MS
Matrix: Solid
Analysis Batch: 73706

Client Sample ID: SB-19-S-2'-240215
Prep Type: Total/NA
Prep Batch: 73653

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	46.3	J B	1010	1101		mg/Kg		105	70 - 130		
Diesel Range Organics (Over C10-C28)	31.9	J F1	1010	665.3	F1	mg/Kg		63	70 - 130		

QC Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

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

Lab Sample ID: 880-39545-2 MS
Matrix: Solid
Analysis Batch: 73706

Client Sample ID: SB-19-S-2'-240215
Prep Type: Total/NA
Prep Batch: 73653

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*74*		*70 - 130*
o-Terphenyl	*68*	*S1-*	*70 - 130*

Lab Sample ID: 880-39545-2 MSD
Matrix: Solid
Analysis Batch: 73706

Client Sample ID: SB-19-S-2'-240215
Prep Type: Total/NA
Prep Batch: 73653

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	46.3	J B	1010	1113		mg/Kg		106	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	31.9	J F1	1010	661.7	F1	mg/Kg		63	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*74*		*70 - 130*
o-Terphenyl	*68*	*S1-*	*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-73613/1-A
Matrix: Solid
Analysis Batch: 73695

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.232		5.00	0.395	mg/Kg			02/21/24 08:25	1

Lab Sample ID: LCS 880-73613/2-A
Matrix: Solid
Analysis Batch: 73695

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	237.8		mg/Kg		95	90 - 110		

Lab Sample ID: LCSD 880-73613/3-A
Matrix: Solid
Analysis Batch: 73695

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	237.2		mg/Kg		95	90 - 110	0	20

Lab Sample ID: 880-39545-1 MS
Matrix: Solid
Analysis Batch: 73695

Client Sample ID: SB-19-S-1'-240215
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	79.6	B F1	249	290.9	F1	mg/Kg		85	90 - 110		

QC Sample Results

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-39545-1 MSD
Matrix: Solid
Analysis Batch: 73695

Client Sample ID: SB-19-S-1'-240215
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	79.6	B F1	249	293.8	F1	mg/Kg		86	90 - 110	1	20

QC Association Summary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

GC VOA

Analysis Batch: 73994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39545-2	SB-19-S-2'-240215	Total/NA	Solid	8021B	73997
880-39545-4	SB-20-S-2'-240215	Total/NA	Solid	8021B	73997
880-39545-6	SB-21-S-2'-240215	Total/NA	Solid	8021B	73997
880-39545-8	SB-22-S-2'-240215	Total/NA	Solid	8021B	73997
MB 880-73997/5-A	Method Blank	Total/NA	Solid	8021B	73997
LCS 880-73997/1-A	Lab Control Sample	Total/NA	Solid	8021B	73997
LCSD 880-73997/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	73997

Prep Batch: 73997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39545-2	SB-19-S-2'-240215	Total/NA	Solid	5030B	
880-39545-4	SB-20-S-2'-240215	Total/NA	Solid	5030B	
880-39545-6	SB-21-S-2'-240215	Total/NA	Solid	5030B	
880-39545-8	SB-22-S-2'-240215	Total/NA	Solid	5030B	
MB 880-73997/5-A	Method Blank	Total/NA	Solid	5030B	
LCS 880-73997/1-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 880-73997/2-A	Lab Control Sample Dup	Total/NA	Solid	5030B	

Analysis Batch: 74157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39545-2	SB-19-S-2'-240215	Total/NA	Solid	Total BTEX	
880-39545-4	SB-20-S-2'-240215	Total/NA	Solid	Total BTEX	
880-39545-6	SB-21-S-2'-240215	Total/NA	Solid	Total BTEX	
880-39545-8	SB-22-S-2'-240215	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 73653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39545-2	SB-19-S-2'-240215	Total/NA	Solid	8015NM Prep	
880-39545-4	SB-20-S-2'-240215	Total/NA	Solid	8015NM Prep	
880-39545-6	SB-21-S-2'-240215	Total/NA	Solid	8015NM Prep	
880-39545-8	SB-22-S-2'-240215	Total/NA	Solid	8015NM Prep	
MB 880-73653/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-73653/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-73653/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-39545-2 MS	SB-19-S-2'-240215	Total/NA	Solid	8015NM Prep	
880-39545-2 MSD	SB-19-S-2'-240215	Total/NA	Solid	8015NM Prep	

Analysis Batch: 73706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39545-2	SB-19-S-2'-240215	Total/NA	Solid	8015B NM	73653
880-39545-4	SB-20-S-2'-240215	Total/NA	Solid	8015B NM	73653
880-39545-6	SB-21-S-2'-240215	Total/NA	Solid	8015B NM	73653
880-39545-8	SB-22-S-2'-240215	Total/NA	Solid	8015B NM	73653
MB 880-73653/1-A	Method Blank	Total/NA	Solid	8015B NM	73653
LCS 880-73653/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	73653
LCSD 880-73653/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	73653
880-39545-2 MS	SB-19-S-2'-240215	Total/NA	Solid	8015B NM	73653
880-39545-2 MSD	SB-19-S-2'-240215	Total/NA	Solid	8015B NM	73653

QC Association Summary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

GC Semi VOA

Analysis Batch: 73839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39545-2	SB-19-S-2'-240215	Total/NA	Solid	8015 NM	
880-39545-4	SB-20-S-2'-240215	Total/NA	Solid	8015 NM	
880-39545-6	SB-21-S-2'-240215	Total/NA	Solid	8015 NM	
880-39545-8	SB-22-S-2'-240215	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 73613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39545-1	SB-19-S-1'-240215	Soluble	Solid	DI Leach	
880-39545-2	SB-19-S-2'-240215	Soluble	Solid	DI Leach	
880-39545-3	SB-20-S-1'-240215	Soluble	Solid	DI Leach	
880-39545-4	SB-20-S-2'-240215	Soluble	Solid	DI Leach	
880-39545-5	SB-21-S-1'-240215	Soluble	Solid	DI Leach	
880-39545-6	SB-21-S-2'-240215	Soluble	Solid	DI Leach	
880-39545-7	SB-22-S-1'-240215	Soluble	Solid	DI Leach	
880-39545-8	SB-22-S-2'-240215	Soluble	Solid	DI Leach	
MB 880-73613/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-73613/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-73613/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-39545-1 MS	SB-19-S-1'-240215	Soluble	Solid	DI Leach	
880-39545-1 MSD	SB-19-S-1'-240215	Soluble	Solid	DI Leach	

Analysis Batch: 73695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-39545-1	SB-19-S-1'-240215	Soluble	Solid	300.0	73613
880-39545-2	SB-19-S-2'-240215	Soluble	Solid	300.0	73613
880-39545-3	SB-20-S-1'-240215	Soluble	Solid	300.0	73613
880-39545-4	SB-20-S-2'-240215	Soluble	Solid	300.0	73613
880-39545-5	SB-21-S-1'-240215	Soluble	Solid	300.0	73613
880-39545-6	SB-21-S-2'-240215	Soluble	Solid	300.0	73613
880-39545-7	SB-22-S-1'-240215	Soluble	Solid	300.0	73613
880-39545-8	SB-22-S-2'-240215	Soluble	Solid	300.0	73613
MB 880-73613/1-A	Method Blank	Soluble	Solid	300.0	73613
LCS 880-73613/2-A	Lab Control Sample	Soluble	Solid	300.0	73613
LCSD 880-73613/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	73613
880-39545-1 MS	SB-19-S-1'-240215	Soluble	Solid	300.0	73613
880-39545-1 MSD	SB-19-S-1'-240215	Soluble	Solid	300.0	73613

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

Client Sample ID: SB-19-S-1'-240215
Date Collected: 02/15/24 13:00
Date Received: 02/19/24 09:05

Lab Sample ID: 880-39545-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	73613	02/20/24 08:47	SA	EET MID
Soluble	Analysis	300.0		1			73695	02/21/24 08:45	CH	EET MID

Client Sample ID: SB-19-S-2'-240215
Date Collected: 02/15/24 13:10
Date Received: 02/19/24 09:05

Lab Sample ID: 880-39545-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.00 g	5 mL	73997	02/26/24 08:31	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73994	02/26/24 19:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74157	02/26/24 19:57	SM	EET MID
Total/NA	Analysis	8015 NM		1			73839	02/21/24 21:26	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73653	02/20/24 11:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73706	02/21/24 21:26	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	73613	02/20/24 08:47	SA	EET MID
Soluble	Analysis	300.0		1			73695	02/21/24 09:05	CH	EET MID

Client Sample ID: SB-20-S-1'-240215
Date Collected: 02/15/24 13:40
Date Received: 02/19/24 09:05

Lab Sample ID: 880-39545-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	73613	02/20/24 08:47	SA	EET MID
Soluble	Analysis	300.0		1			73695	02/21/24 09:12	CH	EET MID

Client Sample ID: SB-20-S-2'-240215
Date Collected: 02/15/24 13:50
Date Received: 02/19/24 09:05

Lab Sample ID: 880-39545-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.02 g	5 mL	73997	02/26/24 08:31	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73994	02/26/24 20:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74157	02/26/24 20:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			73839	02/21/24 22:38	SM	EET MID
Total/NA	Prep	8015NM Prep			9.97 g	10 mL	73653	02/20/24 11:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73706	02/21/24 22:38	SM	EET MID
Soluble	Leach	DI Leach			5.00 g	50 mL	73613	02/20/24 08:47	SA	EET MID
Soluble	Analysis	300.0		5			73695	02/21/24 09:19	CH	EET MID

Lab Chronicle

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

Client Sample ID: SB-21-S-1'-240215

Lab Sample ID: 880-39545-5
Matrix: Solid
Date Collected: 02/15/24 14:40
Date Received: 02/19/24 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	73613	02/20/24 08:47	SA	EET MID
Soluble	Analysis	300.0		1			73695	02/21/24 09:26	CH	EET MID

Client Sample ID: SB-21-S-2'-240215

Lab Sample ID: 880-39545-6
Matrix: Solid
Date Collected: 02/15/24 14:50
Date Received: 02/19/24 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.98 g	5 mL	73997	02/26/24 08:31	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73994	02/26/24 20:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74157	02/26/24 20:38	SM	EET MID
Total/NA	Analysis	8015 NM		1			73839	02/21/24 23:02	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	73653	02/20/24 11:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73706	02/21/24 23:02	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	73613	02/20/24 08:47	SA	EET MID
Soluble	Analysis	300.0		5			73695	02/21/24 09:46	CH	EET MID

Client Sample ID: SB-22-S-1'-240215

Lab Sample ID: 880-39545-7
Matrix: Solid
Date Collected: 02/15/24 15:20
Date Received: 02/19/24 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	73613	02/20/24 08:47	SA	EET MID
Soluble	Analysis	300.0		1			73695	02/21/24 09:53	CH	EET MID

Client Sample ID: SB-22-S-2'-240215

Lab Sample ID: 880-39545-8
Matrix: Solid
Date Collected: 02/15/24 15:30
Date Received: 02/19/24 09:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			4.96 g	5 mL	73997	02/26/24 08:31	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	73994	02/26/24 20:59	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			74157	02/26/24 20:59	SM	EET MID
Total/NA	Analysis	8015 NM		1			73839	02/21/24 23:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.06 g	10 mL	73653	02/20/24 11:29	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	73706	02/21/24 23:25	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	73613	02/20/24 08:47	SA	EET MID
Soluble	Analysis	300.0		5			73695	02/21/24 09:59	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-23-26	06-30-24

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

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

Method Summary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	EPA	EET MID
5030B	Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: ARCADIS US Inc
Project/Site: WLU 23

Job ID: 880-39545-1
SDG: Lovington NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-39545-1	SB-19-S-1'-240215	Solid	02/15/24 13:00	02/19/24 09:05
880-39545-2	SB-19-S-2'-240215	Solid	02/15/24 13:10	02/19/24 09:05
880-39545-3	SB-20-S-1'-240215	Solid	02/15/24 13:40	02/19/24 09:05
880-39545-4	SB-20-S-2'-240215	Solid	02/15/24 13:50	02/19/24 09:05
880-39545-5	SB-21-S-1'-240215	Solid	02/15/24 14:40	02/19/24 09:05
880-39545-6	SB-21-S-2'-240215	Solid	02/15/24 14:50	02/19/24 09:05
880-39545-7	SB-22-S-1'-240215	Solid	02/15/24 15:20	02/19/24 09:05
880-39545-8	SB-22-S-2'-240215	Solid	02/15/24 15:30	02/19/24 09:05

