



15-Apr-2024

Aaron Galer  
Williams Midstream  
2717 County Road 215  
Parachute, CO 81635

Re: **Cottonwood CS**

Work Order: **24040050**

Dear Aaron,

ALS Environmental received 4 samples on 30-Mar-2024 10:00 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 19.

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

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**Client:** Williams Midstream  
**Project:** Cottonwood CS  
**Work Order:** 24040050

**Work Order Sample Summary**

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<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>
24040050-01	MW-9 45-50'	Soil		3/27/2024 09:42	3/30/2024 10:00	<input type="checkbox"/>
24040050-02	MW-8 50-55'	Soil		3/27/2024 16:00	3/30/2024 10:00	<input type="checkbox"/>
24040050-03	Trip Blank	Soil		3/27/2024	3/30/2024 10:00	<input type="checkbox"/>
24040050-04	MW-9 65-70'	Soil		3/27/2024 10:20	3/30/2024 10:00	<input type="checkbox"/>

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**Client:** Williams Midstream  
**Project:** Cottonwood CS  
**Work Order:** 24040050

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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 R399933a, Method SW8260D, Sample MW-9 45-50' (24040050-01A): Elevated surrogate confirmed by reanalysis.

Batch R399933a, Method SW8260D, Sample MW-9 45-50' (24040050-01A): Surrogate high due to matrix interference.

Batch 237672, Method SW8015C, Sample 24040050-01A MS/MSD: The MS/MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for this analyte: GRO.

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**Client:** Williams Midstream  
**Project:** Cottonwood CS  
**WorkOrder:** 24040050

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**QUALIFIERS,  
ACRONYMS, UNITS**

<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	Micrograms per Kilogram
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight

**ALS Group, USA**

Date: 15-Apr-24

**Client:** Williams Midstream  
**Project:** Cottonwood CS  
**Sample ID:** MW-9 45-50'  
**Collection Date:** 3/27/2024 09:42 AM

**Work Order:** 24040050  
**Lab ID:** 24040050-01  
**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 / 4/4/24		Analyst: <b>QNG</b>
<b>DRO (C10-C28)</b>	<b>22</b>		<b>2.8</b>	<b>10</b>	<b>mg/Kg-dry</b>	1	4/6/2024 00:30
Surr: 4-Terphenyl-d14	64.4			34-130	%REC	1	4/6/2024 00:30
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW5035A / 4/2/24		Analyst: <b>QNG</b>
<b>GRO (C6-C10)</b>	U		4,400	4,700	µg/Kg-dry	1	4/4/2024 11:47
Surr: Toluene-d8	92.8			75-120	%REC	1	4/4/2024 11:47
<b>VOLATILE ORGANIC COMPOUNDS - LOW LEVEL</b>			Method: <b>SW8260D</b>				Analyst: <b>SBR</b>
1,2,4-Trimethylbenzene	U		5.4	15	µg/Kg-dry	2.81	4/5/2024 15:52
1,3,5-Trimethylbenzene	U		4.8	15	µg/Kg-dry	2.81	4/5/2024 15:52
<b>Benzene</b>	<b>5.9</b>	J	<b>1.6</b>	<b>15</b>	<b>µg/Kg-dry</b>	2.81	4/5/2024 15:52
<b>Ethylbenzene</b>	<b>6.0</b>	J	<b>2.6</b>	<b>15</b>	<b>µg/Kg-dry</b>	2.81	4/5/2024 15:52
<b>m,p-Xylene</b>	<b>6.9</b>	J	<b>6.7</b>	<b>7.6</b>	<b>µg/Kg-dry</b>	2.81	4/5/2024 15:52
Naphthalene	U		6.4	15	µg/Kg-dry	2.81	4/5/2024 15:52
o-Xylene	U		3.6	7.6	µg/Kg-dry	2.81	4/5/2024 15:52
<b>Toluene</b>	<b>16</b>		<b>5.3</b>	<b>15</b>	<b>µg/Kg-dry</b>	2.81	4/5/2024 15:52
<b>Xylenes, Total</b>	<b>6.9</b>	J	<b>6.7</b>	<b>15</b>	<b>µg/Kg-dry</b>	2.81	4/5/2024 15:52
Surr: 1,2-Dichloroethane-d4	105			83-132	%REC	2.81	4/5/2024 15:52
Surr: 4-Bromofluorobenzene	116	S		83-111	%REC	2.81	4/5/2024 15:52
Surr: Dibromofluoromethane	100			77-125	%REC	2.81	4/5/2024 15:52
Surr: Toluene-d8	96.8			86-108	%REC	2.81	4/5/2024 15:52
<b>MOISTURE</b>			Method: <b>SW3550C</b>				Analyst: <b>SGH</b>
<b>Moisture</b>	<b>7.2</b>		<b>0.10</b>	<b>0.10</b>	<b>% of sample</b>	1	4/2/2024 14:56

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

**ALS Group, USA**

Date: 15-Apr-24

**Client:** Williams Midstream  
**Project:** Cottonwood CS  
**Sample ID:** MW-8 50-55'  
**Collection Date:** 3/27/2024 04:00 PM

**Work Order:** 24040050  
**Lab ID:** 24040050-02  
**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 / 4/10/24		Analyst: <b>QNG</b>
DRO (C10-C28)	U		2.9	11	mg/Kg-dry	1	4/10/2024 23:54
Surr: 4-Terphenyl-d14	66.4			34-130	%REC	1	4/10/2024 23:54
<b>GASOLINE RANGE ORGANICS BY GC-FID</b>			Method: <b>SW8015C</b>		Prep: SW5035A / 4/2/24		Analyst: <b>QNG</b>
GRO (C6-C10)	U		5,200	5,500	µg/Kg-dry	1	4/4/2024 12:10
Surr: Toluene-d8	92.8			75-120	%REC	1	4/4/2024 12:10
<b>VOLATILE ORGANIC COMPOUNDS - LOW LEVEL</b>			Method: <b>SW8260D</b>				Analyst: <b>SBR</b>
1,2,4-Trimethylbenzene	U		1.7	4.7	µg/Kg-dry	0.806	4/4/2024 19:15
1,3,5-Trimethylbenzene	U		1.5	4.7	µg/Kg-dry	0.806	4/4/2024 19:15
<b>Benzene</b>	<b>2.0</b>	J	<b>0.48</b>	<b>4.7</b>	<b>µg/Kg-dry</b>	0.806	4/4/2024 19:15
<b>Ethylbenzene</b>	<b>2.0</b>	J	<b>0.81</b>	<b>4.7</b>	<b>µg/Kg-dry</b>	0.806	4/4/2024 19:15
<b>m,p-Xylene</b>	<b>7.3</b>		<b>2.0</b>	<b>2.3</b>	<b>µg/Kg-dry</b>	0.806	4/4/2024 19:15
Naphthalene	U		2.0	4.7	µg/Kg-dry	0.806	4/4/2024 19:15
o-Xylene	U		1.1	2.3	µg/Kg-dry	0.806	4/4/2024 19:15
<b>Toluene</b>	<b>10</b>		<b>1.6</b>	<b>4.7</b>	<b>µg/Kg-dry</b>	0.806	4/4/2024 19:15
<b>Xylenes, Total</b>	<b>7.3</b>		<b>2.0</b>	<b>4.7</b>	<b>µg/Kg-dry</b>	0.806	4/4/2024 19:15
Surr: 1,2-Dichloroethane-d4	117			83-132	%REC	0.806	4/4/2024 19:15
Surr: 4-Bromofluorobenzene	107			83-111	%REC	0.806	4/4/2024 19:15
Surr: Dibromofluoromethane	109			77-125	%REC	0.806	4/4/2024 19:15
Surr: Toluene-d8	96.2			86-108	%REC	0.806	4/4/2024 19:15
<b>MOISTURE</b>			Method: <b>SW3550C</b>				Analyst: <b>SGH</b>
Moisture	14		0.10	0.10	% of sample	1	4/3/2024 16:24

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

**ALS Group, USA**

Date: 15-Apr-24

**Client:** Williams Midstream  
**Project:** Cottonwood CS  
**Sample ID:** Trip Blank  
**Collection Date:** 3/27/2024

**Work Order:** 24040050  
**Lab ID:** 24040050-03  
**Matrix:** SOIL

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS - LOW LEVEL</b>			Method: <b>SW8260D</b>				Analyst: <b>SBR</b>
1,2,4-Trimethylbenzene	U		1.8	5.0	µg/Kg	1	4/4/2024 13:28
1,3,5-Trimethylbenzene	U		1.6	5.0	µg/Kg	1	4/4/2024 13:28
Benzene	U		0.52	5.0	µg/Kg	1	4/4/2024 13:28
Ethylbenzene	U		0.87	5.0	µg/Kg	1	4/4/2024 13:28
m,p-Xylene	U		2.2	2.5	µg/Kg	1	4/4/2024 13:28
Naphthalene	U		2.1	5.0	µg/Kg	1	4/4/2024 13:28
o-Xylene	U		1.2	2.5	µg/Kg	1	4/4/2024 13:28
Toluene	U		1.7	5.0	µg/Kg	1	4/4/2024 13:28
Xylenes, Total	U		2.2	5.0	µg/Kg	1	4/4/2024 13:28
Surr: 1,2-Dichloroethane-d4	95.8			83-132	%REC	1	4/4/2024 13:28
Surr: 4-Bromofluorobenzene	109			83-111	%REC	1	4/4/2024 13:28
Surr: Dibromofluoromethane	100			77-125	%REC	1	4/4/2024 13:28
Surr: Toluene-d8	98.2			86-108	%REC	1	4/4/2024 13:28

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

**Client:** Williams Midstream  
**Work Order:** 24040050  
**Project:** Cottonwood CS

**QC BATCH REPORT**

Batch ID: **237847** Instrument ID **GC15** Method: **SW8015C**

MBLK		Sample ID: <b>DBLKS1-237847-237847</b>			Units: <b>mg/Kg</b>		Analysis Date: <b>4/4/2024 07:31 PM</b>			
Client ID:		Run ID: <b>GC15_240404A</b>			SeqNo: <b>10635471</b>		Prep Date: <b>4/4/2024</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	U	10								
<i>Surr: 4-Terphenyl-d14</i>	0.55	0	0.828	0	66.4	34-130	0			

LCS		Sample ID: <b>DLCSS1-237847-237847</b>			Units: <b>mg/Kg</b>		Analysis Date: <b>4/4/2024 08:48 PM</b>			
Client ID:		Run ID: <b>GC15_240404A</b>			SeqNo: <b>10635474</b>		Prep Date: <b>4/4/2024</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	396.7	10	417	0	95.1	65-122	0			
<i>Surr: 4-Terphenyl-d14</i>	0.7833	0	0.828	0	94.6	34-130	0			

MS		Sample ID: <b>24040127-01A MS</b>			Units: <b>mg/Kg</b>		Analysis Date: <b>4/8/2024 09:04 PM</b>			
Client ID:		Run ID: <b>GC15_240408A</b>			SeqNo: <b>10638417</b>		Prep Date: <b>4/4/2024</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	482.1	9.9	411	2.439	117	65-122	0			
<i>Surr: 4-Terphenyl-d14</i>	0.9363	0	0.816	0	115	34-130	0			

MSD		Sample ID: <b>24040127-01A MSD</b>			Units: <b>mg/Kg</b>		Analysis Date: <b>4/8/2024 09:30 PM</b>			
Client ID:		Run ID: <b>GC15_240408A</b>			SeqNo: <b>10638418</b>		Prep Date: <b>4/4/2024</b>		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	459.6	9.8	410.7	2.439	111	65-122	482.1	4.77	30	
<i>Surr: 4-Terphenyl-d14</i>	0.8864	0	0.8155	0	109	34-130	0.9363	5.47	30	

The following samples were analyzed in this batch: 24040050-01C 24040050-02C

Client: Williams Midstream  
 Work Order: 24040050  
 Project: Cottonwood CS

# QC BATCH REPORT

Batch ID: **238136** Instrument ID **GC8** Method: **SW8015C**

MBLK		Sample ID: <b>DBLKS1-238136-238136</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/10/2024 08:10 PM</b>		
Client ID:		Run ID: <b>GC8_240410A</b>		SeqNo: <b>10648098</b>		Prep Date: <b>4/10/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	U	10								
<i>Surr: 4-Terphenyl-d14</i>	0.55	0	0.828	0	66.4	34-130	0			

LCS		Sample ID: <b>DLCSS1-238136-238136</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/10/2024 08:47 PM</b>		
Client ID:		Run ID: <b>GC8_240410A</b>		SeqNo: <b>10648099</b>		Prep Date: <b>4/10/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	275.2	10	417	0	66	65-122	0			
<i>Surr: 4-Terphenyl-d14</i>	0.5167	0	0.828	0	62.4	34-130	0			

MS		Sample ID: <b>24040469-01A MS</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/11/2024 06:44 AM</b>		
Client ID:		Run ID: <b>GC8_240410A</b>		SeqNo: <b>10648115</b>		Prep Date: <b>4/10/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	1448	23	975	181.8	130	65-122	0			S
<i>Surr: 4-Terphenyl-d14</i>	1.442	0	1.936	0	74.5	34-130	0			

MSD		Sample ID: <b>24040469-01A MSD</b>				Units: <b>mg/Kg</b>		Analysis Date: <b>4/11/2024 07:21 AM</b>		
Client ID:		Run ID: <b>GC8_240410A</b>		SeqNo: <b>10648116</b>		Prep Date: <b>4/10/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	1256	23	964.1	181.8	111	65-122	1448	14.2	30	
<i>Surr: 4-Terphenyl-d14</i>	1.541	0	1.914	0	80.5	34-130	1.442	6.67	30	

The following samples were analyzed in this batch:

Client: Williams Midstream  
 Work Order: 24040050  
 Project: Cottonwood CS

# QC BATCH REPORT

Batch ID: **237672** Instrument ID **GC9** Method: **SW8015C**

MBLK		Sample ID: <b>MBLK-237672-237672</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>4/4/2024 01:45 AM</b>		
Client ID:		Run ID: <b>GC9_240403A</b>		SeqNo: <b>10628510</b>		Prep Date: <b>4/2/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	U	5,000	0	0	0		0			
<i>Surr: Toluene-d8</i>	4696	0	5000	0	93.9	75-120	0			

LCS		Sample ID: <b>LCS-237672-237672</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>4/4/2024 01:00 AM</b>		
Client ID:		Run ID: <b>GC9_240403A</b>		SeqNo: <b>10628509</b>		Prep Date: <b>4/2/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	275500	5,000	250000	0	110	63-126	0			
<i>Surr: Toluene-d8</i>	4931	0	5000	0	98.6	75-120	0			

MS		Sample ID: <b>24040050-01A MS</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>4/4/2024 12:32 PM</b>		
Client ID: <b>MW-9 45-50'</b>		Run ID: <b>GC9_240403A</b>		SeqNo: <b>10628536</b>		Prep Date: <b>4/2/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	297600	4,700	233500	0	127	63-126	0			S
<i>Surr: Toluene-d8</i>	4889	0	4671	0	105	75-120	0			

MSD		Sample ID: <b>24040050-01A MSD</b>				Units: <b>µg/Kg-dry</b>		Analysis Date: <b>4/4/2024 12:55 PM</b>		
Client ID: <b>MW-9 45-50'</b>		Run ID: <b>GC9_240403A</b>		SeqNo: <b>10628537</b>		Prep Date: <b>4/2/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	294400	4,700	233500	0	126	63-126	297600	1.08	30	S
<i>Surr: Toluene-d8</i>	4839	0	4671	0	104	75-120	4889	1.03	30	

The following samples were analyzed in this batch: 24040050-01A 24040050-02A

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

Client: Williams Midstream  
 Work Order: 24040050  
 Project: Cottonwood CS

# QC BATCH REPORT

Batch ID: **R399853a** Instrument ID **VMS8** Method: **SW8260D**

MBLK				Sample ID: <b>8V-BLKS1-240404-R399853a</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>4/4/2024 12:52 PM</b>		
Client ID:		Run ID: <b>VMS8_240404A</b>		SeqNo: <b>10628187</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									
Naphthalene	U	5.0									
o-Xylene	U	2.5									
Toluene	U	5.0									
Xylenes, Total	U	5.0									
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>19.42</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>97.1</i>	<i>83-132</i>	<i>0</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.85</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>104</i>	<i>83-111</i>	<i>0</i>				
<i>Surr: Dibromofluoromethane</i>	<i>20.34</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>102</i>	<i>77-125</i>	<i>0</i>				
<i>Surr: Toluene-d8</i>	<i>19.28</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>96.4</i>	<i>86-108</i>	<i>0</i>				

LCS				Sample ID: <b>8V-LCSS1-240404-R399853a</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>4/4/2024 12:16 PM</b>		
Client ID:		Run ID: <b>VMS8_240404A</b>		SeqNo: <b>10628186</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	17.98	5.0	20	0	89.9	71-133	0				
1,3,5-Trimethylbenzene	18.64	5.0	20	0	93.2	71-139	0				
Benzene	17.29	5.0	20	0	86.4	77-133	0				
Ethylbenzene	18.68	5.0	20	0	93.4	75-133	0				
m,p-Xylene	36.51	2.5	40	0	91.3	75-134	0				
Naphthalene	18.31	5.0	20	0	91.6	67-125	0				
o-Xylene	18.26	2.5	20	0	91.3	76-130	0				
Toluene	18.36	5.0	20	0	91.8	76-130	0				
Xylenes, Total	54.77	5.0	60	0	91.3	75-132	0				
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>18.14</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>90.7</i>	<i>83-132</i>	<i>0</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>19.83</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.2</i>	<i>83-111</i>	<i>0</i>				
<i>Surr: Dibromofluoromethane</i>	<i>19.28</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>96.4</i>	<i>77-125</i>	<i>0</i>				
<i>Surr: Toluene-d8</i>	<i>19.72</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>98.6</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: 24040050  
 Project: Cottonwood CS

# QC BATCH REPORT

Batch ID: **R399853a** Instrument ID **VMS8** Method: **SW8260D**

MS				Sample ID: 24040059-05A MS			Units: µg/Kg		Analysis Date: 4/4/2024 07:33 PM		
Client ID:		Run ID: <b>VMS8_240404A</b>		SeqNo: <b>10628225</b>		Prep Date:		DF: <b>1.02</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2,4-Trimethylbenzene	16.13	5.1	20.4	0	79	71-133	0				
1,3,5-Trimethylbenzene	16.93	5.1	20.4	0	83	71-139	0				
Benzene	18.76	5.1	20.4	0.9534	87.3	77-133	0				
Ethylbenzene	16.22	5.1	20.4	0	79.5	75-133	0				
m,p-Xylene	31.99	2.6	40.8	0	78.4	75-134	0				
Naphthalene	13.13	5.1	20.4	0	64.4	67-125	0			S	
o-Xylene	17.13	2.6	20.4	0	84	76-130	0				
Toluene	16.91	5.1	20.4	0.514	80.4	76-130	0				
Xylenes, Total	49.11	5.1	61.2	0	80.2	75-132	0				
<i>Surr: 1,2-Dichloroethane-d4</i>	20.88	0	20.4	0	102	83-132	0				
<i>Surr: 4-Bromofluorobenzene</i>	20.21	0	20.4	0	99	83-111	0				
<i>Surr: Dibromofluoromethane</i>	21.34	0	20.4	0	105	77-125	0				
<i>Surr: Toluene-d8</i>	19.51	0	20.4	0	95.6	86-108	0				

MSD				Sample ID: 24040059-05A MSD			Units: µg/Kg		Analysis Date: 4/4/2024 07:51 PM		
Client ID:		Run ID: <b>VMS8_240404A</b>		SeqNo: <b>10628227</b>		Prep Date:		DF: <b>1.03</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2,4-Trimethylbenzene	15.26	5.2	20.6	0	74.1	71-133	16.13	5.49	30		
1,3,5-Trimethylbenzene	16.45	5.2	20.6	0	79.8	71-139	16.93	2.89	30		
Benzene	17.93	5.2	20.6	0.9534	82.4	77-133	18.76	4.5	30		
Ethylbenzene	16.29	5.2	20.6	0	79.1	75-133	16.22	0.471	30		
m,p-Xylene	32.12	2.6	41.2	0	78	75-134	31.99	0.4	30		
Naphthalene	12.33	5.2	20.6	0	59.8	67-125	13.13	6.27	30	S	
o-Xylene	17.1	2.6	20.6	0	83	76-130	17.13	0.162	30		
Toluene	16.07	5.2	20.6	0.514	75.5	76-130	16.91	5.12	30	S	
Xylenes, Total	49.21	5.2	61.8	0	79.6	75-132	49.11	0.204	30		
<i>Surr: 1,2-Dichloroethane-d4</i>	20.36	0	20.6	0	98.8	83-132	20.88	2.5	30		
<i>Surr: 4-Bromofluorobenzene</i>	21.05	0	20.6	0	102	83-111	20.21	4.11	30		
<i>Surr: Dibromofluoromethane</i>	21.49	0	20.6	0	104	77-125	21.34	0.688	30		
<i>Surr: Toluene-d8</i>	18.58	0	20.6	0	90.2	86-108	19.51	4.89	30		

The following samples were analyzed in this batch:

24040050-01A	24040050-02A	24040050-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Williams Midstream  
 Work Order: 24040050  
 Project: Cottonwood CS

