



Wednesday, October 13, 2021

Randy Evans
Randy Evans
328 South Overland Tr.
Fort Collins, CO 80521

Re: ALS Workorder: 2109123
Project Name: WPWT Facility
Project Number:

Dear Mr. Evans:

Two water samples were received from Randy Evans, on 9/3/2021. The samples were scheduled for the following analyses:

GC/MS Volatiles

Inorganics

Metals

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. OBrien
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.



2109123

GC/MS Volatiles:

The sample was analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

Per the guidance in methods 8000 and 8260, all compounds in each of the daily (continuing) calibration verifications had sufficient response to support accurate quantitation of the data included in this report, with the following exception: naphthalene which was low on 09/08/21. This compound was not detected in the associated sample.

All remaining acceptance criteria were met.

Metals:

The sample was analyzed following SW-846, 3rd Edition procedures. Analysis by Trace ICP followed method 6010D and the current revision of SOP 834. Analysis by ICPMS followed method 6020B 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>
TDS	SM2540C	1101
Chloride	300.0 Revision 2.1	1113
Fluoride	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

OrderNum: 2109123

Client Name: Randy Evans

Client Project Name: WPWT Facility

Client Project Number:

Client PO Number: WO 014

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Outfall 001 A	2109123-1		WATER	01-Sep-21	12:00
Outfall 001 A	2109123-2		WATER	01-Sep-21	14:00



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

Chain-of-Custody

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

[illegible]



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Randy Evans Workorder No: 2109123
 Project Manager: KMO Initials: TSS Date: 09/03/2021

				N/A	YES	NO
1. Are airbills / shipping documents present and/or removable?				X		
Tracking number: _____						
2. Are custody seals on shipping containers intact?				X		
3. Are custody seals on sample containers intact?				X		
4. Is there a COC (chain-of-custody) present?					X	
5. Is the COC in agreement with samples received? (IDs, dates, times, # of samples, # of containers, matrix, requested analyses, etc.)					X	
6. Are short-hold samples present?						X
7. Are all samples within holding times for the requested analyses?					X	
8. Were all sample containers received intact? (not broken or leaking)					X	
9. Is there sufficient sample for the requested analyses?					X	
10. Are samples in proper containers for requested analyses? (form 250, <i>Sample Handling Guidelines</i>)					X	
11. Are all aqueous samples preserved correctly, if required? (excluding volatiles)						X
12. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, radon) free of bubbles > 6 mm (1/4 inch) diameter? (i.e. size of green pea)					X	
13. Were the samples shipped on ice?					X	
14. Were cooler temperatures measured at 0.1-6.0°C?				IR gun used*: #5	RAD ONLY	X
Cooler #: _____ Temperature (°C): _____ # of custody seals on cooler: _____ External µR/hr reading: _____ Background µR/hr reading: _____ Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? NA (If no, see Form 008.)						

* Please provide details here for NO responses to boxes above - for 2 thru 5 & 7 thru 12, notify PM & continue w/ login.

Sample 2109123-2-1 was received at pH 7; added 3ml of concentrated HNO3 lot #267725; final pH 2

Were unpreserved bottles pH checked? NA All client bottle ID's vs ALS lab ID's double-checked by: TS

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: [Signature] 9/07/21

Client: Randy Evans
Project: WPWT Facility
Sample ID: Outfall 001 A
Legal Location:
Collection Date: 9/1/2021 12:00

Date: 13-Oct-21
Work Order: 2109123
Lab ID: 2109123-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS Volatiles			SW8260_25		Prep Date: 9/8/2021	PrepBy: DJL
BENZENE	ND		1	UG/L	1	9/8/2021 11:51
TOLUENE	ND		1	UG/L	1	9/8/2021 11:51
ETHYLBENZENE	ND		1	UG/L	1	9/8/2021 11:51
M+P-XYLENE	ND		1	UG/L	1	9/8/2021 11:51
O-XYLENE	ND		1	UG/L	1	9/8/2021 11:51
NAPHTHALENE	ND		1	UG/L	1	9/8/2021 11:51
Surr: DIBROMOFLUOROMETHANE	102		80-120	%REC	1	9/8/2021 11:51
Surr: TOLUENE-D8	97		80-120	%REC	1	9/8/2021 11:51
Surr: 4-BROMOFLUOROBENZENE	101		80-120	%REC	1	9/8/2021 11:51

Client: Randy Evans
Project: WPWT Facility
Sample ID: Outfall 001 A
Legal Location:
Collection Date: 9/1/2021 14:00

Date: 13-Oct-21
Work Order: 2109123
Lab ID: 2109123-2
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Total Recoverable ICP Metals		SW6010			Prep Date: 9/9/2021	PrepBy: WJS
BORON	2.2		0.1	MG/L	1	9/13/2021 13:34
BARIUM	6.6		0.1	MG/L	1	9/13/2021 13:34
SODIUM	760		10	MG/L	10	9/13/2021 13:48
Total Recoverable ICPMS Metals		SW6020			Prep Date: 9/9/2021	PrepBy: WJS
THALLIUM	ND		0.15	UG/L	10	9/17/2021 21:51
Ion Chromatography		EPA300.0			Prep Date: 9/15/2021	PrepBy: AOW
CHLORIDE	370		10	MG/L	50	9/15/2021 21:34
FLUORIDE	3.9		0.5	MG/L	5	9/15/2021 21:20
SULFATE	11		5	MG/L	5	9/15/2021 21:20
Total Dissolved Solids		SM2540C			Prep Date: 9/7/2021	PrepBy: BMK
TOTAL DISSOLVED SOLIDS	2200		80	MG/L	1	9/13/2021

Client: Randy Evans
Project: WPWT Facility
Sample ID: Outfall 001 A
Legal Location:
Collection Date: 9/1/2021 14:00

Date: 13-Oct-21
Work Order: 2109123
Lab ID: 2109123-2
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
----------	--------	------	--------------	-------	-----------------	---------------

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: Randy Evans
Work Order: 2109123
Project: WPWT Facility

Date: 10/13/2021 3:26

QC BATCH REPORT

Batch ID: **IP210909-1-6** Instrument ID **ICPTTrace2** Method: **SW6010**

LCS Sample ID: **IP210909-1** Units: **MG/L** Analysis Date: **9/13/2021 13:03**

Client ID: Run ID: **IT210913-1A8** Prep Date: **9/9/2021** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.968	0.1	1		97	80-120				20	
BORON	0.998	0.1	1		100	80-120				20	
SODIUM	38	1	40		95	80-120				20	

MB Sample ID: **IP210909-1** Units: **MG/L** Analysis Date: **9/13/2021 13:02**

Client ID: Run ID: **IT210913-1A8** Prep Date: **9/9/2021** DF: **1**

Analyte	Result	ReportLimit	Qual
BARIUM	ND	0.1	
BORON	ND	0.1	
SODIUM	ND	1	

The following samples were analyzed in this batch:

2109123-2

Client: Randy Evans
Work Order: 2109123
Project: WPWT Facility

QC BATCH REPORT

Batch ID: **IP210909-1-9** Instrument ID **ICPMS2** Method: **SW6020**

LCS		Sample ID: IM210909-1				Units: UG/L		Analysis Date: 9/17/2021 21:01			
Client ID:		Run ID: IM210917-11A15				Prep Date: 9/9/2021		DF: 10			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
THALLIUM	1.95	0.15	2		98	80-120				20	

MB		Sample ID: IP210909-1				Units: UG/L		Analysis Date: 9/17/2021 20:58			
Client ID:		Run ID: IM210917-11A15				Prep Date: 9/9/2021		DF: 10			
Analyte		Result	ReportLimit								Qual
THALLIUM		ND	0.15								

The following samples were analyzed in this batch:

2109123-2

Client: Randy Evans
 Work Order: 2109123
 Project: WPWT Facility

QC BATCH REPORT

Batch ID: **VL210908-3-2** Instrument ID **HPV1** Method: **SW8260_25**

LCS	Sample ID: VL210908-3			Units: UG/L			Analysis Date: 9/8/2021 09:58				
Client ID:	Run ID: VL210908-3a			Prep Date: 9/8/2021			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	9.79	1	10		98	80-120				20	
TOLUENE	9.34	1	10		93	80-120				20	
ETHYLBENZENE	9.49	1	10		95	80-120				20	
M+P-XYLENE	18.4	1	20		92	80-120				20	
O-XYLENE	9.04	1	10		90	80-120				20	
NAPHTHALENE	7.92	1	10		79	62-136				20	
Surr: DIBROMOFLUOROMETHANE	25.8		25		103	80-120					
Surr: TOLUENE-D8	23.8		25		95	80-120					
Surr: 4-BROMOFLUOROBENZENE	24.3		25		97	80-120					

LCSD	Sample ID: VL210908-3				Units: UG/L		Analysis Date: 9/8/2021 10:21				
Client ID:	Run ID: VL210908-3a				Prep Date: 9/8/2021				DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BENZENE	10.2	1	10		102	80-120		9.79	4	20	
TOLUENE	9.91	1	10		99	80-120		9.34	6	20	
ETHYLBENZENE	9.87	1	10		99	80-120		9.49	4	20	
M+P-XYLENE	19.5	1	20		98	80-120		18.4	6	20	
O-XYLENE	9.61	1	10		96	80-120		9.04	6	20	
NAPHTHALENE	7.44	1	10		74	62-136		7.92	6	20	
Surr: DIBROMOFLUOROMETHANE	25.5		25		102	80-120			1		
Surr: TOLUENE-D8	24.9		25		99	80-120			4		
Surr: 4-BROMOFLUOROBENZENE	24.7		25		99	80-120			1		

Client: Randy Evans
Work Order: 2109123
Project: WPWT Facility

QC BATCH REPORT

Batch ID: **VL210908-3-2** Instrument ID **HPV1** Method: **SW8260_25**

MB Sample ID: **VL210908-3** Units: **UG/L** Analysis Date: **9/8/2021 11:28**
Client ID: Run ID: **VL210908-3a** Prep Date: **9/8/2021** DF: **1**

Analyte	Result	ReportLimit	Qual	
BENZENE	ND	1		
TOLUENE	ND	1		
ETHYLBENZENE	ND	1		
M+P-XYLENE	ND	1		
O-XYLENE	ND	1		
NAPHTHALENE	ND	1		
Surr: DIBROMOFLUOROMETHANE	25.7		103	80-120
Surr: TOLUENE-D8	24		96	80-120
Surr: 4-BROMOFLUOROBENZENE	25.2		101	80-120

The following samples were analyzed in this batch:

2109123-1

Client: Randy Evans
Work Order: 2109123
Project: WPWT Facility

QC BATCH REPORT

Batch ID: **IC210915-1-1** Instrument ID **IC3** Method: **EPA300.0**

LCS	Sample ID: IC210915-1				Units: MG/L		Analysis Date: 9/15/2021 10:02				
Client ID:	Run ID: IC210915-1A1				Prep Date: 9/15/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	4.8	0.1	5		96	90-110				15	
CHLORIDE	9.94	0.2	10		99	90-110				15	
SULFATE	48.6	1	50		97	90-110				15	

LCSD	Sample ID: IC210915-1				Units: MG/L		Analysis Date: 9/15/2021 12:42				
Client ID:	Run ID: IC210915-1A1				Prep Date: 9/15/2021			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
FLUORIDE	4.6	0.1	5		92	90-110		4.8	4	15	
CHLORIDE	10.1	0.2	10		101	90-110		9.94	2	15	
SULFATE	49	1	50		98	90-110		48.6	1	15	

MB	Sample ID: IC210915-1			Units: MG/L		Analysis Date: 9/15/2021 10:16	
Client ID:	Run ID: IC210915-1A1			Prep Date: 9/15/2021		DF: 1	
Analyte	Result	ReportLimit	Qual				
FLUORIDE	ND	0.1					
CHLORIDE	ND	0.2					
SULFATE	ND	1					

The following samples were analyzed in this batch:

2109123-2

Client: Randy Evans
Work Order: 2109123
Project: WPWT Facility

QC BATCH REPORT

Batch ID: **TD210907-1-1** Instrument ID **Balance** Method: **SM2540C**

LCS		Sample ID: TD210907-1			Units: MG/L		Analysis Date: 9/13/2021				
Client ID:		Run ID: TD210913-1A1					Prep Date: 9/7/2021			DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	353	20	400		88	85-115				14	

LCSD	Sample ID: TD210907-1			Units: MG/L			Analysis Date: 9/13/2021				
Client ID:	Run ID: TD210913-1A1			Prep Date: 9/7/2021			DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	357	20	400		89	85-115		353	1	14	

MB		Sample ID: TD210907-1		Units: MG/L		Analysis Date: 9/13/2021	
Client ID:		Run ID: TD210913-1A1		Prep Date: 9/7/2021		DF: 1	
Analyte		Result	ReportLimit				
TOTAL DISSOLVED SOLIDS		ND	20				

The following samples were analyzed in this batch:

2109123-2

CONTROLLED NON-CONFORMANCE REPORT

Non-Conformance

Initiated By: Daniel J. Lee on 9/15/2021

Event Type: Lab QC Criteria Not Met -- Daily QC

Event Explanation: Naphthalene recovered low in CCV at 79.2%. Sample hold time was expiring.

Action To

Prevent Recurrence: Not Applicable

Corrective Action

Corrective Action:

Department Manager Approval:

Approval Date:

Corrective Action Comments:

Workorders Affected

Workorder -- Procedure

2109123 -- SW5030

2109123 -- SW8260_25

No client contact information.

Approved By

Approval Date

PENDING

Associated Batches

The samples were originally associated with the following Batch(es):

VL210908-3a created on 9/8/2021

VL210908-3 created on 9/8/2021

All rework was completed in the following Batch(es):

Not Applicable

NCR Approval

Project Manager Approval: KMO on 10/12/2021

Department Manager Approval:

QA Manager Approval: