

Friday, June 19, 2015

Richard Caschette
CSU Civil Engineering
1301 Campus Delivery
Fort Collins, CO 08523

Re: ALS Workorder: 1506228
Project Name: Colorado Water Watch
Project Number:

Dear Mr. Caschette:

One water sample was received from CSU Civil Engineering, on 6/11/2015. The sample was scheduled for the following analyses:

Dissolved Gasses

GC/MS Volatiles

Inorganics

Metals

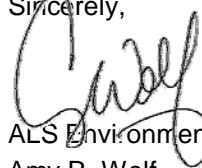
Total Extractable Petroleum Hydrocarbons (Diesel)

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.

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

Sincerely,



ALS Environmental
Amy R. Wolf
Project Manager

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
Alaska (AK)	UST-086
Alaska (AK)	CO01099
Arizona (AZ)	AZ0742
California (CA)	06251CA
Colorado (CO)	CO01099
Connecticut (CT)	PH-0232
Florida (FL)	E87914
Idaho (ID)	CO01099
Kansas (KS)	E-10381
Kentucky (KY)	90137
L-A-B (DoD ELAP/ISO 170250)	L2257
Maryland (MD)	285
Missouri (MO)	175
Nebraska(NE)	NE-OS-24-13
Nevada (NV)	CO000782008A
New Jersey (NJ)	CO003
New York (NY)	12036
North Dakota (ND)	R-057
Oklahoma (OK)	1301
Pennsylvania (PA)	68-03116
Tennessee (TN)	2976
Texas (TX)	T104704241
Utah (UT)	CO01099
Washington (WA)	C1280



1506228

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).

The sample had a pH > 2 at the time of analysis.

All 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 6020A and the current revision of SOP 827.

The sample was to be analyzed for dissolved metals. The sample was filtered through a 0.45 micron filter and preserved with nitric acid to a pH less than 2 prior to analysis.

All acceptance criteria were met.

Inorganics:

The samples were analyzed following MCAWW, 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
pH	SM4500-H ⁺ B	1126
Total phosphorus	365.2	1119
Specific conductance	SM2510B	1128
TDS	SM2540C	1101
Bromide	300.0 Revision 2.1	1113
Chloride	300.0 Revision 2.1	1113
Fluoride	300.0 Revision 2.1	1113
Nitrate as N	300.0 Revision 2.1	1113
Nitrite as N	300.0 Revision 2.1	1113
Sulfate	300.0 Revision 2.1	1113

All acceptance criteria were met.



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: Colorado State University Workorder No: 1506228

Project Manager: AW

Initials: CDS Date: 6-11-15

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	<input checked="" type="radio"/> NONE	YES	NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible?		<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<input checked="" type="radio"/> YES	NO
7. Were airbills / shipping documents present and/or removable?	<input checked="" type="radio"/> DROP OFF	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	<input checked="" type="radio"/> YES	NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	<input checked="" type="radio"/> YES	NO
10. Is there sufficient sample for the requested analyses?		<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?		<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ___ < green pea ___ > green pea	N/A	<input checked="" type="radio"/> YES	NO
15. Do any water samples contain sediment? Amount Amount of sediment: ___ dusting ___ moderate ___ heavy	N/A	YES	<input checked="" type="radio"/> NO
16. Were the samples shipped on ice?		YES	<input checked="" type="radio"/> NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 #4 RAD ONLY		YES	<input checked="" type="radio"/> NO
Cooler #: <u>1</u>			
Temperature (°C): <u>11.9</u>			
No. of custody seals on cooler: <u>0</u>			
External µR/hr reading: <u>NA</u>			
Background µR/hr reading: <u>NA</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / <u>NA</u> (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

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

Project Manager Signature / Date: [Signature] 6/12/15

ALS Environmental -- FC

SAMPLE SUMMARY REPORT

Client: CSU Civil Engineering
Project: Colorado Water Watch
Sample ID: Gilcrest
Legal Location:
Collection Date: 6/11/2015 12:30

Date: 19-Jun-15
Work Order: 1506228
Lab ID: 1506228-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Alkalinity as Calcium Carbonate						
			SM2320B		Prep Date: 6/15/2015	PrepBy: JAC
TOTAL ALKALINITY AS CaCO3	310		20	MG/L	1	6/15/2015
BICARBONATE AS CaCO3	310		20	MG/L	1	6/15/2015
CARBONATE AS CaCO3	ND		20	MG/L	1	6/15/2015
Diesel Range Organics						
			SW8015M		Prep Date: 6/12/2015	PrepBy: JFN
Diesel Range Organics	ND		0.57	MG/L	1	6/15/2015 18:52
Surr: O-TERPHENYL	123		54-123	%REC	1	6/15/2015 18:52
Dissolved Gasses						
			RSK175		Prep Date: 6/15/2015	PrepBy: JFN
METHANE	ND		1	UG/L	1	6/15/2015 13:32
ETHANE	ND		2	UG/L	1	6/15/2015 13:32
PROPANE	ND		1	UG/L	1	6/15/2015 13:32
GC/MS Volatiles						
			SW8260_25		Prep Date: 6/14/2015	PrepBy: SDW
BENZENE	ND		1	UG/L	1	6/14/2015 18:09
TOLUENE	ND		1	UG/L	1	6/14/2015 18:09
ETHYLBENZENE	ND		1	UG/L	1	6/14/2015 18:09
M+P-XYLENE	ND		1	UG/L	1	6/14/2015 18:09
O-XYLENE	ND		1	UG/L	1	6/14/2015 18:09
TOTAL XYLENES	ND		1	UG/L	1	6/14/2015 18:09
Surr: 4-BROMOFLUOROBENZENE	102		85-115	%REC	1	6/14/2015 18:09
Surr: DIBROMOFLUOROMETHANE	93		84-118	%REC	1	6/14/2015 18:09
Surr: TOLUENE-D8	93		85-115	%REC	1	6/14/2015 18:09
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	6/14/2015 18:09
Ion Chromatography						
			EPA300.0		Prep Date: 6/11/2015	PrepBy: JAC
BROMIDE	0.42		0.4	MG/L	2	6/11/2015 18:08
CHLORIDE	230		4	MG/L	20	6/11/2015 18:23
FLUORIDE	0.65		0.2	MG/L	2	6/11/2015 18:08
NITRATE AS N	50		4	MG/L	20	6/11/2015 18:23
NITRITE AS N	ND		0.2	MG/L	2	6/11/2015 18:08
SULFATE	520		20	MG/L	20	6/11/2015 18:23
Dissolved Metals by 200.8						
			EPA200.8		Prep Date: 6/15/2015	PrepBy: CDR
BARIUM	0.043		0.001	MG/L	10	6/17/2015 17:55
BORON	0.26		0.05	MG/L	10	6/17/2015 17:55
CALCIUM	270		1	MG/L	10	6/17/2015 17:55
IRON	ND		0.1	MG/L	10	6/17/2015 17:55
MAGNESIUM	67		0.1	MG/L	10	6/17/2015 17:55
MANGANESE	ND		0.002	MG/L	10	6/17/2015 17:55
POTASSIUM	4.8		1	MG/L	10	6/17/2015 17:55
SELENIUM	0.0068		0.001	MG/L	10	6/17/2015 17:55
SODIUM	190		1	MG/L	10	6/17/2015 17:55
STRONTIUM	2.2		0.001	MG/L	10	6/17/2015 17:55
pH						
			SM4500-H		Prep Date: 6/12/2015	PrepBy: JAC
PH	7.37		0.1	pH	1	6/12/2015
Specific Conductance in Water						
			SM2510B		Prep Date: 6/12/2015	PrepBy: JAC
SPECIFIC CONDUCTIVITY	2500		1	umhos/cm	1	6/12/2015

Client: CSU Civil Engineering
Project: Colorado Water Watch
Sample ID: Gilcrest
Legal Location:
Collection Date: 6/11/2015 12:30