# QC BATCH REPORT

Batch ID: **R399933a** Instrument ID **VMS8** Method: **SW8260D**

MBLK				Sample ID: <b>8V-BLKS1-240405-R399933a</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>4/5/2024 01:55 PM</b>		
Client ID:		Run ID: <b>VMS8_240405A</b>		SeqNo: <b>10632448</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									
Naphthalene	U	5.0									
o-Xylene	U	2.5									
Toluene	U	5.0									
Xylenes, Total	U	5.0									
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>19.44</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>97.2</i>	<i>83-132</i>	<i>0</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.79</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>104</i>	<i>83-111</i>	<i>0</i>				
<i>Surr: Dibromofluoromethane</i>	<i>20</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>100</i>	<i>77-125</i>	<i>0</i>				
<i>Surr: Toluene-d8</i>	<i>19.59</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>98</i>	<i>86-108</i>	<i>0</i>				

LCS				Sample ID: <b>8V-LCSS1-240405-R399933a</b>			Units: <b>µg/Kg</b>		Analysis Date: <b>4/5/2024 01:19 PM</b>		
Client ID:		Run ID: <b>VMS8_240405A</b>		SeqNo: <b>10632447</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	18.43	5.0	20	0	92.2	71-133	0				
1,3,5-Trimethylbenzene	19.16	5.0	20	0	95.8	71-139	0				
Benzene	17.59	5.0	20	0	88	77-133	0				
Ethylbenzene	18.36	5.0	20	0	91.8	75-133	0				
m,p-Xylene	36.44	2.5	40	0	91.1	75-134	0				
Naphthalene	18.06	5.0	20	0	90.3	67-125	0				
o-Xylene	18.35	2.5	20	0	91.8	76-130	0				
Toluene	17.52	5.0	20	0	87.6	76-130	0				
Xylenes, Total	54.79	5.0	60	0	91.3	75-132	0				
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>18.17</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>90.8</i>	<i>83-132</i>	<i>0</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.01</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>100</i>	<i>83-111</i>	<i>0</i>				
<i>Surr: Dibromofluoromethane</i>	<i>19.28</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>96.4</i>	<i>77-125</i>	<i>0</i>				
<i>Surr: Toluene-d8</i>	<i>19.94</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.7</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: 24040050  
 Project: Cottonwood CS

# QC BATCH REPORT

Batch ID: **R399933a** Instrument ID **VMS8** Method: **SW8260D**

MS				Sample ID: 24040054-01A MS			Units: µg/Kg		Analysis Date: 4/5/2024 07:12 PM		
Client ID:		Run ID: <b>VMS8_240405A</b>		SeqNo: <b>10632464</b>		Prep Date:		DF: <b>1.02</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2,4-Trimethylbenzene	16.64	5.1	20.4	0.6699	78.3	71-133	0				
1,3,5-Trimethylbenzene	17.3	5.1	20.4	0.1307	84.2	71-139	0				
Benzene	20.6	5.1	20.4	1.961	91.4	77-133	0				
Ethylbenzene	17.33	5.1	20.4	2.467	72.9	75-133	0			S	
m,p-Xylene	33.8	2.6	40.8	1.544	79.1	75-134	0				
Naphthalene	14.42	5.1	20.4	0	70.7	67-125	0				
o-Xylene	18.03	2.6	20.4	0.5882	85.5	76-130	0				
Toluene	19.19	5.1	20.4	5.286	68.1	76-130	0			S	
Xylenes, Total	51.84	5.1	61.2	0	84.7	75-132	0				
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.1</i>	<i>0</i>	<i>20.4</i>	<i>0</i>	<i>98.6</i>	<i>83-132</i>	<i>0</i>				
<i>Surr: 4-Bromofluorobenzene</i>	<i>19.83</i>	<i>0</i>	<i>20.4</i>	<i>0</i>	<i>97.2</i>	<i>83-111</i>	<i>0</i>				
<i>Surr: Dibromofluoromethane</i>	<i>21.63</i>	<i>0</i>	<i>20.4</i>	<i>0</i>	<i>106</i>	<i>77-125</i>	<i>0</i>				
<i>Surr: Toluene-d8</i>	<i>19.34</i>	<i>0</i>	<i>20.4</i>	<i>0</i>	<i>94.8</i>	<i>86-108</i>	<i>0</i>				

MSD				Sample ID: 24040054-01A MSD			Units: µg/Kg		Analysis Date: 4/5/2024 07:30 PM		
Client ID:		Run ID: <b>VMS8_240405A</b>		SeqNo: <b>10632465</b>		Prep Date:		DF: <b>1.01</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,2,4-Trimethylbenzene	16.7	5.0	20.2	0.6699	79.3	71-133	16.64	0.355	30		
1,3,5-Trimethylbenzene	17.61	5.0	20.2	0.1307	86.6	71-139	17.3	1.81	30		
Benzene	21.72	5.0	20.2	1.961	97.8	77-133	20.6	5.25	30		
Ethylbenzene	18.05	5.0	20.2	2.467	77.1	75-133	17.33	4.06	30		
m,p-Xylene	34.87	2.5	40.4	1.544	82.5	75-134	33.8	3.09	30		
Naphthalene	13.68	5.0	20.2	0	67.7	67-125	14.42	5.32	30		
o-Xylene	18.27	2.5	20.2	0.5882	87.5	76-130	18.03	1.31	30		
Toluene	19.36	5.0	20.2	5.286	69.7	76-130	19.19	0.911	30	S	
Xylenes, Total	53.14	5.0	60.6	0	87.7	75-132	51.84	2.48	30		
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.81</i>	<i>0</i>	<i>20.2</i>	<i>0</i>	<i>103</i>	<i>83-132</i>	<i>20.1</i>	<i>3.43</i>	<i>30</i>		
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.18</i>	<i>0</i>	<i>20.2</i>	<i>0</i>	<i>99.9</i>	<i>83-111</i>	<i>19.83</i>	<i>1.75</i>	<i>30</i>		
<i>Surr: Dibromofluoromethane</i>	<i>22.42</i>	<i>0</i>	<i>20.2</i>	<i>0</i>	<i>111</i>	<i>77-125</i>	<i>21.63</i>	<i>3.58</i>	<i>30</i>		
<i>Surr: Toluene-d8</i>	<i>19.5</i>	<i>0</i>	<i>20.2</i>	<i>0</i>	<i>96.6</i>	<i>86-108</i>	<i>19.34</i>	<i>0.844</i>	<i>30</i>		

The following samples were analyzed in this batch:

24040050-01A

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

Client: Williams Midstream  
 Work Order: 24040050  
 Project: Cottonwood CS

# QC BATCH REPORT

Batch ID: **R399750** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: <b>MBLK-R399750</b>				Units: % of sample		Analysis Date: <b>4/2/2024 02:56 PM</b>		
Client ID:		Run ID: <b>MOIST_240402B</b>		SeqNo: <b>10621315</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-R399750</b>				Units: % of sample		Analysis Date: <b>4/2/2024 02:56 PM</b>		
Client ID:		Run ID: <b>MOIST_240402B</b>		SeqNo: <b>10621314</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 99.96 0.10 100 0 100 98-102 0

DUP		Sample ID: <b>24040054-05B DUP</b>				Units: % of sample		Analysis Date: <b>4/2/2024 02:56 PM</b>		
Client ID:		Run ID: <b>MOIST_240402B</b>		SeqNo: <b>10621295</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 15.84 0.10 0 0 0 0-0 15.94 0.629 10

DUP		Sample ID: <b>24040054-13B DUP</b>				Units: % of sample		Analysis Date: <b>4/2/2024 02:56 PM</b>		
Client ID:		Run ID: <b>MOIST_240402B</b>		SeqNo: <b>10621304</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 15.6 0.10 0 0 0 0-0 14.55 6.97 10

The following samples were analyzed in this batch:

24040050-01B	24040050-04B
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Williams Midstream  
 Work Order: 24040050  
 Project: Cottonwood CS

# QC BATCH REPORT

Batch ID: **R399854** Instrument ID **MOIST** Method: **SW3550C**

MBLK		Sample ID: <b>MBLK-R399854</b>				Units: % of sample		Analysis Date: <b>4/3/2024 04:24 PM</b>		
Client ID:		Run ID: <b>MOIST_240403F</b>		SeqNo: <b>10625896</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-R399854</b>				Units: % of sample		Analysis Date: <b>4/3/2024 04:24 PM</b>		
Client ID:		Run ID: <b>MOIST_240403F</b>		SeqNo: <b>10625895</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	99.96	0.10	100	0	100	98-102	0			

DUP		Sample ID: <b>24040029-24B DUP</b>				Units: % of sample		Analysis Date: <b>4/3/2024 04:24 PM</b>		
Client ID:		Run ID: <b>MOIST_240403F</b>		SeqNo: <b>10625874</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	19.85	0.10	0	0	0	0-0	19.25	3.07	10	

DUP		Sample ID: <b>24040093-02A DUP</b>				Units: % of sample		Analysis Date: <b>4/3/2024 04:24 PM</b>		
Client ID:		Run ID: <b>MOIST_240403F</b>		SeqNo: <b>10625885</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	14.23	0.10	0	0	0	0-0	15.35	7.57	10	

The following samples were analyzed in this batch:

24040050-02B

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



ALS Environmental  
 10450 Stancliff Rd. #210  
 Houston, Texas 77099  
 (Tel) 281.530.5656  
 (Fax) 281.530.5887

# Chain of Custody Form

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**24040050**

WILLIAMSMIDSTREAM: Williams Midstream  
 Project: Cottonwood CS



ALS Project Manager:

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order	WPO058523	Project Name	Cottonwood CS	A	BTEX (8260)											
Work Order	E1002146	Project Number		B	Naphthalene (8260)											
Company Name	Williams Midstream	Bill To Company	Williams Midstream	C	1,2,4-trimethylbenzene (8260)											
Send Report To	Aaron Galer	Invoice Attn.	Aaron Galer	D	1,3,5-trimethylbenzene (8260)											
Address	295 Chipeta Way	Address	295 Chipeta Way	E	TPH-GRO (8015)											
				F	TPH-DRO (3546)											
City/State/Zip	SLC, UT 84108	City/State/Zip	SLC, UT 84108	G												
Phone	801-584-6746	Phone	801-584-6746	H												
Fax		Fax		I												
e-Mail Address	david.way@aptim.com; aaron.galer@williams.com; charles.kellnhofer@aptim.com;			J												

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	#Bottles	A	B	C	D	E	F	G	H	I	J	HOLD
1	MW-9 45-50'	3/27/2024	0942	S	7,8	5	X	X	X	X	X	X					
2	MW-8 50-55'	3/27/2024	1600	S	7,8	5	X	X	X	X	X	X					
3	Trip Blank	3/27/2024	----	S	7,8	2	X										
4	MW-9 65-70'	3/27/24	1020	S	7,8	5	X	X	X	X	X	X					HOLD X
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign CHARLES KELLNHOFFER <i>[Signature]</i>		Shipment Method: Fedex		Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 3 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour <input type="checkbox"/> Other _____				Results Due Date:	
Relinquished by: CHARLES KELLNHOFFER	Date: 3/29 3/28/2024	Time: 1645	Received by: FED EX	Date:	Time:	Notes: HOLD SAMPLE MW-9 65-70'			
Relinquished by: FED EX	Date: 3/30/24	Time: 1000	Received by (Laboratory): <i>[Signature]</i>	Date: 3/30/24	Time: 1000	ALS Cooler ID: 1R3	Cooler Temp: 2.82	QC Package: (Check Box Below)	
Logged by (Laboratory): DES	Date: 4/1/24	Time: 1430	Checked by (Laboratory):					<input type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Raw Data <input type="checkbox"/> TRRP LRC <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV: SW846 Methods/CLP like <input type="checkbox"/> Other: _____	

Preservative Key: 1-HCl 2-HNO<sub>3</sub> 3-H<sub>2</sub>SO<sub>4</sub> 4-NaOH 5-Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 6-NaHSO<sub>4</sub> 7-Other 8-4°C

Note: Any changes must be made in writing once sample and COC Form have been submitted to ALS.

### Sample Receipt Checklist

Client Name: **WILLIAMSMIDSTREAM**

Date/Time Received: **30-Mar-24 10:00**

Work Order: **24040050**

Received by: **DS**

Checklist completed by **Diane Shaw**

01-Apr-24

Reviewed by: **Brian Grzan**

01-Apr-24

eSignature

Date

eSignature

Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition? Yes  No  Not Present

Custody seals intact on shipping container/cooler? Yes  No  Not Present

Custody seals intact on sample bottles? Yes  No  Not Present

Chain of custody present? Yes  No

Chain of custody signed when relinquished and received? Yes  No

Chain of custody agrees with sample labels? Yes  No

Samples in proper container/bottle? Yes  No

Sample containers intact? Yes  No

Sufficient sample volume for indicated test? Yes  No

All samples received within holding time? Yes  No

Container/Temp Blank temperature in compliance? Yes  No

Sample(s) received on ice? Yes  No

Temperature(s)/Thermometer(s):

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage:

Water - VOA vials have zero headspace? Yes  No  No VOA vials submitted

Water - pH acceptable upon receipt? Yes  No  N/A

pH adjusted? Yes  No  N/A

pH adjusted by:

Login Notes:

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Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: