



Tuesday, February 16, 2021

Jeremy Pike  
WSP USA, Inc.  
4600 West 60th Avenue  
Arvada, CO 80003

Re: ALS Workorder: 2102087  
Project Name:  
Project Number: TE034520047, Task 1.00

Dear Mr. Pike:

One water sample was received from WSP USA, Inc., on 2/4/2021. The sample was scheduled for the following analyses:

Dissolved Gasses

GC/MS Volatiles

Inorganics

Metals

Total Extractable Petroleum Hydrocarbons (Diesel)

The results for these analyses are contained in the enclosed reports.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental.

Thank you for your confidence in ALS Environmental. Should you have any questions, please call.

Sincerely,

ALS Environmental  
Katie M. O'Brien  
Project Manager

Accreditations: ALS Environmental – Fort Collins is accredited by the following accreditation bodies for various testing scopes in accordance with requirements of each accreditation body. All testing is performed under the laboratory management system, which is maintained to meet these requirement and regulations. Please contact the laboratory or accreditation body for the current scope testing parameters.

ALS Environmental – Fort Collins	
Accreditation Body	License or Certification Number
California (CA)	2926
Colorado (CO)	CO01099
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
PJ-LA (DoD ELAP/ISO 170250)	95377
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO010992018-1
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	TN02976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280

40 CFR Part 136: All analyses for Clean Water Act samples are analyzed using the 40 CFR Part 136 specified method and include all the QC requirements.



## 2102087

### GC/MS Volatiles:

The sample was analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C. The sample was also analyzed for Gasoline Range Organics (GRO).

All surrogate recoveries were within acceptance criteria with the following exception:

Surrogate	Sample	Direction
Dibromofluoromethane	-1	Low

The low surrogate recovery is likely due to the high pH of the sample. No further action was taken.

All remaining acceptance criteria were met.

### Dissolved Gasses:

The sample was prepared and analyzed according to method RSK-175 procedures and the current revision of SOP 449.

All acceptance criteria were met.

### DRO:

The sample was analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated in this test extends from C10 to C28.

All acceptance criteria were met.

### Metals:

The sample was analyzed following Methods for the Determination of Metals in Environmental Samples – Supplement 1 procedures. Analysis by ICPMS followed method 200.8 and the current revision of SOP 827.

All acceptance criteria were met.

**Inorganics:**

The sample was analyzed following EMSL and Standard Method procedures for the current revisions of the following SOPs and methods:

<u>Analyte</u>	<u>Method</u>	<u>SOP #</u>
Alkalinity	SM2320B	1106
Bicarbonate	SM2320B	1106
Carbonate	SM2320B	1106
TDS	SM2540C	1101
Chloride	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

All acceptance criteria were met.

# ALS -- Fort Collins

## Sample Number(s) Cross-Reference Table

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**OrderNum:** 2102087

**Client Name:** WSP USA, Inc.

**Client Project Name:**

**Client Project Number:** TE034520047, Task 1.00

**Client PO Number:**

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Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
North Platte F-J-28 HNC (455362	2102087-1		WATER	04-Feb-21	9:10

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2225 Commerce Drive, Fort Collins, Colorado 80524  
 TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

## Chain-of-Custody

Form 202r8

[illegible]

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

**For metals or anions, please detail analytes below.**

For metals or anions, please detail analytes below.

3.1.02

Comments:	QC PACKAGE (check below)			
	LEVEL I (Standard QC)	LEVEL II (Standard QC)	LEVEL III (Std QC + forms)	LEVEL IV (Std QC + forms + raw data)

6 of 17

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

**Preservative Key:**

1-HCl	2-HNO <sub>3</sub>	3-H <sub>2</sub> SO <sub>4</sub>	4-NaOH	5-NaHSO <sub>4</sub>	7-Other	8-4 degrees C	9-5035
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ALS Environmental - Fort Collins  
CONDITION OF SAMPLE UPON RECEIPT FORM

Client Name/ID:

WSP

Workorder No:

2102087

Project Manager:

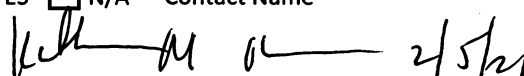
KMO

Initials:

TEM

Date:

2/4/21

1. Are airbills / shipping documents present and/or removable?	<input checked="" type="checkbox"/> Drop Off	<input type="checkbox"/> YES	<input type="checkbox"/> NO
2. Are custody seals on <b>shipping</b> containers intact?	<input checked="" type="checkbox"/> NONE	<input type="checkbox"/> YES	<input type="checkbox"/> NO*
3. Are custody seals on <b>sample</b> containers intact?	<input checked="" type="checkbox"/> NONE	<input type="checkbox"/> YES	<input type="checkbox"/> NO*
4. Is there a COC (chain-of-custody) present?		<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO*
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)		<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO*
6. Are short-hold samples present?		<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
7. Are all samples within holding times for the requested analyses?		<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO*
8. Were all sample containers received intact? (not broken or leaking)		<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO*
9. Is there sufficient sample for the requested analyses?		<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO*
10. Are samples in proper containers for requested analyses? (form 250, Sample Handling Guidelines)		<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO*
11. Are all aqueous samples preserved correctly, if required?	<input type="checkbox"/> N/A	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO*
12. Were unpreserved samples pH checked, if required?	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> YES	<input type="checkbox"/> NO
13. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm in diameter?	<input type="checkbox"/> N/A	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
14. Were the samples shipped on ice?		<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
15. Were cooler temperatures measured at 0.1 - 6.0°C?	IR gun used': <input type="checkbox"/> #3 <input checked="" type="checkbox"/> #5 <input type="checkbox"/> Rad Only	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
Cooler #: 1 Temperature (°C): 5.9 # of custody seals on cooler: 0 External mR/hr reading: - Background mR/hr reading: 10 Were external mR/hr readings ≤ two times background and within DOT acceptance criteria? (If no, see Form 008) <input checked="" type="checkbox"/> N/A <input type="checkbox"/> YES <input type="checkbox"/> NO * Please provide details below for 'NO' responses in gray boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.			
11.) 087-1-2 read initial pH of 12; added 2.0mL HNO3 (lot# 234822) for final pH of 12 13.) all vials have notable headspace			
All client bottle ID's vs ALS lab ID's double-checked by: TEM			
If applicable, was the client contacted? <input type="checkbox"/> YES <input type="checkbox"/> N/A Contact Name: _____ Date: _____			
Project Manager Signature / Date:  2/5/21			

**Client:** WSP USA, Inc.  
**Project:** TE034520047, Task 1.00  
**Sample ID:** North Platte F-J-28 HNC (455362)  
**Legal Location:**  
**Collection Date:** 2/4/2021 09:10

**Date:** 16-Feb-21  
**Work Order:** 2102087  
**Lab ID:** 2102087-1  
**Matrix:** WATER  
**Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>Alkalinity as Calcium Carbonate</b>						
			<b>SM2320B</b>		Prep Date: <b>2/8/2021</b>	PrepBy: <b>KJS</b>
TOTAL ALKALINITY AS CaCO3	11000		500	MG/L	1	2/8/2021
BICARBONATE AS CaCO3	ND		500	MG/L	1	2/8/2021
CARBONATE AS CaCO3	1900		500	MG/L	1	2/8/2021
<b>Diesel Range Organics</b>						
			<b>SW8015M</b>		Prep Date: <b>2/9/2021</b>	PrepBy: <b>ASZ</b>
Diesel Range Organics	18		1	MG/L	1	2/11/2021 11:00
Surr: O-TERPHENYL	97		69-120	%REC	1	2/11/2021 11:00
<b>Dissolved Gasses</b>						
			<b>RSK175</b>		Prep Date: <b>2/8/2021</b>	PrepBy: <b>ASZ</b>
METHANE	270		1	UG/L	1	2/8/2021 11:04
ETHANE	100		2	UG/L	1	2/8/2021 11:04
PROPANE	41		1	UG/L	1	2/8/2021 11:04
<b>GC/MS Volatiles</b>						
			<b>SW8260_25</b>		Prep Date: <b>2/10/2021</b>	PrepBy: <b>TWK</b>
BENZENE	110		5	UG/L	5	2/10/2021 19:41
TOLUENE	250		5	UG/L	5	2/10/2021 19:41
ETHYLBENZENE	45		5	UG/L	5	2/10/2021 19:41
M+P-XYLENE	170		5	UG/L	5	2/10/2021 19:41
O-XYLENE	99		5	UG/L	5	2/10/2021 19:41
TOTAL XYLENES	270		1	UG/L	1	2/10/2021 19:41
Surr: 4-BROMOFLUOROBENZENE	98		80-120	%REC	5	2/10/2021 19:41
Surr: DIBROMOFLUOROMETHANE	15	*	80-120	%REC	5	2/10/2021 19:41
Surr: TOLUENE-D8	101		80-120	%REC	5	2/10/2021 19:41
GASOLINE RANGE ORGANICS	7400		500	UG/L	5	2/10/2021 19:41
<b>Ion Chromatography</b>						
			<b>EPA300.0</b>		Prep Date: <b>2/9/2021</b>	PrepBy: <b>KJS</b>
CHLORIDE	760		10	MG/L	50	2/9/2021 10:09
SULFATE	370		5	MG/L	5	2/9/2021 16:23
<b>Total Recoverable Metals by 200.8</b>						
			<b>EPA200.8</b>		Prep Date: <b>2/9/2021</b>	PrepBy: <b>TXS</b>
CALCIUM	340		1	MG/L	10	2/10/2021 19:25
MAGNESIUM	0.94		0.1	MG/L	10	2/10/2021 19:25
POTASSIUM	4800		10	MG/L	100	2/10/2021 19:28
SODIUM	3100		1	MG/L	10	2/10/2021 19:25
<b>Total Dissolved Solids</b>						
			<b>SM2540C</b>		Prep Date: <b>2/11/2021</b>	PrepBy: <b>LMC</b>
TOTAL DISSOLVED SOLIDS	2700		2000	MG/L	1	2/15/2021

<b>Client:</b>	WSP USA, Inc.	<b>Date:</b>	16-Feb-21
<b>Project:</b>	TE034520047, Task 1.00	<b>Work Order:</b>	2102087
<b>Sample ID:</b>	North Platte F-J-28 HNC (455362)	<b>Lab ID:</b>	2102087-1
<b>Legal Location:</b>		<b>Matrix:</b>	WATER
<b>Collection Date:</b>	2/4/2021 09:10	<b>Percent Moisture:</b>	

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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### Explanation of Qualifiers

#### Radiochemistry:

- "Report Limit" is the MDC	M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
U or ND - Result is less than the sample specific MDC.	L - LCS Recovery below lower control limit.
Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.	H - LCS Recovery above upper control limit.
Y2 - Chemical Yield outside default limits.	P - LCS, Matrix Spike Recovery within control limits.
W - DER is greater than Warning Limit of 1.42	N - Matrix Spike Recovery outside control limits
* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.	NC - Not Calculated for duplicate results less than 5 times MDC
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.	B - Analyte concentration greater than MDC.
G - Sample density differs by more than 15% of LCS density.	B3 - Analyte concentration greater than MDC but less than Requested MDC.
D - DER is greater than Control Limit	
M - Requested MDC not met.	

#### Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).

U or ND - Indicates that the compound was analyzed for but not detected.

E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.

M - Duplicate injection precision was not met.

N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.

Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.

\* - Duplicate analysis (relative percent difference) not within control limits.

S - SAR value is estimated as one or more analytes used in the calculation were not detected above the detection limit.

#### Organics:

U or ND - Indicates that the compound was analyzed for but not detected.

B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.

E - Analyte concentration exceeds the upper level of the calibration range.

J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).

A - A tentatively identified compound is a suspected aldol-condensation product.

X - The analyte was diluted below an accurate quantitation level.

\* - The spike recovery is equal to or outside the control criteria used.

+ - The relative percent difference (RPD) equals or exceeds the control criteria.

G - A pattern resembling gasoline was detected in this sample.

D - A pattern resembling diesel was detected in this sample.

M - A pattern resembling motor oil was detected in this sample.

C - A pattern resembling crude oil was detected in this sample.

4 - A pattern resembling JP-4 was detected in this sample.

5 - A pattern resembling JP-5 was detected in this sample.

H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.

L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.

Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:

- gasoline
- JP-8
- diesel
- mineral spirits
- motor oil
- Stoddard solvent
- bunker C

## ALS -- Fort Collins

Client: WSP USA, Inc.

Work Order: 2102087

Project: TE034520047, Task 1.00

Date: 2/16/2021 2:57:

## QC BATCH REPORT

Batch ID: HC210208-91-1

Instrument ID MEE-1

Method: RSK175

LCS	Sample ID: HC210208-91				Units: UG/L		Analysis Date: 2/8/2021 09:11				
Client ID:	Run ID: HC210208-91A				Prep Date: 2/8/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	154	1	142		108	76-125				25	
ETHANE	282	2	267		106	70-120				25	
PROPANE	415	1	391		106	72-120				25	

LCSD	Sample ID: HC210208-91				Units: UG/L		Analysis Date: 2/8/2021 09:52				
Client ID:	Run ID: HC210208-91A				Prep Date: 2/8/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	147	1	142		104	76-125		154	5	25	
ETHANE	270	2	267		101	70-120		282	4	25	
PROPANE	398	1	391		102	72-120		415	4	25	

MB	Sample ID: HC210208-91			Units: UG/L			Analysis Date: 2/8/2021 09:14			
Client ID:		Run ID: HC210208-91A			Prep Date: 2/8/2021			DF: 1		
Analyte		Result	ReportLimit							Qual
METHANE		ND	1							
ETHANE		ND	2							
PROPANE		ND	1							

The following samples were analyzed in this batch:

2102087-1

**Client:** WSP USA, Inc.  
**Work Order:** 2102087  
**Project:** TE034520047, Task 1.00

## QC BATCH REPORT

Batch ID: **HC210209-81-1** Instrument ID **FUELS-1** Method: **SW8015M**

LCS	Sample ID: <b>HC210209-81</b>				Units: <b>MG/L</b>		Analysis Date: <b>2/11/2021 15:25</b>				
Client ID:	Run ID: <b>HC210209-81B</b>				Prep Date: <b>2/9/2021</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	6.84	1.07	8.33		82	53-120				20	
Surr: O-TERPHENYL	1.59		1.67		96	69-120					

LCSD	Sample ID: HC210209-81				Units: MG/L		Analysis Date: 2/11/2021 15:46				
Client ID:		Run ID: HC210209-81B				Prep Date: 2/9/2021			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	7.45	1.07	8.33		89	53-120		6.84	9	20	
Surr: O-TERPHENYL	1.7		1.67		102	69-120			6		

MB		Sample ID: HC210209-81				Units: MG/L		Analysis Date: 2/11/2021 08:06			
Client ID:		Run ID: HC210209-81B				Prep Date: 2/9/2021		DF: 1			
Analyte		Result	ReportLimit							Qual	
Diesel Range Organics		ND	1.1								
Surr: O-TERPHENYL		1.5				90	69-120				

The following samples were analyzed in this batch:

2102087-1

**Client:** WSP USA, Inc.  
**Work Order:** 2102087  
**Project:** TE034520047, Task 1.00

## QC BATCH REPORT

Batch ID: **IP210209-1-4** Instrument ID **ICPMS2** Method: **EPA200.8**

LCS	Sample ID: <b>IM210209-1</b>				Units: <b>MG/L</b>		Analysis Date: <b>2/10/2021 18:04</b>				
Client ID:		Run ID: <b>IM210210-11A12</b>				Prep Date: <b>2/9/2021</b>			DF: <b>10</b>		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CALCIUM	9.25	1	10		93	85-115				20	
MAGNESIUM	9.6	0.1	10		96	85-115				20	
POTASSIUM	4.69	1	5		94	85-115				20	
SODIUM	10.5	1	10		105	85-115				20	

LCSD	Sample ID: IM210209-1				Units: MG/L		Analysis Date: 2/10/2021 18:10				
Client ID:	Run ID: IM210210-11A12				Prep Date: 2/9/2021			DF: 10			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CALCIUM	9.15	1	10		91	85-115		9.25	1	20	
MAGNESIUM	9.49	0.1	10		95	85-115		9.6	1	20	
POTASSIUM	4.66	1	5		93	85-115		4.69	1	20	
SODIUM	10.3	1	10		103	85-115		10.5	2	20	

MB	Sample ID: IP210209-1			Units: MG/L	Analysis Date: 2/10/2021 18:01		
Client ID:	Run ID: IM210210-11A12			Prep Date: 2/9/2021		DF: 10	
Analyte	Result	ReportLimit	Qual				
CALCIUM	ND	1					
MAGNESIUM	ND	0.1					
POTASSIUM	ND	1					
SODIUM	ND	1					

The following samples were analyzed in this batch: 2102087-1

**Client:** WSP USA, Inc.  
**Work Order:** 2102087  
**Project:** TE034520047, Task 1.00

## QC BATCH REPORT

Batch ID: **VL210210-3-3** Instrument ID **HPV3** Method: **SW8260\_25**

LCS	Sample ID: VL210210-33			Units: UG/L			Analysis Date: 2/10/2021 14:18				
Client ID:		Run ID: VL210210-3A			Prep Date: 2/10/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	879	100	1000		88	75-121				20	

LCSD		Sample ID: VL210210-33				Units: UG/L		Analysis Date: 2/10/2021 14:42			
Client ID:		Run ID: VL210210-3A				Prep Date: 2/10/2021		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	900	100	1000		90	75-121		879	2	20	

MB		Sample ID: VL210210-3			Units: UG/L		Analysis Date: 2/10/2021 15:28		
Client ID:		Run ID: VL210210-3A			Prep Date: 2/10/2021			DF: 1	
Analyte		Result	ReportLimit						
GASOLINE RANGE ORGANICS		ND	100						

The following samples were analyzed in this batch:

2102087-1

Client: WSP USA, Inc.  
 Work Order: 2102087  
 Project: TE034520047, Task 1.00

## QC BATCH REPORT

Batch ID: **VL210210-3-4** Instrument ID **HPV3** Method: **SW8260\_25**

LCS		Sample ID: <b>VL210210-3</b>			Units: %REC		Analysis Date: <b>2/10/2021 12:43</b>				
Client ID:		Run ID: <b>VL210210-3A</b>			Prep Date: <b>2/10/2021</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	24.7		25		99	80-120					
Surr: DIBROMOFLUOROMETHANE	25.8		25		103	80-120					
Surr: TOLUENE-D8	25.1		25		101	80-120					
BENZENE	10.2	1	10		102	80-120				20	
TOLUENE	10.1	1	10		101	80-120				20	
ETHYLBENZENE	10.3	1	10		103	80-120				20	
M+P-XYLENE	20.4	1	20		102	80-120				20	
O-XYLENE	10.2	1	10		102	80-120				20	

LCSD		Sample ID: VL210210-3				Units: %REC		Analysis Date: 2/10/2021 13:32			
Client ID:		Run ID: VL210210-3A				Prep Date: 2/10/2021			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25.2		25		101	80-120			2		
Surr: DIBROMOFLUOROMETHANE	25.5		25		102	80-120			1		
Surr: TOLUENE-D8	24.6		25		99	80-120			2		
BENZENE	9.99	1	10		100	80-120		10.2	2	20	
TOLUENE	9.87	1	10		99	80-120		10.1	2	20	
ETHYLBENZENE	9.93	1	10		99	80-120		10.3	4	20	
M+P-XYLENE	19.8	1	20		99	80-120		20.4	3	20	
O-XYLENE	9.8	1	10		98	80-120		10.2	4	20	

MB		Sample ID: VL210210-3		Units: %REC		Analysis Date: 2/10/2021 15:28	
Client ID:		Run ID: VL210210-3A		Prep Date: 2/10/2021		DF: 1	
Analyte		Result	ReportLimit			Qual	
Surr: 4-BROMOFLUOROBENZENE		25		100	80-120		
Surr: DIBROMOFLUOROMETHANE		25.2		101	80-120		
Surr: TOLUENE-D8		24.9		100	80-120		
BENZENE		ND	1				
TOLUENE		ND	1				
ETHYLBENZENE		ND	1				
M+P-XYLENE		ND	1				
O-XYLENE		ND	1				
TOTAL XYLENES		ND	1				

The following samples were analyzed in this batch:

2102087-1

**Client:** WSP USA, Inc.  
**Work Order:** 2102087  
**Project:** TE034520047, Task 1.00

## QC BATCH REPORT

Batch ID: **AK210208-1-2** Instrument ID **NONE** Method: **SM2320B**

<b>LCS</b>		Sample ID: <b>AK210208-1</b>			Units: <b>MG/L</b>			Analysis Date: <b>2/8/2021</b>			
Client ID:		Run ID: <b>AK210208-1a1</b>			Prep Date: <b>2/8/2021</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	98.2	5	100		98	85-115				15	

<b>LCSD</b>		Sample ID: <b>AK210208-1</b>			Units: <b>MG/L</b>			Analysis Date: <b>2/8/2021</b>			
Client ID:		Run ID: <b>AK210208-1a1</b>			Prep Date: <b>2/8/2021</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	98.9	5	100		99	85-115		98.2	1	15	

<b>MB</b>		Sample ID: <b>AK210208-1</b>			Units: <b>MG/L</b>			Analysis Date: <b>2/8/2021</b>			
Client ID:		Run ID: <b>AK210208-1a1</b>			Prep Date: <b>2/8/2021</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit									Qual
TOTAL ALKALINITY AS CaCO3	ND	5									
BICARBONATE AS CaCO3	ND	5									
CARBONATE AS CaCO3	ND	5									

The following samples were analyzed in this batch:

2102087-1

**Client:** WSP USA, Inc.  
**Work Order:** 2102087  
**Project:** TE034520047, Task 1.00

## QC BATCH REPORT

Batch ID: **IC210209-1-1** Instrument ID **IC3** Method: **EPA300.0**

LCS	Sample ID: IC210209-1				Units: MG/L		Analysis Date: 2/9/2021 07:44				
Client ID:	Run ID: IC210209-1a1				Prep Date: 2/9/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CHLORIDE	9.81	0.2	10		98	90-110				15	
SULFATE	49.8	1	50		100	90-110				15	

LCSD	Sample ID: IC210209-1				Units: MG/L		Analysis Date: 2/9/2021 10:23				
Client ID:	Run ID: IC210209-1a1				Prep Date: 2/9/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
CHLORIDE	9.85	0.2	10		99	90-110		9.81	0	15	
SULFATE	49.9	1	50		100	90-110		49.8	0	15	

<b>MB</b>	Sample ID: <b>IC210209-1</b>		Units: <b>MG/L</b>		Analysis Date: <b>2/9/2021 07:57</b>	
Client ID:	Run ID: <b>IC210209-1a1</b>		Prep Date: <b>2/9/2021</b>		DF: <b>1</b>	
Analyte	Result	ReportLimit				
CHLORIDE	ND	0.2				
SULFATE	ND	1				

The following samples were analyzed in this batch:

2102087-1

**Client:** WSP USA, Inc.  
**Work Order:** 2102087  
**Project:** TE034520047, Task 1.00

## QC BATCH REPORT

Batch ID: **TD210211-1-2** Instrument ID **Balance** Method: **SM2540C**

LCS	Sample ID: TD210211-1			Units: MG/L			Analysis Date: 2/15/2021				
Client ID:		Run ID: TD210215-1A1			Prep Date: 2/11/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	399	20	400		100	85-115				14	

<b>MB</b>		Sample ID: <b>TD210211-1</b>		Units: <b>MG/L</b>		Analysis Date: <b>2/15/2021</b>	
Client ID:		Run ID: <b>TD210215-1A1</b>		Prep Date: <b>2/11/2021</b>		DF: <b>1</b>	
Analyte		Result	ReportLimit				
TOTAL DISSOLVED SOLIDS		ND	20				

The following samples were analyzed in this batch:

2102087-1