

Certificate of Analysis

March 21st, 2014

Client: Colorado State University

Project: CWW (Lab Work Order - 917)

On March 13th 2014, eAnalytics Laboratory received 1 sample for the project named CWW.

Analysis	Analytical Method	Samples
pH	SM4500H	1
Specific Conductance	SM2510B	1
Total Dissolved Solids (TDS)	SM2540C	1
Alkalinity	SM2320B	1
Anions - Br Cl SO4 NO3 NO2 F1	EPA 300.1	1
Phosphorous	EPA 365.4	1
Cations - Ba B Ca Fe Mg Mn K Se Na Sr	EPA 6010C	1
Dissolved Methane Ethane Propane	RSK175	1
Presence of Bacteria	HACH-BART	1
BTEX / TVPH	EPA 8260C	1
TEPH	EPA 8015C	1

All quality control analyses associated with the requested tests were satisfactorily passed before the samples were run. Thank you for allowing eAnalytics Laboratory to provide laboratory services for you. If you have any questions please give us a call, we are happy to help.

Sincerely,



Christopher Dieken
Quality Assurance Manager



Todd Rhea
Laboratory Manager

eAnalytics Laboratory
(970) 667-6975



eANALYTICS LABORATORY

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CLIENT INFORMATION <small>(*New Clients please fill out completely)</small>			ANALYSIS INFORMATION <small>(Select analysis by checking box on corresponding sample line)</small>																						
Company: <u>CSU</u>			Number of Containers	Matrix: (S) Soil (W) Water (V) Vapor (O) Other	BTEX / MTBE / TVPH (EPA 8260)	TEPH (EPA 8015)	Vapor BTEX / TVPH (EPA TO-14)	Full VOC (EPA 8260)	Semi-Volatiles (Full List / PAH's)	TRPH / Oil & Grease	RCRA 8 Metals (Total / TCLP / Dissolved)	React. / Ignit. / Corrosivity / Paint Filter	pH / TSS / TDS	Metals (Specify)	PCBs / Pesticides / Herbicides	Anions (Specify)	Other Analysis								
Project: <u>CWW</u>																									
Project Manager: <u>Jie Son</u>																									
Sampler: <u>Jie</u>																									
Phone/Email: <u>Jie.angela@gmail.com</u>																									
Address:																									
Lab ID	Sample Name	Sampling Date/Time																							
<u>S2</u>	<u>ARDEC S2</u>	<u>3/13/14</u>																							
Comments:																									
Turnaround Time (Business Days) <small>TAT begins when sample is received by eANALYTICS</small> <input type="radio"/> Normal (5-10 Days) <input type="radio"/> 3 Day (25%) <small>Rush analysis requires an extra charge.</small> <input type="radio"/> 2 Day (50%) <small>If possible please inform eANALYTICS in advance for rush analysis.</small> <input type="radio"/> 1 Day (100%) <input type="radio"/> Same Day (300%)										Record of Custody Relinquished by: <u>Jie Son</u> Date: <u>3/13/14</u> Company: <u>CSU</u> Time: _____ AM / PM Received by: _____ Date: _____ AM / PM Company: _____ AM / PM															
Colorado OPS Project : Yes / No										Relinquished by: _____ Date: _____ AM / PM Company: _____ Time: _____ AM / PM Received by: <u>[Signature]</u> Date: <u>3/13/14</u> Company: <u>eANALYTICS</u> Time: <u>1:00</u> AM / PM															
For eANALYTICS Use Samples Received Intact: <input checked="" type="radio"/> Yes / No Received Within Temperature Range (2-6°C): <input checked="" type="radio"/> Yes / No Sample Preservative: Ice / Acid / Other																									

WO # 917

eANALYTICS: Environmental testing made Easy

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Certificate of Analysis

Sample Information

Client: Colorado State University

Project: CWW

Methods: SM4500H (pH) SM2510B (Specific Conductance)
SM2540C (TDS) SM2320B (Alkalinity)

Water Sample Analysis

Sample Name	pH	Specific Conductance mmhos/cm	TDS mg/L	Total Alkalinity mg/L as CaCO ₃	Bicarbonate mg/L as CaCO ₃	Carbonate mg/L as CaCO ₃	Date Sampled	Date Analyzed	Lab ID
ARDEC S2	6.3	1.44	673	585	585	< 10	03/13/14	03/13/14	917-1

Certificate of Analysis

Sample Information

Client: Colorado State University

Project: CWW

Methods: EPA8260C (BTEX / TVPH)
EPA8015C (TEPH)

Water Sample Analysis

Sample Name	Benzene ug/L	Toluene ug/L	Ethyl- benzene ug/L	Total Xylenes ug/L	TVPH mg/L	TEPH mg/L	Date Sampled	Date Analyzed	Lab ID
ARDEC S2	< 1.0	< 1.0	< 1.0	< 1.0	< 0.5	< 1.0	03/13/14	03/14/14	917-1

Certificate of Analysis

Sample Information

Client: Colorado State University

Project: CWW

Methods: EPA8260C (BTEX)

Surrogate Recoveries (%)

Sample Name	Dibromofluoromethane Acceptance (70-130%)	1,2-Dichloroethane-D4 Acceptance (70-130%)	Toluene-D8 Acceptance (70-130%)	Bromofluorobenzene Acceptance (70-130%)	Date Sampled	Date Analyzed	Lab ID
ARDEC S2	96	97	97	100	03/13/14	03/13/14	917-1

Certificate of Analysis

Sample Information

Client: Colorado State University Project: CWW
Methods: EPA6010C (COGCC Groundwater Baseline Metals)
EPA365.3 (Phosphorous)

Dissolved Metals Analysis

Sample Name	Barium mg/L	Boron mg/L	Calcium mg/L	Iron mg/L	Magnesium mg/L	Manganese mg/L	Phosphorous mg/L	Date Sampled	Date Analyzed	Lab ID
ARDEC S2	< 0.001	< 0.10	171	< 0.1	51.6	< 0.01	< 0.05	03/13/14	03/19/14	917-1

Certificate of Analysis

Sample Information

Client: Colorado State University

Project: CWW

Methods: EPA6010C (COGCC Groundwater Baseline Metals)

Total Metals Analysis

Sample Name	Potassium mg/L	Selenium mg/L	Sodium mg/L	Strontium mg/L	Date Sampled	Date Analyzed	Lab ID
ARDEC S2	2.07	< 0.001	55.3	3.33	03/13/14	03/19/14	917-1

Certificate of Analysis

Sample Information

Client: Colorado State University

Project: CWW

Methods: RSK175 (Dissolved Gases)

Water Sample Analysis

Sample Name	Methane ug/L	Ethane ug/L	Propane ug/L	Date Sampled	Date Analyzed	Lab ID
ARDEC S2	< 100	< 150	< 80	03/13/14	03/14/14	917-1

Certificate of Analysis

Sample Information

Client: Colorado State University

Project: CWW

Methods: EPA 300.1 (Anions)

Water Sample Analysis

Sample Name	Bromide mg/L	Chloride mg/L	Fluoride mg/L	Nitrate mg/L	Nitrite mg/L	Sulfate mg/L	Date Sampled	Date Analyzed	Lab ID
ARDEC S2	5.9	35.2	1.2	6.3	< 0.1	378	03/13/14	03/13/14	917-1

Certificate of Analysis

Sample Information

Client: Colorado State University

Project: CWW

Methods: HACH-BART (Presence of Bacteria)

Total Metals Analysis

Sample Name	Iron Related Bacteria cfu/mL	Sulfate Reducing Bacteria cfu/mL	Slime Forming Bacteria cfu/mL	Date Sampled	Date Analyzed	Lab ID
ARDEC S2	Negative	Negative	Negative	03/13/14	03/13-03/21	917-1