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

Chain of Custody Record

880-39545 Chain of Custody

Client Information	Sampler: Heath Boyd	Lab PM: Builes, John	Carrier Tracking No:	Page: ~~Page 14 of 14~~ 1 of 1
Client Contact: Mr Morgan Jordan	Phone: 575-942-0292	E-Mail: John.Builes@et.eurofinsus.com	State of Origin: NM	
Company: ARCADIS US Inc	PWSID:			Job #:
Address: 1004 North Big Spring Suite 300	Due Date Requested:			
City: Midland	TAT Requested (days): Standard			
State, Zip: TX, 79701	Compliance Project: Δ Yes Δ No			
Phone: 281-644-9437(Tel)	PO #: Purchase Order Requested			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: WLH 23	Project #: ~~88002020~~ 30209652			
Site: Lovington, NM	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D, 8015MOD_NM, 8021B	300_ORGFM_28D	Total Number of containers	Special Instructions/Note:
		Preservation Code:					N			
SB-19-S-1'-240215	2/15/24	1300	G	Solid				X		
SB-19-S-2'-240215		1310					X	X		
SB-20-S-1'-240215		1340						X		
SB-20-S-2'-240215		1350					X	X		
SB-21-S-1'-240215		1440						X		
SB-21-S-2'-240215		1450					X	X		
SB-22-S-1'-240215		1520						X		
SB-22-S-2'-240215	X	1530	X	X			X	X		

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: 2/16/24 1545	Company: Arcadis	Received by: Dalley Gonzales	Date/Time: 2/19/24	Company
Relinquished by: Dalley Gonzales	Date/Time:	Company	Received by:	Date/Time: 905	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: 3.0 | 2.9

Login Sample Receipt Checklist

Client: ARCADIS US Inc

Job Number: 880-39545-1
SDG Number: Lovington NM

Login Number: 39545
List Number: 1
Creator: Rodriguez, Leticia

List Source: Eurofins Midland

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

Appendix F

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
M +1 281 725 7477
www.arcadis.com

Reduce your footprint.
Please consider the environment before printing this email

This email and any files transmitted with it are the property of Arcadis and its affiliates. All rights, including without limitation copyright, are reserved. This email contains information that may be confidential and may also be privileged. It is for the exclusive use of the intended recipient(s). If you are not an intended recipient, please note that any form of distribution, copying or use of this communication or the information in it is strictly prohibited and may be unlawful. If you have received this communication in error, please return it to the sender and then delete the email and destroy any copies of it. While reasonable precautions have been taken to ensure that no software or viruses are present in our emails, we cannot guarantee that this email or any attachment is virus free or has not been intercepted or changed. Any opinions or other information in this email that do not relate to the official business of Arcadis are neither given nor endorsed by it.

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

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

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

QUESTIONS

Action 366453

QUESTIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 366453
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nLWJ1016954547**
Incident Name	**NLWJ1016954547 WEST LOVINGTON UNIT EAST TEST SATELLITE @ 30-025-03873**
Incident Type	**Produced Water Release**
Incident Status	**Remediation Plan Received**
Incident Well	**[30-025-03873] WEST LOVINGTON UNIT #023**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	WEST LOVINGTON UNIT EAST TEST SATELLITE
Date Release Discovered	06/10/2010
Surface Owner	State

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

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Equipment Failure | Flow Line - Injection | Produced Water | Released: 7 BBL | Recovered: 5 BBL | Lost: 2 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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

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

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 366453
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

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

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

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

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

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
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: 366453
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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)	3260
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	618
GRO+DRO (EPA SW-846 Method 8015M)	104
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	08/23/2024
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)	09/23/2024
What is the estimated surface area (in square feet) that will be reclaimed	10500
What is the estimated volume (in cubic yards) that will be reclaimed	800
What is the estimated surface area (in square feet) that will be remediated	10500
What is the estimated volume (in cubic yards) that will be remediated	800
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.	

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

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

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 366453
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

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	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	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.	

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

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

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 366453
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

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

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

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

QUESTIONS (continued)

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 366453
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	***{Unavailable.}***

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	No

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

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

CONDITIONS

Action 366453

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 366453
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Remediation plan approved.	7/29/2024
amaxwell	Submit remediation closure report via the OCD permitting portal by December 2, 2024.	7/29/2024