Date: 19-Jun-15
Work Order: 1506228
Lab ID: 1506228-1
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Total Dissolved Solids TOTAL DISSOLVED SOLIDS	1800		SM2540C 40	MG/L	1	Prep Date: 6/12/2015 PrepBy: JAC 6/15/2015
Total Phosphorus as P TOTAL PHOSPHORUS	0.054		EPA365.2 0.05	MG/L	1	Prep Date: 6/18/2015 PrepBy: JAC 6/18/2015

Client: CSU Civil Engineering
Project: Colorado Water Watch
Sample ID: Gilcrest
Legal Location:
Collection Date: 6/11/2015 12:30

Date: 19-Jun-15
Work Order: 1506228
Lab ID: 1506228-1
Matrix: WATER
Percent Moisture:

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

Radiochemistry:

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

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 Environmental -- FC

Date: 6/19/2015 12:19

Client: CSU Civil Engineering

QC BATCH REPORT

Work Order: 1506228

Project: Colorado Water Watch

Batch ID: **HC150612-100-1**

Instrument ID: **FUELS-1**

Method: **SW8015M**

LCS Sample ID: **HC150612-100** Units: **MG/L** Analysis Date: **6/15/2015 15:17**

Client ID: Run ID: **HC150615-7A** Prep Date: **6/12/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	9.03	0.576	8		113	36-150				20	
Surr: O-TERPHENYL	0.881		0.8		110	54-123					

MB Sample ID: **HC150612-100** Units: **MG/L** Analysis Date: **6/15/2015 14:47**

Client ID: Run ID: **HC150615-7A** Prep Date: **6/12/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	ND	0.57									
Surr: O-TERPHENYL	0.911		0.796		114	54-123					

The following samples were analyzed in this batch:

1506228-1

Client: CSU Civil Engineering
 Work Order: 1506228
 Project: Colorado Water Watch

QC BATCH REPORT

Batch ID: **HC150615-9-1** Instrument ID: **MEE-1** Method: **RSK175**

LCS		Sample ID: HC150615-9			Units: UG/L		Analysis Date: 6/15/2015 12:54				
Client ID:		Run ID: HC150615-9A			Prep Date: 6/15/2015		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	131	1	142		92	80-120				25	
ETHANE	260	2	267		97	80-120				25	
PROPANE	368	1	391		94	80-120				25	

LCSD		Sample ID: HC150615-9			Units: UG/L		Analysis Date: 6/15/2015 13:48				
Client ID:		Run ID: HC150615-9A			Prep Date: 6/15/2015		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	129	1	142		91	80-120		131	2	25	
ETHANE	255	2	267		96	80-120		260	2	25	
PROPANE	360	1	391		92	80-120		368	2	25	

MB		Sample ID: HC150615-9			Units: UG/L		Analysis Date: 6/15/2015 12:57				
Client ID:		Run ID: HC150615-9A			Prep Date: 6/15/2015		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	ND	1									
ETHANE	ND	2									
PROPANE	ND	1									

MS		Sample ID: 1506228-1			Units: UG/L		Analysis Date: 6/15/2015 13:34				
Client ID: Gilcrest		Run ID: HC150615-9A			Prep Date: 6/15/2015		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
METHANE	56.8	1	71.1	1	80	70-130				25	
ETHANE	113	2	133	2	85	70-130				25	
PROPANE	160	1	196	1	82	70-130				25	

The following samples were analyzed in this batch:

Client: CSU Civil Engineering
 Work Order: 1506228
 Project: Colorado Water Watch

QC BATCH REPORT

Batch ID: **IP150615-2-2** Instrument ID: **ICPMS2** Method: **EPA200.8**

LCS		Sample ID: FP150615-2			Units: MG/L		Analysis Date: 6/17/2015 17:45				
Client ID:		Run ID: IM150617-10A10			Prep Date: 6/15/2015		DF: 10				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	0.107	0.001	0.1		107	85-115				20	
BORON	1.04	0.05	1		104	85-115				20	
CALCIUM	10.6	1	10		106	85-115				20	
IRON	5.4	0.1	5		108	85-115				20	
MAGNESIUM	10.2	0.1	10		102	85-115				20	
MANGANESE	0.106	0.002	0.1		106	85-115				20	
POTASSIUM	4.58	1	5		92	85-115				20	
SELENIUM	0.103	0.001	0.1		103	85-115				20	
SODIUM	10.2	1	10		102	85-115				20	
STRONTIUM	0.104	0.001	0.1		104	85-115				20	

MB		Sample ID: FP150615-2			Units: MG/L		Analysis Date: 6/17/2015 17:41				
Client ID:		Run ID: IM150617-10A10			Prep Date: 6/15/2015		DF: 10				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BARIUM	ND	0.001									
BORON	ND	0.05									
CALCIUM	ND	1									
IRON	ND	0.1									
MAGNESIUM	ND	0.1									
MANGANESE	ND	0.002									
POTASSIUM	ND	1									
SELENIUM	ND	0.001									
SODIUM	ND	1									
STRONTIUM	ND	0.001									

The following samples were analyzed in this batch:

1506228-1

Client: CSU Civil Engineering
 Work Order: 1506228
 Project: Colorado Water Watch

QC BATCH REPORT

Batch ID: VL150614-3-2 Instrument ID: HPV1 Method: SW8260_25

LCS		Sample ID: VL150614-3			Units: %REC			Analysis Date: 6/14/2015 13:32			
Client ID:		Run ID: VL150614-3A			Prep Date: 6/14/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	26		25		104	85-115					
Surr: DIBROMOFLUOROMETHANE	23.4		25		94	84-118					
Surr: TOLUENE-D8	23.5		25		94	85-115					
BENZENE	9.3	1	10		93	83-117				20	
TOLUENE	9.34	1	10		93	82-113				20	
ETHYLBENZENE	9.53	1	10		95	81-113				20	
M+P-XYLENE	18.1	1	20		91	82-115				20	
O-XYLENE	9.21	1	10		92	81-115				20	

LCSD		Sample ID: VL150614-3			Units: %REC			Analysis Date: 6/14/2015 13:54			
Client ID:		Run ID: VL150614-3A			Prep Date: 6/14/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25.5		25		102	85-115			2		
Surr: DIBROMOFLUOROMETHANE	23.8		25		95	84-118			1		
Surr: TOLUENE-D8	23.3		25		93	85-115			1		
BENZENE	9.16	1	10		92	83-117		9.3	2	20	
TOLUENE	9.2	1	10		92	82-113		9.34	1	20	
ETHYLBENZENE	9.43	1	10		94	81-113		9.53	1	20	
M+P-XYLENE	18	1	20		90	82-115		18.1	1	20	
O-XYLENE	9.07	1	10		91	81-115		9.21	2	20	

MB		Sample ID: VL150614-3			Units: %REC			Analysis Date: 6/14/2015 14:39			
Client ID:		Run ID: VL150614-3A			Prep Date: 6/14/2015			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Surr: 4-BROMOFLUOROBENZENE	25.5		25		102	85-115					
Surr: DIBROMOFLUOROMETHANE	23.5		25		94	84-118					
Surr: TOLUENE-D8	23.6		25		94	85-115					
BENZENE	ND	1									
TOLUENE	ND	1									
ETHYLBENZENE	ND	1									
M+P-XYLENE	ND	1									
O-XYLENE	ND	1									
TOTAL XYLENES	ND	1									

Client: CSU Civil Engineering
 Work Order: 1506228
 Project: Colorado Water Watch

QC BATCH REPORT

Batch ID: VL150614-3-4 Instrument ID: HPV1 Method: SW8260_25

LCS		Sample ID: VL150614-6			Units: UG/L		Analysis Date: 6/14/2015 12:28				
Client ID:		Run ID: VL150614-3A			Prep Date: 6/14/2015		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	407	100	500		81	80-120				20	

LCSD		Sample ID: VL150614-6			Units: UG/L		Analysis Date: 6/14/2015 12:50				
Client ID:		Run ID: VL150614-3A			Prep Date: 6/14/2015		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	411	100	500		82	80-120		407	1	20	

MB		Sample ID: VL150614-3			Units: UG/L		Analysis Date: 6/14/2015 14:39				
Client ID:		Run ID: VL150614-3A			Prep Date: 6/14/2015		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
GASOLINE RANGE ORGANICS	ND	100									

The following samples were analyzed in this batch:

Client: CSU Civil Engineering
Work Order: 1506228
Project: Colorado Water Watch

QC BATCH REPORT

Batch ID: **AK150615-2-2** Instrument ID: **Balance** Method: **SM2320B**

LCS	Sample ID: AK150615-2					Units: MG/L	Analysis Date: 6/15/2015				
Client ID:		Run ID: AK150615-1A1					Prep Date: 6/15/2015		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL ALKALINITY AS CaCO3	100	5	100		100	85-115				15	

MB	Sample ID: AK150615-2					Units: MG/L	Analysis Date: 6/15/2015				
Client ID:		Run ID: AK150615-1A1					Prep Date: 6/15/2015		DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	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:

1506228-1

Client: CSU Civil Engineering
 Work Order: 1506228
 Project: Colorado Water Watch

QC BATCH REPORT

Batch ID: **IC150611-1-2** Instrument ID: **IC-2** Method: **EPA300.0**

LCS		Sample ID: IC150611-1			Units: MG/L		Analysis Date: 6/11/2015 09:48				
Client ID:		Run ID: IC150611-1A1			Prep Date: 6/11/2015		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	4.76	0.2	5		95	90-110				15	
CHLORIDE	4.91	0.2	5		98	90-110				15	
FLUORIDE	1.84	0.1	2		92	90-110				15	
NITRATE AS N	4.95	0.2	5		99	90-110				15	
NITRITE AS N	1.92	0.1	2		96	90-110				15	
SULFATE	19.3	1	20		96	90-110				15	

MB		Sample ID: IC150611-1			Units: MG/L		Analysis Date: 6/11/2015 10:03				
Client ID:		Run ID: IC150611-1A1			Prep Date: 6/11/2015		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
BROMIDE	ND	0.2									
CHLORIDE	ND	0.2									
FLUORIDE	ND	0.1									
NITRATE AS N	ND	0.2									
NITRITE AS N	ND	0.1									
SULFATE	ND	1									

The following samples were analyzed in this batch:

Client: CSU Civil Engineering
Work Order: 1506228
Project: Colorado Water Watch

QC BATCH REPORT

Batch ID: **TD150612-2-2** Instrument ID: **Balance** Method: **SM2540C**

LCS		Sample ID: TD150612-2			Units: MG/L		Analysis Date: 6/15/2015				
Client ID:		Run ID: TD150615-1A1			Prep Date: 6/12/2015		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	427	20	400		107	85-115				5	

MB		Sample ID: TD150612-2			Units: MG/L		Analysis Date: 6/15/2015				
Client ID:		Run ID: TD150615-1A1			Prep Date: 6/12/2015		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	ND	20									

The following samples were analyzed in this batch:

Client: CSU Civil Engineering
 Work Order: 1506228
 Project: Colorado Water Watch

QC BATCH REPORT

Batch ID: TP150618-1-1 Instrument ID: Spec Method: EPA365.2

LCS		Sample ID: TP150618-1			Units: MG/L		Analysis Date: 6/18/2015				
Client ID:		Run ID: TP150618-1A1			Prep Date: 6/18/2015		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.525	0.05	0.5		105	80-120				20	

MB		Sample ID: TP150618-1			Units: MG/L		Analysis Date: 6/18/2015				
Client ID:		Run ID: TP150618-1A1			Prep Date: 6/18/2015		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	ND	0.05									

MS		Sample ID: 1506228-1			Units: MG/L		Analysis Date: 6/18/2015				
Client ID: Gilcrest		Run ID: TP150618-1A1			Prep Date: 6/18/2015		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.314	0.05	0.25	0.054	104	80-120				20	

MSD		Sample ID: 1506228-1			Units: MG/L		Analysis Date: 6/18/2015				
Client ID: Gilcrest		Run ID: TP150618-1A1			Prep Date: 6/18/2015		DF: 1				
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL PHOSPHORUS	0.313	0.05	0.25	0.054	104	80-120		0.314	0	20	

The following samples were analyzed in this batch: