

Friday, June 19, 2015

Richard Caschette

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CSU Civil Engineering  
1301 Campus Delivery  
Fort Collins, CO 08523

Re: ALS Workorder: 1506263  
Project Name: Colorado Water Watch  
Project Number:

Dear Mr. Caschette:

One water sample was received from CSU Civil Engineering, on 6/12/2015. The sample was scheduled for the following analyses:

Dissolved Gasses

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GC/MS Volatiles

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Inorganics

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Metals

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Total Extractable Petroleum Hydrocarbons (Diesel)

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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



## 1506263

### **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 samples were 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.

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 sample was 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 <sup>+</sup> 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 -- FC

## Sample Number(s) Cross-Reference Table

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**OrderNum:** 1506263

**Client Name:** CSU Civil Engineering

**Client Project Name:** Colorado Water Watch

**Client Project Number:**

**Client PO Number:** 467333

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Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
Platteville	1506263-1		WATER	12-Jun-15	14:00



ALS Environmental - Fort Collins  
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: CSU

Workorder No: 1506263

Project Manager: \_\_\_\_\_

Initials: ECP

Date: 6/12/15

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 of sediment: <u>X</u> dusting ___ moderate ___ heavy <u>all bottles</u>	N/A	<input checked="" type="radio"/> YES	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		YES	<input checked="" type="radio"/> NO
Cooler #: <u>1</u>			
Temperature (°C): <u>AMB</u>			
No. of custody seals on cooler: <u>0</u>			
External µR/hr reading: <u>NA</u>			
Background µR/hr reading: <u>11</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO ( <input checked="" type="radio"/> NA) (If no, see Form 008.)			

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

16/17) Samples collected same day as delivery.

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

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

**Client:** CSU Civil Engineering  
**Project:** Colorado Water Watch  
**Sample ID:** Platteville  
**Legal Location:**  
**Collection Date:** 6/12/2015 14:00

**Date:** 19-Jun-15  
**Work Order:** 1506263  
**Lab ID:** 1506263-1  
**Matrix:** WATER  
**Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>Alkalinity as Calcium Carbonate</b>						
TOTAL ALKALINITY AS CaCO3	340		20	MG/L	1	6/15/2015
BICARBONATE AS CaCO3	340		20	MG/L	1	6/15/2015
CARBONATE AS CaCO3	ND		20	MG/L	1	6/15/2015
<b>Diesel Range Organics</b>						
Diesel Range Organics	ND		0.57	MG/L	1	6/16/2015 21:20
Surr: O-TERPHENYL	104		54-123	%REC	1	6/16/2015 21:20
<b>Dissolved Gasses</b>						
METHANE	ND		1	UG/L	1	6/15/2015 13:38
ETHANE	ND		2	UG/L	1	6/15/2015 13:38
PROPANE	ND		1	UG/L	1	6/15/2015 13:38
<b>GC/MS Volatiles</b>						
BENZENE	ND		1	UG/L	1	6/14/2015 19:12
TOLUENE	ND		1	UG/L	1	6/14/2015 19:12
ETHYLBENZENE	ND		1	UG/L	1	6/14/2015 19:12
M+P-XYLENE	ND		1	UG/L	1	6/14/2015 19:12
O-XYLENE	ND		1	UG/L	1	6/14/2015 19:12
TOTAL XYLENES	ND		1	UG/L	1	6/14/2015 19:12
Surr: 4-BROMOFLUOROBENZENE	105		85-115	%REC	1	6/14/2015 19:12
Surr: DIBROMOFLUOROMETHANE	92		84-118	%REC	1	6/14/2015 19:12
Surr: TOLUENE-D8	94		85-115	%REC	1	6/14/2015 19:12
GASOLINE RANGE ORGANICS	ND		100	UG/L	1	6/14/2015 19:12
<b>Ion Chromatography</b>						
BROMIDE	0.56		0.4	MG/L	2	6/12/2015 21:49
CHLORIDE	180		4	MG/L	20	6/12/2015 22:04
FLUORIDE	0.4		0.2	MG/L	2	6/12/2015 21:49
NITRATE AS N	6.3		0.4	MG/L	2	6/12/2015 21:49
NITRITE AS N	ND		0.2	MG/L	2	6/12/2015 21:49
SULFATE	260		20	MG/L	20	6/12/2015 22:04
<b>Dissolved Metals by 200.8</b>						
BARIUM	0.058		0.001	MG/L	10	6/17/2015 18:40
BORON	0.19		0.05	MG/L	10	6/17/2015 18:40
CALCIUM	140		1	MG/L	10	6/17/2015 18:40
IRON	ND		0.1	MG/L	10	6/17/2015 18:40
MAGNESIUM	54		0.1	MG/L	10	6/17/2015 18:40
MANGANESE	0.049		0.002	MG/L	10	6/17/2015 18:40
POTASSIUM	5.1		1	MG/L	10	6/17/2015 18:40
SELENIUM	0.0022		0.001	MG/L	10	6/17/2015 18:40
SODIUM	120		1	MG/L	10	6/17/2015 18:40
STRONTIUM	2		0.001	MG/L	10	6/17/2015 18:40
<b>pH</b>						
PH	7.64		0.1	pH	1	6/15/2015
<b>Specific Conductance in Water</b>						
SPECIFIC CONDUCTIVITY	1624		1	umhos/cm	1	6/15/2015

**Client:** CSU Civil Engineering  
**Project:** Colorado Water Watch  
**Sample ID:** Platteville  
**Legal Location:**  
**Collection Date:** 6/12/2015 14:00

**Date:** 19-Jun-15  
**Work Order:** 1506263  
**Lab ID:** 1506263-1  
**Matrix:** WATER  
**Percent Moisture:**

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>Total Dissolved Solids</b> TOTAL DISSOLVED SOLIDS	1100		<b>SM2540C</b> 40	MG/L	1	Prep Date: <b>6/16/2015</b> PrepBy: <b>JAC</b> 6/17/2015
<b>Total Phosphorus as P</b> TOTAL PHOSPHORUS	0.14		<b>EPA365.2</b> 0.05	MG/L	1	Prep Date: <b>6/18/2015</b> PrepBy: <b>JAC</b> 6/18/2015



**Client:** CSU Civil Engineering  
**Project:** Colorado Water Watch  
**Sample ID:** Platteville  
**Legal Location:**  
**Collection Date:** 6/12/2015 14:00

**Date:** 19-Jun-15  
**Work Order:** 1506263  
**Lab ID:** 1506263-1  
**Matrix:** WATER  
**Percent Moisture:**

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

**Radiochemistry:**

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>U or ND - Result is less than the sample specific MDC.</li> <li>Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.</li> <li>Y2 - Chemical Yield outside default limits.</li> <li>W - DER is greater than Warning Limit of 1.42</li> <li>* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.</li> <li># - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.</li> <li>G - Sample density differs by more than 15% of LCS density.</li> <li>D - DER is greater than Control Limit</li> <li>M - Requested MDC not met.</li> <li>LT - Result is less than requested MDC but greater than achieved MDC.</li> </ul> | <ul style="list-style-type: none"> <li>M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.</li> <li>L - LCS Recovery below lower control limit.</li> <li>H - LCS Recovery above upper control limit.</li> <li>P - LCS, Matrix Spike Recovery within control limits.</li> <li>N - Matrix Spike Recovery outside control limits</li> <li>NC - Not Calculated for duplicate results less than 5 times MDC</li> <li>B - Analyte concentration greater than MDC.</li> <li>B3 - Analyte concentration greater than MDC but less than Requested MDC.</li> </ul> |
|--|--|

**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 3:44:

Client: CSU Civil Engineering

QC BATCH REPORT

Work Order: 1506263

Project: Colorado Water Watch

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									

The following samples were analyzed in this batch:

Client: CSU Civil Engineering  
 Work Order: 1506263  
 Project: Colorado Water Watch

# QC BATCH REPORT

Batch ID: **HC150616-100-1** Instrument ID: **FUELS-1** Method: **SW8015M**  
**DUP** Sample ID: **1506263-1** Units: **MG/L** Analysis Date: **6/16/2015 21:56**

Client ID: **Platteville** Run ID: **HC150616-8A** Prep Date: **6/16/2015** 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						0.57		30	
Surr: O-TERPHENYL	0.827		0.792		104	54-123					

**LCS** Sample ID: **HC150616-100** Units: **MG/L** Analysis Date: **6/16/2015 15:59**

Client ID: Run ID: **HC150616-8A** Prep Date: **6/16/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
Diesel Range Organics	7.79	0.567	7.87		99	36-150				20	
Surr: O-TERPHENYL	0.8		0.787		102	54-123					

**MB** Sample ID: **HC150616-100** Units: **MG/L** Analysis Date: **6/16/2015 14:47**

Client ID: Run ID: **HC150616-8A** Prep Date: **6/16/2015** 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	0.799		0.789		101	54-123					

The following samples were analyzed in this batch:

Client: CSU Civil Engineering  
 Work Order: 1506263  
 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: <b>IM150617-10A10</b>			Prep Date: <b>6/15/2015</b>			DF: <b>10</b>				
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:

Client: CSU Civil Engineering  
 Work Order: 1506263  
 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: <b>VL150614-3A</b>			Prep Date: <b>6/14/2015</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	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: <b>VL150614-3</b>		Units: <b>%REC</b>			Analysis Date: <b>6/14/2015 13:54</b>						
Client ID:		Run ID: <b>VL150614-3A</b>			Prep Date: <b>6/14/2015</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	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: <b>VL150614-3</b>		Units: <b>%RE ;</b>			Analysis Date: <b>6/14/2015 14:39</b>						
Client ID:		Run ID: <b>VL150614-3A</b>			Prep Date: <b>6/14/2015</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	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: 1506263  
 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	

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	

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: 1506263  
 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:	Prep Date:	DF:											
	<b>AK150615-1A1</b>	<b>6/15/2015</b>	<b>1</b>	Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD Limit	Qual
				TOTAL ALKALINITY AS CaCO3	100	5	100		100	85-115			15	

Client ID:	Run ID:	Prep Date:	DF:											
	<b>AK150615-1A1</b>	<b>6/15/2015</b>	<b>1</b>	Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	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:

1506263-1
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Client: CSU Civil Engineering  
 Work Order: 1506263  
 Project: Colorado Water Watch

# QC BATCH REPORT

Batch ID: **IC150612-1-2** Instrument ID: **IC** Method: **EPA300.0**  
**LCS** Sample ID: **IC150612-1** Units: **MG/L** Analysis Date: **6/12/2015 12:29**

Client ID: Run ID: **IC150612-1A1** 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
BROMIDE	4.63	0.2	5		93	90-110				15	
CHLORIDE	4.78	0.2	5		96	90-110				15	
FLUORIDE	1.8	0.1	2		90	90-110				15	
NITRATE AS N	4.87	0.2	5		97	90-110				15	
NITRITE AS N	1.9	0.1	2		95	90-110				15	
SULFATE	18.6	1	20		93	90-110				15	

**MB** Sample ID: **IC150612-1** Units: **MG/L** Analysis Date: **6/12/2015 12:44**

Client ID: Run ID: **IC150612-1A1** 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
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:** 1506263  
**Project:** Colorado Water Watch

# QC BATCH REPORT

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Batch ID: **SC150615-1-2** Instrument ID: **pH-2** Method: **SM2510B**  
**DUP** Sample ID: **1506263-1** Units: **umhos/cm** Analysis Date: **6/15/2015**

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Client ID: **Platteville** Run ID: **SC150615-1A1** 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
SPECIFIC CONDUCTIVITY	1627	1						1624	0	10	

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The following samples were analyzed in this batch:

Client: CSU Civil Engineering  
 Work Order: 1506263  
 Project: Colorado Water Watch

# QC BATCH REPORT

Batch ID: **TD150616-1-3** Instrument ID: **Balance** Method: **SM2540C**  
**LCS** Sample ID: **TD150616-1** Units: **MG/L** Analysis Date: **6/17/2015**

Client ID: Run ID: **TD150617-1A1** Prep Date: **6/16/2015** DF: **1**

Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD	RPD Limit	Qual
TOTAL DISSOLVED SOLIDS	411	20	400		103	85-115				5	

**MB** Sample ID: **TD150616-1** Units: **MG/L** Analysis Date: **6/17/2015**  
 Client ID: Run ID: **TD150617-1A1** Prep Date: **6/16/2015** 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: 1506263  
 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: <b>TP150618-1A1</b>			Prep Date: <b>6/18/2015</b>			DF: <b>1</b>			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	Decision Level	RPD Ref	RPD Limit	Qual
TOTAL PHOSPHORUS	0.525	0.05	0.5		105	80-120			20	

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

The following samples were analyzed in this batch: