Armando Martinez
Operations Lead, Portfolio Operations Central

May 20, 2021

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

Re: 2021 Soil Assessment Report – WL Well 41
Case No. 1RP-2446
Lea County, New Mexico

Dear Bradford Billings:

Chevron Environmental Management Company (CEMC) submits herein the *2021 Soil Assessment Report* for 1RP-2446, WL Well 41. The Site is located approximately 6.44 miles southwest of Lovington, in Unit B, Section 7, Township 17 South, Range 36 East, Lea County, New Mexico. The Report was prepared by Arcadis U.S., Inc. (Arcadis), on behalf of CEMC. Based on the 2021 soil investigation data, additional assessment activities will be evaluated, and a proposed scope will be included in a Work Plan for review and approval to further delineate chloride impact in soil.

If you have any questions regarding this submittal, please contact Scott Foord of Arcadis at (713) 953-4853 or me at (505) 690 5408.

Respectfully,

Armando Martinez

Encl. 2021 Soil Assessment Report – WL Well 41

Armando Martinez
Operations Lead Central
Portfolio Operations - Central
354 State Highway 38, Questa, NM 87556-0469
Tel 575 586 7639 Mobile 505 690 5408 Fax 575 586 0811
amarti@chevron.com

ARCADIS

Chevron Environmental Management Company

2021 Soil Assessment Report

WL Well 41
Case No. 1RP-2446

May 2021

2021 Soil Assessment Report

WL Well 41
Case No. 1RP-2446

May 2021

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

Prepared For:
Armando Martinez
Operations Lead Central
Chevron Environmental Management Company
P.O. Box 469
Questa, New Mexico 87556

Our Ref:
30064856

Morgan Jordan
Task Manager

Scott Foord, PG
Certified Project Manager

Contents

Tables

Figures

Appendices

1 Introduction

Arcadis U.S., Inc. (Arcadis) prepared this Site Assessment Report (Report), on behalf of Chevron Environmental Management Company (CEMC), summarizing the soil assessment activities conducted for the WL Well 41 (Site).

2 Project Summary

The Site is located approximately 6.44 miles southwest of Lovington, in Unit B, Section 7, Township 17 South, Range 36 East, Lea County, New Mexico. A site location map is included as **Figure 1**.

On March 27, 2009, an injection line leaked below ground releasing approximately 20 barrels (bbls) of produced water. The Initial C-141 Form stated water pooled on the surface and that a vacuum truck recovered approximately 14 bbls of produced water. According to the New Mexico Office of the State Engineers (NMOSE) database, there is a water well approximately 0.72 miles west of the Site with a depth to groundwater 80 feet (ft) below ground surface (bgs). The Initial C-141 Form for this release was submitted to the New Mexico Oil Conservation Division (NMOCD) on April 2, 2009 and approved by NMOCD on March 8, 2010. The release was assigned remediation permit number 1RP-2446. The Initial C-141 Form for this release is included in **Appendix A.**

3 2021 Soil Assessment

On January 14-15, 2021, Arcadis personnel collected soil samples from eight locations (SB-1 through SB-8) within the release area. The sample locations were determined based on information obtained by Arcadis from the Initial C-141 Forms and from Chevron personnel familiar with the release location associated with remediation permit number 1RP-2446. The soil samples were collected with a hand auger at depths ranging from the surface to approximately 6 ft bgs. Hand auger refusal was encountered within most boring locations. Each boring location was backfilled with the remaining excavated soil. Soils were characterized and logged by a field geologist based on the Unified Soil Classification System (USCS), including texture, structure, and consistency at each sample location from surface to refusal depths encountered within each boring. Boring logs for borings advanced deeper than 2 ft bgs are included in **Appendix B**. A photograph log is presented in **Appendix C**. Sample containers (4 oz. soil jars) were supplied by Eurofins Xenco Laboratories, and samples were collected and placed on ice for delivery to Eurofins Xenco Laboratories in Midland, Texas for analysis.

The soil samples were analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) by United States Protection Agency (USEPA) Method 8021B;
- Total Petroleum Hydrocarbons (TPH) as gasoline range organic (TPH-GRO) by USEPA Method 8015;
- TPH as diesel range organic (TPH-DRO) by USEPA Method 8015;
- TPH as motor oil range organic (TPH-MRO) by USEPA Method 8015; and
- Chloride by USEPA Method 300.

4 Soil Analytical Results

The soil analytical results were compared to the revised New Mexico Administration Code (NMAC) screening levels for BTEX, TPH, and chloride for depth to groundwater between 51 and 100 ft bgs (revised Rule 19.15.29). A summary of the soil sample analytical results is presented in **Table 1**. Copies of the certified analytical reports and chain-of-custody documentation from Eurofins Xenco are presented in **Appendix D**. The soil analytical map is presented in **Figure 3**.

4.1 BTEX

- Benzene concentrations were reported below the NMAC standard of 10 milligrams per kilogram (mg/kg) at all sample locations.
- Total BTEX concentrations were reported below the NMAC standard of 50 mg/kg at all sample locations.

4.2 TPH

- TPH (GRO + DRO) concentrations were reported below the NMAC standard of 1,000 mg/kg at all sample locations.
- Total TPH (GRO + DRO + MRO) concentrations were reported below the NMAC standard of 2,500 mg/kg at all sample locations.

4.3 Chloride

- Chloride concentrations were reported below the revised Rule 19.15.29 screening limit of 10,000 mg/kg at all sample locations. However, concentrations did exceed the revised Rule (19.15.29.13) restoration screening criteria of 600 mg/kg within the top 4 feet bgs of the soil column at four sample locations (SB-1, SB-2, SB-3, and SB-5).
    - SB-1
        - (0 – 0.5 ft) at 1,090 mg/kg
        - (1 – 2 ft) at 2,140 mg/kg
        - (3 – 3.5 ft) at 1,230 mg/kg
    - SB-2
        - (0 – 0.5 ft) at 6,150 mg/kg
        - (1 – 2 ft) at 4,220 mg/kg
        - (3 – 3.5 ft) at 3,790 mg/kg

- SB-3
  - (0 – 0.5 ft) at 4,610 mg/kg
  - (1 – 2 ft) at 1,110 mg/kg
- SB-5
  - (0 – 0.5 ft) at 2,710 mg/kg

5 Conclusion

Analytical results associated with the recent assessment activities indicate that concentrations of chloride above the restoration screening criteria of 600 mg/kg within the top 4 feet bgs of the soil column are present in surface and shallow soil in the vicinity of SB-1, SB-2, SB-3, and SB-5. Based upon the findings presented in this report, additional soil assessment activities are recommended to further delineate the chloride impact in soil at the Site. The revised C-141 Form is presented in **Appendix E**.

Tables

Table 1
2021 Soil Analytical Results
Chevron Environmental Management Company
WL Well 41
Lea County, New Mexico

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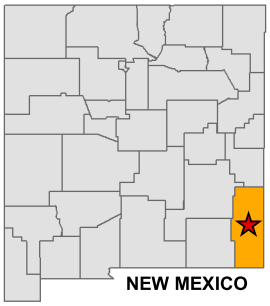
Sample I.D. No.	Sample Depth (feet bgs)	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	TPH-GRO	TPH-DRO	Total GRO/DRO	TPH-MRO	Total TPH	Chloride
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NMAC Standards			**10**	**--**	**--**	**--**	**50**	**--**	**--**	**1,000**	**--**	**2,500**	**10,000**
Restoration Requirements													**600***
SB-1	0-0.5'	01/14/21	<0.000385	<0.000456	<0.000565	<0.000344	<0.000344	<15.0	<15.0	<15.0	<15.0	<15.0	**1,090**
	1'-2'	01/14/21	<0.000386	<0.000457	<0.000566	<0.000345	<0.000345	<15.0	<15.0	<15.0	<15.0	<15.0	**2,140**
	3'-3.5'	01/14/21	<0.000384	<0.000455	<0.000564	<0.000344	<0.000344	<15.0	<15.0	<15.0	<15.0	<15.0	**1,230**
SB-2	0-0.5'	01/14/21	<0.000386	<0.000457	<0.000567	<0.000346	<0.000346	<15.0	38.8 J	38.8 J	<15.0	38.8 J	**6,150**
	1'-2'	01/14/21	<0.000381	<0.000451	<0.000559	<0.000341	<0.000341	<15.0	59.8	59.8	21.8 J	81.6	**4,220**
	3'-3.5'	01/14/21	<0.000383	<0.000454	<0.000563	<0.000343	<0.000343	<15.0	30.3 J	30.3 J	<15.0	30.3 J	**3,790**
SB-3	0-0.5'	01/14/21	<0.000383	<0.000454	<0.000563	<0.000343	<0.000343	17.9 J	26.9 J	44.8 J	<15.0	44.8 J	**4,610**
	1'-2'	01/14/21	<0.000385	<0.000456	<0.000565	<0.000344	<0.000344	16.9 J	56.0	72.9 J	22.2 J	95.1	**1,110**
SB-4	0-0.5'	01/14/21	<0.000387	<0.000458	<0.000568	<0.000346	<0.000346	<15.0	27.0 J	27.0 J	15.0 J	42.0 J	18.2
	1'-2'	01/14/21	<0.000386	<0.000457	<0.000566	<0.000345	<0.000345	16.0 J	139	155 J	80.9	236	9.06
	3'-4'	01/14/21	<0.000383	<0.000453	<0.000561	<0.000342	<0.000342	16.8 J	59.1	75.9 J	39.9 J	116	19.4
DUP (SB-4)	1'-2'	01/14/21	<0.000389	<0.000460	<0.000570	<0.000348	<0.000348	<15.0	125	125	69.8	195	9.97
SB-5	0-0.5'	01/15/21	<0.000389	<0.000460	<0.000570	<0.000348	<0.000348	<15.0	39.9 J	39.9 J	16.9 J	56.8	**2,710**
SB-6	0-0.5'	01/15/21	<0.000383	<0.000453	<0.000561	<0.000342	<0.000342	<15.0	116	116	76.6	193	29.6
	1'-2'	01/15/21	<0.000385	<0.000456	<0.000565	<0.000344	<0.000344	<14.9	<14.9	<14.9	<14.9	<14.9	9.21
	3'-4'	01/15/21	<0.000384	<0.000455	<0.000564	<0.000344	<0.000344	16.4 J	<15.0	16.4 J	<15.0	16.4 J	36.5
	5'-6'	01/15/21	<0.000382	<0.000452	<0.000560	<0.000342	<0.000342	<15.0	<15.0	<15.0	<15.0	<15.0	80.6
SB-7	0-0.5'	01/15/21	<0.000381	<0.000451	<0.000559	<0.000341	<0.000341	<15.0	20.5 J	20.5 J	<15.0	20.5 J	37.0
	1'-2'	01/15/21	<0.000388	<0.000459	<0.000569	<0.000347	<0.000347	<15.0	<15.0	<15.0	<15.0	<15.0	12.9
	3'-4'	01/15/21	<0.000383	<0.000453	<0.000561	<0.000342	<0.000342	<15.0	<15.0	<15.0	<15.0	<15.0	300
	5'-5.5'	01/15/21	<0.000384	<0.000455	<0.000564	<0.000344	<0.000344	<14.9	<14.9	<14.9	<14.9	<14.9	832
SB-8	0-0.5'	01/15/21	<0.000382	<0.000452	<0.000560	<0.000342	<0.000342	<15.0	<15.0	<15.0	<15.0	<15.0	69.4
	1'-2'	01/15/21	<0.000383	<0.000453	<0.000561	<0.000342	<0.000342	<15.0	<15.0	<15.0	<15.0	<15.0	66.4
	3'-4'	01/15/21	<0.000381	<0.000451	<0.000559	<0.000341	<0.000341	<15.0	17.1 J	17.1 J	<15.0	17.1 J	374

Notes:
BOLD = Analytes exceeding NMAC standards and restoration requirements for Chloride
'<' indicates the analyte was not detected at or above the Method Detection Limit (MDL)
J = The target analyte was positively identified below the quantitation limit and above the detection limit.
DUP : Duplicate sample
mg/kg: Milligram per Kilogram
" ' " : Indicates feet
BTEX : Benzene, Toluene, Ethylbenzene, and Total Xylenes
NMAC : New Mexico Administration Code
TPH GRO: Total Petroleum Hydrocarbons Gasoline Range Organics
TPH MRO: Total Petroleum 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
1. Chloride analyzed by United States Environmental Protection Agency (USEPA) Method 300.0
2. TPH analyzed by USEPA Method SW8015 Mod DRO/ORO
3. BTEX analyzed by USEPA Method 8012B
4. Closure Criteria New Mexico Administrative Code 19.15.29.12.E(2)

Figures



N

NOTES:
1. Datum: D_WGS_1984
2. Site Location: 32.854764, -103.391948

Chevron Environmental Management Company
WL Well 41
Lea County, New Mexico

SITE LOCATION MAP

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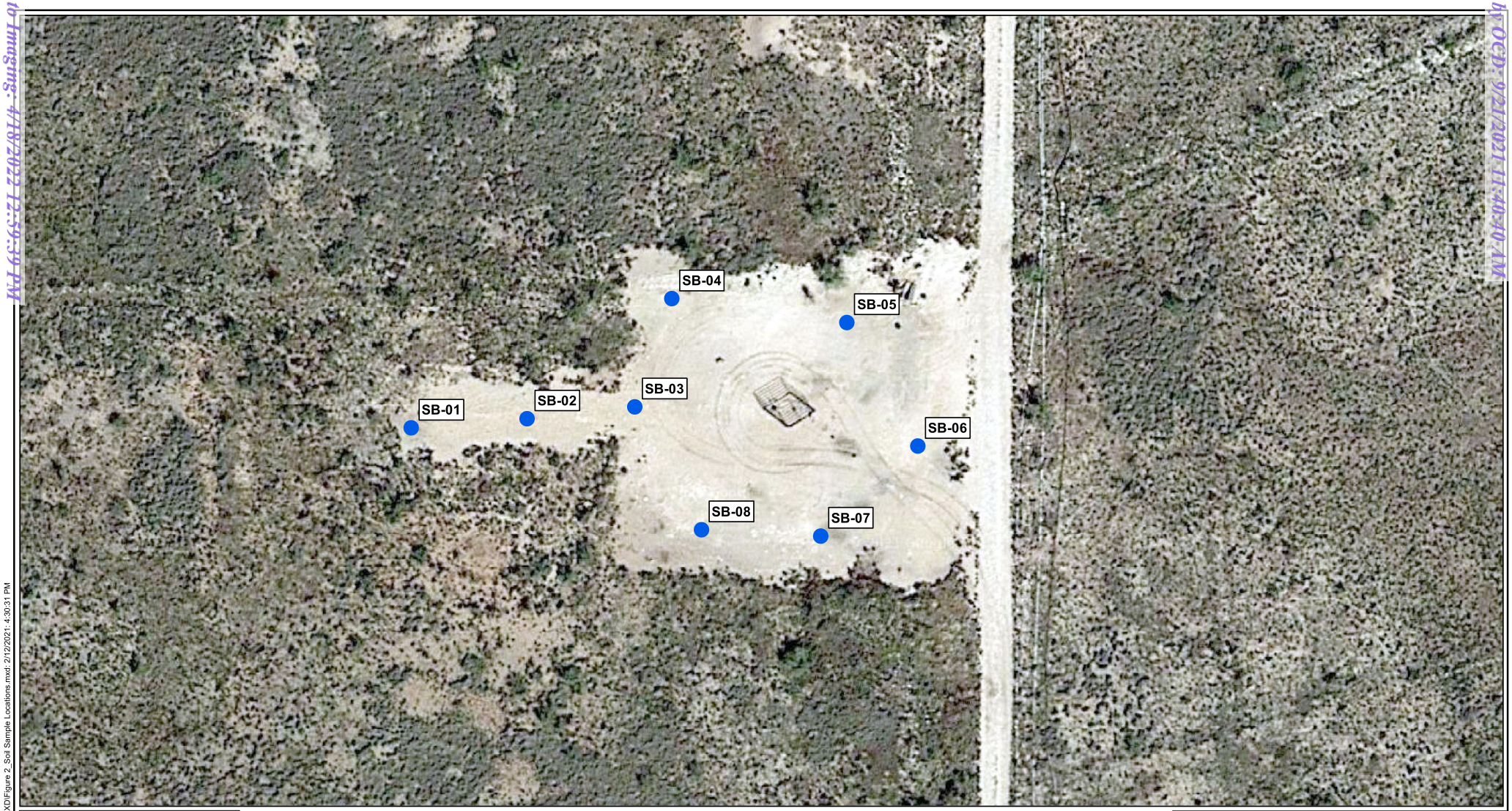
FIGURE
1

P:\: T:_ENV\Chevron\Chevron_WL Well 41\MXD\Figure 1_Site Location Map.mxd: 2/12/2021: 12:46:26 PM



LEGEND:

- Soil Sample Locations

NOTES:
1. Datum: GCS_WGS_1984
2. Site Location: 32.854764, -103.391948

N

0 25 50 100 Feet

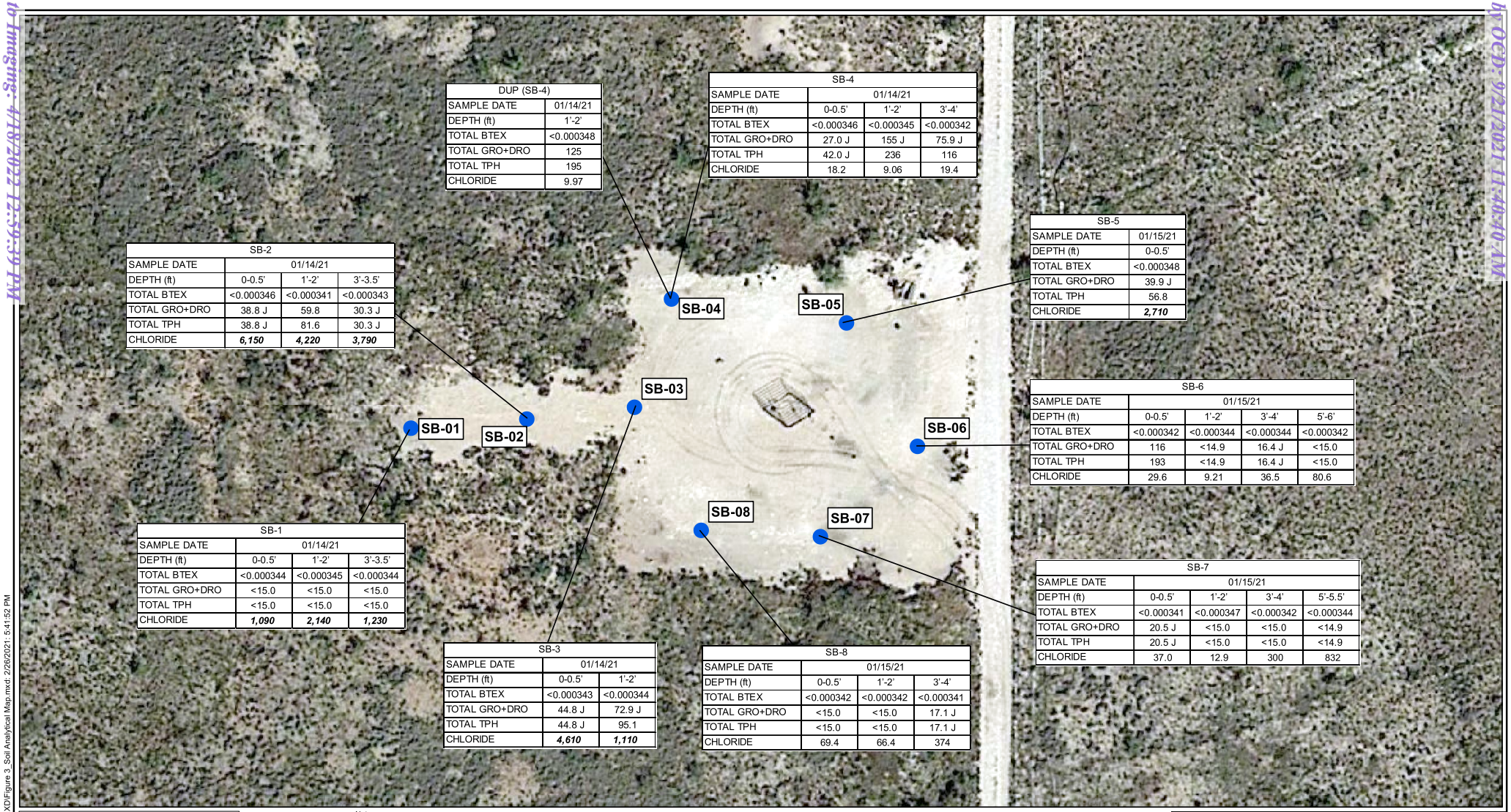
Chevron Environmental Management Company
WL Well 41
Lea County, New Mexico

SOIL SAMPLE LOCATIONS MAP

ARCADIS

FIGURE
2

Path: T:_ENV\Chevron\Chevron_WL Well 41\MXD\Figure 2_Soil Sample Locations.mxd: 2/12/2021 4:30:31 PM



DUP (SB-4)	
SAMPLE DATE	01/14/21
DEPTH (ft)	1'-2'
TOTAL BTEX	<0.000348
TOTAL GRO+DRO	125
TOTAL TPH	195
CHLORIDE	9.97

SB-4			
SAMPLE DATE	01/14/21		
DEPTH (ft)	0-0.5'	1'-2'	3'-4'
TOTAL BTEX	<0.000346	<0.000345	<0.000342
TOTAL GRO+DRO	27.0 J	155 J	75.9 J
TOTAL TPH	42.0 J	236	116
CHLORIDE	18.2	9.06	19.4

SB-2			
SAMPLE DATE	01/14/21		
DEPTH (ft)	0-0.5'	1'-2'	3'-3.5'
TOTAL BTEX	<0.000346	<0.000341	<0.000343
TOTAL GRO+DRO	38.8 J	59.8	30.3 J
TOTAL TPH	38.8 J	81.6	30.3 J
CHLORIDE	***6,150***	***4,220***	***3,790***

SB-5	
SAMPLE DATE	01/15/21
DEPTH (ft)	0-0.5'
TOTAL BTEX	<0.000348
TOTAL GRO+DRO	39.9 J
TOTAL TPH	56.8
CHLORIDE	***2,710***

SB-6				
SAMPLE DATE	01/15/21			
DEPTH (ft)	0-0.5'	1'-2'	3'-4'	5'-6'
TOTAL BTEX	<0.000342	<0.000344	<0.000344	<0.000342
TOTAL GRO+DRO	116	<14.9	16.4 J	<15.0
TOTAL TPH	193	<14.9	16.4 J	<15.0
CHLORIDE	29.6	9.21	36.5	80.6

SB-1			
SAMPLE DATE	01/14/21		
DEPTH (ft)	0-0.5'	1'-2'	3'-3.5'
TOTAL BTEX	<0.000344	<0.000345	<0.000344
TOTAL GRO+DRO	<15.0	<15.0	<15.0
TOTAL TPH	<15.0	<15.0	<15.0
CHLORIDE	***1,090***	***2,140***	***1,230***

SB-3		
SAMPLE DATE	01/14/21	
DEPTH (ft)	0-0.5'	1'-2'
TOTAL BTEX	<0.000343	<0.000344
TOTAL GRO+DRO	44.8 J	72.9 J
TOTAL TPH	44.8 J	95.1
CHLORIDE	***4,610***	***1,110***

SB-8			
SAMPLE DATE	01/15/21		
DEPTH (ft)	0-0.5'	1'-2'	3'-4'
TOTAL BTEX	<0.000342	<0.000342	<0.000341
TOTAL GRO+DRO	<15.0	<15.0	17.1 J
TOTAL TPH	<15.0	<15.0	17.1 J
CHLORIDE	69.4	66.4	374

SB-7				
SAMPLE DATE	01/15/21			
DEPTH (ft)	0-0.5'	1'-2'	3'-4'	5'-5.5'
TOTAL BTEX	<0.000341	<0.000347	<0.000342	<0.000344
TOTAL GRO+DRO	20.5 J	<15.0	<15.0	<14.9
TOTAL TPH	20.5 J	<15.0	<15.0	<14.9
CHLORIDE	37.0	12.9	300	832

LEGEND:

- Soil Sample Locations

NOTES:
1. Datum: GCS_WGS_1984
2. Site Location: 32.854764, -103.391948

Notes:
1. ***BOLD*** = *Analytes exceeding NMAC standards and restoration requirements for Chloride*
2. '<' Indicates the analyte was not detected at or above the Method Detection Limit (MDL).
3. J Indicates Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4. NMAC Indicates New Mexico Administration Code.
5. All values are in mg/kg (Milligram per Kilogram).
6. " ' " Indicates one foot.
7. BTEX Indicates Benzene, Toluene, Ethylbenzene, and Total Xylenes.
8. TPH GRO Indicates Total Petroleum Hydrocarbons Gasoline Range Organics.
9. TPH ORO Indicates Total Petroleum Hydrocarbons Oil Range Organics.
10. TPH DRO Indicates Total Petroleum Hydrocarbon Diesel Range Organics.
11. Total TPH = GRO + DRO + MRO
12. *Revised screening limit and restoration criteria within the first 4 feet below ground surface per Rule 19.15.29 effective August
13. Chloride analyzed by United States Environmental Protection Agency (USEPA) Method 300.
14. TPH analyzed by GRO/DRO/ORO Method SW8015.
15. BTEX analyzed by USEPA Method 8021B.
16. Closure Criteria New Mexico Administrative Code 17.15.29.12.E(2).

N

0 25 50 100 Feet

Chevron Environmental Management Company
WL Well 41
Lea County, New Mexico

SOIL ANALYTICAL RESULTS MAP

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FIGURE 3

Appendix A

Initial C-141 Forms - 1RP-2446

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 Well # 41	Facility Type Injection Well

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

LOCATION OF RELEASE

API# 30-025-03901-00-00

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	07	17 S	36 E	660	FNL	1980	FEL	Lea

Latitude N 32degree 51minutes 17.2seconds **Longitude** W 103degrees 23minutes 31seconds

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 20 bbl	Volume Recovered 14 bbl
Source of Release injection line	Date and Hour of Occurrence 3/27/09	Date and Hour of Discovery 3/27/09 7:30 AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD-	
By Whom? Larry Ridenour	Date and Hour 3/27/09 10:41 AM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

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

WATER @ 49'

Describe Cause of Problem and Remedial Action Taken.*

An injection line leaked below ground. Water pooled on the surface and a vacuum truck was immediately dispatched to recover the pooled water. A work order was completed to remove several inches of contaminated soil.

Describe Area Affected and Cleanup Action Taken.*

The Vacuum truck recovered 14 bbls of produced water. Surface soil will be removed with a backhoe. A plan will be developed and submitted for approval.

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:	OIL CONSERVATION DIVISION
Printed Name: Kim Klahsen	Approved by ~~District Supervisor~~ ENV ENGINEER: Geoffrey Leking
Title: HES Specialist	Approval Date: 03/08/10 Expiration Date: 05/10/10
E-mail Address: KDKL@chevron.com	Conditions of Approval: DELINEATE TO CLEAN +1. SUBMIT FINAL C-141 BY Attached ☐
Date: 4/2/09 Phone:575-396-4414	IRP-10-3-2446

fGRL1006730948

Appendix B

Boring Logs

Date Start/Finish: 1/14/2021 **Drilling Company:** Arcadis **Drilling Method:** Hand Auger **Sampling Method:** Hand Auger Grab	**Borehole Depth:** 3.25 **Surface Elevation:** N/A **Descriptions By:** Justin Steinmann	**Well/Boring ID:** SB-1 **Client:** Chevron **Location:** WL Well 41

DEPTH	Sample Interval	Geologic Column	Stratigraphic Description
0	0-0.5'		sandy clay 7.5YR 5/3 brown, clay, pliable, non-plastic, wet, with very fine sand, some, moderately to well sorted, subrounded, throughout. USCS - CL
1-2'			
			clayey sand, 10YR 7/3 very pale brown, very fine sand, well sorted, subrounded, with little silt, little to some clay, non-plastic, pliable, dry. USCS - SC
3-3.25'			
			End of boring 3.25' bgs. Refusal at 3.25' on caliche hardpan

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Remarks: Total Depth: 3.25' Below Ground Surface (bgs)

Project: 30064856 Template: LPTEMPLATE_HA_Final *Page: 1 of 1*
Data File: SB-1 Date: 2/11/2021 Created/Edited by: AD

Date Start/Finish: 1/14/2021 **Drilling Company:** Arcadis **Drilling Method:** Hand Auger **Sampling Method:** Hand Auger Grab	**Borehole Depth:** 3.25 **Surface Elevation:** N/A **Descriptions By:** Justin Steinmann	**Well/Boring ID:** SB-2 **Client:** Chevron **Location:** WL Well 41

DEPTH	Sample Interval	Geologic Column	Stratigraphic Description
0	0-0.5'		silty sand 7.5YR 5/3 brown, very fine to fine sand, moderately to well sorted, silty, loose to soft, wet, at 0.25' becoming dry, color change to 10YR 7/3 very pale brown, loose. USCS - SM
1	1-2'		
2			clayey sand, 10YR 6/3 pale brown, very fine sand, as above, well sorted, with silt being replaced by clay, pliable, non-plastic, throughout, soft to firm, dry. USCS - SC
3	3-3.25'		
			End of boring 3.25' bgs. Refusal at 3.25' on caliche

ARCADIS

Remarks: Total Depth: 3.25' Below Ground Surface (bgs)

Project: 30064856 Template: LPTEMPLATE_HA_Final

Data File: SB-2 Date: 2/11/2021 Created/Edited by: AD

Date Start/Finish: 1/14/2021 **Drilling Company:** Arcadis **Drilling Method:** Hand Auger **Sampling Method:** Hand Auger Grab	**Borehole Depth:** 4 **Surface Elevation:** N/A **Descriptions By:** Justin Steinmann	**Well/Boring ID:** SB-4 **Client:** Chevron **Location:** WL Well 41

DEPTH	Sample Interval	Geologic Column	Stratigraphic Description
0	0-0.5'		silty sand 7.5YR 5/3 brown sand, very fine, well sorted, subrounded, silty, with trace to little clay, wet becoming dry at 0.25', loose, color change to 10YR 6/3 pale brown. USCS - SM
1	1-2'		silty sand, as above, becoming firm to hard, dry, compact, moderately cemented. USCS - SM
2			silty sand 7.5YR 5/6 strong brown, fine to very fine sand, moderately sorted, silty, friable to firm, moderately cemented, calcareous, trace to little roots, little to some iron oxide staining and mottling throughout. USCS - SM
3			sandy clay, 5YR 5/4 reddish brown clay, moderately pliable, non-plastic, dry, hard, with very fine to fine sand throughout, calcareous, little to some roots. USCS - CL
4	3-4'		back to silty sand as 2.75-3', becoming loose. USCS - SM
5			End of boring 4' bgs. Refusal on caliche

Remarks: Total Depth: 4' Below Ground Surface (bgs)

Project: 30064856 Template: LPTEMPLATE_HA_Final Page: 1 of 1
Data File: SB-4 Date: 2/12/2021 Created/Edited by: AD

Date Start/Finish: 1/15/2021 **Drilling Company:** Arcadis **Drilling Method:** Hand Auger **Sampling Method:** Hand Auger Grab	**Borehole Depth:** 6 **Surface Elevation:** N/A **Descriptions By:** Justin Steinmann	**Well/Boring ID:** SB-6 **Client:** Chevron **Location:** WL Well 41

DEPTH	Sample Interval	Geologic Column	Stratigraphic Description
0	0-0.5'		silty sand 7.5YR 4/3 brown sand, very fine to fine, well sorted, subrounded, silty, loose, dry, trace to little clay appearing at 1' becoming loose to firm, at 2.5' color change to 10YR 7/3 very pale brown. USCS - SM
1	1-2'		
3	3-4'		sand 7.5YR 8/4 pink, very fine sand, well sorted, subrounded, silty, loose with little to some friable nodules, calcareous, poorly cemented, at 4' becoming firm to friable, at 5.5' little to some clay throughout, becoming moderately pliable, trace caliche pebbles. USCS - SP/SC
5	5-6'		
			End of boring 6' bgs.

Remarks: Total Depth: 6' Below Ground Surface (bgs)

Project: 30064856 Template: LPTEMPLATE_HA_Final Page: 1 of 1
Data File: SB-6 Date: 2/12/2021 Created/Edited by: AD

Date Start/Finish: 1/15/2021 **Drilling Company:** Arcadis **Drilling Method:** Hand Auger **Sampling Method:** Hand Auger Grab	**Borehole Depth:** 5.5 **Surface Elevation:** N/A **Descriptions By:** Justin Steinmann	**Well/Boring ID:** SB-7 **Client:** Chevron **Location:** WL Well 41

DEPTH	Sample Interval	Geologic Column	Stratigraphic Description
0	0-0.5'		sandy clay 7.5YR 3/2 dark brown, moderately pliable, non-plastic, slightly moist, firm to blocky, with sand, very fine, moderately sorted throughout. USCS - CL
	1-2'		silty sand 10YR 5/2 grayish brown, very fine sand, well sorted, subrounded, silty, loose, dry, at 2.5' becoming friable to firm. USCS - SM
	3-4'		sand 10YR 5/2 grayish brown. very fine, well sorted, subrounded, loose, dry, trace calacareous nodules, prroly cemented, friable, granule to pebble sized, subangular.
5	5-5.5'		
			End of boring 5.5' bgs. refusal on caliche

ARCADIS

Remarks: Total Depth: 5.5' Below Ground Surface (bgs)

Project: 30064856 Template: LPTEMPLATE_HA_Final Page: 1 of 1
Data File: SB-7 Date: 2/12/2021 Created/Edited by: AD

Date Start/Finish: 1/15/2021 **Drilling Company:** Arcadis **Drilling Method:** Hand Auger **Sampling Method:** Hand Auger Grab	**Borehole Depth:** 4 **Surface Elevation:** N/A **Descriptions By:** Justin Steinmann	**Well/Boring ID:** SB-8 **Client:** Chevron **Location:** WL Well 41

DEPTH	Sample Interval	Geologic Column	Stratigraphic Description
0	0-0.5'		clayey sand 7.5YR dark brown, very fine sand, well sorted, subrounded, trace to little clay, slightly pliable, non-plastic, throughout, blocky to loose, slightly mooist, at 0.5' becoming firm, dry. USCS - SC
1	1-2'		
3	3-4'		sand 10YR 5/2 grayish brown, very fine, well sorted, subrounded, trace silt/clay, loose to firm, dry, trace calcareous nodules, friable. USCS - SP
4			End of boring 4' bgs. refusal on caliche
5			

ARCADIS

Remarks: Total Depth: 4' Below Ground Surface (bgs)

Project: 30064856 Template: LPTEMPLATE_HA_Final

Data File: SB-8 Date: 2/12/2021 Created/Edited by: AD

Appendix C

Photographic Log

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Case No.
WL Well 41	Lea County, NM	1RP-2446

Photo No.	Date:
1	01/14/2021

Direction Photo Taken:

Facing west

Description:

East center of pad

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Case No.
WL Well 41	Lea County, NM	1RP-2446

Photo No.	Date:
2	01/14/2021

Direction Photo Taken:

Northwest

Description:

Southeast of pad

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Case No.
WL Well 41	Lea County, NM	1RP-2446

Photo No.	Date:
3	01/14/2021

Direction Photo Taken:

Facing west

Description:

Southeast of pad

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Case No.
WL Well 41	Lea County, NM	1RP-2446

Photo No.	Date:
4	01/14/2021

Direction Photo Taken:

Facing north

Description:

South center of pad

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Case No.
WL Well 41	Lea County, NM	1RP-2446

Photo No.	Date:
5	01/14/2021

Direction Photo Taken:

Facing north

Description:

Southwest corner of pad

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Case No.
WL Well 41	Lea County, NM	1RP-2446

Photo No.	Date:
6	01/14/2021

Direction Photo Taken:

Facing southeast

Description:

Northwest corner of pad

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Case No.
WL Well 41	Lea County, NM	1RP-2446

Photo No.	Date:
7	01/14/2021

Direction Photo Taken:

Facing south

Description:

Northwest corner of pad

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Case No.
WL Well 41	Lea County, NM	1RP-2446

Photo No.	Date:
8	01/14/2021

Direction Photo Taken:

Facing south

Description:

North of pad

ARCADIS

PHOTOGRAPHIC LOG

Property Name:	Location:	Case No.
WL Well 41	Lea County, NM	1RP-2446

Photo No.	Date:
9	01/14/2021

Direction Photo Taken:

Facing east

Description:

West of pad

Appendix D

Laboratory Report

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Analytical Report 684988

for

Arcadis U.S., Inc

Project Manager: Morgan Jordan

WL Well 41

03064856-0002B

02.22.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

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

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

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

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02.22.2021

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

Reference: Eurofins Xenco, LLC Report No(s): **684988**
WL Well 41
Project Address:

Morgan Jordan:

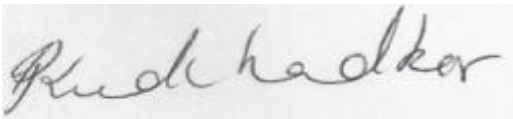
We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 684988. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 684988 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,



Sachin Kudchadkar
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 684988

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-1-S-0-.5-210114	S	01.14.2021 11:26		684988-001
SB-1-S-1-2-210114	S	01.14.2021 11:34		684988-002
SB-1-S-3-3.5-210114	S	01.14.2021 11:45		684988-003
SB-2-S-0-.5-210114	S	01.14.2021 12:03		684988-004
SB-2-S-1-2-210114	S	01.14.2021 12:14		684988-005
SB-2-S-3-3.5-210114	S	01.14.2021 12:22		684988-006
SB-3-S-0-.5-210114	S	01.14.2021 13:07		684988-007
SB-3-S-1-2-210114	S	01.14.2021 13:15		684988-008
SB-4-S-0-.5-210114	S	01.14.2021 14:27		684988-009
SB-4-S-1-2-210114	S	01.14.2021 15:00		684988-010
SB-4-SD-1-2-210114	S	01.14.2021 00:00		684988-011
SB-4-S-3-4-210114	S	01.14.2021 15:23		684988-012

CASE NARRATIVE

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Client Name: Arcadis U.S., Inc

Project Name: WL Well 41

Project ID: *03064856-0002B*
Work Order Number(s): *684988*

Report Date: *02.22.2021*
Date Received: *01.15.2021*

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

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 684988

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **SB-1-S-0-.5-210114** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684988-001 Date Collected: 01.14.2021 11:26

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 01.18.2021 16:30 % Moisture:

Seq Number: 3148186 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1090**	25.1	4.31	mg/kg	01.18.2021 23:49		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00 % Moisture:

Seq Number: 3148362 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	01.19.2021 15:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	01.19.2021 15:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	01.19.2021 15:24	U	1
Total TPH	PHC635	<15.0	50.0	15.0	mg/kg	01.19.2021 15:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	71	%	70-130	01.19.2021 15:24	
o-Terphenyl	84-15-1	82	%	70-130	01.19.2021 15:24	

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Certificate of Analytical Results 684988

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-1-S-0-.5-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-001	Date Collected:	01.14.2021 11:26		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 10:00	% Moisture:	
Seq Number:	3148435			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	01.20.2021 17:57	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	01.20.2021 17:57	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	01.20.2021 17:57	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	01.20.2021 17:57	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	01.20.2021 17:57	U	1
Total Xylenes	1330-20-7	<0.000344	0.00200	0.000344	mg/kg	01.20.2021 17:57	U	1
Total BTEX		<0.000344	0.00200	0.000344	mg/kg	01.20.2021 17:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.20.2021 17:57	
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.20.2021 17:57	

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Certificate of Analytical Results 684988

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **SB-1-S-1-2-210114** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684988-002 Date Collected: 01.14.2021 11:34

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 01.18.2021 16:30 % Moisture:

Seq Number: 3148186 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2140**	25.0	4.29	mg/kg	01.18.2021 23:54		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00 % Moisture:

Seq Number: 3148362 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	01.19.2021 16:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	01.19.2021 16:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	01.19.2021 16:19	U	1
Total TPH	PHC635	<15.0	50.0	15.0	mg/kg	01.19.2021 16:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	72	%	70-130	01.19.2021 16:19	
o-Terphenyl	84-15-1	83	%	70-130	01.19.2021 16:19	

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Certificate of Analytical Results 684988

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-1-S-1-2-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-002	Date Collected:	01.14.2021 11:34		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 10:00	% Moisture:	
Seq Number:	3148435			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000386	0.00200	0.000386	mg/kg	01.20.2021 18:17	U	1
Toluene	108-88-3	<0.000457	0.00200	0.000457	mg/kg	01.20.2021 18:17	U	1
Ethylbenzene	100-41-4	<0.000566	0.00200	0.000566	mg/kg	01.20.2021 18:17	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00401	0.00102	mg/kg	01.20.2021 18:17	U	1
o-Xylene	95-47-6	<0.000345	0.00200	0.000345	mg/kg	01.20.2021 18:17	U	1
Total Xylenes	1330-20-7	<0.000345	0.00200	0.000345	mg/kg	01.20.2021 18:17	U	1
Total BTEX		<0.000345	0.00200	0.000345	mg/kg	01.20.2021 18:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	01.20.2021 18:17	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.20.2021 18:17	

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Certificate of Analytical Results 684988

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **SB-1-S-3-3.5-210114** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684988-003 Date Collected: 01.14.2021 11:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 01.18.2021 16:30 % Moisture:

Seq Number: 3148186 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1230**	24.8	4.26	mg/kg	01.19.2021 00:00		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00 % Moisture:

Seq Number: 3148362 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	49.9	15.0	mg/kg	01.19.2021 16:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	49.9	15.0	mg/kg	01.19.2021 16:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	49.9	15.0	mg/kg	01.19.2021 16:38	U	1
Total TPH	PHC635	<15.0	49.9	15.0	mg/kg	01.19.2021 16:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	72	%	70-130	01.19.2021 16:38	
o-Terphenyl	84-15-1	80	%	70-130	01.19.2021 16:38	

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Certificate of Analytical Results 684988

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-1-S-3-3.5-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-003	Date Collected:	01.14.2021 11:45		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 10:00	% Moisture:	
Seq Number:	3148435			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000384	0.00200	0.000384	mg/kg	01.20.2021 18:38	U	1
Toluene	108-88-3	<0.000455	0.00200	0.000455	mg/kg	01.20.2021 18:38	U	1
Ethylbenzene	100-41-4	<0.000564	0.00200	0.000564	mg/kg	01.20.2021 18:38	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00399	0.00101	mg/kg	01.20.2021 18:38	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	01.20.2021 18:38	U	1
Total Xylenes	1330-20-7	<0.000344	0.00200	0.000344	mg/kg	01.20.2021 18:38	U	1
Total BTEX		<0.000344	0.00200	0.000344	mg/kg	01.20.2021 18:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	01.20.2021 18:38	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.20.2021 18:38	

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Certificate of Analytical Results 684988

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-2-S-0-.5-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-004	Date Collected:	01.14.2021 12:03		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	01.18.2021 16:30	% Moisture:	
Seq Number:	3148186			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6150**	101	17.3	mg/kg	01.19.2021 00:05		20

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	01.19.2021 16:00	% Moisture:	
Seq Number:	3148362			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	01.19.2021 16:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	**38.8**	50.0	15.0	mg/kg	01.19.2021 16:56	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	01.19.2021 16:56	U	1
Total TPH	PHC635	**38.8**	50.0	15.0	mg/kg	01.19.2021 16:56	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	72	%	70-130	01.19.2021 16:56	
o-Terphenyl	84-15-1	81	%	70-130	01.19.2021 16:56	

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Certificate of Analytical Results 684988

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-2-S-0-.5-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-004	Date Collected:	01.14.2021 12:03		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 10:00	% Moisture:	
Seq Number:	3148435			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000386	0.00201	0.000386	mg/kg	01.20.2021 18:58	U	1
Toluene	108-88-3	<0.000457	0.00201	0.000457	mg/kg	01.20.2021 18:58	U	1
Ethylbenzene	100-41-4	<0.000567	0.00201	0.000567	mg/kg	01.20.2021 18:58	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00402	0.00102	mg/kg	01.20.2021 18:58	U	1
o-Xylene	95-47-6	<0.000346	0.00201	0.000346	mg/kg	01.20.2021 18:58	U	1
Total Xylenes	1330-20-7	<0.000346	0.00201	0.000346	mg/kg	01.20.2021 18:58	U	1
Total BTEX		<0.000346	0.00201	0.000346	mg/kg	01.20.2021 18:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.20.2021 18:58	
4-Bromofluorobenzene	460-00-4	98	%	70-130	01.20.2021 18:58	

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WL Well 41

Sample Id: **SB-2-S-1-2-210114** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684988-005 Date Collected: 01.14.2021 12:14

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 01.18.2021 16:30 % Moisture:

Seq Number: 3148186 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4220**	50.0	8.58	mg/kg	01.19.2021 00:21		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00 % Moisture:

Seq Number: 3148362 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	01.19.2021 17:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	**59.8**	50.0	15.0	mg/kg	01.19.2021 17:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**21.8**	50.0	15.0	mg/kg	01.19.2021 17:15	J	1
Total TPH	PHC635	**81.6**	50.0	15.0	mg/kg	01.19.2021 17:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	73	%	70-130	01.19.2021 17:15	
o-Terphenyl	84-15-1	84	%	70-130	01.19.2021 17:15	

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Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-2-S-1-2-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-005	Date Collected:	01.14.2021 12:14		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 10:00	% Moisture:	
Seq Number:	3148435			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000381	0.00198	0.000381	mg/kg	01.20.2021 20:22	U	1
Toluene	108-88-3	<0.000451	0.00198	0.000451	mg/kg	01.20.2021 20:22	U	1
Ethylbenzene	100-41-4	<0.000559	0.00198	0.000559	mg/kg	01.20.2021 20:22	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00396	0.00100	mg/kg	01.20.2021 20:22	U	1
o-Xylene	95-47-6	<0.000341	0.00198	0.000341	mg/kg	01.20.2021 20:22	U	1
Total Xylenes	1330-20-7	<0.000341	0.00198	0.000341	mg/kg	01.20.2021 20:22	U	1
Total BTEX		<0.000341	0.00198	0.000341	mg/kg	01.20.2021 20:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.20.2021 20:22	
4-Bromofluorobenzene	460-00-4	100	%	70-130	01.20.2021 20:22	

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WL Well 41

Sample Id:	**SB-2-S-3-3.5-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-006	Date Collected:	01.14.2021 12:22		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	01.18.2021 16:30	% Moisture:	
Seq Number:	3148186			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3790**	50.4	8.65	mg/kg	01.19.2021 00:26		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	01.19.2021 16:00	% Moisture:	
Seq Number:	3148362			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	49.9	15.0	mg/kg	01.19.2021 17:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	**30.3**	49.9	15.0	mg/kg	01.19.2021 17:33	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	49.9	15.0	mg/kg	01.19.2021 17:33	U	1
Total TPH	PHC635	**30.3**	49.9	15.0	mg/kg	01.19.2021 17:33	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	71	%	70-130	01.19.2021 17:33	
o-Terphenyl	84-15-1	82	%	70-130	01.19.2021 17:33	

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WL Well 41

Sample Id:	**SB-2-S-3-3.5-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-006	Date Collected:	01.14.2021 12:22		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 10:00	% Moisture:	
Seq Number:	3148435			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	01.20.2021 20:42	U	1
Toluene	108-88-3	<0.000454	0.00199	0.000454	mg/kg	01.20.2021 20:42	U	1
Ethylbenzene	100-41-4	<0.000563	0.00199	0.000563	mg/kg	01.20.2021 20:42	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	01.20.2021 20:42	U	1
o-Xylene	95-47-6	<0.000343	0.00199	0.000343	mg/kg	01.20.2021 20:42	U	1
Total Xylenes	1330-20-7	<0.000343	0.00199	0.000343	mg/kg	01.20.2021 20:42	U	1
Total BTEX		<0.000343	0.00199	0.000343	mg/kg	01.20.2021 20:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.20.2021 20:42	
4-Bromofluorobenzene	460-00-4	102	%	70-130	01.20.2021 20:42	

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WL Well 41

Sample Id:	**SB-3-S-0-.5-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-007	Date Collected:	01.14.2021 13:07		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	01.18.2021 16:30	% Moisture:	
Seq Number:	3148186			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4610**	49.5	8.50	mg/kg	01.19.2021 00:42		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	01.19.2021 16:00	% Moisture:	
Seq Number:	3148362			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**17.9**	50.0	15.0	mg/kg	01.19.2021 17:52	J	1
Diesel Range Organics (DRO)	C10C28DRO	**26.9**	50.0	15.0	mg/kg	01.19.2021 17:52	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	01.19.2021 17:52	U	1
Total TPH	PHC635	**44.8**	50.0	15.0	mg/kg	01.19.2021 17:52	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	70	%	70-130	01.19.2021 17:52	
o-Terphenyl	84-15-1	78	%	70-130	01.19.2021 17:52	

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WL Well 41

Sample Id:	**SB-3-S-0-.5-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-007	Date Collected:	01.14.2021 13:07		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 10:00	% Moisture:	
Seq Number:	3148435			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	01.20.2021 21:03	U	1
Toluene	108-88-3	<0.000454	0.00199	0.000454	mg/kg	01.20.2021 21:03	U	1
Ethylbenzene	100-41-4	<0.000563	0.00199	0.000563	mg/kg	01.20.2021 21:03	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	01.20.2021 21:03	U	1
o-Xylene	95-47-6	<0.000343	0.00199	0.000343	mg/kg	01.20.2021 21:03	U	1
Total Xylenes	1330-20-7	<0.000343	0.00199	0.000343	mg/kg	01.20.2021 21:03	U	1
Total BTEX		<0.000343	0.00199	0.000343	mg/kg	01.20.2021 21:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	01.20.2021 21:03	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.20.2021 21:03	

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WL Well 41

Sample Id: **SB-3-S-1-2-210114** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684988-008 Date Collected: 01.14.2021 13:15

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 01.18.2021 16:30 % Moisture:

Seq Number: 3148186 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1110**	24.9	4.27	mg/kg	01.19.2021 00:48		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00 % Moisture:

Seq Number: 3148362 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**16.9**	49.9	15.0	mg/kg	01.19.2021 18:10	J	1
Diesel Range Organics (DRO)	C10C28DRO	**56.0**	49.9	15.0	mg/kg	01.19.2021 18:10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**22.2**	49.9	15.0	mg/kg	01.19.2021 18:10	J	1
Total TPH	PHC635	**95.1**	49.9	15.0	mg/kg	01.19.2021 18:10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	70	%	70-130	01.19.2021 18:10	
o-Terphenyl	84-15-1	78	%	70-130	01.19.2021 18:10	

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WL Well 41

Sample Id:	**SB-3-S-1-2-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-008	Date Collected:	01.14.2021 13:15		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 10:00	% Moisture:	
Seq Number:	3148435			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	01.20.2021 21:23	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	01.20.2021 21:23	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	01.20.2021 21:23	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	01.20.2021 21:23	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	01.20.2021 21:23	U	1
Total Xylenes	1330-20-7	<0.000344	0.00200	0.000344	mg/kg	01.20.2021 21:23	U	1
Total BTEX		<0.000344	0.00200	0.000344	mg/kg	01.20.2021 21:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	01.20.2021 21:23	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.20.2021 21:23	

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WL Well 41

Sample Id: **SB-4-S-0-.5-210114** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684988-009 Date Collected: 01.14.2021 14:27

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 01.18.2021 16:30 % Moisture:

Seq Number: 3148186 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**18.2**	5.04	0.865	mg/kg	01.19.2021 00:53		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00 % Moisture:

Seq Number: 3148362 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	49.9	15.0	mg/kg	01.19.2021 18:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	**27.0**	49.9	15.0	mg/kg	01.19.2021 18:29	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**15.0**	49.9	15.0	mg/kg	01.19.2021 18:29	J	1
Total TPH	PHC635	**42.0**	49.9	15.0	mg/kg	01.19.2021 18:29	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	71	%	70-130	01.19.2021 18:29	
o-Terphenyl	84-15-1	78	%	70-130	01.19.2021 18:29	

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WL Well 41

Sample Id:	**SB-4-S-0-.5-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-009	Date Collected:	01.14.2021 14:27		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 10:00	% Moisture:	
Seq Number:	3148435			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000387	0.00201	0.000387	mg/kg	01.20.2021 21:44	U	1
Toluene	108-88-3	<0.000458	0.00201	0.000458	mg/kg	01.20.2021 21:44	U	1
Ethylbenzene	100-41-4	<0.000568	0.00201	0.000568	mg/kg	01.20.2021 21:44	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00402	0.00102	mg/kg	01.20.2021 21:44	U	1
o-Xylene	95-47-6	<0.000346	0.00201	0.000346	mg/kg	01.20.2021 21:44	U	1
Total Xylenes	1330-20-7	<0.000346	0.00201	0.000346	mg/kg	01.20.2021 21:44	U	1
Total BTEX		<0.000346	0.00201	0.000346	mg/kg	01.20.2021 21:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	01.20.2021 21:44	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.20.2021 21:44	

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WL Well 41

Sample Id: **SB-4-S-1-2-210114** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684988-010 Date Collected: 01.14.2021 15:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 01.18.2021 16:30 % Moisture:

Seq Number: 3148186 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.06**	5.00	0.858	mg/kg	01.19.2021 00:58		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00 % Moisture:

Seq Number: 3148362 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**16.0**	50.0	15.0	mg/kg	01.19.2021 18:48	J	1
Diesel Range Organics (DRO)	C10C28DRO	**139**	50.0	15.0	mg/kg	01.19.2021 18:48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**80.9**	50.0	15.0	mg/kg	01.19.2021 18:48		1
Total TPH	PHC635	**236**	50.0	15.0	mg/kg	01.19.2021 18:48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	70	%	70-130	01.19.2021 18:48	
o-Terphenyl	84-15-1	75	%	70-130	01.19.2021 18:48	

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WL Well 41

Sample Id:	**SB-4-S-1-2-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-010	Date Collected:	01.14.2021 15:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 10:00	% Moisture:	
Seq Number:	3148435			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000386	0.00200	0.000386	mg/kg	01.20.2021 22:04	U	1
Toluene	108-88-3	<0.000457	0.00200	0.000457	mg/kg	01.20.2021 22:04	U	1
Ethylbenzene	100-41-4	<0.000566	0.00200	0.000566	mg/kg	01.20.2021 22:04	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00401	0.00102	mg/kg	01.20.2021 22:04	U	1
o-Xylene	95-47-6	<0.000345	0.00200	0.000345	mg/kg	01.20.2021 22:04	U	1
Total Xylenes	1330-20-7	<0.000345	0.00200	0.000345	mg/kg	01.20.2021 22:04	U	1
Total BTEX		<0.000345	0.00200	0.000345	mg/kg	01.20.2021 22:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	01.20.2021 22:04	
4-Bromofluorobenzene	460-00-4	100	%	70-130	01.20.2021 22:04	

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WL Well 41

Sample Id:	**SB-4-SD-1-2-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-011	Date Collected:	01.14.2021 00:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	01.18.2021 16:30	% Moisture:	
Seq Number:	3148186			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.97**	4.99	0.857	mg/kg	01.19.2021 01:04		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	01.19.2021 16:00	% Moisture:	
Seq Number:	3148362			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	01.19.2021 19:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	**125**	50.0	15.0	mg/kg	01.19.2021 19:26		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**69.8**	50.0	15.0	mg/kg	01.19.2021 19:26		1
Total TPH	PHC635	**195**	50.0	15.0	mg/kg	01.19.2021 19:26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	72	%	70-130	01.19.2021 19:26	
o-Terphenyl	84-15-1	78	%	70-130	01.19.2021 19:26	

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Certificate of Analytical Results 684988

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-4-SD-1-2-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-011	Date Collected:	01.14.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 10:00	% Moisture:	
Seq Number:	3148435			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000389	0.00202	0.000389	mg/kg	01.20.2021 22:25	U	1
Toluene	108-88-3	<0.000460	0.00202	0.000460	mg/kg	01.20.2021 22:25	U	1
Ethylbenzene	100-41-4	<0.000570	0.00202	0.000570	mg/kg	01.20.2021 22:25	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00404	0.00102	mg/kg	01.20.2021 22:25	U	1
o-Xylene	95-47-6	<0.000348	0.00202	0.000348	mg/kg	01.20.2021 22:25	U	1
Total Xylenes	1330-20-7	<0.000348	0.00202	0.000348	mg/kg	01.20.2021 22:25	U	1
Total BTEX		<0.000348	0.00202	0.000348	mg/kg	01.20.2021 22:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	95	%	70-130	01.20.2021 22:25	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.20.2021 22:25	

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Certificate of Analytical Results 684988

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **SB-4-S-3-4-210114** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684988-012 Date Collected: 01.14.2021 15:23

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 01.18.2021 16:30 % Moisture:

Seq Number: 3148186 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**19.4**	4.95	0.850	mg/kg	01.19.2021 01:09		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00 % Moisture:

Seq Number: 3148362 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**16.8**	50.0	15.0	mg/kg	01.19.2021 19:45	J	1
Diesel Range Organics (DRO)	C10C28DRO	**59.1**	50.0	15.0	mg/kg	01.19.2021 19:45		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**39.9**	50.0	15.0	mg/kg	01.19.2021 19:45	J	1
Total TPH	PHC635	**116**	50.0	15.0	mg/kg	01.19.2021 19:45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	71	%	70-130	01.19.2021 19:45	
o-Terphenyl	84-15-1	77	%	70-130	01.19.2021 19:45	

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Certificate of Analytical Results 684988

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-4-S-3-4-210114**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684988-012	Date Collected:	01.14.2021 15:23		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 10:00	% Moisture:	
Seq Number:	3148435			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	01.20.2021 22:45	U	1
Toluene	108-88-3	<0.000453	0.00199	0.000453	mg/kg	01.20.2021 22:45	U	1
Ethylbenzene	100-41-4	<0.000561	0.00199	0.000561	mg/kg	01.20.2021 22:45	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	01.20.2021 22:45	U	1
o-Xylene	95-47-6	<0.000342	0.00199	0.000342	mg/kg	01.20.2021 22:45	U	1
Total Xylenes	1330-20-7	<0.000342	0.00199	0.000342	mg/kg	01.20.2021 22:45	U	1
Total BTEX		<0.000342	0.00199	0.000342	mg/kg	01.20.2021 22:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	01.20.2021 22:45	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.20.2021 22:45	

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Blank Summary 684988

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **7719449-1-BLK** Matrix: SOLID

Lab Sample Id: **7719449-1-BLK**

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

Tech: CHE

Analyst: CHE Date Prep: 01.18.2021 16:30

Seq Number: 3148186

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	01.18.2021 22:35	U	1

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Blank Summary 684988

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **7719549-1-BLK** Matrix: SOLID

Lab Sample Id: **7719549-1-BLK**

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

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00

Seq Number: 3148362

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	01.19.2021 14:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	01.19.2021 14:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	01.19.2021 14:28	U	1

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Blank Summary 684988

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **7719646-1-BLK** Matrix: SOLID

Lab Sample Id: **7719646-1-BLK**

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

Tech: KTL

Analyst: KTL Date Prep: 01.20.2021 10:00

Seq Number: 3148435

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	01.20.2021 15:32	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	01.20.2021 15:32	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	01.20.2021 15:32	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	01.20.2021 15:32	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	01.20.2021 15:32	U	1

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Form 2 - Surrogate Recoveries

Project Name: WL Well 41

Report Date: 02222021

Work Orders : 684988 **Project ID:** 03064856-0002B

Lab Batch #: 3148435 **Sample:** 7719646-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.20.2021 12:38 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	70-130	
4-Bromofluorobenzene	0.0279	0.0300	93	70-130	

Lab Batch #: 3148435 **Sample:** 7719646-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.20.2021 12:59 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	70-130	
4-Bromofluorobenzene	0.0283	0.0300	94	70-130	

Lab Batch #: 3148435 **Sample:** 684987-013 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01.20.2021 14:13 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	70-130	
4-Bromofluorobenzene	0.0296	0.0300	99	70-130	

Lab Batch #: 3148435 **Sample:** 684987-013 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01.20.2021 14:34 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	70-130	
4-Bromofluorobenzene	0.0286	0.0300	95	70-130	

Lab Batch #: 3148435 **Sample:** 7719646-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.20.2021 15:32 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	70-130	
4-Bromofluorobenzene	0.0302	0.0300	101	70-130	

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

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Form 2 - Surrogate Recoveries

Project Name: WL Well 41

Report Date: 02222021

Work Orders : 684988 **Project ID:** 03064856-0002B

Lab Batch #: 3148362 **Sample:** 7719549-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.19.2021 14:28 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.1	100	70	70-130	
o-Terphenyl	40.4	50.0	81	70-130	

Lab Batch #: 3148362 **Sample:** 7719549-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.19.2021 14:47 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.4	100	80	70-130	
o-Terphenyl	38.9	50.0	78	70-130	

Lab Batch #: 3148362 **Sample:** 7719549-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.19.2021 15:05 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.6	100	85	70-130	
o-Terphenyl	40.9	50.0	82	70-130	

Lab Batch #: 3148362 **Sample:** 684988-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01.19.2021 15:42 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.7	99.7	87	70-130	
o-Terphenyl	40.8	49.9	82	70-130	

Lab Batch #: 3148362 **Sample:** 684988-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01.19.2021 16:01 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.1	99.6	85	70-130	
o-Terphenyl	41.5	49.8	83	70-130	

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

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QC Summary 684988

Arcadis U.S., Inc

WL Well 41

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3148186 — Matrix: Solid — Date Prep: 01.18.2021
MB Sample Id: 7719449-1-BLK — LCS Sample Id: 7719449-1-BKS — LCSD Sample Id: 7719449-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	256	102	258	103	90-110	1	20	mg/kg	01.18.2021 22:40	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3148186 — Matrix: Soil — Date Prep: 01.18.2021
Parent Sample Id: 684987-012 — MS Sample Id: 684987-012 S — MSD Sample Id: 684987-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	481	249	713	93	712	93	90-110	0	20	mg/kg	01.18.2021 22:56	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3148186 — Matrix: Soil — Date Prep: 01.18.2021
Parent Sample Id: 684988-004 — MS Sample Id: 684988-004 S — MSD Sample Id: 684988-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6150	5050	11300	102	11300	102	90-110	0	20	mg/kg	01.19.2021 00:10	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3148362 — Matrix: Solid — Date Prep: 01.19.2021
MB Sample Id: 7719549-1-BLK — LCS Sample Id: 7719549-1-BKS — LCSD Sample Id: 7719549-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	854	85	871	87	70-130	2	20	mg/kg	01.19.2021 14:47	
Diesel Range Organics (DRO)	<15.0	1000	863	86	880	88	70-130	2	20	mg/kg	01.19.2021 14:47	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	70		80		85		70-130	%	01.19.2021 14:47
o-Terphenyl	81		78		82		70-130	%	01.19.2021 14:47

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3148362 — Matrix: Solid — Date Prep: 01.19.2021
MB Sample Id: 7719549-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<15.0	mg/kg	01.19.2021 14:28	

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

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

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

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QC Summary 684988

Arcadis U.S., Inc

WL Well 41

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3148362 — Matrix: Soil — Date Prep: 01.19.2021
Parent Sample Id: 684988-001 — MS Sample Id: 684988-001 S — MSD Sample Id: 684988-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	803	81	809	81	70-130	1	20	mg/kg	01.19.2021 15:42	
Diesel Range Organics (DRO)	<15.0	997	885	89	891	89	70-130	1	20	mg/kg	01.19.2021 15:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		85		70-130	%	01.19.2021 15:42
o-Terphenyl	82		83		70-130	%	01.19.2021 15:42

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3148435 — Matrix: Solid — Date Prep: 01.20.2021
MB Sample Id: 7719646-1-BLK — LCS Sample Id: 7719646-1-BKS — LCSD Sample Id: 7719646-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.128	128	0.128	128	70-130	0	35	mg/kg	01.20.2021 12:38	
Toluene	<0.000456	0.100	0.116	116	0.117	117	70-130	1	35	mg/kg	01.20.2021 12:38	
Ethylbenzene	<0.000565	0.100	0.118	118	0.119	119	70-130	1	35	mg/kg	01.20.2021 12:38	
m,p-Xylenes	<0.00101	0.200	0.234	117	0.237	119	70-130	1	35	mg/kg	01.20.2021 12:38	
o-Xylene	<0.000344	0.100	0.111	111	0.113	113	70-130	2	35	mg/kg	01.20.2021 12:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		105		104		70-130	%	01.20.2021 12:38
4-Bromofluorobenzene	101		93		94		70-130	%	01.20.2021 12:38

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3148435 — Matrix: Soil — Date Prep: 01.20.2021
Parent Sample Id: 684987-013 — MS Sample Id: 684987-013 S — MSD Sample Id: 684987-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.111	111	0.116	116	70-130	4	35	mg/kg	01.20.2021 14:13	
Toluene	<0.000456	0.100	0.0996	100	0.103	103	70-130	3	35	mg/kg	01.20.2021 14:13	
Ethylbenzene	<0.000565	0.100	0.101	101	0.105	105	70-130	4	35	mg/kg	01.20.2021 14:13	
m,p-Xylenes	<0.00101	0.200	0.201	101	0.206	103	70-130	2	35	mg/kg	01.20.2021 14:13	
o-Xylene	<0.000344	0.100	0.0949	95	0.0975	98	70-130	3	35	mg/kg	01.20.2021 14:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		105		70-130	%	01.20.2021 14:13
4-Bromofluorobenzene	99		95		70-130	%	01.20.2021 14:13

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

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Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

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

Chain of Custody Record

6844988

Client Information	Sampler: J. Steinmann	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-23595-8666.1
Client Contact: Motgan Jordan	Phone: 619 881 8792	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 1 of 2
Company: ARCADIS U.S., Inc.		Analysis Requested		Job #:
Address: 1717 W 6th Street. Suite 210	Due Date Requested:			Preservation Codes:
City: Austin	TAT Requested (days): Std			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 - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: TX, 78703				
Phone: 281 604 9437	PO #:			Other:
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: 30064856-0002B	Project #: 30064862 -0002B			
Site: WL Well 41	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)	8015_GRO/ DRO/ ORO	300 - Chloride	8021- BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
SB-1-S-0-.5-210114	1/14/21	1126	G	Solid							
SB-1-S-1-2-210114		1134		Solid							
SB-1-S-3-3.25-210114		1145		Solid							
SB-2-S-0-.5-210114		1203		Solid							
SB-2-S-1-2-210114		1214		Solid							
SB-2-S-3-3.25-210114		1222		Solid							
SB-3-S-0-.5-210114		1307		Solid							
SB-3-S-1-2-210114		1315		Solid							
SB-4-S-0-.5-210114		1427		Solid							
SB-4-S-1-2-210114		1500		Solid							
SB-4-SD-1-2-210114		—		Solid							

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

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

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

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	1/14/21 1600	Arcadis	Carlos Grajeda	1-14-21 1600	Arcadis
Relinquished by: Carlos Grajeda	Date/Time: 1-15-21 1658	Company Arcadis	Received by:	Date/Time: 1-15-21 1658	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: -.4 / -.9

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

Chain of Custody Record

6849488

Client Information	Sampler: J. Steinmann	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-23595-8666.1
Client Contact: Morgan Jordan	Phone: (619 851 8792	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 2 of 2
Company: ARCADIS U.S., Inc.				Job #:
Address: 1717 W 6th Street. Suite 210	Due Date Requested: —			
City: Austin	TAT Requested (days): std			
State, Zip: TX, 78703				
Phone: 281 644 9437	PO #:			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: 30064856-0002B	Project #: 30064862 -0002B			
Site: WL Well 41	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015_GRO/ DRO/ ORO	300 - Chloride	8021- BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
SB-4-S-3-4-21014	1/14/21	1523	G	Solid			1	1	1	1	
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							

1/14/21 QS

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		1/14/21 1600	Arcadis	Carlos Grajeda	1-14-21 1600	Arcadis
2	Carlos Grajeda	1-15-21 1658	Arcadis		1-15-21 1658	
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: -4 / -9

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Arcadis U.S., Inc

Date/ Time Received: 01.15.2021 04.58.00 PM

Work Order #: 684988

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

Temperature Measuring device used : IR8

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 01.18.2021

Brianna Teel

Checklist reviewed by: Date: 01.21.2021

John Builes

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Analytical Report 684989

for

Arcadis U.S., Inc

Project Manager: Morgan Jordan

WL Well 41

30064856-0002B

01.21.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

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

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

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

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01.21.2021

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

Reference: Eurofins Xenco, LLC Report No(s): **684989**
WL Well 41
Project Address:

Morgan Jordan:

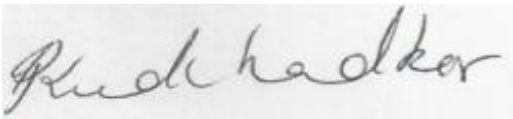
We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 684989. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 684989 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,



Sachin Kudchadkar
Project Manager

A Small Business and Minority Company

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

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Sample Cross Reference 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-7-S-0-.5-210115	S	01.15.2021 12:00		684989-001
SB-7-S-1-2-210115	S	01.15.2021 12:08		684989-002
SB-7-S-3-4-210115	S	01.15.2021 12:14		684989-003
SB-7-S-5-5.5-210115	S	01.15.2021 12:24		684989-004
SB-8-S-0-.5-210115	S	01.15.2021 12:23		684989-005
SB-8-S-1-2-210115	S	01.15.2021 12:37		684989-006
SB-8-S-3-4-210115	S	01.15.2021 12:45		684989-007
SB-5-S-0-.5-210115	S	01.15.2021 10:23		684989-008
SB-6-S-0-.5-210115	S	01.15.2021 10:54		684989-009
SB-6-S-1-2-210115	S	01.15.2021 11:05		684989-010
SB-6-S-3-4-210115	S	01.15.2021 11:10		684989-011
SB-6-S-5-6-210115	S	01.15.2021 11:14		684989-012

CASE NARRATIVE

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Client Name: Arcadis U.S., Inc

Project Name: WL Well 41

Project ID: *30064856-0002B*
Work Order Number(s): *684989*

Report Date: *01.21.2021*
Date Received: *01.15.2021*

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

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3148349 Chloride by EPA 300

Lab Sample ID 685064-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference.
Samples in the analytical batch are: 684989-011, -012.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3148362 TPH By SW8015 Mod

Surrogate 1-Chlorooctane recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 684989-002,684989-008,684989-006,684989-005.

Batch: LBA-3148475 TPH By SW8015 Mod

Surrogate 1-Chlorooctane recovered below QC limits Data confirmed by re-analysis. Samples affected are: 7719656-1-BLK,684989-011,684989-010.

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-7-S-0-.5-210115**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684989-001	Date Collected:	01.15.2021 12:00		

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	CHE				
Analyst:	CHE	Date Prep:	01.18.2021 16:30	% Moisture:	
Seq Number:	3148186			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**37.0**	5.03	0.864	mg/kg	01.19.2021 01:14		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	SW8015P
Tech:	DVM				
Analyst:	ARM	Date Prep:	01.19.2021 16:00	% Moisture:	
Seq Number:	3148362			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	49.9	15.0	mg/kg	01.19.2021 20:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	**20.5**	49.9	15.0	mg/kg	01.19.2021 20:04	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	49.9	15.0	mg/kg	01.19.2021 20:04	U	1
Total TPH	PHC635	**20.5**	49.9	15.0	mg/kg	01.19.2021 20:04	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	71	%	70-130	01.19.2021 20:04	
o-Terphenyl	84-15-1	78	%	70-130	01.19.2021 20:04	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-7-S-0-.5-210115**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684989-001	Date Collected:	01.15.2021 12:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 10:00	% Moisture:	
Seq Number:	3148435			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000381	0.00198	0.000381	mg/kg	01.20.2021 23:06	U	1
Toluene	108-88-3	<0.000451	0.00198	0.000451	mg/kg	01.20.2021 23:06	U	1
Ethylbenzene	100-41-4	<0.000559	0.00198	0.000559	mg/kg	01.20.2021 23:06	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00396	0.00100	mg/kg	01.20.2021 23:06	U	1
o-Xylene	95-47-6	<0.000341	0.00198	0.000341	mg/kg	01.20.2021 23:06	U	1
Total Xylenes	1330-20-7	<0.000341	0.00198	0.000341	mg/kg	01.20.2021 23:06	U	1
Total BTEX		<0.000341	0.00198	0.000341	mg/kg	01.20.2021 23:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	01.20.2021 23:06	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.20.2021 23:06	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **SB-7-S-1-2-210115** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684989-002 Date Collected: 01.15.2021 12:08

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC

Analyst: SPC Date Prep: 01.19.2021 10:38 % Moisture:

Seq Number: 3148368 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.9**	5.02	0.862	mg/kg	01.19.2021 12:41		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00 % Moisture:

Seq Number: 3148362 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	01.19.2021 20:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	01.19.2021 20:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	01.19.2021 20:23	U	1
Total TPH	PHC635	<15.0	50.0	15.0	mg/kg	01.19.2021 20:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	67	%	70-130	01.19.2021 20:23	**
o-Terphenyl	84-15-1	72	%	70-130	01.19.2021 20:23	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-7-S-1-2-210115**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684989-002	Date Collected:	01.15.2021 12:08		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 10:00	% Moisture:	
Seq Number:	3148435			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000388	0.00202	0.000388	mg/kg	01.20.2021 23:26	U	1
Toluene	108-88-3	<0.000459	0.00202	0.000459	mg/kg	01.20.2021 23:26	U	1
Ethylbenzene	100-41-4	<0.000569	0.00202	0.000569	mg/kg	01.20.2021 23:26	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00403	0.00102	mg/kg	01.20.2021 23:26	U	1
o-Xylene	95-47-6	<0.000347	0.00202	0.000347	mg/kg	01.20.2021 23:26	U	1
Total Xylenes	1330-20-7	<0.000347	0.00202	0.000347	mg/kg	01.20.2021 23:26	U	1
Total BTEX		<0.000347	0.00202	0.000347	mg/kg	01.20.2021 23:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	01.20.2021 23:26	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.20.2021 23:26	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **SB-7-S-3-4-210115** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684989-003 Date Collected: 01.15.2021 12:14

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC

Analyst: SPC Date Prep: 01.19.2021 10:38 % Moisture:

Seq Number: 3148368 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**300**	5.03	0.864	mg/kg	01.19.2021 12:46		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00 % Moisture:

Seq Number: 3148362 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	49.9	15.0	mg/kg	01.19.2021 20:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	49.9	15.0	mg/kg	01.19.2021 20:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	49.9	15.0	mg/kg	01.19.2021 20:42	U	1
Total TPH	PHC635	<15.0	49.9	15.0	mg/kg	01.19.2021 20:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	70	%	70-130	01.19.2021 20:42	
o-Terphenyl	84-15-1	75	%	70-130	01.19.2021 20:42	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-7-S-3-4-210115**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684989-003	Date Collected:	01.15.2021 12:14		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 16:30	% Moisture:	
Seq Number:	3148440			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	01.21.2021 02:49	U	1
Toluene	108-88-3	<0.000453	0.00199	0.000453	mg/kg	01.21.2021 02:49	U	1
Ethylbenzene	100-41-4	<0.000561	0.00199	0.000561	mg/kg	01.21.2021 02:49	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	01.21.2021 02:49	U	1
o-Xylene	95-47-6	<0.000342	0.00199	0.000342	mg/kg	01.21.2021 02:49	U	1
Total Xylenes	1330-20-7	<0.000342	0.00199	0.000342	mg/kg	01.21.2021 02:49	U	1
Total BTEX		<0.000342	0.00199	0.000342	mg/kg	01.21.2021 02:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	01.21.2021 02:49	
4-Bromofluorobenzene	460-00-4	112	%	70-130	01.21.2021 02:49	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **SB-7-S-5-5.5-210115** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684989-004 Date Collected: 01.15.2021 12:24

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC

Analyst: SPC Date Prep: 01.19.2021 10:38 % Moisture:

Seq Number: 3148368 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**832**	4.96	0.852	mg/kg	01.19.2021 13:02		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00 % Moisture:

Seq Number: 3148362 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	49.8	14.9	mg/kg	01.19.2021 21:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	49.8	14.9	mg/kg	01.19.2021 21:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	49.8	14.9	mg/kg	01.19.2021 21:01	U	1
Total TPH	PHC635	<14.9	49.8	14.9	mg/kg	01.19.2021 21:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	70	%	70-130	01.19.2021 21:01	
o-Terphenyl	84-15-1	77	%	70-130	01.19.2021 21:01	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-7-S-5-5.5-210115**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684989-004	Date Collected:	01.15.2021 12:24		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 16:30	% Moisture:	
Seq Number:	3148440			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000384	0.00200	0.000384	mg/kg	01.21.2021 03:10	U	1
Toluene	108-88-3	<0.000455	0.00200	0.000455	mg/kg	01.21.2021 03:10	U	1
Ethylbenzene	100-41-4	<0.000564	0.00200	0.000564	mg/kg	01.21.2021 03:10	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00399	0.00101	mg/kg	01.21.2021 03:10	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	01.21.2021 03:10	U	1
Total Xylenes	1330-20-7	<0.000344	0.00200	0.000344	mg/kg	01.21.2021 03:10	U	1
Total BTEX		<0.000344	0.00200	0.000344	mg/kg	01.21.2021 03:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	01.21.2021 03:10	
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.21.2021 03:10	

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Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **SB-8-S-0-.5-210115** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684989-005 Date Collected: 01.15.2021 12:23

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC

Analyst: SPC Date Prep: 01.19.2021 10:38 % Moisture:

Seq Number: 3148368 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**69.4**	4.99	0.857	mg/kg	01.19.2021 13:07		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00 % Moisture:

Seq Number: 3148362 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	01.19.2021 21:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	01.19.2021 21:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	01.19.2021 21:21	U	1
Total TPH	PHC635	<15.0	50.0	15.0	mg/kg	01.19.2021 21:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	65	%	70-130	01.19.2021 21:21	**
o-Terphenyl	84-15-1	71	%	70-130	01.19.2021 21:21	

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Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-8-S-0-.5-210115**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684989-005	Date Collected:	01.15.2021 12:23		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 16:30	% Moisture:	
Seq Number:	3148440			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000382	0.00198	0.000382	mg/kg	01.21.2021 03:30	U	1
Toluene	108-88-3	<0.000452	0.00198	0.000452	mg/kg	01.21.2021 03:30	U	1
Ethylbenzene	100-41-4	<0.000560	0.00198	0.000560	mg/kg	01.21.2021 03:30	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00397	0.00101	mg/kg	01.21.2021 03:30	U	1
o-Xylene	95-47-6	<0.000342	0.00198	0.000342	mg/kg	01.21.2021 03:30	U	1
Total Xylenes	1330-20-7	<0.000342	0.00198	0.000342	mg/kg	01.21.2021 03:30	U	1
Total BTEX		<0.000342	0.00198	0.000342	mg/kg	01.21.2021 03:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.21.2021 03:30	
4-Bromofluorobenzene	460-00-4	103	%	70-130	01.21.2021 03:30	

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WL Well 41

Sample Id: **SB-8-S-1-2-210115** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684989-006 Date Collected: 01.15.2021 12:37

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC

Analyst: SPC Date Prep: 01.19.2021 10:38 % Moisture:

Seq Number: 3148368 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**66.4**	4.98	0.855	mg/kg	01.19.2021 13:12		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00 % Moisture:

Seq Number: 3148362 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	01.19.2021 21:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	01.19.2021 21:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	01.19.2021 21:40	U	1
Total TPH	PHC635	<15.0	50.0	15.0	mg/kg	01.19.2021 21:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	68	%	70-130	01.19.2021 21:40	**
o-Terphenyl	84-15-1	73	%	70-130	01.19.2021 21:40	

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Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-8-S-1-2-210115**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684989-006	Date Collected:	01.15.2021 12:37		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 16:30	% Moisture:	
Seq Number:	3148440			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	01.21.2021 03:51	U	1
Toluene	108-88-3	<0.000453	0.00199	0.000453	mg/kg	01.21.2021 03:51	U	1
Ethylbenzene	100-41-4	<0.000561	0.00199	0.000561	mg/kg	01.21.2021 03:51	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	01.21.2021 03:51	U	1
o-Xylene	95-47-6	<0.000342	0.00199	0.000342	mg/kg	01.21.2021 03:51	U	1
Total Xylenes	1330-20-7	<0.000342	0.00199	0.000342	mg/kg	01.21.2021 03:51	U	1
Total BTEX		<0.000342	0.00199	0.000342	mg/kg	01.21.2021 03:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	01.21.2021 03:51	
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.21.2021 03:51	

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WL Well 41

Sample Id: **SB-8-S-3-4-210115** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684989-007 Date Collected: 01.15.2021 12:45

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC

Analyst: SPC Date Prep: 01.19.2021 10:38 % Moisture:

Seq Number: 3148368 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**374**	5.01	0.860	mg/kg	01.19.2021 13:18		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00 % Moisture:

Seq Number: 3148362 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	49.9	15.0	mg/kg	01.19.2021 21:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	**17.1**	49.9	15.0	mg/kg	01.19.2021 21:59	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	49.9	15.0	mg/kg	01.19.2021 21:59	U	1
Total TPH	PHC635	**17.1**	49.9	15.0	mg/kg	01.19.2021 21:59	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	70	%	70-130	01.19.2021 21:59	
o-Terphenyl	84-15-1	78	%	70-130	01.19.2021 21:59	

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Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-8-S-3-4-210115**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684989-007	Date Collected:	01.15.2021 12:45		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 16:30	% Moisture:	
Seq Number:	3148440			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000381	0.00198	0.000381	mg/kg	01.21.2021 04:11	U	1
Toluene	108-88-3	<0.000451	0.00198	0.000451	mg/kg	01.21.2021 04:11	U	1
Ethylbenzene	100-41-4	<0.000559	0.00198	0.000559	mg/kg	01.21.2021 04:11	U	1
m,p-Xylenes	179601-23-1	<0.00100	0.00396	0.00100	mg/kg	01.21.2021 04:11	U	1
o-Xylene	95-47-6	<0.000341	0.00198	0.000341	mg/kg	01.21.2021 04:11	U	1
Total Xylenes	1330-20-7	<0.000341	0.00198	0.000341	mg/kg	01.21.2021 04:11	U	1
Total BTEX		<0.000341	0.00198	0.000341	mg/kg	01.21.2021 04:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	01.21.2021 04:11	
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.21.2021 04:11	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **SB-5-S-0-.5-210115** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684989-008 Date Collected: 01.15.2021 10:23

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC

Analyst: SPC Date Prep: 01.19.2021 10:38 % Moisture:

Seq Number: 3148368 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2710**	24.8	4.26	mg/kg	01.19.2021 13:23		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00 % Moisture:

Seq Number: 3148362 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	01.19.2021 22:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	**39.9**	50.0	15.0	mg/kg	01.19.2021 22:18	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**16.9**	50.0	15.0	mg/kg	01.19.2021 22:18	J	1
Total TPH	PHC635	**56.8**	50.0	15.0	mg/kg	01.19.2021 22:18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	66	%	70-130	01.19.2021 22:18	**
o-Terphenyl	84-15-1	72	%	70-130	01.19.2021 22:18	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-5-S-0-.5-210115**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684989-008	Date Collected:	01.15.2021 10:23		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 16:30	% Moisture:	
Seq Number:	3148440			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000389	0.00202	0.000389	mg/kg	01.21.2021 04:32	U	1
Toluene	108-88-3	<0.000460	0.00202	0.000460	mg/kg	01.21.2021 04:32	U	1
Ethylbenzene	100-41-4	<0.000570	0.00202	0.000570	mg/kg	01.21.2021 04:32	U	1
m,p-Xylenes	179601-23-1	<0.00102	0.00404	0.00102	mg/kg	01.21.2021 04:32	U	1
o-Xylene	95-47-6	<0.000348	0.00202	0.000348	mg/kg	01.21.2021 04:32	U	1
Total Xylenes	1330-20-7	<0.000348	0.00202	0.000348	mg/kg	01.21.2021 04:32	U	1
Total BTEX		<0.000348	0.00202	0.000348	mg/kg	01.21.2021 04:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	01.21.2021 04:32	
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.21.2021 04:32	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **SB-6-S-0-.5-210115** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684989-009 Date Collected: 01.15.2021 10:54

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC

Analyst: SPC Date Prep: 01.19.2021 10:38 % Moisture:

Seq Number: 3148368 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**29.6**	5.00	0.858	mg/kg	01.19.2021 13:28		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 08:00 % Moisture:

Seq Number: 3148361 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	01.19.2021 12:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	**116**	50.0	15.0	mg/kg	01.19.2021 12:55		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**76.6**	50.0	15.0	mg/kg	01.19.2021 12:55		1
Total TPH	PHC635	**193**	50.0	15.0	mg/kg	01.19.2021 12:55		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	72	%	70-130	01.19.2021 12:55	
o-Terphenyl	84-15-1	79	%	70-130	01.19.2021 12:55	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-6-S-0-.5-210115**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684989-009	Date Collected:	01.15.2021 10:54		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 16:30	% Moisture:	
Seq Number:	3148440			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	01.21.2021 04:52	U	1
Toluene	108-88-3	<0.000453	0.00199	0.000453	mg/kg	01.21.2021 04:52	U	1
Ethylbenzene	100-41-4	<0.000561	0.00199	0.000561	mg/kg	01.21.2021 04:52	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00398	0.00101	mg/kg	01.21.2021 04:52	U	1
o-Xylene	95-47-6	<0.000342	0.00199	0.000342	mg/kg	01.21.2021 04:52	U	1
Total Xylenes	1330-20-7	<0.000342	0.00199	0.000342	mg/kg	01.21.2021 04:52	U	1
Total BTEX		<0.000342	0.00199	0.000342	mg/kg	01.21.2021 04:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.21.2021 04:52	
4-Bromofluorobenzene	460-00-4	110	%	70-130	01.21.2021 04:52	

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Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **SB-6-S-1-2-210115** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684989-010 Date Collected: 01.15.2021 11:05

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC

Analyst: SPC Date Prep: 01.19.2021 10:38 % Moisture:

Seq Number: 3148368 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.21**	5.03	0.864	mg/kg	01.19.2021 13:33		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.20.2021 11:00 % Moisture:

Seq Number: 3148475 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	49.8	14.9	mg/kg	01.20.2021 18:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	49.8	14.9	mg/kg	01.20.2021 18:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	49.8	14.9	mg/kg	01.20.2021 18:41	U	1
Total TPH	PHC635	<14.9	49.8	14.9	mg/kg	01.20.2021 18:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	68	%	70-130	01.20.2021 18:41	**
o-Terphenyl	84-15-1	79	%	70-130	01.20.2021 18:41	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-6-S-1-2-210115**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684989-010	Date Collected:	01.15.2021 11:05		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 16:30	% Moisture:	
Seq Number:	3148440			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	01.21.2021 05:12	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	01.21.2021 05:12	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	01.21.2021 05:12	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	01.21.2021 05:12	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	01.21.2021 05:12	U	1
Total Xylenes	1330-20-7	<0.000344	0.00200	0.000344	mg/kg	01.21.2021 05:12	U	1
Total BTEX		<0.000344	0.00200	0.000344	mg/kg	01.21.2021 05:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	01.21.2021 05:12	
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.21.2021 05:12	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **SB-6-S-3-4-210115** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684989-011 Date Collected: 01.15.2021 11:10

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC

Analyst: SPC Date Prep: 01.19.2021 11:25 % Moisture:

Seq Number: 3148349 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**36.5**	4.96	0.852	mg/kg	01.20.2021 09:56		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.20.2021 11:00 % Moisture:

Seq Number: 3148475 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**16.4**	50.0	15.0	mg/kg	01.20.2021 19:00	J	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	01.20.2021 19:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	01.20.2021 19:00	U	1
Total TPH	PHC635	**16.4**	50.0	15.0	mg/kg	01.20.2021 19:00	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	65	%	70-130	01.20.2021 19:00	**
o-Terphenyl	84-15-1	76	%	70-130	01.20.2021 19:00	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-6-S-3-4-210115**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684989-011	Date Collected:	01.15.2021 11:10		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 16:30	% Moisture:	
Seq Number:	3148440			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000384	0.00200	0.000384	mg/kg	01.21.2021 05:33	U	1
Toluene	108-88-3	<0.000455	0.00200	0.000455	mg/kg	01.21.2021 05:33	U	1
Ethylbenzene	100-41-4	<0.000564	0.00200	0.000564	mg/kg	01.21.2021 05:33	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00399	0.00101	mg/kg	01.21.2021 05:33	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	01.21.2021 05:33	U	1
Total Xylenes	1330-20-7	<0.000344	0.00200	0.000344	mg/kg	01.21.2021 05:33	U	1
Total BTEX		<0.000344	0.00200	0.000344	mg/kg	01.21.2021 05:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.21.2021 05:33	
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.21.2021 05:33	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **SB-6-S-5-6-210115** Matrix: Soil Date Received:01.15.2021 16:58

Lab Sample Id: 684989-012 Date Collected: 01.15.2021 11:14

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: SPC

Analyst: SPC Date Prep: 01.19.2021 11:25 % Moisture:

Seq Number: 3148349 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**80.6**	4.99	0.857	mg/kg	01.20.2021 09:34	X	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 01.20.2021 11:00 % Moisture:

Seq Number: 3148475 Basis: Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	01.20.2021 19:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	01.20.2021 19:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	01.20.2021 19:19	U	1
Total TPH	PHC635	<15.0	50.0	15.0	mg/kg	01.20.2021 19:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	01.20.2021 19:19	
o-Terphenyl	84-15-1	94	%	70-130	01.20.2021 19:19	

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Certificate of Analytical Results 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id:	**SB-6-S-5-6-210115**	Matrix:	Soil	Date Received:	01.15.2021 16:58
Lab Sample Id:	684989-012	Date Collected:	01.15.2021 11:14		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	01.20.2021 16:30	% Moisture:	
Seq Number:	3148440			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000382	0.00198	0.000382	mg/kg	01.21.2021 05:53	U	1
Toluene	108-88-3	<0.000452	0.00198	0.000452	mg/kg	01.21.2021 05:53	U	1
Ethylbenzene	100-41-4	<0.000560	0.00198	0.000560	mg/kg	01.21.2021 05:53	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00397	0.00101	mg/kg	01.21.2021 05:53	U	1
o-Xylene	95-47-6	<0.000342	0.00198	0.000342	mg/kg	01.21.2021 05:53	U	1
Total Xylenes	1330-20-7	<0.000342	0.00198	0.000342	mg/kg	01.21.2021 05:53	U	1
Total BTEX		<0.000342	0.00198	0.000342	mg/kg	01.21.2021 05:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	01.21.2021 05:53	
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.21.2021 05:53	

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Blank Summary 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **7719449-1-BLK** Matrix: SOLID

Lab Sample Id: **7719449-1-BLK**

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

Tech: CHE

Analyst: CHE Date Prep: 01.18.2021 16:30

Seq Number: 3148186

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	01.18.2021 22:35	U	1

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Blank Summary 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **7719484-1-BLK** Matrix: SOLID

Lab Sample Id: **7719484-1-BLK**

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

Tech: SPC

Analyst: SPC Date Prep: 01.19.2021 10:38

Seq Number: 3148368

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	01.19.2021 10:56	U	1

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Blank Summary 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **7719489-1-BLK** Matrix: SOLID

Lab Sample Id: **7719489-1-BLK**

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

Tech: SPC

Analyst: SPC Date Prep: 01.19.2021 11:25

Seq Number: 3148349

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	01.20.2021 09:12	U	1

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Blank Summary 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **7719548-1-BLK** Matrix: SOLID

Lab Sample Id: **7719548-1-BLK**

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

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 08:00

Seq Number: 3148361

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	01.19.2021 08:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	01.19.2021 08:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	01.19.2021 08:13	U	1

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Blank Summary 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **7719549-1-BLK** Matrix: SOLID

Lab Sample Id: **7719549-1-BLK**

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

Tech: DVM

Analyst: ARM Date Prep: 01.19.2021 16:00

Seq Number: 3148362

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	01.19.2021 14:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	01.19.2021 14:28	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	01.19.2021 14:28	U	1

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Blank Summary 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **7719646-1-BLK** Matrix: SOLID

Lab Sample Id: **7719646-1-BLK**

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

Tech: KTL

Analyst: KTL Date Prep: 01.20.2021 10:00

Seq Number: 3148435

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	01.20.2021 15:32	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	01.20.2021 15:32	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	01.20.2021 15:32	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	01.20.2021 15:32	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	01.20.2021 15:32	U	1

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Blank Summary 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **7719647-1-BLK** Matrix: SOLID

Lab Sample Id: **7719647-1-BLK**

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

Tech: KTL

Analyst: KTL Date Prep: 01.20.2021 16:30

Seq Number: 3148440

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000385	0.00200	0.000385	mg/kg	01.21.2021 02:28	U	1
Toluene	108-88-3	<0.000456	0.00200	0.000456	mg/kg	01.21.2021 02:28	U	1
Ethylbenzene	100-41-4	<0.000565	0.00200	0.000565	mg/kg	01.21.2021 02:28	U	1
m,p-Xylenes	179601-23-1	<0.00101	0.00400	0.00101	mg/kg	01.21.2021 02:28	U	1
o-Xylene	95-47-6	<0.000344	0.00200	0.000344	mg/kg	01.21.2021 02:28	U	1

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Blank Summary 684989

Arcadis U.S., Inc, Austin, TX

WL Well 41

Sample Id: **7719656-1-BLK** Matrix: SOLID

Lab Sample Id: **7719656-1-BLK**

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

Tech: DVM

Analyst: ARM Date Prep: 01.20.2021 11:00

Seq Number: 3148475

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	50.0	15.0	mg/kg	01.20.2021 11:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	50.0	15.0	mg/kg	01.20.2021 11:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	50.0	15.0	mg/kg	01.20.2021 11:47	U	1

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Form 2 - Surrogate Recoveries

Project Name: WL Well 41

Report Date: 01212021

Work Orders : 684989 **Project ID:** 30064856-0002B

Lab Batch #: 3148435 **Sample:** 7719646-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.20.2021 12:38 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	70-130	
4-Bromofluorobenzene	0.0279	0.0300	93	70-130	

Lab Batch #: 3148435 **Sample:** 7719646-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.20.2021 12:59 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	70-130	
4-Bromofluorobenzene	0.0283	0.0300	94	70-130	

Lab Batch #: 3148435 **Sample:** 684987-013 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01.20.2021 14:13 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0313	0.0300	104	70-130	
4-Bromofluorobenzene	0.0296	0.0300	99	70-130	

Lab Batch #: 3148435 **Sample:** 684987-013 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01.20.2021 14:34 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0316	0.0300	105	70-130	
4-Bromofluorobenzene	0.0286	0.0300	95	70-130	

Lab Batch #: 3148435 **Sample:** 7719646-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.20.2021 15:32 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0282	0.0300	94	70-130	
4-Bromofluorobenzene	0.0302	0.0300	101	70-130	

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

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Form 2 - Surrogate Recoveries

Project Name: WL Well 41

Report Date: 01212021

Work Orders : 684989 **Project ID:** 30064856-0002B

Lab Batch #: 3148440 **Sample:** 7719647-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.21.2021 00:28 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	70-130	
4-Bromofluorobenzene	0.0323	0.0300	108	70-130	

Lab Batch #: 3148440 **Sample:** 7719647-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.21.2021 00:49 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0314	0.0300	105	70-130	
4-Bromofluorobenzene	0.0280	0.0300	93	70-130	

Lab Batch #: 3148440 **Sample:** 684989-003 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01.21.2021 01:09 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0317	0.0300	106	70-130	
4-Bromofluorobenzene	0.0295	0.0300	98	70-130	

Lab Batch #: 3148440 **Sample:** 684989-003 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01.21.2021 01:30 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0314	0.0300	105	70-130	
4-Bromofluorobenzene	0.0305	0.0300	102	70-130	

Lab Batch #: 3148440 **Sample:** 7719647-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.21.2021 02:28 **SURROGATE RECOVERY STUDY**

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	70-130	
4-Bromofluorobenzene	0.0329	0.0300	110	70-130	

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

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Form 2 - Surrogate Recoveries

Project Name: WL Well 41

Report Date: 01212021

Work Orders : 684989 **Project ID:** 30064856-0002B

Lab Batch #: 3148361 **Sample:** 7719548-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.19.2021 08:13 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.3	100	70	70-130	
o-Terphenyl	40.9	50.0	82	70-130	

Lab Batch #: 3148361 **Sample:** 7719548-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.19.2021 08:33 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.9	100	87	70-130	
o-Terphenyl	40.1	50.0	80	70-130	

Lab Batch #: 3148361 **Sample:** 7719548-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.19.2021 08:52 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.1	100	90	70-130	
o-Terphenyl	39.4	50.0	79	70-130	

Lab Batch #: 3148361 **Sample:** 684953-041 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01.19.2021 09:30 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.9	99.8	93	70-130	
o-Terphenyl	39.2	49.9	79	70-130	

Lab Batch #: 3148361 **Sample:** 684953-041 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01.19.2021 09:49 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.8	99.8	86	70-130	
o-Terphenyl	37.5	49.9	75	70-130	

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

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Form 2 - Surrogate Recoveries

Project Name: WL Well 41

Report Date: 01212021

Work Orders : 684989 **Project ID:** 30064856-0002B

Lab Batch #: 3148362 **Sample:** 7719549-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.19.2021 14:28 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.1	100	70	70-130	
o-Terphenyl	40.4	50.0	81	70-130	

Lab Batch #: 3148362 **Sample:** 7719549-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.19.2021 14:47 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.4	100	80	70-130	
o-Terphenyl	38.9	50.0	78	70-130	

Lab Batch #: 3148362 **Sample:** 7719549-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.19.2021 15:05 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.6	100	85	70-130	
o-Terphenyl	40.9	50.0	82	70-130	

Lab Batch #: 3148362 **Sample:** 684988-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01.19.2021 15:42 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.7	99.7	87	70-130	
o-Terphenyl	40.8	49.9	82	70-130	

Lab Batch #: 3148362 **Sample:** 684988-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01.19.2021 16:01 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.1	99.6	85	70-130	
o-Terphenyl	41.5	49.8	83	70-130	

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

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Form 2 - Surrogate Recoveries

Project Name: WL Well 41

Report Date: 01212021

Work Orders : 684989 **Project ID:** 30064856-0002B

Lab Batch #: 3148475 **Sample:** 7719656-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.20.2021 11:47 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	60.7	100	61	70-130	**
o-Terphenyl	36.8	50.0	74	70-130	

Lab Batch #: 3148475 **Sample:** 7719656-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.20.2021 12:06 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.4	100	77	70-130	
o-Terphenyl	38.0	50.0	76	70-130	

Lab Batch #: 3148475 **Sample:** 7719656-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 01.20.2021 12:25 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	75.9	100	76	70-130	
o-Terphenyl	36.4	50.0	73	70-130	

Lab Batch #: 3148475 **Sample:** 685285-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01.20.2021 13:03 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	90.3	99.7	91	70-130	
o-Terphenyl	41.4	49.9	83	70-130	

Lab Batch #: 3148475 **Sample:** 685285-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 01.20.2021 13:22 **SURROGATE RECOVERY STUDY**

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	77.8	99.9	78	70-130	
o-Terphenyl	36.5	50.0	73	70-130	

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

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QC Summary 684989

Arcadis U.S., Inc

WL Well 41

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3148186 — Matrix: Solid — Date Prep: 01.18.2021
MB Sample Id: 7719449-1-BLK — LCS Sample Id: 7719449-1-BKS — LCSD Sample Id: 7719449-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	256	102	258	103	90-110	1	20	mg/kg	01.18.2021 22:40	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3148368 — Matrix: Solid — Date Prep: 01.19.2021
MB Sample Id: 7719484-1-BLK — LCS Sample Id: 7719484-1-BKS — LCSD Sample Id: 7719484-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	253	101	252	101	90-110	0	20	mg/kg	01.19.2021 11:01	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3148349 — Matrix: Solid — Date Prep: 01.19.2021
MB Sample Id: 7719489-1-BLK — LCS Sample Id: 7719489-1-BKS — LCSD Sample Id: 7719489-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	258	103	259	104	90-110	0	20	mg/kg	01.20.2021 09:19	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3148186 — Matrix: Soil — Date Prep: 01.18.2021
Parent Sample Id: 684987-012 — MS Sample Id: 684987-012 S — MSD Sample Id: 684987-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	481	249	713	93	712	93	90-110	0	20	mg/kg	01.18.2021 22:56	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3148186 — Matrix: Soil — Date Prep: 01.18.2021
Parent Sample Id: 684988-004 — MS Sample Id: 684988-004 S — MSD Sample Id: 684988-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6150	5050	11300	102	11300	102	90-110	0	20	mg/kg	01.19.2021 00:10	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3148368 — Matrix: Soil — Date Prep: 01.19.2021
Parent Sample Id: 684953-001 — MS Sample Id: 684953-001 S — MSD Sample Id: 684953-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.853	249	248	100	248	100	90-110	0	20	mg/kg	01.19.2021 11:17	

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

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QC Summary 684989

Arcadis U.S., Inc

WL Well 41

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3148368 — Matrix: Soil — Date Prep: 01.19.2021
Parent Sample Id: 684953-011 — MS Sample Id: 684953-011 S — MSD Sample Id: 684953-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	5.40	252	246	95	245	95	90-110	0	20	mg/kg	01.19.2021 12:31	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3148349 — Matrix: Soil — Date Prep: 01.19.2021
Parent Sample Id: 684989-012 — MS Sample Id: 684989-012 S — MSD Sample Id: 684989-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	80.6	250	363	113	344	105	90-110	5	20	mg/kg	01.20.2021 09:41	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3148349 — Matrix: Soil — Date Prep: 01.19.2021
Parent Sample Id: 685064-004 — MS Sample Id: 685064-004 S — MSD Sample Id: 685064-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3050	1260	4450	111	4470	113	90-110	0	20	mg/kg	01.20.2021 11:05	X

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3148361 — Matrix: Solid — Date Prep: 01.19.2021
MB Sample Id: 7719548-1-BLK — LCS Sample Id: 7719548-1-BKS — LCSD Sample Id: 7719548-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	811	81	893	89	70-130	10	20	mg/kg	01.19.2021 08:33	
Diesel Range Organics (DRO)	<15.0	1000	888	89	907	91	70-130	2	20	mg/kg	01.19.2021 08:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	70		87		90		70-130	%	01.19.2021 08:33
o-Terphenyl	82		80		79		70-130	%	01.19.2021 08:33

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3148362 — Matrix: Solid — Date Prep: 01.19.2021
MB Sample Id: 7719549-1-BLK — LCS Sample Id: 7719549-1-BKS — LCSD Sample Id: 7719549-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	854	85	871	87	70-130	2	20	mg/kg	01.19.2021 14:47	
Diesel Range Organics (DRO)	<15.0	1000	863	86	880	88	70-130	2	20	mg/kg	01.19.2021 14:47	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	70		80		85		70-130	%	01.19.2021 14:47
o-Terphenyl	81		78		82		70-130	%	01.19.2021 14:47

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

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

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

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QC Summary 684989

Arcadis U.S., Inc

WL Well 41

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3148475 — Matrix: Solid — Date Prep: 01.20.2021
MB Sample Id: 7719656-1-BLK — LCS Sample Id: 7719656-1-BKS — LCSD Sample Id: 7719656-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	824	82	861	86	70-130	4	20	mg/kg	01.20.2021 12:06	
Diesel Range Organics (DRO)	<15.0	1000	841	84	836	84	70-130	1	20	mg/kg	01.20.2021 12:06	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	61	**	77		76		70-130	%	01.20.2021 12:06
o-Terphenyl	74		76		73		70-130	%	01.20.2021 12:06

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3148361 — Matrix: Solid — Date Prep: 01.19.2021
MB Sample Id: 7719548-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<15.0	mg/kg	01.19.2021 08:13	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3148362 — Matrix: Solid — Date Prep: 01.19.2021
MB Sample Id: 7719549-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<15.0	mg/kg	01.19.2021 14:28	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3148475 — Matrix: Solid — Date Prep: 01.20.2021
MB Sample Id: 7719656-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<15.0	mg/kg	01.20.2021 11:47	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3148361 — Matrix: Soil — Date Prep: 01.19.2021
Parent Sample Id: 684953-041 — MS Sample Id: 684953-041 S — MSD Sample Id: 684953-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	998	844	85	871	87	70-130	3	20	mg/kg	01.19.2021 09:30	
Diesel Range Organics (DRO)	<15.0	998	850	85	841	84	70-130	1	20	mg/kg	01.19.2021 09:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		86		70-130	%	01.19.2021 09:30
o-Terphenyl	79		75		70-130	%	01.19.2021 09:30

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

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

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

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QC Summary 684989

Arcadis U.S., Inc

WL Well 41

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3148362 — Matrix: Soil — Date Prep: 01.19.2021
Parent Sample Id: 684988-001 — MS Sample Id: 684988-001 S — MSD Sample Id: 684988-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	803	81	809	81	70-130	1	20	mg/kg	01.19.2021 15:42	
Diesel Range Organics (DRO)	<15.0	997	885	89	891	89	70-130	1	20	mg/kg	01.19.2021 15:42	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		85		70-130	%	01.19.2021 15:42
o-Terphenyl	82		83		70-130	%	01.19.2021 15:42

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3148475 — Matrix: Soil — Date Prep: 01.20.2021
Parent Sample Id: 685285-001 — MS Sample Id: 685285-001 S — MSD Sample Id: 685285-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	890	89	782	78	70-130	13	20	mg/kg	01.20.2021 13:03	
Diesel Range Organics (DRO)	<15.0	997	902	90	772	77	70-130	16	20	mg/kg	01.20.2021 13:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	91		78		70-130	%	01.20.2021 13:03
o-Terphenyl	83		73		70-130	%	01.20.2021 13:03

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3148435 — Matrix: Solid — Date Prep: 01.20.2021
MB Sample Id: 7719646-1-BLK — LCS Sample Id: 7719646-1-BKS — LCSD Sample Id: 7719646-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.128	128	0.128	128	70-130	0	35	mg/kg	01.20.2021 12:38	
Toluene	<0.000456	0.100	0.116	116	0.117	117	70-130	1	35	mg/kg	01.20.2021 12:38	
Ethylbenzene	<0.000565	0.100	0.118	118	0.119	119	70-130	1	35	mg/kg	01.20.2021 12:38	
m,p-Xylenes	<0.00101	0.200	0.234	117	0.237	119	70-130	1	35	mg/kg	01.20.2021 12:38	
o-Xylene	<0.000344	0.100	0.111	111	0.113	113	70-130	2	35	mg/kg	01.20.2021 12:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		105		104		70-130	%	01.20.2021 12:38
4-Bromofluorobenzene	101		93		94		70-130	%	01.20.2021 12:38

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

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QC Summary 684989

Arcadis U.S., Inc

WL Well 41

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3148440 — Matrix: Solid — Date Prep: 01.20.2021
MB Sample Id: 7719647-1-BLK — LCS Sample Id: 7719647-1-BKS — LCSD Sample Id: 7719647-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.117	117	0.126	126	70-130	7	35	mg/kg	01.21.2021 00:28	
Toluene	<0.000456	0.100	0.106	106	0.111	111	70-130	5	35	mg/kg	01.21.2021 00:28	
Ethylbenzene	<0.000565	0.100	0.110	110	0.113	113	70-130	3	35	mg/kg	01.21.2021 00:28	
m,p-Xylenes	<0.00101	0.200	0.220	110	0.222	111	70-130	1	35	mg/kg	01.21.2021 00:28	
o-Xylene	<0.000344	0.100	0.107	107	0.107	107	70-130	0	35	mg/kg	01.21.2021 00:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		105		105		70-130	%	01.21.2021 00:28
4-Bromofluorobenzene	110		108		93		70-130	%	01.21.2021 00:28

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3148435 — Matrix: Soil — Date Prep: 01.20.2021
Parent Sample Id: 684987-013 — MS Sample Id: 684987-013 S — MSD Sample Id: 684987-013 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.111	111	0.116	116	70-130	4	35	mg/kg	01.20.2021 14:13	
Toluene	<0.000456	0.100	0.0996	100	0.103	103	70-130	3	35	mg/kg	01.20.2021 14:13	
Ethylbenzene	<0.000565	0.100	0.101	101	0.105	105	70-130	4	35	mg/kg	01.20.2021 14:13	
m,p-Xylenes	<0.00101	0.200	0.201	101	0.206	103	70-130	2	35	mg/kg	01.20.2021 14:13	
o-Xylene	<0.000344	0.100	0.0949	95	0.0975	98	70-130	3	35	mg/kg	01.20.2021 14:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		105		70-130	%	01.20.2021 14:13
4-Bromofluorobenzene	99		95		70-130	%	01.20.2021 14:13

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3148440 — Matrix: Soil — Date Prep: 01.20.2021
Parent Sample Id: 684989-003 — MS Sample Id: 684989-003 S — MSD Sample Id: 684989-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.0969	97	0.103	103	70-130	6	35	mg/kg	01.21.2021 01:09	
Toluene	<0.000456	0.100	0.0855	86	0.0915	92	70-130	7	35	mg/kg	01.21.2021 01:09	
Ethylbenzene	<0.000565	0.100	0.0867	87	0.0952	95	70-130	9	35	mg/kg	01.21.2021 01:09	
m,p-Xylenes	<0.00101	0.200	0.171	86	0.190	95	70-130	11	35	mg/kg	01.21.2021 01:09	
o-Xylene	<0.000344	0.100	0.0819	82	0.0905	91	70-130	10	35	mg/kg	01.21.2021 01:09	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		105		70-130	%	01.21.2021 01:09
4-Bromofluorobenzene	98		102		70-130	%	01.21.2021 01:09

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

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

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

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Flagging Criteria

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

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

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

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

F RPD exceeded lab control limits.

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

U Analyte was not detected.

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

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

K Sample analyzed outside of recommended hold time.

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

** Surrogate recovered outside laboratory control limit.

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

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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

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

Chain of Custody Record

6844989

Client Information	Sampler: J. Steinmann	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-23595-8666.1
Client Contact: Motgan Jordan	Phone: 619 851 8792	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 1 of 2
Company: ARCADIS U.S., Inc.				Job #:
Address: 1717 W 6th Street. Suite 210	Due Date Requested:			
City: Austin	TAT Requested (days): std			
State, Zip: TX, 78703				
Phone: 281 644 9437	PO #:			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: 30064856-0002B	Project #: 30064862 -0002B			
Site: WL Well 41	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 - Na2S2SO3, 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)	8015_GRO/ DRO/ ORO	300 - Chloride	8021- BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
SB-7-S-0-.5-210115	1/15/21	1200	G	Solid						1	
SB-7-S-1-2-210115		1208		Solid							
SB-7-S-3-4-210115		1214		Solid							
SB-7-S-5-5.5-21015		1224		Solid							
SB-8-S-0-.5-210115		1233		Solid							
SB-8-S-1-2-210115		1237		Solid							
SB-8-S-3-4-210115		1245		Solid							
SB-5-S-0-.5-210115		1023		Solid							
SB-6-S-0-.5-210115		1054		Solid							
SB-6-S-1-2-210115		1105		Solid							
SB-6-S-3-4-210115		1110		Solid							

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Jordan Glen	1/15/21 1500	Arcadis	Carlos Granada	1-15-21 1500	Arcadis
2	Carlos Granada	1-15-21 1658	Arcadis		1-15-21 1658	
3						

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

Cooler Temperature(s) °C and Other Remarks: -.4 / -.9

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

Chain of Custody Record

6984989

Client Information	Sampler: J. Steinmann	Lab PM: Kudchadkar, Sachin G	Carrier Tracking No(s):	COC No: 600-23595-8666.1
Client Contact: Motgan Jordan	Phone: 619 851 8792	E-Mail: sachin.kudchadkar@testamericainc.com		Page: Page 2 of 2
Company: ARCADIS U.S., Inc.				Job #:
Address: 1717 W 6th Street. Suite 210	Due Date Requested:			
City: Austin	TAT Requested (days): Std			
State, Zip: TX, 78703				
Phone: 281 644 9437	PO #:			
Email: douglas.jordan@arcadis.com	WO #:			
Project Name: 30064856-0002B	Project #: 30064862 -0002B			
Site: WL Well 41	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015_GRO/ DRO/ ORO	300 - Chloride	8021- BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
SB-6-S-5-6-210115	1/13/21	1114	G	Solid			1	1	1	1	
				Solid							
				Solid							
				Solid							
				Solid							
	1/13/21			Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							

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

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

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

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		1/13/21 1500	Arcadis		1-15-21 1500	Arcadis
2		1-15-21 1658	Arcadis		1-15-21 1658	
3		Date/Time:	Company	Received by:	Date/Time:	Company

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

Cooler Temperature(s) °C and Other Remarks: -.4 / -.9

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Arcadis U.S., Inc

Date/ Time Received: 01.15.2021 04.58.00 PM

Work Order #: 684989

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

Temperature Measuring device used : IR8

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

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

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 01.18.2021
Brianna Teel

Checklist reviewed by: Sachin Kudchadkar Date: 01.18.2021
Sachin Kudchadkar

Appendix E

Revised C-141 Form- 1RP-2446

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NGRL1006731469
District RP	1RP-2424
Facility ID	fGRL1006730948
Application ID	NA

Release Notification

Responsible Party

Responsible Party: Chevron Midcontinent, L.P.	OGRID: 241333
Contact Name: Armando Martinez	Contact Telephone: 505-690-5408
Contact email: amarti@chevron.com	Incident # *(assigned by OCD)* NGRL1006731469
Contact mailing address:	

Location of Release Source

Latitude 32.854764 Longitude -103.391948
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: West Lovington Well #41	Site Type: Injection Well
Date Release Discovered: 03/27/09	API# *(if applicable):* 30-025-03901

Unit Letter	Section	Township	Range	County
B	7	17S	36E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls):	Volume Recovered (bbls):
☒ Produced Water	Volume Released (bbls): 20	Volume Recovered (bbls): 14
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release: An injection line leak below ground.		

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NGRL1006731469
District RP	1RP-2424
Facility ID	fGRL1006730948
Application ID	NA

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

State of New Mexico
Oil Conservation Division

Incident ID	NGRL1006731469
District RP	1RP-2424
Facility ID	fGRL1006730948
Application ID	NA

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	80 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. **Attached.**
Field data: **Attached.**
Data table of soil contaminant concentration data: **Attached.**
Depth to water determination: **51-100 feet bgs**
Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release: **None identified.**
Boring or excavation logs: **Boring Logs attached**
Photographs including date and GIS information: **Photographic log attached.**
Topographic/Aerial maps; **Topographic map attached.**
Laboratory data including chain of custody: **Attached.**

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NGRL1006731469
District RP	1RP-2424
Facility ID	fGRL1006730948
Application ID	NA

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

Printed Name: Armando Martinez Title: Environmental Project Manager

Signature:_____  _____ Date: 5/20/21_____

email: ____ amarti@chevron.com _____ Telephone: 505-690-5408_____

OCD Only

Received by: Jennifer Nobui _____ Date: 04/18/2022_____

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

CONDITIONS

Action 50618

CONDITIONS

Operator: CHEVRON U S A INC 6301 Deauville Blvd Midland, TX 79706	OGRID: 4323
	Action Number: 50618
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Site Assessment Report Accepted. Proceed with proposed additional characterization activities. The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29 NMAC in lieu of drilling to determine the depth to groundwater.	4/18/2022