

**CONFIRMATION SOIL SAMPLING REPORT**

**Facility Name: Mustang Compressor Station**  
**Facility Number: 472836**  
**Initial Form 27 Number: 403949769**  
**NE 1/4, NE 1/4, Section 12, Township 3N, Range 65W**  
**40.245341, -104.606344**  
**Weld County, Colorado**

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**Prepared for:**

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Rocky Mountain Midstream, LLC  
13781 Pacific Circle  
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January 9, 2025

**Prepared by:**

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## 1.0 INTRODUCTION

On behalf of Rocky Mountain Midstream, LLC (RMM), Apex Companies, LLC (Apex) has prepared this Confirmation Soil Sampling Report for the Mustang Compressor Station (Site), located in the northeast quarter of the northeast quarter of Section 12, Township 3N, Range 65W in Weld County, Colorado (**Figure 1**).

## 2.0 GENERAL SITE INFORMATION

The site is in an agricultural area, northwest of the intersection of Weld County Road (WCR) 49 and WCR 34.5 in Platteville, Colorado. It is currently operating as the Mustang Compressor Station.

### 2.1 Initial Release and Spill Response

Based on the initial Form 27 report submitted to the Colorado Energy and Carbon Management Commission (ECMC, form number 403949769), a fire occurred on March 2, 2020 at the pigging launcher and receiver while the system was being depressurized. Approximately 3,000 cubic feet of natural gas was combusted and any potential material spilled to the ground is believed to have been incinerated.

Impacted soils were excavated by RMM and disposed of offsite (Republic Services, Tower Road Landfill, Commerce City, Colorado). An area of approximately 120 feet by 60 feet, and 2-3 feet in depth was excavated around the release location. The excavation was then backfilled with clean fill dirt. No additional records of disposal or laboratory analytical reports have been identified from that time frame. RMM estimates 500 cubic yards of soil were removed, based on the limited information available and statements from employees onsite for the spill response and remediation activities.

### 2.2 Soil Sampling

On November 15, 2024, Apex collected 10 soil samples via hand auger within the former excavation footprint, located at and around the release point (**Figure 2**). The sampling occurred to confirm impacted soil was fully excavated, and to determine if additional remediation is required. All samples were taken between 2.0 and 3.5 feet below ground surface (bgs), underneath the fill material of the excavation. Prior to sample collection, soils were field screened for volatile organic compounds (VOCs) using a handheld photo-ionization detector (PID). No elevated PID readings were observed during soil sample collection, except from the sample collected from MU09 at 1.0-1.5 feet bgs (**Table 1**). The surface stain was determined not to be associated with the 2020 release, and was managed separately from this event.

During soil sample collection, a portion of the sample was placed in a baggie or soil jar for head-space analysis and the other portion was placed within a soil jar for laboratory submittal. A laboratory sample was not collected from soil used for head-space analysis. Soil samples were placed into laboratory-supplied Terra Core Sampling Kit, labeled, and immediately placed in a chilled cooler. The samples were shipped to ALS Environmental in Holland, Michigan, for laboratory analysis of Total Petroleum Hydrocarbons (TPH) (C6-C36) and Table 915-1 Organic Compounds in Soil. Soil samples submitted for laboratory analysis were reported below values for Residential Soil Screening Levels (RSLs), as well as the Protection of Groundwater Soil Screening levels (PGWS) except for the following detections:

- Benzene exceeded the RSL of 1.2 milligrams per kilogram (mg/kg) in sample MU09 from 3.0 to 3.5 feet bgs.
- Toluene exceeded the PGWS level of 0.69 mg/kg in sample MU09 from 3.0 to 3.5 feet bgs.
- Potential hydrogen (pH) was detected outside of the RSL acceptable pH range of 6 to 8.3 in the samples collected from MU01, MU02, MU04, MU05, MU06, MU07, MU09, and MU10.

All lab analyses are included in **Table 2** and can be found in the attached laboratory report at the end of this report.

### **3.0 INVESTIGATION CONCLUSIONS**

Laboratory results from the confirmation soil samples collected on November 15, 2024, indicate past remediation efforts to remove impacted soils associated with the March 2, 2020, release at the Mustang Compressor Station were successful. The contaminant concentrations of benzene and toluene reported above the regulatory limits in the sample collected at 3.0-3.5 feet bgs from boring MU09 appear to be associated with surface staining noticed at the time of the sampling event. All other soil samples had contaminant concentrations below regulatory action levels.

## **ATTACHMENTS**



**Figure 1 - Site Location**  
**Mustang Compressor Station**  
**Facility Number: 472836**  
**40.245341, -104.606344,**  
**Weld County, Colorado**

**Legend**

- Site Boundary

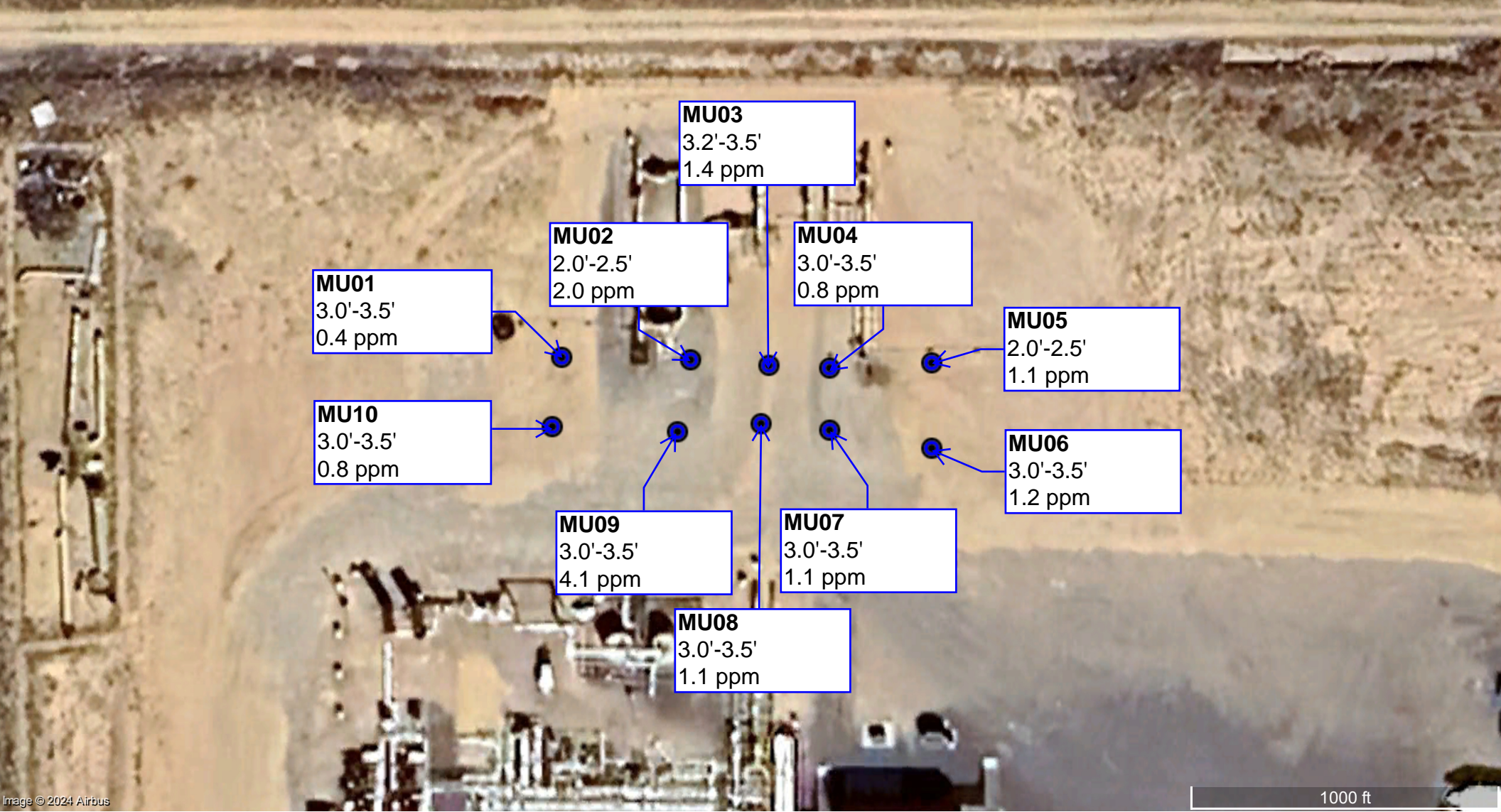




**Figure 2 - Soil Sample Locations**  
**Mustang Compressor Station**  
**Facility Number: 37367**  
**Soil Samples Collected on**  
**November 15, 2024**

MU01 - Soil sample location name  
3.0'-3.5' - Soil sample depth, in feet  
0.4 ppm - Volatile organic compounds (VOC), in parts per million (ppm)

**Legend**  
● Soil Sample Locations





**Table 1 - PID Field Measurements, November 15, 2024**

Sample Date	Soil Sample Location	Sample Depth PID Results (ppm)		
		1.0'-1.5' bgs	2.0'-2.5' bgs	3.0'-3.5' bgs
11/15/2024	MU01	0.0	0.2	0.4
11/15/2024	MU02	0.0	2.0	1.4
11/15/2024	MU03	1.0	1.3	1.4
11/15/2024	MU04	0.5	0.5	0.8
11/15/2024	MU05	0.1	1.1	0.6
11/15/2024	MU06	0.9	1.1	1.2
11/15/2024	MU07	0.5	1.0	1.1
11/15/2024	MU08	1.0	1.0	1.1
11/15/2024	MU09	349.0	2.0	4.1
11/15/2024	MU10	0.7	0.7	0.8

**Legend:**

Samples submitted to ALS for analysis

PID - Photoionization Detector

ppm - parts per million

bgs - below ground surface



Table 2 - Soil Analytical Results

				Organic Compounds in Soils (mg/kg)												
ECMC Residential Soil Screening Levels -->				500	1.2	490	5.8	58	30	27	360	1800	1.1	1.1	11	
Protection of Groundwater Levels (Soil) -->					0.0026(M)	0.69(M)	0.78(M)	9.9(M)	0.0081(R)	0.0087(R)	0.55(R)	5.8(R)	0.011(R)	0.3(R)	2.9(R)	
Sample Date	Solid/Soil Source [Vault/Sump, Spill, Pit, Cuttings, Background, Tank Battery, Wellhead, Flowline, etc.]	Sample ID	PID (ppm)	TPH-GRO (C6-C10) Low Fraction	TPH-DRO (C10-C36) High Fraction	Benzene	Toluene	Ethylbenzene	Xylenes (sum of o-, m- and p-isomers = total xylenes)	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene
11/15/2024	Excavation	MU01@3.0'-3.5'	0.4	<6.200	6.2J	<0.00056	<0.0019	<0.00094	<0.0037	<0.0020	<0.0017	<0.0017	<0.0008	<0.0032	<0.0026	<0.00066
11/15/2024	Excavation	MU02@2.0'-2.5'	2	<5.300	<2.7	<0.00054	<0.0018	<0.00091	<0.0036	<0.0019	<0.0017	<0.0017	<0.00079	<0.0031	<0.0026	<0.00065
11/15/2024	Excavation	MU03@3.2'-3.5'	1.4	<5.500	4.4J	<0.00028	<0.00095	<0.00048	<0.00186	<0.00098	<0.00088	<0.0018	<0.00083	<0.0033	<0.0028	<0.00069
11/15/2024	Excavation	MU04@3.0'-3.5'	0.8	<5.800	3.6J	<0.00062	<0.0021	<0.0010	<0.0040	<0.0022	<0.0019	<0.0017	<0.00081	<0.0032	<0.0027	<0.00066
11/15/2024	Excavation	MU05@2.0'-2.5'	1.1	<5.700	20J	<0.00060	<0.0020	<0.0010	<0.0039	<0.0021	<0.0018	<0.0017	<0.00081	<0.0032	<0.0027	<0.00066
11/15/2024	Excavation	MU06@3.0'-3.5'	1.2	<5.700	<2.8	<0.00062	<0.0021	<0.0010	<0.0040	<0.0022	<0.0019	<0.0017	<0.00081	<0.0032	<0.0027	<0.00066
11/15/2024	Excavation	MU07@3.0'-3.5'	1.1	<6.300	<2.9	<0.00055	<0.0018	<0.00091	<0.0036	<0.0019	<0.0017	<0.0017	<0.00083	<0.0033	<0.0027	<0.00068
11/15/2024	Excavation	MU08@3.0'-3.5'	1.1	<5.800	<2.9	<0.00068	<0.0023	<0.0011	<0.0045	<0.0024	<0.0021	<0.0017	<0.00083	<0.0033	<0.0027	<0.00068
11/15/2024	Excavation	MU09@3.0'-3.5'	4.1	<6.400	7.7J	4.2J	2.9J	<0.00095	<0.0037	<0.0020	<0.0018	<0.0017	<0.00080	<0.0032	<0.0027	<0.00066
11/15/2024	Excavation	MU10@3.0'-3.5'	0.8	<5.900	<2.7	<0.00063	<0.0021	<0.0011	<0.0042	<0.0022	<0.0019	<0.0016	<0.00078	<0.0031	<0.0026	<0.00064

Legend:

ECMC - Colorado Energy and Carbon Management Commission

Orange Highlight - ECMC Table 915-1 TPH, BTEX, organic, metal exceedance

Light Blue Highlight - exceedance of protection of groundwater soil screening level concentrations risk based (R) or MCL based (M)

Yellow Highlight - ECMC Table 915-1 inorganic exceedance

Grey Highlight - below laboratory detection limit

TPH-GRO - Total Petroleum Hydrocarbons Gasoline Range Organics

TPH-DRO - Total Petroleum Hydrocarbons Diesel Range Organics

MCL - maximum contaminant level

PID - Photoionization Detector

ppm - parts per million

mg/kg - milligrams per kilogram

mg/L - milligrams per liter

mmhos/cm - millimhos per centimeter

J - analyte is present at an estimated concentration between the method detection limit and report limit

' - feet



Table 2 - Soil Analytical Results

		Organic Compounds in Soils (mg/kg)											Soil Suitability for Reclamation				Metals by Saturated Paste (mg/L)			
ECMC Residential Soil Screening Levels -->		0.11	110	0.11	240	240	1.1	18	24	2	180	4	6	(6-8.3)	2					
Protection of Groundwater Levels (Soil) -->		0.24(M)	9(R)	0.096(R)	8.9(R)	0.54(R)	0.98(R)	0.006(R)	0.019(R)	0.0038(R)	1.3(R)									
Sample Date	Solid/Soil Source (Vault/Sump, Spill, Pit, Cuttings, Background, Tank Battery, Wellhead, Flowline, etc.)	Sample ID	PID (ppm)	Benzo(a)pyrene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Pyrene	Electrical Conductivity (EC) (by saturated paste method) (mmhos/cm)	Sodium Adsorption Ratio (SAR) (by saturated paste method) (Calculation)	pH (by saturated paste method) (pH Units)	Boron (hot water soluble soil extract) (mg/L)	Calcium	Magnesium	Sodium
11/15/2024	Excavation	MU01@3.0'-3.5'	0.4	<0.0030	<0.0029	<0.0025	<0.0022	<0.0011	<0.0030	<0.00090	<0.0010	<0.00083	<0.0028	0.37	0.16	5.28	0.42	29	6.9	3.6
11/15/2024	Excavation	MU02@2.0'-2.5'	2	<0.0029	<0.0029	<0.0025	<0.0022	<0.0011	<0.0030	<0.00089	<0.0010	<0.00082	<0.0028	0.57	0.43	3.61	0.15J	29	12	11
11/15/2024	Excavation	MU03@3.2'-3.5'	1.4	<0.0031	<0.0030	<0.0027	<0.0023	<0.0011	<0.0032	<0.00093	<0.0011	<0.00086	<0.0029	0.58	0.45	7.10	0.18J	54	10	14
11/15/2024	Excavation	MU04@3.0'-3.5'	0.8	<0.0030	<0.0029	<0.0026	<0.0022	<0.0011	<0.0031	<0.00090	<0.0010	<0.00084	<0.0028	0.41	0.64	5.01	0.21J	29	6.4	15
11/15/2024	Excavation	MU05@2.0'-2.5'	1.1	<0.0030	<0.0029	<0.0026	<0.0022	<0.0011	<0.0031	<0.00090	<0.0010	<0.00084	<0.0028	1.4	0.34	2.80	0.18J	22	5.4	6.8
11/15/2024	Excavation	MU06@3.0'-3.5'	1.2	<0.0030	<0.0029	<0.0026	<0.0022	<0.0011	<0.0031	<0.00090	<0.0010	<0.00084	<0.0028	0.84	0.39	3.04	0.18J	16	4.4	6.7
11/15/2024	Excavation	MU07@3.0'-3.5'	1.1	<0.0031	<0.0030	<0.0026	<0.0023	<0.0011	<0.0032	<0.00093	<0.0011	<0.00086	<0.0029	0.62	0.36	3.96	0.26J	35	8.8	9.2
11/15/2024	Excavation	MU08@3.0'-3.5'	1.1	<0.0031	<0.0030	<0.0026	<0.0023	<0.0011	<0.0031	<0.00093	<0.0011	<0.00086	<0.0029	0.43	0.48	7.68	0.26J	43	8.8	13
11/15/2024	Excavation	MU09@3.0'-3.5'	4.1	<0.0030	<0.0029	<0.0026	<0.0022	<0.0011	<0.0031	<0.00090	<0.0010	<0.00083	<0.0028	0.67	0.22	4.67	0.26J	40	11	6.2
11/15/2024	Excavation	MU10@3.0'-3.5'	0.8	<0.0029	<0.0028	<0.0025	<0.0021	<0.0011	<0.0030	<0.00088	<0.0010	<0.00081	<0.0027	0.67	0.20	3.31	0.27J	20	4.9	3.9

Legend:

ECMC - Colorado Energy and Carbon Management Commiss

Orange Highlight - ECMC Table 915-1 TPH, BTEX, organic, metal exceedance

Light Blue Highlight - exceedance of protection of groundwater soil screening level concentrations risk based (R) or MCL based (M)

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TPH-GRO - Total Petroleum Hydrocarbons Gasoline Range Organics

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PID - Photoionization Detector

ppm - parts per million

mg/kg - milligrams per kilogram

mg/L - milligrams per liter

mmhos/cm - millimhos per centimeter

J - analyte is present at an estimated concentration between the m

' - feet



05-Dec-2024

Annette Garrigues  
Williams Midstream  
2717 County Road 215  
Parachute, CO 81635

Re: **WPO188995**

Work Order: **24110559**

Dear Annette,

ALS Environmental received 10 samples on 19-Nov-2024 09:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 40.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA  
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Electronically approved by: Chad Whelton

Chad Whelton  
Project Manager

## Report of Laboratory Analysis

Certificate No: FL E871106

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Client: Williams Midstream  
 Project: WPO188995  
 Work Order: 24110559

**Work Order Sample Summary**

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
24110559-01	MU01@3.0'-3.5'	Soil		11/15/2024 10:10	11/19/2024 09:00	<input type="checkbox"/>
24110559-02	MU02@2.0'-2.5'	Soil		11/15/2024 10:35	11/19/2024 09:00	<input type="checkbox"/>
24110559-03	MU03@3.0'-3.5'	Soil		11/15/2024 12:35	11/19/2024 09:00	<input type="checkbox"/>
24110559-04	MU04@3.0'-3.5'	Soil		11/15/2024 12:50	11/19/2024 09:00	<input type="checkbox"/>
24110559-05	MU05@2.0'-2.5'	Soil		11/15/2024 13:50	11/19/2024 09:00	<input type="checkbox"/>
24110559-06	MU06@3.0'-3.5'	Soil		11/15/2024 14:20	11/19/2024 09:00	<input type="checkbox"/>
24110559-07	MU07@3.0'-3.5'	Soil		11/15/2024 14:30	11/19/2024 09:00	<input type="checkbox"/>
24110559-08	MU08@3.0'-3.5'	Soil		11/15/2024 14:40	11/19/2024 09:00	<input type="checkbox"/>
24110559-09	MU09@3.0'-3.5'	Soil		11/15/2024 14:50	11/19/2024 09:00	<input type="checkbox"/>
24110559-10	MU10@3.0'-3.5'	Soil		11/15/2024 15:30	11/19/2024 09:00	<input type="checkbox"/>

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**Client:** Williams Midstream  
**Project:** WPO188995  
**Work Order:** 24110559

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**Case Narrative**

The attached "Sample Receipt Checklist" documents the date of receipt, status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. A copy of the laboratory's scope of accreditation is available upon request.

Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

Any flags on MS/MSD samples not addressed in this narrative are unrelated to samples in this report.

With the following exceptions, all sample analyses achieved analytical criteria.

Batch 249888, Method USDA Method 20B, Sample 24110559-01A DUP: The RPD between the sample and its duplicate was out of control. The corresponding sample result should be considered estimated for this analyte. pH

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**Client:** Williams Midstream  
**Project:** WPO188995  
**WorkOrder:** 24110559

**QUALIFIERS,  
ACRONYMS, UNITS**

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<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Analyte accreditation is not offered
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	

**ALS Group, USA**

Date: 05-Dec-24

**Client:** Williams Midstream  
**Project:** WPO188995  
**Sample ID:** MU01@3.0'-3.5'  
**Collection Date:** 11/15/2024 10:10 AM

**Work Order:** 24110559  
**Lab ID:** 24110559-01  
**Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW3546 / 11/25/24		Analyst: <b>QNG</b>
<b>ERO (C10-C36)</b>	<b>6.2</b>	J	<b>2.8</b>	<b>21</b>	<b>mg/Kg-dry</b>	1	11/26/2024 17:42
<i>Surr: 4-Terphenyl-d14</i>	44.3			10-131	%REC	1	11/26/2024 17:42
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW5035A / 11/20/24		Analyst: <b>QNG</b>
<b>GRO (C6-C10)</b>		U	6,200	6,700	µg/Kg-dry	1	11/21/2024 01:00
<i>Surr: Toluene-d8</i>	97.0			75-120	%REC	1	11/21/2024 01:00
<b>SOLUBLE CATIONS FOR SAR</b>			Method: <b>SW6020B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>STP</b>
<b>Calcium</b>	<b>29</b>		<b>2.5</b>	<b>5.0</b>	<b>mg/L</b>	10	12/3/2024 19:22
<b>Magnesium</b>	<b>6.9</b>		<b>0.50</b>	<b>2.0</b>	<b>mg/L</b>	10	12/3/2024 19:22
<b>Sodium</b>	<b>3.6</b>		<b>1.8</b>	<b>2.0</b>	<b>mg/L</b>	10	12/4/2024 14:11
<b>HOT WATER SOLUBLE BORON BY ICP-MS</b>			Method: <b>SW6020B</b>		Prep: EXTRACT / 11/26/24		Analyst: <b>MTK</b>
<b>Boron (Hot Water Soluble)</b>	<b>0.42</b>		<b>0.016</b>	<b>0.41</b>	<b>mg/Kg-dry</b>	10	12/2/2024 15:26
<b>SODIUM ADSORPTION RATIO</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>DSC</b>
<b>Sodium Adsorption Ratio</b>	<b>0.16</b>		<b>0.010</b>	<b>0.010</b>	<b>none</b>	1	12/3/2024
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (SIM)</b>			Method: <b>SW8270E</b>		Prep: SW3546 / 11/25/24		Analyst: <b>SMT</b>
1-Methylnaphthalene	U		0.90	4.4	µg/Kg-dry	1	11/27/2024 05:20
2-Methylnaphthalene	U		1.0	4.4	µg/Kg-dry	1	11/27/2024 05:20
Acenaphthene	U		1.7	4.4	µg/Kg-dry	1	11/27/2024 05:20
Anthracene	U		0.80	4.4	µg/Kg-dry	1	11/27/2024 05:20
Benzo(a)anthracene	U		3.2	4.4	µg/Kg-dry	1	11/27/2024 05:20
Benzo(a)pyrene	U		3.0	4.4	µg/Kg-dry	1	11/27/2024 05:20
Benzo(b)fluoranthene	U		2.6	4.4	µg/Kg-dry	1	11/27/2024 05:20
Benzo(k)fluoranthene	U		0.66	4.4	µg/Kg-dry	1	11/27/2024 05:20
Chrysene	U		2.9	4.4	µg/Kg-dry	1	11/27/2024 05:20
Dibenzo(a,h)anthracene	U		2.5	4.4	µg/Kg-dry	1	11/27/2024 05:20
Fluoranthene	U		2.2	4.4	µg/Kg-dry	1	11/27/2024 05:20
Fluorene	U		1.1	4.4	µg/Kg-dry	1	11/27/2024 05:20
Indeno(1,2,3-cd)pyrene	U		3.0	4.4	µg/Kg-dry	1	11/27/2024 05:20
Naphthalene	U		0.83	4.4	µg/Kg-dry	1	11/27/2024 05:20
Pyrene	U		2.8	4.4	µg/Kg-dry	1	11/27/2024 05:20
<i>Surr: 2-Fluorobiphenyl</i>	76.8			44-132	%REC	1	11/27/2024 05:20
<i>Surr: 4-Terphenyl-d14</i>	90.2			35-133	%REC	1	11/27/2024 05:20
<i>Surr: Nitrobenzene-d5</i>	113			30-133	%REC	1	11/27/2024 05:20
<b>VOLATILE ORGANIC COMPOUNDS - LOW LEVEL</b>			Method: <b>SW8260D</b>				Analyst: <b>NTJ</b>

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 05-Dec-24

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU01@3.0'-3.5'  
 Collection Date: 11/15/2024 10:10 AM

Work Order: 24110559  
 Lab ID: 24110559-01  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trimethylbenzene		U	2.0	5.4	µg/Kg-dry	1.02	11/28/2024 00:18
1,3,5-Trimethylbenzene		U	1.7	5.4	µg/Kg-dry	1.02	11/28/2024 00:18
Benzene		U	0.56	5.4	µg/Kg-dry	1.02	11/28/2024 00:18
Ethylbenzene		U	0.94	5.4	µg/Kg-dry	1.02	11/28/2024 00:18
m,p-Xylene		U	2.4	2.7	µg/Kg-dry	1.02	11/28/2024 00:18
o-Xylene		U	1.3	2.7	µg/Kg-dry	1.02	11/28/2024 00:18
Toluene		U	1.9	5.4	µg/Kg-dry	1.02	11/28/2024 00:18
Xylenes, Total		U	2.4	5.4	µg/Kg-dry	1.02	11/28/2024 00:18
Surr: 1,2-Dichloroethane-d4	105			83-132	%REC	1.02	11/28/2024 00:18
Surr: 4-Bromofluorobenzene	102			83-111	%REC	1.02	11/28/2024 00:18
Surr: Dibromofluoromethane	104			77-125	%REC	1.02	11/28/2024 00:18
Surr: Toluene-d8	93.4			86-108	%REC	1.02	11/28/2024 00:18
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	<b>0.37</b>		<b>0.011</b>	<b>0.10</b>	<b>mmhos/cm @25°C</b>	20	12/4/2024 09:55
<b>MOISTURE</b>			Method: <b>SW3550C</b>				Analyst: <b>ETC</b>
Moisture	<b>6.0</b>		<b>0.10</b>	<b>0.10</b>	<b>% of sample</b>	1	11/20/2024 20:45
<b>PH MEASURED IN SOIL PASTE</b>			Method: <b>USDA METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
pH @ Saturation	<b>5.28</b>		<b>0.11</b>	<b>0.11</b>	<b>s.u.-dry</b>	1	12/4/2024 09:25

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU02@2.0'-2.5'  
 Collection Date: 11/15/2024 10:35 AM

Work Order: 24110559  
 Lab ID: 24110559-02  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>							
			Method: <b>SW8015C</b>		Prep: SW3546 / 11/25/24		Analyst: <b>QNG</b>
ERO (C10-C36)	U		2.7	21	mg/Kg-dry	1	11/26/2024 18:06
Surr: 4-Terphenyl-d14	44.3			10-131	%REC	1	11/26/2024 18:06
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>							
			Method: <b>SW8015C</b>		Prep: SW5035A / 11/20/24		Analyst: <b>QNG</b>
GRO (C6-C10)	U		5,300	5,700	µg/Kg-dry	1	11/21/2024 00:38
Surr: Toluene-d8	99.8			75-120	%REC	1	11/21/2024 00:38
<b>SOLUBLE CATIONS FOR SAR</b>							
			Method: <b>SW6020B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>STP</b>
Calcium	29		2.5	5.0	mg/L	10	12/3/2024 19:28
Magnesium	12		0.50	2.0	mg/L	10	12/3/2024 19:28
Sodium	11		1.8	2.0	mg/L	10	12/3/2024 19:28
<b>HOT WATER SOLUBLE BORON BY ICP-MS</b>							
			Method: <b>SW6020B</b>		Prep: EXTRACT / 11/26/24		Analyst: <b>MTK</b>
Boron (Hot Water Soluble)	0.15	J	0.016	0.41	mg/Kg-dry	10	12/2/2024 15:28
<b>SODIUM ADSORPTION RATIO</b>							
			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>DSC</b>
Sodium Adsorption Ratio	0.43		0.010	0.010	none	1	12/3/2024
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (SIM)</b>							
			Method: <b>SW8270E</b>		Prep: SW3546 / 11/25/24		Analyst: <b>SMT</b>
1-Methylnaphthalene	U		0.89	4.3	µg/Kg-dry	1	11/27/2024 05:36
2-Methylnaphthalene	U		1.0	4.3	µg/Kg-dry	1	11/27/2024 05:36
Acenaphthene	U		1.7	4.3	µg/Kg-dry	1	11/27/2024 05:36
Anthracene	U		0.79	4.3	µg/Kg-dry	1	11/27/2024 05:36
Benzo(a)anthracene	U		3.1	4.3	µg/Kg-dry	1	11/27/2024 05:36
Benzo(a)pyrene	U		2.9	4.3	µg/Kg-dry	1	11/27/2024 05:36
Benzo(b)fluoranthene	U		2.6	4.3	µg/Kg-dry	1	11/27/2024 05:36
Benzo(k)fluoranthene	U		0.65	4.3	µg/Kg-dry	1	11/27/2024 05:36
Chrysene	U		2.9	4.3	µg/Kg-dry	1	11/27/2024 05:36
Dibenzo(a,h)anthracene	U		2.5	4.3	µg/Kg-dry	1	11/27/2024 05:36
Fluoranthene	U		2.2	4.3	µg/Kg-dry	1	11/27/2024 05:36
Fluorene	U		1.1	4.3	µg/Kg-dry	1	11/27/2024 05:36
Indeno(1,2,3-cd)pyrene	U		3.0	4.3	µg/Kg-dry	1	11/27/2024 05:36
Naphthalene	U		0.82	4.3	µg/Kg-dry	1	11/27/2024 05:36
Pyrene	U		2.8	4.3	µg/Kg-dry	1	11/27/2024 05:36
Surr: 2-Fluorobiphenyl	81.3			44-132	%REC	1	11/27/2024 05:36
Surr: 4-Terphenyl-d14	78.0			35-133	%REC	1	11/27/2024 05:36
Surr: Nitrobenzene-d5	102			30-133	%REC	1	11/27/2024 05:36
<b>VOLATILE ORGANIC COMPOUNDS - LOW LEVEL</b>							
			Method: <b>SW8260D</b>				Analyst: <b>NTJ</b>

Note: See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 05-Dec-24

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU02@2.0'-2.5'  
 Collection Date: 11/15/2024 10:35 AM

Work Order: 24110559  
 Lab ID: 24110559-02  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trimethylbenzene		U	1.9	5.2	µg/Kg-dry	0.993	11/28/2024 00:34
1,3,5-Trimethylbenzene		U	1.7	5.2	µg/Kg-dry	0.993	11/28/2024 00:34
Benzene		U	0.54	5.2	µg/Kg-dry	0.993	11/28/2024 00:34
Ethylbenzene		U	0.91	5.2	µg/Kg-dry	0.993	11/28/2024 00:34
m,p-Xylene		U	2.3	2.6	µg/Kg-dry	0.993	11/28/2024 00:34
o-Xylene		U	1.3	2.6	µg/Kg-dry	0.993	11/28/2024 00:34
Toluene		U	1.8	5.2	µg/Kg-dry	0.993	11/28/2024 00:34
Xylenes, Total		U	2.3	5.2	µg/Kg-dry	0.993	11/28/2024 00:34
Surr: 1,2-Dichloroethane-d4	104			83-132	%REC	0.993	11/28/2024 00:34
Surr: 4-Bromofluorobenzene	100			83-111	%REC	0.993	11/28/2024 00:34
Surr: Dibromofluoromethane	102			77-125	%REC	0.993	11/28/2024 00:34
Surr: Toluene-d8	93.2			86-108	%REC	0.993	11/28/2024 00:34
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	<b>0.57</b>		<b>0.011</b>	<b>0.10</b>	<b>mmhos/cm @25°C</b>	20	12/4/2024 09:55
<b>MOISTURE</b>			Method: <b>SW3550C</b>				Analyst: <b>ETC</b>
Moisture	<b>5.0</b>		<b>0.10</b>	<b>0.10</b>	<b>% of sample</b>	1	11/20/2024 20:45
<b>PH MEASURED IN SOIL PASTE</b>			Method: <b>USDA METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
pH @ Saturation	<b>3.61</b>		<b>0.11</b>	<b>0.11</b>	<b>s.u.-dry</b>	1	12/4/2024 09:25

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU03@3.0'-3.5'  
 Collection Date: 11/15/2024 12:35 PM

Work Order: 24110559  
 Lab ID: 24110559-03  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW3546 / 11/25/24		Analyst: <b>QNG</b>
<b>ERO (C10-C36)</b>	<b>4.4</b>	J	<b>2.9</b>	<b>22</b>	<b>mg/Kg-dry</b>	1	11/26/2024 18:29
<i>Surr: 4-Terphenyl-d14</i>	42.3			10-131	%REC	1	11/26/2024 18:29
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW5035A / 11/20/24		Analyst: <b>QNG</b>
<b>GRO (C6-C10)</b>		U	5,500	5,800	µg/Kg-dry	1	11/21/2024 00:15
<i>Surr: Toluene-d8</i>	97.7			75-120	%REC	1	11/21/2024 00:15
<b>SOLUBLE CATIONS FOR SAR</b>			Method: <b>SW6020B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>STP</b>
<b>Calcium</b>	<b>54</b>		<b>2.5</b>	<b>5.0</b>	<b>mg/L</b>	10	12/3/2024 19:30
<b>Magnesium</b>	<b>10</b>		<b>0.50</b>	<b>2.0</b>	<b>mg/L</b>	10	12/3/2024 19:30
<b>Sodium</b>	<b>14</b>		<b>1.8</b>	<b>2.0</b>	<b>mg/L</b>	10	12/3/2024 19:30
<b>HOT WATER SOLUBLE BORON BY ICP-MS</b>			Method: <b>SW6020B</b>		Prep: EXTRACT / 11/26/24		Analyst: <b>MTK</b>
<b>Boron (Hot Water Soluble)</b>	<b>0.18</b>	J	<b>0.017</b>	<b>0.43</b>	<b>mg/Kg-dry</b>	10	12/2/2024 15:29
<b>SODIUM ADSORPTION RATIO</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>DSC</b>
<b>Sodium Adsorption Ratio</b>	<b>0.45</b>		<b>0.010</b>	<b>0.010</b>	<b>none</b>	1	12/3/2024
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (SIM)</b>			Method: <b>SW8270E</b>		Prep: SW3546 / 11/25/24		Analyst: <b>SMT</b>
1-Methylnaphthalene	U		0.93	4.6	µg/Kg-dry	1	11/27/2024 05:51
2-Methylnaphthalene	U		1.1	4.6	µg/Kg-dry	1	11/27/2024 05:51
Acenaphthene	U		1.8	4.6	µg/Kg-dry	1	11/27/2024 05:51
Anthracene	U		0.83	4.6	µg/Kg-dry	1	11/27/2024 05:51
Benzo(a)anthracene	U		3.3	4.6	µg/Kg-dry	1	11/27/2024 05:51
Benzo(a)pyrene	U		3.1	4.6	µg/Kg-dry	1	11/27/2024 05:51
Benzo(b)fluoranthene	U		2.8	4.6	µg/Kg-dry	1	11/27/2024 05:51
Benzo(k)fluoranthene	U		0.69	4.6	µg/Kg-dry	1	11/27/2024 05:51
Chrysene	U		3.0	4.6	µg/Kg-dry	1	11/27/2024 05:51
Dibenzo(a,h)anthracene	U		2.7	4.6	µg/Kg-dry	1	11/27/2024 05:51
Fluoranthene	U		2.3	4.6	µg/Kg-dry	1	11/27/2024 05:51
Fluorene	U		1.1	4.6	µg/Kg-dry	1	11/27/2024 05:51
Indeno(1,2,3-cd)pyrene	U		3.2	4.6	µg/Kg-dry	1	11/27/2024 05:51
Naphthalene	U		0.86	4.6	µg/Kg-dry	1	11/27/2024 05:51
Pyrene	U		2.9	4.6	µg/Kg-dry	1	11/27/2024 05:51
<i>Surr: 2-Fluorobiphenyl</i>	96.3			44-132	%REC	1	11/27/2024 05:51
<i>Surr: 4-Terphenyl-d14</i>	84.3			35-133	%REC	1	11/27/2024 05:51
<i>Surr: Nitrobenzene-d5</i>	96.0			30-133	%REC	1	11/27/2024 05:51
<b>VOLATILE ORGANIC COMPOUNDS - LOW LEVEL</b>			Method: <b>SW8260D</b>				Analyst: <b>NTJ</b>

Note: See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 05-Dec-24

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU03@3.0'-3.5'  
 Collection Date: 11/15/2024 12:35 PM

Work Order: 24110559  
 Lab ID: 24110559-03  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trimethylbenzene		U	0.98	2.7	µg/Kg-dry	0.498	11/28/2024 00:50
1,3,5-Trimethylbenzene		U	0.88	2.7	µg/Kg-dry	0.498	11/28/2024 00:50
Benzene		U	0.28	2.7	µg/Kg-dry	0.498	11/28/2024 00:50
Ethylbenzene		U	0.48	2.7	µg/Kg-dry	0.498	11/28/2024 00:50
m,p-Xylene		U	1.2	1.4	µg/Kg-dry	0.498	11/28/2024 00:50
o-Xylene		U	0.66	1.4	µg/Kg-dry	0.498	11/28/2024 00:50
Toluene		U	0.95	2.7	µg/Kg-dry	0.498	11/28/2024 00:50
Xylenes, Total		U	1.2	2.7	µg/Kg-dry	0.498	11/28/2024 00:50
Surr: 1,2-Dichloroethane-d4	108			83-132	%REC	0.498	11/28/2024 00:50
Surr: 4-Bromofluorobenzene	101			83-111	%REC	0.498	11/28/2024 00:50
Surr: Dibromofluoromethane	107			77-125	%REC	0.498	11/28/2024 00:50
Surr: Toluene-d8	92.0			86-108	%REC	0.498	11/28/2024 00:50
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	<b>0.58</b>		<b>0.011</b>	<b>0.10</b>	<b>mmhos/cm @25°C</b>	20	12/4/2024 09:55
<b>MOISTURE</b>			Method: <b>SW3550C</b>				Analyst: <b>ETC</b>
Moisture	<b>9.0</b>		<b>0.10</b>	<b>0.10</b>	<b>% of sample</b>	1	11/20/2024 20:45
<b>PH MEASURED IN SOIL PASTE</b>			Method: <b>USDA METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
pH @ Saturation	<b>7.10</b>		<b>0.11</b>	<b>0.11</b>	<b>s.u.-dry</b>	1	12/4/2024 09:25

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA**

Date: 05-Dec-24

**Client:** Williams Midstream  
**Project:** WPO188995  
**Sample ID:** MU04@3.0'-3.5'  
**Collection Date:** 11/15/2024 12:50 PM

**Work Order:** 24110559  
**Lab ID:** 24110559-04  
**Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW3546 / 11/25/24		Analyst: <b>QNG</b>
<b>ERO (C10-C36)</b>	<b>3.6</b>	J	<b>2.8</b>	<b>21</b>	<b>mg/Kg-dry</b>	1	11/26/2024 18:53
<i>Surr: 4-Terphenyl-d14</i>	44.3			10-131	%REC	1	11/26/2024 18:53
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW5035A / 11/20/24		Analyst: <b>QNG</b>
<b>GRO (C6-C10)</b>	U		5,800	6,200	µg/Kg-dry	1	11/20/2024 23:53
<i>Surr: Toluene-d8</i>	97.5			75-120	%REC	1	11/20/2024 23:53
<b>SOLUBLE CATIONS FOR SAR</b>			Method: <b>SW6020B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>STP</b>
<b>Calcium</b>	<b>29</b>		<b>2.5</b>	<b>5.0</b>	<b>mg/L</b>	10	12/3/2024 19:32
<b>Magnesium</b>	<b>6.4</b>		<b>0.50</b>	<b>2.0</b>	<b>mg/L</b>	10	12/3/2024 19:32
<b>Sodium</b>	<b>15</b>		<b>1.8</b>	<b>2.0</b>	<b>mg/L</b>	10	12/3/2024 19:32
<b>HOT WATER SOLUBLE BORON BY ICP-MS</b>			Method: <b>SW6020B</b>		Prep: EXTRACT / 11/26/24		Analyst: <b>MTK</b>
<b>Boron (Hot Water Soluble)</b>	<b>0.21</b>	J	<b>0.016</b>	<b>0.41</b>	<b>mg/Kg-dry</b>	10	12/2/2024 15:31
<b>SODIUM ADSORPTION RATIO</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>DSC</b>
<b>Sodium Adsorption Ratio</b>	<b>0.64</b>		<b>0.010</b>	<b>0.010</b>	<b>none</b>	1	12/3/2024
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (SIM)</b>			Method: <b>SW8270E</b>		Prep: SW3546 / 11/25/24		Analyst: <b>SMT</b>
1-Methylnaphthalene	U		0.90	4.4	µg/Kg-dry	1	11/27/2024 05:04
2-Methylnaphthalene	U		1.0	4.4	µg/Kg-dry	1	11/27/2024 05:04
Acenaphthene	U		1.7	4.4	µg/Kg-dry	1	11/27/2024 05:04
Anthracene	U		0.81	4.4	µg/Kg-dry	1	11/27/2024 05:04
Benzo(a)anthracene	U		3.2	4.4	µg/Kg-dry	1	11/27/2024 05:04
Benzo(a)pyrene	U		3.0	4.4	µg/Kg-dry	1	11/27/2024 05:04
Benzo(b)fluoranthene	U		2.7	4.4	µg/Kg-dry	1	11/27/2024 05:04
Benzo(k)fluoranthene	U		0.66	4.4	µg/Kg-dry	1	11/27/2024 05:04
Chrysene	U		2.9	4.4	µg/Kg-dry	1	11/27/2024 05:04
Dibenzo(a,h)anthracene	U		2.6	4.4	µg/Kg-dry	1	11/27/2024 05:04
Fluoranthene	U		2.2	4.4	µg/Kg-dry	1	11/27/2024 05:04
Fluorene	U		1.1	4.4	µg/Kg-dry	1	11/27/2024 05:04
Indeno(1,2,3-cd)pyrene	U		3.1	4.4	µg/Kg-dry	1	11/27/2024 05:04
Naphthalene	U		0.84	4.4	µg/Kg-dry	1	11/27/2024 05:04
Pyrene	U		2.8	4.4	µg/Kg-dry	1	11/27/2024 05:04
<i>Surr: 2-Fluorobiphenyl</i>	88.3			44-132	%REC	1	11/27/2024 05:04
<i>Surr: 4-Terphenyl-d14</i>	66.9			35-133	%REC	1	11/27/2024 05:04
<i>Surr: Nitrobenzene-d5</i>	119			30-133	%REC	1	11/27/2024 05:04
<b>VOLATILE ORGANIC COMPOUNDS - LOW LEVEL</b>			Method: <b>SW8260D</b>				Analyst: <b>NTJ</b>

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 05-Dec-24

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU04@3.0'-3.5'  
 Collection Date: 11/15/2024 12:50 PM

Work Order: 24110559  
 Lab ID: 24110559-04  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trimethylbenzene		U	2.2	6.0	µg/Kg-dry	1.13	11/28/2024 01:06
1,3,5-Trimethylbenzene		U	1.9	6.0	µg/Kg-dry	1.13	11/28/2024 01:06
Benzene		U	0.62	6.0	µg/Kg-dry	1.13	11/28/2024 01:06
Ethylbenzene		U	1.0	6.0	µg/Kg-dry	1.13	11/28/2024 01:06
m,p-Xylene		U	2.6	3.0	µg/Kg-dry	1.13	11/28/2024 01:06
o-Xylene		U	1.4	3.0	µg/Kg-dry	1.13	11/28/2024 01:06
Toluene		U	2.1	6.0	µg/Kg-dry	1.13	11/28/2024 01:06
Xylenes, Total		U	2.6	6.0	µg/Kg-dry	1.13	11/28/2024 01:06
Surr: 1,2-Dichloroethane-d4	107			83-132	%REC	1.13	11/28/2024 01:06
Surr: 4-Bromofluorobenzene	99.4			83-111	%REC	1.13	11/28/2024 01:06
Surr: Dibromofluoromethane	104			77-125	%REC	1.13	11/28/2024 01:06
Surr: Toluene-d8	91.2			86-108	%REC	1.13	11/28/2024 01:06
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	<b>0.41</b>		<b>0.011</b>	<b>0.10</b>	<b>mmhos/cm @25°C</b>	20	12/4/2024 09:55
<b>MOISTURE</b>			Method: <b>SW3550C</b>				Analyst: <b>ETC</b>
Moisture	<b>5.5</b>		<b>0.10</b>	<b>0.10</b>	<b>% of sample</b>	1	11/20/2024 20:45
<b>PH MEASURED IN SOIL PASTE</b>			Method: <b>USDA METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
pH @ Saturation	<b>5.01</b>		<b>0.11</b>	<b>0.11</b>	<b>s.u.-dry</b>	1	12/4/2024 09:25

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU05@2.0'-2.5'  
 Collection Date: 11/15/2024 01:50 PM

Work Order: 24110559  
 Lab ID: 24110559-05  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW3546 / 11/25/24		Analyst: <b>QNG</b>
<b>ERO (C10-C36)</b>	<b>20</b>	J	<b>2.8</b>	<b>21</b>	<b>mg/Kg-dry</b>	1	11/26/2024 20:50
<i>Surr: 4-Terphenyl-d14</i>	54.3			10-131	%REC	1	11/26/2024 20:50
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW5035A / 11/20/24		Analyst: <b>QNG</b>
<b>GRO (C6-C10)</b>		U	5,700	6,100	µg/Kg-dry	1	11/20/2024 20:32
<i>Surr: Toluene-d8</i>	95.6			75-120	%REC	1	11/20/2024 20:32
<b>SOLUBLE CATIONS FOR SAR</b>			Method: <b>SW6020B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>STP</b>
<b>Calcium</b>	<b>22</b>		<b>2.5</b>	<b>5.0</b>	<b>mg/L</b>	10	12/3/2024 19:33
<b>Magnesium</b>	<b>5.4</b>		<b>0.50</b>	<b>2.0</b>	<b>mg/L</b>	10	12/3/2024 19:33
<b>Sodium</b>	<b>6.8</b>		<b>1.8</b>	<b>2.0</b>	<b>mg/L</b>	10	12/3/2024 19:33
<b>HOT WATER SOLUBLE BORON BY ICP-MS</b>			Method: <b>SW6020B</b>		Prep: EXTRACT / 11/26/24		Analyst: <b>MTK</b>
<b>Boron (Hot Water Soluble)</b>	<b>0.18</b>	J	<b>0.017</b>	<b>0.42</b>	<b>mg/Kg-dry</b>	10	12/2/2024 15:33
<b>SODIUM ADSORPTION RATIO</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>DSC</b>
<b>Sodium Adsorption Ratio</b>	<b>0.34</b>		<b>0.010</b>	<b>0.010</b>	<b>none</b>	1	12/3/2024
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (SIM)</b>			Method: <b>SW8270E</b>		Prep: SW3546 / 11/25/24		Analyst: <b>SMT</b>
1-Methylnaphthalene	U		0.90	4.4	µg/Kg-dry	1	11/27/2024 06:07
2-Methylnaphthalene	U		1.0	4.4	µg/Kg-dry	1	11/27/2024 06:07
Acenaphthene	U		1.7	4.4	µg/Kg-dry	1	11/27/2024 06:07
Anthracene	U		0.81	4.4	µg/Kg-dry	1	11/27/2024 06:07
Benzo(a)anthracene	U		3.2	4.4	µg/Kg-dry	1	11/27/2024 06:07
Benzo(a)pyrene	U		3.0	4.4	µg/Kg-dry	1	11/27/2024 06:07
Benzo(b)fluoranthene	U		2.7	4.4	µg/Kg-dry	1	11/27/2024 06:07
Benzo(k)fluoranthene	U		0.66	4.4	µg/Kg-dry	1	11/27/2024 06:07
Chrysene	U		2.9	4.4	µg/Kg-dry	1	11/27/2024 06:07
Dibenzo(a,h)anthracene	U		2.6	4.4	µg/Kg-dry	1	11/27/2024 06:07
Fluoranthene	U		2.2	4.4	µg/Kg-dry	1	11/27/2024 06:07
Fluorene	U		1.1	4.4	µg/Kg-dry	1	11/27/2024 06:07
Indeno(1,2,3-cd)pyrene	U		3.1	4.4	µg/Kg-dry	1	11/27/2024 06:07
Naphthalene	U		0.84	4.4	µg/Kg-dry	1	11/27/2024 06:07
Pyrene	U		2.8	4.4	µg/Kg-dry	1	11/27/2024 06:07
<i>Surr: 2-Fluorobiphenyl</i>	81.1			44-132	%REC	1	11/27/2024 06:07
<i>Surr: 4-Terphenyl-d14</i>	86.3			35-133	%REC	1	11/27/2024 06:07
<i>Surr: Nitrobenzene-d5</i>	95.6			30-133	%REC	1	11/27/2024 06:07
<b>VOLATILE ORGANIC COMPOUNDS - LOW LEVEL</b>			Method: <b>SW8260D</b>				Analyst: <b>NTJ</b>

Note: See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA**

Date: 05-Dec-24

**Client:** Williams Midstream  
**Project:** WPO188995  
**Sample ID:** MU05@2.0'-2.5'  
**Collection Date:** 11/15/2024 01:50 PM

**Work Order:** 24110559  
**Lab ID:** 24110559-05  
**Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trimethylbenzene	U		2.1	5.8	µg/Kg-dry	1.09	11/28/2024 01:22
1,3,5-Trimethylbenzene	U		1.8	5.8	µg/Kg-dry	1.09	11/28/2024 01:22
Benzene	U		0.60	5.8	µg/Kg-dry	1.09	11/28/2024 01:22
Ethylbenzene	U		1.0	5.8	µg/Kg-dry	1.09	11/28/2024 01:22
m,p-Xylene	U		2.5	2.9	µg/Kg-dry	1.09	11/28/2024 01:22
o-Xylene	U		1.4	2.9	µg/Kg-dry	1.09	11/28/2024 01:22
Toluene	U		2.0	5.8	µg/Kg-dry	1.09	11/28/2024 01:22
Xylenes, Total	U		2.5	5.8	µg/Kg-dry	1.09	11/28/2024 01:22
Surr: 1,2-Dichloroethane-d4	106			83-132	%REC	1.09	11/28/2024 01:22
Surr: 4-Bromofluorobenzene	99.3			83-111	%REC	1.09	11/28/2024 01:22
Surr: Dibromofluoromethane	101			77-125	%REC	1.09	11/28/2024 01:22
Surr: Toluene-d8	93.2			86-108	%REC	1.09	11/28/2024 01:22
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	1.4		0.011	0.10	mmhos/cm @25°C	20	12/4/2024 09:55
<b>MOISTURE</b>			Method: <b>SW3550C</b>				Analyst: <b>ETC</b>
Moisture	5.7		0.10	0.10	% of sample	1	11/20/2024 20:45
<b>PH MEASURED IN SOIL PASTE</b>			Method: <b>USDA METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
pH @ Saturation	2.80		0.11	0.11	s.u.-dry	1	12/4/2024 09:25

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU06@3.0'-3.5'  
 Collection Date: 11/15/2024 02:20 PM

Work Order: 24110559  
 Lab ID: 24110559-06  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>							
			Method: <b>SW8015C</b>		Prep: SW3546 / 11/25/24		Analyst: <b>QNG</b>
ERO (C10-C36)	U		2.8	21	mg/Kg-dry	1	11/26/2024 21:13
Surr: 4-Terphenyl-d14	42.3			10-131	%REC	1	11/26/2024 21:13
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>							
			Method: <b>SW8015C</b>		Prep: SW5035A / 11/20/24		Analyst: <b>QNG</b>
GRO (C6-C10)	U		5,700	6,100	µg/Kg-dry	1	11/20/2024 20:10
Surr: Toluene-d8	95.2			75-120	%REC	1	11/20/2024 20:10
<b>SOLUBLE CATIONS FOR SAR</b>							
			Method: <b>SW6020B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>STP</b>
Calcium	16		2.5	5.0	mg/L	10	12/3/2024 19:35
Magnesium	4.4		0.50	2.0	mg/L	10	12/3/2024 19:35
Sodium	6.7		1.8	2.0	mg/L	10	12/3/2024 19:35
<b>HOT WATER SOLUBLE BORON BY ICP-MS</b>							
			Method: <b>SW6020B</b>		Prep: EXTRACT / 11/26/24		Analyst: <b>MTK</b>
Boron (Hot Water Soluble)	0.18	J	0.017	0.42	mg/Kg-dry	10	12/2/2024 15:34
<b>SODIUM ADSORPTION RATIO</b>							
			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>DSC</b>
Sodium Adsorption Ratio	0.39		0.010	0.010	none	1	12/3/2024
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (SIM)</b>							
			Method: <b>SW8270E</b>		Prep: SW3546 / 11/25/24		Analyst: <b>SMT</b>
1-Methylnaphthalene	U		0.90	4.4	µg/Kg-dry	1	11/27/2024 06:22
2-Methylnaphthalene	U		1.0	4.4	µg/Kg-dry	1	11/27/2024 06:22
Acenaphthene	U		1.7	4.4	µg/Kg-dry	1	11/27/2024 06:22
Anthracene	U		0.81	4.4	µg/Kg-dry	1	11/27/2024 06:22
Benzo(a)anthracene	U		3.2	4.4	µg/Kg-dry	1	11/27/2024 06:22
Benzo(a)pyrene	U		3.0	4.4	µg/Kg-dry	1	11/27/2024 06:22
Benzo(b)fluoranthene	U		2.7	4.4	µg/Kg-dry	1	11/27/2024 06:22
Benzo(k)fluoranthene	U		0.66	4.4	µg/Kg-dry	1	11/27/2024 06:22
Chrysene	U		2.9	4.4	µg/Kg-dry	1	11/27/2024 06:22
Dibenzo(a,h)anthracene	U		2.6	4.4	µg/Kg-dry	1	11/27/2024 06:22
Fluoranthene	U		2.2	4.4	µg/Kg-dry	1	11/27/2024 06:22
Fluorene	U		1.1	4.4	µg/Kg-dry	1	11/27/2024 06:22
Indeno(1,2,3-cd)pyrene	U		3.1	4.4	µg/Kg-dry	1	11/27/2024 06:22
Naphthalene	U		0.84	4.4	µg/Kg-dry	1	11/27/2024 06:22
Pyrene	U		2.8	4.4	µg/Kg-dry	1	11/27/2024 06:22
Surr: 2-Fluorobiphenyl	81.8			44-132	%REC	1	11/27/2024 06:22
Surr: 4-Terphenyl-d14	70.7			35-133	%REC	1	11/27/2024 06:22
Surr: Nitrobenzene-d5	96.7			30-133	%REC	1	11/27/2024 06:22
<b>VOLATILE ORGANIC COMPOUNDS - LOW LEVEL</b>							
			Method: <b>SW8260D</b>				Analyst: <b>NTJ</b>

Note: See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 05-Dec-24

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU06@3.0'-3.5'  
 Collection Date: 11/15/2024 02:20 PM

Work Order: 24110559  
 Lab ID: 24110559-06  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trimethylbenzene		U	2.2	6.0	µg/Kg-dry	1.13	11/28/2024 01:39
1,3,5-Trimethylbenzene		U	1.9	6.0	µg/Kg-dry	1.13	11/28/2024 01:39
Benzene		U	0.62	6.0	µg/Kg-dry	1.13	11/28/2024 01:39
Ethylbenzene		U	1.0	6.0	µg/Kg-dry	1.13	11/28/2024 01:39
m,p-Xylene		U	2.6	3.0	µg/Kg-dry	1.13	11/28/2024 01:39
o-Xylene		U	1.4	3.0	µg/Kg-dry	1.13	11/28/2024 01:39
Toluene		U	2.1	6.0	µg/Kg-dry	1.13	11/28/2024 01:39
Xylenes, Total		U	2.6	6.0	µg/Kg-dry	1.13	11/28/2024 01:39
Surr: 1,2-Dichloroethane-d4	101			83-132	%REC	1.13	11/28/2024 01:39
Surr: 4-Bromofluorobenzene	102			83-111	%REC	1.13	11/28/2024 01:39
Surr: Dibromofluoromethane	105			77-125	%REC	1.13	11/28/2024 01:39
Surr: Toluene-d8	93.6			86-108	%REC	1.13	11/28/2024 01:39
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	<b>0.84</b>		<b>0.011</b>	<b>0.10</b>	<b>mmhos/cm @25°C</b>	20	12/4/2024 09:55
<b>MOISTURE</b>			Method: <b>SW3550C</b>				Analyst: <b>ETC</b>
Moisture	<b>5.6</b>		<b>0.10</b>	<b>0.10</b>	<b>% of sample</b>	1	11/20/2024 20:45
<b>PH MEASURED IN SOIL PASTE</b>			Method: <b>USDA METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
pH @ Saturation	<b>3.04</b>		<b>0.11</b>	<b>0.11</b>	<b>s.u.-dry</b>	1	12/4/2024 09:25

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU07@3.0'-3.5'  
 Collection Date: 11/15/2024 02:30 PM

Work Order: 24110559  
 Lab ID: 24110559-07  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>							
			Method: <b>SW8015C</b>		Prep: SW3546 / 11/25/24		Analyst: <b>QNG</b>
ERO (C10-C36)	U		2.9	22	mg/Kg-dry	1	11/26/2024 21:37
Surr: 4-Terphenyl-d14	40.3			10-131	%REC	1	11/26/2024 21:37
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>							
			Method: <b>SW8015C</b>		Prep: SW5035A / 11/20/24		Analyst: <b>QNG</b>
GRO (C6-C10)	U		6,300	6,700	µg/Kg-dry	1	11/20/2024 19:47
Surr: Toluene-d8	97.5			75-120	%REC	1	11/20/2024 19:47
<b>SOLUBLE CATIONS FOR SAR</b>							
			Method: <b>SW6020B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>STP</b>
Calcium	35		2.5	5.0	mg/L	10	12/3/2024 19:36
Magnesium	8.8		0.50	2.0	mg/L	10	12/3/2024 19:36
Sodium	9.2		1.8	2.0	mg/L	10	12/3/2024 19:36
<b>HOT WATER SOLUBLE BORON BY ICP-MS</b>							
			Method: <b>SW6020B</b>		Prep: EXTRACT / 11/26/24		Analyst: <b>MTK</b>
Boron (Hot Water Soluble)	0.26	J	0.017	0.43	mg/Kg-dry	10	12/2/2024 15:36
<b>SODIUM ADSORPTION RATIO</b>							
			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>DSC</b>
Sodium Adsorption Ratio	0.36		0.010	0.010	none	1	12/3/2024
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (SIM)</b>							
			Method: <b>SW8270E</b>		Prep: SW3546 / 11/25/24		Analyst: <b>SMT</b>
1-Methylnaphthalene	U		0.93	4.5	µg/Kg-dry	1	11/27/2024 06:38
2-Methylnaphthalene	U		1.1	4.5	µg/Kg-dry	1	11/27/2024 06:38
Acenaphthene	U		1.7	4.5	µg/Kg-dry	1	11/27/2024 06:38
Anthracene	U		0.83	4.5	µg/Kg-dry	1	11/27/2024 06:38
Benzo(a)anthracene	U		3.3	4.5	µg/Kg-dry	1	11/27/2024 06:38
Benzo(a)pyrene	U		3.1	4.5	µg/Kg-dry	1	11/27/2024 06:38
Benzo(b)fluoranthene	U		2.7	4.5	µg/Kg-dry	1	11/27/2024 06:38
Benzo(k)fluoranthene	U		0.68	4.5	µg/Kg-dry	1	11/27/2024 06:38
Chrysene	U		3.0	4.5	µg/Kg-dry	1	11/27/2024 06:38
Dibenzo(a,h)anthracene	U		2.6	4.5	µg/Kg-dry	1	11/27/2024 06:38
Fluoranthene	U		2.3	4.5	µg/Kg-dry	1	11/27/2024 06:38
Fluorene	U		1.1	4.5	µg/Kg-dry	1	11/27/2024 06:38
Indeno(1,2,3-cd)pyrene	U		3.2	4.5	µg/Kg-dry	1	11/27/2024 06:38
Naphthalene	U		0.86	4.5	µg/Kg-dry	1	11/27/2024 06:38
Pyrene	U		2.9	4.5	µg/Kg-dry	1	11/27/2024 06:38
Surr: 2-Fluorobiphenyl	93.7			44-132	%REC	1	11/27/2024 06:38
Surr: 4-Terphenyl-d14	77.1			35-133	%REC	1	11/27/2024 06:38
Surr: Nitrobenzene-d5	90.7			30-133	%REC	1	11/27/2024 06:38
<b>VOLATILE ORGANIC COMPOUNDS - LOW LEVEL</b>							
			Method: <b>SW8260D</b>				Analyst: <b>NTJ</b>

Note: See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 05-Dec-24

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU07@3.0'-3.5'  
 Collection Date: 11/15/2024 02:30 PM

Work Order: 24110559  
 Lab ID: 24110559-07  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trimethylbenzene		U	1.9	5.2	µg/Kg-dry	0.963	11/28/2024 07:51
1,3,5-Trimethylbenzene		U	1.7	5.2	µg/Kg-dry	0.963	11/28/2024 07:51
Benzene		U	0.55	5.2	µg/Kg-dry	0.963	11/28/2024 07:51
Ethylbenzene		U	0.91	5.2	µg/Kg-dry	0.963	11/28/2024 07:51
m,p-Xylene		U	2.3	2.6	µg/Kg-dry	0.963	11/28/2024 07:51
o-Xylene		U	1.3	2.6	µg/Kg-dry	0.963	11/28/2024 07:51
Toluene		U	1.8	5.2	µg/Kg-dry	0.963	11/28/2024 07:51
Xylenes, Total		U	2.3	5.2	µg/Kg-dry	0.963	11/28/2024 07:51
Surr: 1,2-Dichloroethane-d4	103			83-132	%REC	0.963	11/28/2024 07:51
Surr: 4-Bromofluorobenzene	101			83-111	%REC	0.963	11/28/2024 07:51
Surr: Dibromofluoromethane	102			77-125	%REC	0.963	11/28/2024 07:51
Surr: Toluene-d8	95.7			86-108	%REC	0.963	11/28/2024 07:51
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	<b>0.62</b>		<b>0.011</b>	<b>0.10</b>	<b>mmhos/cm @25°C</b>	20	12/4/2024 09:55
<b>MOISTURE</b>			Method: <b>SW3550C</b>				Analyst: <b>ETC</b>
Moisture	<b>8.2</b>		<b>0.10</b>	<b>0.10</b>	<b>% of sample</b>	1	11/20/2024 20:45
<b>PH MEASURED IN SOIL PASTE</b>			Method: <b>USDA METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
pH @ Saturation	<b>3.96</b>		<b>0.11</b>	<b>0.11</b>	<b>s.u.-dry</b>	1	12/4/2024 09:25

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU08@3.0'-3.5'  
 Collection Date: 11/15/2024 02:40 PM

Work Order: 24110559  
 Lab ID: 24110559-08  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW3546 / 11/25/24		Analyst: <b>QNG</b>
ERO (C10-C36)	U		2.9	22	mg/Kg-dry	1	11/26/2024 22:00
Surr: 4-Terphenyl-d14	42.3			10-131	%REC	1	11/26/2024 22:00
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW5035A / 11/20/24		Analyst: <b>QNG</b>
GRO (C6-C10)	U		5,800	6,200	µg/Kg-dry	1	11/20/2024 19:25
Surr: Toluene-d8	96.3			75-120	%REC	1	11/20/2024 19:25
<b>SOLUBLE CATIONS FOR SAR</b>			Method: <b>SW6020B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>STP</b>
Calcium	43		2.5	5.0	mg/L	10	12/3/2024 19:38
Magnesium	8.8		0.50	2.0	mg/L	10	12/3/2024 19:38
Sodium	13		1.8	2.0	mg/L	10	12/3/2024 19:38
<b>HOT WATER SOLUBLE BORON BY ICP-MS</b>			Method: <b>SW6020B</b>		Prep: EXTRACT / 11/26/24		Analyst: <b>MTK</b>
Boron (Hot Water Soluble)	0.26	J	0.018	0.45	mg/Kg-dry	10	12/2/2024 15:38
<b>SODIUM ADSORPTION RATIO</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>DSC</b>
Sodium Adsorption Ratio	0.48		0.010	0.010	none	1	12/3/2024
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (SIM)</b>			Method: <b>SW8270E</b>		Prep: SW3546 / 11/25/24		Analyst: <b>SMT</b>
1-Methylnaphthalene	U		0.93	4.5	µg/Kg-dry	1	11/27/2024 06:53
2-Methylnaphthalene	U		1.1	4.5	µg/Kg-dry	1	11/27/2024 06:53
Acenaphthene	U		1.7	4.5	µg/Kg-dry	1	11/27/2024 06:53
Anthracene	U		0.83	4.5	µg/Kg-dry	1	11/27/2024 06:53
Benzo(a)anthracene	U		3.3	4.5	µg/Kg-dry	1	11/27/2024 06:53
Benzo(a)pyrene	U		3.1	4.5	µg/Kg-dry	1	11/27/2024 06:53
Benzo(b)fluoranthene	U		2.7	4.5	µg/Kg-dry	1	11/27/2024 06:53
Benzo(k)fluoranthene	U		0.68	4.5	µg/Kg-dry	1	11/27/2024 06:53
Chrysene	U		3.0	4.5	µg/Kg-dry	1	11/27/2024 06:53
Dibenzo(a,h)anthracene	U		2.6	4.5	µg/Kg-dry	1	11/27/2024 06:53
Fluoranthene	U		2.3	4.5	µg/Kg-dry	1	11/27/2024 06:53
Fluorene	U		1.1	4.5	µg/Kg-dry	1	11/27/2024 06:53
Indeno(1,2,3-cd)pyrene	U		3.1	4.5	µg/Kg-dry	1	11/27/2024 06:53
Naphthalene	U		0.86	4.5	µg/Kg-dry	1	11/27/2024 06:53
Pyrene	U		2.9	4.5	µg/Kg-dry	1	11/27/2024 06:53
Surr: 2-Fluorobiphenyl	81.2			44-132	%REC	1	11/27/2024 06:53
Surr: 4-Terphenyl-d14	79.2			35-133	%REC	1	11/27/2024 06:53
Surr: Nitrobenzene-d5	102			30-133	%REC	1	11/27/2024 06:53
<b>VOLATILE ORGANIC COMPOUNDS - LOW LEVEL</b>			Method: <b>SW8260D</b>				Analyst: <b>NTJ</b>

Note: See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 05-Dec-24

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU08@3.0'-3.5'  
 Collection Date: 11/15/2024 02:40 PM

Work Order: 24110559  
 Lab ID: 24110559-08  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trimethylbenzene		U	2.4	6.5	µg/Kg-dry	1.16	11/28/2024 08:07
1,3,5-Trimethylbenzene		U	2.1	6.5	µg/Kg-dry	1.16	11/28/2024 08:07
Benzene		U	0.68	6.5	µg/Kg-dry	1.16	11/28/2024 08:07
Ethylbenzene		U	1.1	6.5	µg/Kg-dry	1.16	11/28/2024 08:07
m,p-Xylene		U	2.9	3.3	µg/Kg-dry	1.16	11/28/2024 08:07
o-Xylene		U	1.6	3.3	µg/Kg-dry	1.16	11/28/2024 08:07
Toluene		U	2.3	6.5	µg/Kg-dry	1.16	11/28/2024 08:07
Xylenes, Total		U	2.9	6.5	µg/Kg-dry	1.16	11/28/2024 08:07
Surr: 1,2-Dichloroethane-d4	110			83-132	%REC	1.16	11/28/2024 08:07
Surr: 4-Bromofluorobenzene	99.4			83-111	%REC	1.16	11/28/2024 08:07
Surr: Dibromofluoromethane	103			77-125	%REC	1.16	11/28/2024 08:07
Surr: Toluene-d8	93.8			86-108	%REC	1.16	11/28/2024 08:07
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	<b>0.43</b>		<b>0.011</b>	<b>0.10</b>	<b>mmhos/cm @25°C</b>	20	12/4/2024 09:55
<b>MOISTURE</b>			Method: <b>SW3550C</b>				Analyst: <b>ETC</b>
Moisture	<b>11</b>		<b>0.10</b>	<b>0.10</b>	<b>% of sample</b>	1	11/20/2024 20:45
<b>PH MEASURED IN SOIL PASTE</b>			Method: <b>USDA METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
pH @ Saturation	<b>7.68</b>		<b>0.11</b>	<b>0.11</b>	<b>s.u.-dry</b>	1	12/4/2024 09:25

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU09@3.0'-3.5'  
 Collection Date: 11/15/2024 02:50 PM

Work Order: 24110559  
 Lab ID: 24110559-09  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW3546 / 11/25/24		Analyst: <b>QNG</b>
<b>ERO (C10-C36)</b>	<b>7.7</b>	<b>J</b>	<b>2.8</b>	<b>21</b>	<b>mg/Kg-dry</b>	<b>1</b>	11/26/2024 22:24
<i>Surr: 4-Terphenyl-d14</i>	<i>40.3</i>			<i>10-131</i>	<i>%REC</i>	<i>1</i>	11/26/2024 22:24
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW5035A / 11/20/24		Analyst: <b>QNG</b>
<b>GRO (C6-C10)</b>	<b>U</b>		<b>6,400</b>	<b>6,900</b>	<b>µg/Kg-dry</b>	<b>1</b>	11/20/2024 19:03
<i>Surr: Toluene-d8</i>	<i>96.5</i>			<i>75-120</i>	<i>%REC</i>	<i>1</i>	11/20/2024 19:03
<b>SOLUBLE CATIONS FOR SAR</b>			Method: <b>SW6020B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>STP</b>
<b>Calcium</b>	<b>40</b>		<b>2.5</b>	<b>5.0</b>	<b>mg/L</b>	<b>10</b>	12/3/2024 19:40
<b>Magnesium</b>	<b>11</b>		<b>0.50</b>	<b>2.0</b>	<b>mg/L</b>	<b>10</b>	12/3/2024 19:40
<b>Sodium</b>	<b>6.2</b>		<b>1.8</b>	<b>2.0</b>	<b>mg/L</b>	<b>10</b>	12/3/2024 19:40
<b>HOT WATER SOLUBLE BORON BY ICP-MS</b>			Method: <b>SW6020B</b>		Prep: EXTRACT / 11/26/24		Analyst: <b>MTK</b>
<b>Boron (Hot Water Soluble)</b>	<b>0.26</b>	<b>J</b>	<b>0.017</b>	<b>0.41</b>	<b>mg/Kg-dry</b>	<b>10</b>	12/2/2024 15:43
<b>SODIUM ADSORPTION RATIO</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>DSC</b>
<b>Sodium Adsorption Ratio</b>	<b>0.22</b>		<b>0.010</b>	<b>0.010</b>	<b>none</b>	<b>1</b>	12/3/2024
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (SIM)</b>			Method: <b>SW8270E</b>		Prep: SW3546 / 11/25/24		Analyst: <b>SMT</b>
1-Methylnaphthalene	U		0.90	4.4	µg/Kg-dry	1	11/27/2024 07:09
2-Methylnaphthalene	U		1.0	4.4	µg/Kg-dry	1	11/27/2024 07:09
Acenaphthene	U		1.7	4.4	µg/Kg-dry	1	11/27/2024 07:09
Anthracene	U		0.80	4.4	µg/Kg-dry	1	11/27/2024 07:09
Benzo(a)anthracene	U		3.2	4.4	µg/Kg-dry	1	11/27/2024 07:09
Benzo(a)pyrene	U		3.0	4.4	µg/Kg-dry	1	11/27/2024 07:09
Benzo(b)fluoranthene	U		2.7	4.4	µg/Kg-dry	1	11/27/2024 07:09
Benzo(k)fluoranthene	U		0.66	4.4	µg/Kg-dry	1	11/27/2024 07:09
Chrysene	U		2.9	4.4	µg/Kg-dry	1	11/27/2024 07:09
Dibenzo(a,h)anthracene	U		2.6	4.4	µg/Kg-dry	1	11/27/2024 07:09
Fluoranthene	U		2.2	4.4	µg/Kg-dry	1	11/27/2024 07:09
Fluorene	U		1.1	4.4	µg/Kg-dry	1	11/27/2024 07:09
Indeno(1,2,3-cd)pyrene	U		3.1	4.4	µg/Kg-dry	1	11/27/2024 07:09
Naphthalene	U		0.83	4.4	µg/Kg-dry	1	11/27/2024 07:09
Pyrene	U		2.8	4.4	µg/Kg-dry	1	11/27/2024 07:09
<i>Surr: 2-Fluorobiphenyl</i>	<i>80.9</i>			<i>44-132</i>	<i>%REC</i>	<i>1</i>	11/27/2024 07:09
<i>Surr: 4-Terphenyl-d14</i>	<i>72.1</i>			<i>35-133</i>	<i>%REC</i>	<i>1</i>	11/27/2024 07:09
<i>Surr: Nitrobenzene-d5</i>	<i>91.8</i>			<i>30-133</i>	<i>%REC</i>	<i>1</i>	11/27/2024 07:09
<b>VOLATILE ORGANIC COMPOUNDS - LOW LEVEL</b>			Method: <b>SW8260D</b>				Analyst: <b>NTJ</b>

Note: See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 05-Dec-24

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU09@3.0'-3.5'  
 Collection Date: 11/15/2024 02:50 PM

Work Order: 24110559  
 Lab ID: 24110559-09  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trimethylbenzene	U		2.0	5.5	µg/Kg-dry	1.02	11/28/2024 08:23
1,3,5-Trimethylbenzene	U		1.8	5.5	µg/Kg-dry	1.02	11/28/2024 08:23
<b>Benzene</b>	<b>4.2</b>	J	<b>0.57</b>	<b>5.5</b>	<b>µg/Kg-dry</b>	1.02	11/28/2024 08:23
Ethylbenzene	U		0.95	5.5	µg/Kg-dry	1.02	11/28/2024 08:23
m,p-Xylene	U		2.4	2.7	µg/Kg-dry	1.02	11/28/2024 08:23
o-Xylene	U		1.3	2.7	µg/Kg-dry	1.02	11/28/2024 08:23
<b>Toluene</b>	<b>2.9</b>	J	<b>1.9</b>	<b>5.5</b>	<b>µg/Kg-dry</b>	1.02	11/28/2024 08:23
Xylenes, Total	U		2.4	5.5	µg/Kg-dry	1.02	11/28/2024 08:23
Surr: 1,2-Dichloroethane-d4	104			83-132	%REC	1.02	11/28/2024 08:23
Surr: 4-Bromofluorobenzene	98.8			83-111	%REC	1.02	11/28/2024 08:23
Surr: Dibromofluoromethane	101			77-125	%REC	1.02	11/28/2024 08:23
Surr: Toluene-d8	95.6			86-108	%REC	1.02	11/28/2024 08:23
<b>ELECTRICAL CONDUCTIVITY (SAR)</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
Electrical Conductivity @ Saturation	<b>0.67</b>		<b>0.011</b>	<b>0.10</b>	<b>mmhos/cm @25°C</b>	20	12/4/2024 09:55
<b>MOISTURE</b>			Method: <b>SW3550C</b>				Analyst: <b>ETC</b>
Moisture	<b>6.9</b>		<b>0.10</b>	<b>0.10</b>	<b>% of sample</b>	1	11/20/2024 20:45
<b>PH MEASURED IN SOIL PASTE</b>			Method: <b>USDA METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>JB</b>
pH @ Saturation	<b>4.67</b>		<b>0.11</b>	<b>0.11</b>	<b>s.u.-dry</b>	1	12/4/2024 09:25

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU10@3.0'-3.5'  
 Collection Date: 11/15/2024 03:30 PM

Work Order: 24110559  
 Lab ID: 24110559-10  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW3546 / 11/25/24		Analyst: <b>QNG</b>
ERO (C10-C36)	U		2.7	20	mg/Kg-dry	1	11/26/2024 22:47
Surr: 4-Terphenyl-d14	42.3			10-131	%REC	1	11/26/2024 22:47
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW5035A / 11/20/24		Analyst: <b>QNG</b>
GRO (C6-C10)	U		5,900	6,300	µg/Kg-dry	1	11/20/2024 23:30
Surr: Toluene-d8	97.5			75-120	%REC	1	11/20/2024 23:30
<b>SOLUBLE CATIONS FOR SAR</b>			Method: <b>SW6020B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>STP</b>
Calcium	20		2.5	5.0	mg/L	10	12/3/2024 19:41
Magnesium	4.9		0.50	2.0	mg/L	10	12/3/2024 19:41
Sodium	3.9		1.8	2.0	mg/L	10	12/3/2024 19:41
<b>HOT WATER SOLUBLE BORON BY ICP-MS</b>			Method: <b>SW6020B</b>		Prep: EXTRACT / 11/26/24		Analyst: <b>MTK</b>
Boron (Hot Water Soluble)	0.27	J	0.017	0.42	mg/Kg-dry	10	12/2/2024 15:45
<b>SODIUM ADSORPTION RATIO</b>			Method: <b>USDA H60 METHOD 20B</b>		Prep: USDA Method 20B / 12/2/24		Analyst: <b>DSC</b>
Sodium Adsorption Ratio	0.20		0.010	0.010	none	1	12/3/2024
<b>POLYNUCLEAR AROMATIC HYDROCARBONS (SIM)</b>			Method: <b>SW8270E</b>		Prep: SW3546 / 11/25/24		Analyst: <b>SMT</b>
1-Methylnaphthalene	U		0.88	4.3	µg/Kg-dry	1	11/27/2024 07:24
2-Methylnaphthalene	U		1.0	4.3	µg/Kg-dry	1	11/27/2024 07:24
Acenaphthene	U		1.6	4.3	µg/Kg-dry	1	11/27/2024 07:24
Anthracene	U		0.78	4.3	µg/Kg-dry	1	11/27/2024 07:24
Benzo(a)anthracene	U		3.1	4.3	µg/Kg-dry	1	11/27/2024 07:24
Benzo(a)pyrene	U		2.9	4.3	µg/Kg-dry	1	11/27/2024 07:24
Benzo(b)fluoranthene	U		2.6	4.3	µg/Kg-dry	1	11/27/2024 07:24
Benzo(k)fluoranthene	U		0.64	4.3	µg/Kg-dry	1	11/27/2024 07:24
Chrysene	U		2.8	4.3	µg/Kg-dry	1	11/27/2024 07:24
Dibenzo(a,h)anthracene	U		2.5	4.3	µg/Kg-dry	1	11/27/2024 07:24
Fluoranthene	U		2.1	4.3	µg/Kg-dry	1	11/27/2024 07:24
Fluorene	U		1.1	4.3	µg/Kg-dry	1	11/27/2024 07:24
Indeno(1,2,3-cd)pyrene	U		3.0	4.3	µg/Kg-dry	1	11/27/2024 07:24
Naphthalene	U		0.81	4.3	µg/Kg-dry	1	11/27/2024 07:24
Pyrene	U		2.7	4.3	µg/Kg-dry	1	11/27/2024 07:24
Surr: 2-Fluorobiphenyl	82.7			44-132	%REC	1	11/27/2024 07:24
Surr: 4-Terphenyl-d14	84.2			35-133	%REC	1	11/27/2024 07:24
Surr: Nitrobenzene-d5	102			30-133	%REC	1	11/27/2024 07:24
<b>VOLATILE ORGANIC COMPOUNDS - LOW LEVEL</b>			Method: <b>SW8260D</b>				Analyst: <b>NTJ</b>

Note: See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 05-Dec-24

Client: Williams Midstream  
 Project: WPO188995  
 Sample ID: MU10@3.0'-3.5'  
 Collection Date: 11/15/2024 03:30 PM

Work Order: 24110559  
 Lab ID: 24110559-10  
 Matrix: SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trimethylbenzene		U	2.2	6.1	µg/Kg-dry	1.16	11/28/2024 08:40
1,3,5-Trimethylbenzene		U	1.9	6.1	µg/Kg-dry	1.16	11/28/2024 08:40
Benzene		U	0.63	6.1	µg/Kg-dry	1.16	11/28/2024 08:40
Ethylbenzene		U	1.1	6.1	µg/Kg-dry	1.16	11/28/2024 08:40
m,p-Xylene		U	2.7	3.0	µg/Kg-dry	1.16	11/28/2024 08:40
o-Xylene		U	1.5	3.0	µg/Kg-dry	1.16	11/28/2024 08:40
Toluene		U	2.1	6.1	µg/Kg-dry	1.16	11/28/2024 08:40
Xylenes, Total		U	2.7	6.1	µg/Kg-dry	1.16	11/28/2024 08:40
Surr: 1,2-Dichloroethane-d4	107			83-132	%REC	1.16	11/28/2024 08:40
Surr: 4-Bromofluorobenzene	101			83-111	%REC	1.16	11/28/2024 08:40
Surr: Dibromofluoromethane	101			77-125	%REC	1.16	11/28/2024 08:40
Surr: Toluene-d8	94.6			86-108	%REC	1.16	11/28/2024 08:40

### ELECTRICAL CONDUCTIVITY (SAR)

Method: **USDA H60 METHOD 20B** Prep: USDA Method 20B / 12/2/24 Analyst: **JB**

Electrical Conductivity @ Saturation	0.67		0.011	0.10	mmhos/cm @25°C	20	12/4/2024 09:55
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### MOISTURE

Method: **SW3550C** Analyst: **ETC**

Moisture	4.8		0.10	0.10	% of sample	1	11/20/2024 20:45
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### PH MEASURED IN SOIL PASTE

Method: **USDA METHOD 20B** Prep: USDA Method 20B / 12/2/24 Analyst: **JB**

pH @ Saturation	3.31		0.11	0.11	s.u.-dry	1	12/4/2024 09:25
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**Note:** See Qualifiers page for a list of qualifiers and their definitions.

Client: Williams Midstream  
 Work Order: 24110559  
 Project: WPO188995

**QC BATCH REPORT**

Batch ID: **249674** Instrument ID **GC8** Method: **SW8015C**

MBLK		Sample ID: <b>MBLK-249674-249674</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/26/2024 04:31 PM</b>		
Client ID:		Run ID: <b>GC8_241126A</b>		SeqNo: <b>11280596</b>		Prep Date: <b>11/25/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C10-C36)	U	20								
<i>Surr: 4-Terphenyl-d14</i>	0.35	0	0.828	0	42.3	10-131	0			

LCS		Sample ID: <b>LCS-249674-249674</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/26/2024 04:55 PM</b>		
Client ID:		Run ID: <b>GC8_241126A</b>		SeqNo: <b>11280597</b>		Prep Date: <b>11/25/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C10-C36)	687.5	20	833	0	82.5	54-114	0			
<i>Surr: 4-Terphenyl-d14</i>	0.7333	0	0.828	0	88.6	10-131	0			

MS		Sample ID: <b>24110559-01B MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/26/2024 07:17 PM</b>		
Client ID: <b>MU01@3.0'-3.5'</b>		Run ID: <b>GC8_241126A</b>		SeqNo: <b>11280603</b>		Prep Date: <b>11/25/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C10-C36)	730.2	20	826.7	5.79	87.6	54-114	0			
<i>Surr: 4-Terphenyl-d14</i>	0.7278	0	0.8217	0	88.6	10-131	0			

MSD		Sample ID: <b>24110559-01B MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>11/26/2024 07:40 PM</b>		
Client ID: <b>MU01@3.0'-3.5'</b>		Run ID: <b>GC8_241126A</b>		SeqNo: <b>11280604</b>		Prep Date: <b>11/25/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
ERO (C10-C36)	705	19	801.1	5.79	87.3	54-114	730.2	3.5	30	
<i>Surr: 4-Terphenyl-d14</i>	0.7373	0	0.7963	0	92.6	10-131	0.7278	1.3	30	

The following samples were analyzed in this batch:

24110559-01B	24110559-02B	24110559-03B
24110559-04B	24110559-05B	24110559-06B
24110559-07B	24110559-08B	24110559-09B
24110559-10B		

Client: Williams Midstream  
 Work Order: 24110559  
 Project: WPO188995

# QC BATCH REPORT

Batch ID: **249503** Instrument ID **GC9** Method: **SW8015C**

MBLK		Sample ID: <b>MBLK-249503-249503</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>11/20/2024 06:40 PM</b>		
Client ID:		Run ID: <b>GC9_241120A</b>		SeqNo: <b>11268247</b>		Prep Date: <b>11/20/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	U	5,000	0	0	0		0			
<i>Surr: Toluene-d8</i>	4972	0	5000	0	99.4	75-120	0			

LCS		Sample ID: <b>LCS-249503-249503</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>11/20/2024 05:56 PM</b>		
Client ID:		Run ID: <b>GC9_241120A</b>		SeqNo: <b>11268246</b>		Prep Date: <b>11/20/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	216000	5,000	250000	0	86.4	63-126	0			
<i>Surr: Toluene-d8</i>	4890	0	5000	0	97.8	75-120	0			

MS		Sample ID: <b>24110559-10D MS</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>11/21/2024 01:22 AM</b>		
Client ID: <b>MU10@3.0'-3.5'</b>		Run ID: <b>GC9_241120A</b>		SeqNo: <b>11268261</b>		Prep Date: <b>11/20/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	303600	6,300	313800	0	96.8	63-126	0			
<i>Surr: Toluene-d8</i>	6241	0	6275	0	99.5	75-120	0			

MSD		Sample ID: <b>24110559-10D MSD</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>11/21/2024 01:45 AM</b>		
Client ID: <b>MU10@3.0'-3.5'</b>		Run ID: <b>GC9_241120A</b>		SeqNo: <b>11268262</b>		Prep Date: <b>11/20/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	310500	6,300	313800	0	99	63-126	303600	2.27	30	
<i>Surr: Toluene-d8</i>	6445	0	6275	0	103	75-120	6241	3.22	30	

The following samples were analyzed in this batch:

24110559-01D	24110559-02D	24110559-03D
24110559-04D	24110559-05D	24110559-06D
24110559-07D	24110559-08D	24110559-09D
24110559-10D		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Williams Midstream  
 Work Order: 24110559  
 Project: WPO188995

# QC BATCH REPORT

Batch ID: **249778** Instrument ID **ICPMS4** Method: **SW6020B**

MBLK		Sample ID: <b>MBLK-249778-249778</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>12/2/2024 03:23 PM</b>		
Client ID:		Run ID: <b>ICPMS4_241202A</b>		SeqNo: <b>11285883</b>		Prep Date: <b>11/26/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron (Hot Water Soluble)	0.003318	0.040								J

LCS		Sample ID: <b>LCS-249778-249778</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>12/2/2024 03:24 PM</b>		
Client ID:		Run ID: <b>ICPMS4_241202A</b>		SeqNo: <b>11285884</b>		Prep Date: <b>11/26/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron (Hot Water Soluble)	0.8761	0.040	1	0	87.6	80-120	0			

The following samples were analyzed in this batch:

24110559-01B	24110559-02B	24110559-03B
24110559-04B	24110559-05B	24110559-06B
24110559-07B	24110559-08B	24110559-09B
24110559-10B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Williams Midstream  
 Work Order: 24110559  
 Project: WPO188995

# QC BATCH REPORT

Batch ID: **249888** Instrument ID **ICPMS3** Method: **SW6020B**

DUP		Sample ID: 24110559-01ADUP				Units: mg/L		Analysis Date: 12/3/2024 07:23 PM		
Client ID: MU01@3.0'-3.5'		Run ID: ICPMS3_241203A				SeqNo: 11289198		Prep Date: 12/2/2024		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	39.39	5.0	0	0	0	0-0	28.69	31.4		
Magnesium	9.153	2.0	0	0	0	0-0	6.947	27.4		

DUP		Sample ID: 24110559-01ADUP				Units: mg/L		Analysis Date: 12/4/2024 02:13 PM		
Client ID: MU01@3.0'-3.5'		Run ID: ICPMS3_241204A				SeqNo: 11291977		Prep Date: 12/2/2024		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	4.844	2.0	0	0	0	0-0	3.595	29.6		

The following samples were analyzed in this batch:

24110559-01A	24110559-02A	24110559-03A
24110559-04A	24110559-05A	24110559-06A
24110559-07A	24110559-08A	24110559-09A
24110559-10A		

Batch ID: **249888** Instrument ID **SAR** Method: **USDA H60 Metho**

DUP		Sample ID: 24110559-01ADUP				Units: none		Analysis Date: 12/3/2024		
Client ID: MU01@3.0'-3.5'		Run ID: SAR_241203A				SeqNo: 11292122		Prep Date: 12/2/2024		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	0.1807	0.010	0	0	0		0.1562	14.5	50	

The following samples were analyzed in this batch:

24110559-01A	24110559-02A	24110559-03A
24110559-04A	24110559-05A	24110559-06A
24110559-07A	24110559-08A	24110559-09A
24110559-10A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Williams Midstream  
 Work Order: 24110559  
 Project: WPO188995

# QC BATCH REPORT

Batch ID: **249673** Instrument ID **SVMS7** Method: **SW8270E**

MBLK		Sample ID: <b>MBLK-249673-249673</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/27/2024 04:02 AM</b>		
Client ID:		Run ID: <b>SVMS7_241126A</b>				SeqNo: <b>11280277</b>		Prep Date: <b>11/25/2024</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	U	4.2								
2-Methylnaphthalene	U	4.2								
Acenaphthene	U	4.2								
Anthracene	U	4.2								
Benzo(a)anthracene	U	4.2								
Benzo(a)pyrene	U	4.2								
Benzo(b)fluoranthene	U	4.2								
Benzo(k)fluoranthene	U	4.2								
Chrysene	U	4.2								
Dibenzo(a,h)anthracene	U	4.2								
Fluoranthene	U	4.2								
Fluorene	U	4.2								
Indeno(1,2,3-cd)pyrene	U	4.2								
Naphthalene	U	4.2								
Pyrene	U	4.2								
<i>Surr: 2-Fluorobiphenyl</i>	535.1	0	666.6	0	80.3	44-132	0			
<i>Surr: 4-Terphenyl-d14</i>	604.8	0	666.6	0	90.7	35-133	0			
<i>Surr: Nitrobenzene-d5</i>	797.9	0	666.6	0	120	30-133	0			

LCS		Sample ID: <b>LCS-249673-249673</b>				Units: <b>µg/Kg</b>		Analysis Date: <b>11/27/2024 04:17 AM</b>		
Client ID:		Run ID: <b>SVMS7_241126A</b>				SeqNo: <b>11280278</b>		Prep Date: <b>11/25/2024</b>		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	585.4	4.2	666.6	0	87.8	39-165	0			
2-Methylnaphthalene	527.5	4.2	666.6	0	79.1	32-158	0			
Acenaphthene	586	4.2	666.6	0	87.9	42-155	0			
Anthracene	614	4.2	666.6	0	92.1	41-155	0			
Benzo(a)anthracene	622.6	4.2	666.6	0	93.4	39-155	0			
Benzo(a)pyrene	569.4	4.2	666.6	0	85.4	36-158	0			
Benzo(b)fluoranthene	547.7	4.2	666.6	0	82.2	36-146	0			
Benzo(k)fluoranthene	507.7	4.2	666.6	0	76.2	36-150	0			
Chrysene	531.1	4.2	666.6	0	79.7	41-162	0			
Dibenzo(a,h)anthracene	548.3	4.2	666.6	0	82.3	27-167	0			
Fluoranthene	633.3	4.2	666.6	0	95	39-156	0			
Fluorene	562.6	4.2	666.6	0	84.4	37-153	0			
Indeno(1,2,3-cd)pyrene	580.5	4.2	666.6	0	87.1	24-171	0			
Naphthalene	570.4	4.2	666.6	0	85.6	43-156	0			
Pyrene	535	4.2	666.6	0	80.3	32-147	0			
<i>Surr: 2-Fluorobiphenyl</i>	564.9	0	666.6	0	84.7	44-132	0			
<i>Surr: 4-Terphenyl-d14</i>	519.3	0	666.6	0	77.9	35-133	0			
<i>Surr: Nitrobenzene-d5</i>	748	0	666.6	0	112	30-133	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Williams Midstream  
 Work Order: 24110559  
 Project: WPO188995

# QC BATCH REPORT

Batch ID: 249673 Instrument ID SVMS7 Method: SW8270E

MS				Sample ID: 24110559-04B MS		Units: µg/Kg		Analysis Date: 11/27/2024 04:33 AM		
Client ID: MU04@3.0'-3.5'			Run ID: SVMS7_241126A			SeqNo: 11280279		Prep Date: 11/25/2024		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	661.8	4.0	646	0	102	39-165	0			
2-Methylnaphthalene	600.5	4.0	646	0	93	32-158	0			
Acenaphthene	549.2	4.0	646	0	85	42-155	0			
Anthracene	611.9	4.0	646	0	94.7	41-155	0			
Benzo(a)anthracene	584.2	4.0	646	0	90.4	39-155	0			
Benzo(a)pyrene	583.7	4.0	646	0	90.4	36-158	0			
Benzo(b)fluoranthene	547.7	4.0	646	0	84.8	36-146	0			
Benzo(k)fluoranthene	588.8	4.0	646	0	91.1	36-150	0			
Chrysene	568	4.0	646	0	87.9	41-162	0			
Dibenzo(a,h)anthracene	605.9	4.0	646	0	93.8	27-167	0			
Fluoranthene	491.2	4.0	646	0	76	39-156	0			
Fluorene	593.4	4.0	646	0	91.9	37-153	0			
Indeno(1,2,3-cd)pyrene	633	4.0	646	0	98	24-171	0			
Naphthalene	580.4	4.0	646	0	89.8	43-156	0			
Pyrene	587.5	4.0	646	0	91	32-147	0			
Surr: 2-Fluorobiphenyl	488.1	0	646	0	75.6	44-132	0			
Surr: 4-Terphenyl-d14	566	0	646	0	87.6	35-133	0			
Surr: Nitrobenzene-d5	832.8	0	646	0	129	30-133	0			

MSD				Sample ID: 24110559-04B MSD		Units: µg/Kg		Analysis Date: 11/27/2024 04:49 AM		
Client ID: MU04@3.0'-3.5'			Run ID: SVMS7_241126A			SeqNo: 11280280		Prep Date: 11/25/2024		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	613.6	4.1	659.8	0	93	39-165	661.8	7.56	30	
2-Methylnaphthalene	572.7	4.1	659.8	0	86.8	32-158	600.5	4.74	30	
Acenaphthene	567.6	4.1	659.8	0	86	42-155	549.2	3.3	30	
Anthracene	646.2	4.1	659.8	0	97.9	41-155	611.9	5.44	30	
Benzo(a)anthracene	639.5	4.1	659.8	0	96.9	39-155	584.2	9.05	30	
Benzo(a)pyrene	574.2	4.1	659.8	0	87	36-158	583.7	1.64	30	
Benzo(b)fluoranthene	498.6	4.1	659.8	0	75.6	36-146	547.7	9.4	30	
Benzo(k)fluoranthene	538.1	4.1	659.8	0	81.6	36-150	588.8	8.99	30	
Chrysene	619.5	4.1	659.8	0	93.9	41-162	568	8.67	30	
Dibenzo(a,h)anthracene	527.3	4.1	659.8	0	79.9	27-167	605.9	13.9	30	
Fluoranthene	530.8	4.1	659.8	0	80.5	39-156	491.2	7.76	30	
Fluorene	687.2	4.1	659.8	0	104	37-153	593.4	14.6	30	
Indeno(1,2,3-cd)pyrene	538.5	4.1	659.8	0	81.6	24-171	633	16.1	30	
Naphthalene	594.9	4.1	659.8	0	90.2	43-156	580.4	2.47	30	
Pyrene	622.6	4.1	659.8	0	94.4	32-147	587.5	5.81	30	
Surr: 2-Fluorobiphenyl	516.5	0	659.8	0	78.3	44-132	488.1	5.66	30	
Surr: 4-Terphenyl-d14	603.1	0	659.8	0	91.4	35-133	566	6.34	30	
Surr: Nitrobenzene-d5	805	0	659.8	0	122	30-133	832.8	3.39	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Williams Midstream  
**Work Order:** 24110559  
**Project:** WPO188995

# QC BATCH REPORT

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Batch ID: **249673**      Instrument ID **SVMS7**      Method: **SW8270E**

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**The following samples were analyzed in this batch:**

24110559-01B	24110559-02B	24110559-03B
24110559-04B	24110559-05B	24110559-06B
24110559-07B	24110559-08B	24110559-09B
24110559-10B		

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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Williams Midstream  
 Work Order: 24110559  
 Project: WPO188995

# QC BATCH REPORT

Batch ID: **R415435** Instrument ID **VMS9** Method: **SW8260D**

MBLK				Sample ID: <b>9V-BLKS1-241127-R415435</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>11/27/2024 08:00 PM</b>		
Client ID:		Run ID: <b>VMS9_241127A</b>		SeqNo: <b>11283310</b>		Prep Date:		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2,4-Trimethylbenzene	U	5.0									
1,3,5-Trimethylbenzene	U	5.0									
Benzene	U	5.0									
Ethylbenzene	U	5.0									
m,p-Xylene	U	2.5									
o-Xylene	U	2.5									
Toluene	U	5.0									
Xylenes, Total	U	5.0									
<i>Surr: 1,2-Dichloroethane-d4</i>	19.6	0	20	0	98	83-132		0			
<i>Surr: 4-Bromofluorobenzene</i>	19.34	0	20	0	96.7	83-111		0			
<i>Surr: Dibromofluoromethane</i>	19.3	0	20	0	96.5	77-125		0			
<i>Surr: Toluene-d8</i>	19.68	0	20	0	98.4	86-108		0			

LCS				Sample ID: <b>9V-LCSS1-241127-R415435</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>11/27/2024 07:11 PM</b>		
Client ID:		Run ID: <b>VMS9_241127A</b>		SeqNo: <b>11283308</b>		Prep Date:		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2,4-Trimethylbenzene	20.33	5.0	20	0	102	71-133		0			
1,3,5-Trimethylbenzene	19.77	5.0	20	0	98.8	71-139		0			
Benzene	20.42	5.0	20	0	102	77-133		0			
Ethylbenzene	20.47	5.0	20	0	102	75-133		0			
m,p-Xylene	38.07	2.5	40	0	95.2	75-134		0			
o-Xylene	20.06	2.5	20	0	100	76-130		0			
Toluene	19.65	5.0	20	0	98.2	76-130		0			
Xylenes, Total	58.13	5.0	60	0	96.9	75-132		0			
<i>Surr: 1,2-Dichloroethane-d4</i>	19.84	0	20	0	99.2	83-132		0			
<i>Surr: 4-Bromofluorobenzene</i>	20.2	0	20	0	101	83-111		0			
<i>Surr: Dibromofluoromethane</i>	20.77	0	20	0	104	77-125		0			
<i>Surr: Toluene-d8</i>	19.92	0	20	0	99.6	86-108		0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Williams Midstream  
 Work Order: 24110559  
 Project: WPO188995

# QC BATCH REPORT

Batch ID: **R415435** Instrument ID **VMS9** Method: **SW8260D**

MS				Sample ID: <b>HN2409281-001 MS</b>		Units: <b>µg/Kg</b>		Analysis Date: <b>11/28/2024 01:55 AM</b>		
Client ID:		Run ID: <b>VMS9_241127A</b>		SeqNo: <b>11283332</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	12.57	5.0	20	0	62.8	71-133	0			S
1,3,5-Trimethylbenzene	13.1	5.0	20	0	65.5	71-139	0			S
Benzene	15.55	5.0	20	0	77.8	77-133	0			
Ethylbenzene	14.2	5.0	20	0	71	75-133	0			S
m,p-Xylene	26.15	2.5	40	0	65.4	75-134	0			S
o-Xylene	13.91	2.5	20	0	69.6	76-130	0			S
Toluene	14	5.0	20	0	70	76-130	0			S
Xylenes, Total	40.06	5.0	60	0	66.8	75-132	0			S
<i>Surr: 1,2-Dichloroethane-d4</i>	20.53	0	20	0	103	83-132	0			
<i>Surr: 4-Bromofluorobenzene</i>	19.66	0	20	0	98.3	83-111	0			
<i>Surr: Dibromofluoromethane</i>	20.56	0	20	0	103	77-125	0			
<i>Surr: Toluene-d8</i>	18.79	0	20	0	94	86-108	0			

MSD				Sample ID: <b>HN2409281-001 MSD</b>		Units: <b>µg/Kg</b>		Analysis Date: <b>11/28/2024 02:11 AM</b>		
Client ID:		Run ID: <b>VMS9_241127A</b>		SeqNo: <b>11283333</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	12.69	5.0	20	0	63.4	71-133	12.57	0.95	30	S
1,3,5-Trimethylbenzene	13.04	5.0	20	0	65.2	71-139	13.1	0.459	30	S
Benzene	15.12	5.0	20	0	75.6	77-133	15.55	2.8	30	S
Ethylbenzene	13.77	5.0	20	0	68.8	75-133	14.2	3.07	30	S
m,p-Xylene	25.61	2.5	40	0	64	75-134	26.15	2.09	30	S
o-Xylene	13.72	2.5	20	0	68.6	76-130	13.91	1.38	30	S
Toluene	13.59	5.0	20	0	68	76-130	14	2.97	30	S
Xylenes, Total	39.33	5.0	60	0	65.6	75-132	40.06	1.84	30	S
<i>Surr: 1,2-Dichloroethane-d4</i>	19.67	0	20	0	98.4	83-132	20.53	4.28	30	
<i>Surr: 4-Bromofluorobenzene</i>	19.64	0	20	0	98.2	83-111	19.66	0.102	30	
<i>Surr: Dibromofluoromethane</i>	21.13	0	20	0	106	77-125	20.56	2.73	30	
<i>Surr: Toluene-d8</i>	18.85	0	20	0	94.2	86-108	18.79	0.319	30	

The following samples were analyzed in this batch:

24110559-01D	24110559-02D	24110559-03D
24110559-04D	24110559-05D	24110559-06D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Williams Midstream  
 Work Order: 24110559  
 Project: WPO188995

# QC BATCH REPORT

Batch ID: **R415437** Instrument ID **VMS9** Method: **SW8260D**

MBLK				Sample ID: <b>9V-BLKS3-241127-R415437</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>11/28/2024 04:36 AM</b>		
Client ID:		Run ID: <b>VMS9_241127B</b>		SeqNo: <b>11283347</b>		Prep Date:		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2,4-Trimethylbenzene	U	5.0									
1,3,5-Trimethylbenzene	U	5.0									
Benzene	U	5.0									
Ethylbenzene	U	5.0									
m,p-Xylene	U	2.5									
o-Xylene	U	2.5									
Toluene	U	5.0									
Xylenes, Total	U	5.0									
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>17.16</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>85.8</i>	<i>83-132</i>	<i>0</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>19.09</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>95.4</i>	<i>83-111</i>	<i>0</i>				
<i>Surr: Dibromofluoromethane</i>	<i>19.01</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>95</i>	<i>77-125</i>	<i>0</i>				
<i>Surr: Toluene-d8</i>	<i>19.36</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>96.8</i>	<i>86-108</i>	<i>0</i>				

LCS				Sample ID: <b>9V-LCSS3-241127-R415437</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>11/28/2024 03:48 AM</b>		
Client ID:		Run ID: <b>VMS9_241127B</b>		SeqNo: <b>11283345</b>		Prep Date:		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2,4-Trimethylbenzene	19.57	5.0	20	0	97.8	71-133	0				
1,3,5-Trimethylbenzene	19.06	5.0	20	0	95.3	71-139	0				
Benzene	20.06	5.0	20	0	100	77-133	0				
Ethylbenzene	19.66	5.0	20	0	98.3	75-133	0				
m,p-Xylene	36.1	2.5	40	0	90.2	75-134	0				
o-Xylene	20.35	2.5	20	0	102	76-130	0				
Toluene	19.14	5.0	20	0	95.7	76-130	0				
Xylenes, Total	56.45	5.0	60	0	94.1	75-132	0				
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>19.28</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>96.4</i>	<i>83-132</i>	<i>0</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>19.72</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>98.6</i>	<i>83-111</i>	<i>0</i>				
<i>Surr: Dibromofluoromethane</i>	<i>19.9</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.5</i>	<i>77-125</i>	<i>0</i>				
<i>Surr: Toluene-d8</i>	<i>19.01</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>95</i>	<i>86-108</i>	<i>0</i>				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Williams Midstream  
 Work Order: 24110559  
 Project: WPO188995

# QC BATCH REPORT

Batch ID: **R415437** Instrument ID **VMS9** Method: **SW8260D**

MS				Sample ID: <b>HN2409434-003 MS</b>		Units: <b>µg/Kg</b>		Analysis Date: <b>11/28/2024 09:45 AM</b>		
Client ID:		Run ID: <b>VMS9_241127B</b>		SeqNo: <b>11283366</b>		Prep Date:		DF: <b>0.998</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	7.814	5.0	19.96	0	39.2	71-133	0			S
1,3,5-Trimethylbenzene	8.194	5.0	19.96	0	41	71-139	0			S
Benzene	14.05	5.0	19.96	0	70.4	77-133	0			S
Ethylbenzene	10.55	5.0	19.96	0	52.9	75-133	0			S
m,p-Xylene	19.27	2.5	39.92	0	48.3	75-134	0			S
o-Xylene	10.39	2.5	19.96	0	52.1	76-130	0			S
Toluene	11.37	5.0	19.96	0	56.9	76-130	0			S
Xylenes, Total	29.66	5.0	59.88	0	49.5	75-132	0			S
<i>Surr: 1,2-Dichloroethane-d4</i>	20.45	0	19.96	0	102	83-132	0			
<i>Surr: 4-Bromofluorobenzene</i>	19.87	0	19.96	0	99.6	83-111	0			
<i>Surr: Dibromofluoromethane</i>	20.64	0	19.96	0	103	77-125	0			
<i>Surr: Toluene-d8</i>	19.47	0	19.96	0	97.6	86-108	0			

MSD				Sample ID: <b>HN2408434-003 MSD</b>		Units: <b>µg/Kg</b>		Analysis Date: <b>11/28/2024 10:01 AM</b>		
Client ID:		Run ID: <b>VMS9_241127B</b>		SeqNo: <b>11283367</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	7.82	5.0	20	0	39.1	71-133	0			S
1,3,5-Trimethylbenzene	8.72	5.0	20	0	43.6	71-139	0			S
Benzene	14.49	5.0	20	0	72.4	77-133	0			S
Ethylbenzene	11.31	5.0	20	0	56.6	75-133	0			S
m,p-Xylene	20.16	2.5	40	0	50.4	75-134	0			S
o-Xylene	11.21	2.5	20	0	56	76-130	0			S
Toluene	12.28	5.0	20	0	61.4	76-130	0			S
Xylenes, Total	31.37	5.0	60	0	52.3	75-132	0			S
<i>Surr: 1,2-Dichloroethane-d4</i>	20.49	0	20	0	102	83-132	0			
<i>Surr: 4-Bromofluorobenzene</i>	20	0	20	0	100	83-111	0			
<i>Surr: Dibromofluoromethane</i>	20.15	0	20	0	101	77-125	0			
<i>Surr: Toluene-d8</i>	19.31	0	20	0	96.6	86-108	0			

The following samples were analyzed in this batch:

24110559-07D	24110559-08D	24110559-09D
24110559-10D		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Williams Midstream  
**Work Order:** 24110559  
**Project:** WPO188995

# QC BATCH REPORT

Batch ID: **249888**      Instrument ID **WETCHEM**      Method: **USDA Method 20**

<b>DUP</b>		Sample ID: <b>24110559-01A DUP</b>				Units: <b>s.u.</b>		Analysis Date: <b>12/4/2024 09:25 AM</b>			
Client ID: <b>MU01@3.0'-3.5'</b>		Run ID: <b>WETCHEM_241204B</b>		SeqNo: <b>11290034</b>		Prep Date: <b>12/2/2024</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH @ Saturation	2.69	0.10	0	0	0	0-0	4.96	59.3	20	R	

The following samples were analyzed in this batch:

24110559-01A	24110559-02A	24110559-03A
24110559-04A	24110559-05A	24110559-06A
24110559-07A	24110559-08A	24110559-09A
24110559-10A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Williams Midstream  
 Work Order: 24110559  
 Project: WPO188995

# QC BATCH REPORT

Batch ID: **R415065** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: <b>MBLK-R415065</b>				Units: % of sample		Analysis Date: <b>11/20/2024 08:45 PM</b>		
Client ID:		Run ID: <b>MOIST_241120B</b>		SeqNo: <b>11268445</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	U	0.10								

LCS		Sample ID: <b>LCS-R415065</b>				Units: % of sample		Analysis Date: <b>11/20/2024 08:45 PM</b>		
Client ID:		Run ID: <b>MOIST_241120B</b>		SeqNo: <b>11268444</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.10	100	0	100	98-102	0			

DUP		Sample ID: <b>24110559-04C DUP</b>				Units: % of sample		Analysis Date: <b>11/20/2024 08:45 PM</b>		
Client ID: <b>MU04@3.0'-3.5'</b>		Run ID: <b>MOIST_241120B</b>		SeqNo: <b>11268426</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	5.97	0.10	0	0	0	0-0	5.52	7.83	10	

DUP		Sample ID: <b>24110593-01A DUP</b>				Units: % of sample		Analysis Date: <b>11/20/2024 08:45 PM</b>		
Client ID:		Run ID: <b>MOIST_241120B</b>		SeqNo: <b>11268437</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	10.12	0.10	0	0	0	0-0	9.33	8.12	10	

The following samples were analyzed in this batch:

24110559-01C	24110559-02C	24110559-03C
24110559-04C	24110559-05C	24110559-06C
24110559-07C	24110559-08C	24110559-09C
24110559-10C		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



# ALS Environmental

ALS Environmental  
3352 128th Avenue  
Holland, Michigan 49424  
(Tel) 616.399.6070  
(Fax) 616.399.6185

## Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #

PAGE 1 of 1

DISPOSAL BY LAB or RETURN

PROJECT NAME	
PROJECT No.	
COMPANY NAME	Williams
SEND REPORT TO	Annette Garrigues
ADDRESS	
CITY / STATE / ZIP	
PHONE	
FAX	
E-MAIL	Annette.Garrigues@Williams.com

TURNAROUND TIME	Normal
SAMPLER	Adam Vains
SITE ID	
EDD FORMAT	
PURCHASE ORDER	WPO188995
BILL TO COMPANY	Annette Garrigues
PROJECT	24110559
PROJECT	WILLIAMSMIDSTREAM: Williams Midstream Project



PARAMETER/METHOD REQUEST FOR ANALYSIS	A	ERO C10-C36
	B	GRO C6-C10
	C	EC
	D	SAR
	E	pH (USDA method)
	F	Hot water soluble Boron
	G	BTEX/TMBs
	H	Table 915-1 PAHs
	I	
	J	

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
	MU01@3.0'-3.5'	s	11/15/24	10:10	6	Yes		X	X	X	X	X	X	X	X			
	MU02@2.0'-2.5'	s	11/15/24	10:35	6	Yes		X	X	X	X	X	X	X	X			
	MU03@3.0'-3.5'	s	11/15/24	12:35	6	Yes		X	X	X	X	X	X	X	X			
	MU04@3.0'-3.5'	s	11/15/24	12:50	6	Yes		X	X	X	X	X	X	X	X			
	MU05@2.0'-2.5'	s	11/15/24	13:50	6	Yes		X	X	X	X	X	X	X	X			
	MU06@3.0'-3.5'	s	11/15/24	14:20	6	Yes		X	X	X	X	X	X	X	X			
	MU07@3.0'-3.5'	s	11/15/24	14:30	6	Yes		X	X	X	X	X	X	X	X			
	MU08@3.0'-3.5'	s	11/15/24	14:40	6	Yes		X	X	X	X	X	X	X	X			
	MU09@3.0'-3.5'	s	11/15/24	14:50	6	Yes		X	X	X	X	X	X	X	X			
	MU10@3.0'-3.5'	s	11/15/24	15:30	6	Yes		X	X	X	X	X	X	X	X			

\*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

Logged  
BH 11/20/24 0950 DF2 5.1c

REPORT LEVEL / QC REQUIRED
Summary (Standard QC)
LEVEL II (Standard QC)
LEVEL III (Std QC + forms)
LEVEL IV (Std QC + forms + raw data)

PRESERVATION KEY 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 202r9	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	Adam Vains	Becky Sirotek		
RECEIVED BY				
RELINQUISHED BY	Adam Vains	Adam Vains	11-18-24	15:60
RECEIVED BY				
RELINQUISHED BY	Fedex		11/19/24	0900
RECEIVED BY		Brittany Hayward	11/19/24	0900

### Sample Receipt Checklist

Client Name: **WILLIAMSMIDSTREAM**

Date/Time Received: **19-Nov-24 09:00**

Work Order: **24110559**

Received by: **BYH**

Checklist completed by Brittany Hayward 20-Nov-24  
eSignature Date

Reviewed by: Chad Whelton 20-Nov-24  
eSignature Date

Matrices: Soil  
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="5.1/5.1 C"/>		<input type="text" value="DF2"/>
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="11/20/2024 9:50:46 AM"/>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:

-----

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: