

Certificate of Analysis

November 10th, 2014

Client: Colorado State University

Project: CWW (Lab Work Order - 2404)

On October 31st 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

1767 Rocky Mountain Avenue Loveland CO 80538

Phone: (970) 667-6975

Fax: (970) 669-0941

www.eAnalyticsLab.com

CLIENT INFORMATION

(*New Clients please fill out completely)

ANALYSIS INFORMATION

(Select analysis by checking box on corresponding sample line)

Company: CSU
 Project: CWW
 Project Manager: Jie Son
 Sampler: Jie Son
 Phone/Email: jie.son@gmail.com
 Address:

- | | | | | | | | | | | | | | |
|----------------------|--|-------------------------------|-----------------|-------------------------------|---------------------|------------------------------------|---------------------|--|--|----------------|------------------|--------------------------------|------------------|
| 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

| Lab ID | Sample Name | Sampling Date/Time | |
|--------|-------------|--------------------|---------|
| 1 | Lassie | 10/31/14 | AM / PM |
| | | | AM / PM |
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K CSU CWW #1

Comments:

Turnaround Time (Business Days)
 TAT begins when sample is received by eANALYTICS

Normal (5-10 Days)
 3 Day (25%) Rush analysis requires an extra charge.
 2 Day (50%) If possible please inform eANALYTICS in advance for rush analysis.
 1 Day (100%)
 Same Day (300%)

Colorado OPS Project: Yes / No

Record of Custody

Relinquished by: Jihee Son Date: 10/31/14
 Company: CSU Time: AM / PM

Received by: _____ Date: _____
 Company: _____ Time: _____

Relinquished by: _____ Date: _____
 Company: _____ Time: _____

Received by: Date: 10/31/14
 Company: eANALYTICS Time: 12:25

For eANALYTICS Use

Samples Received Intact: Yes / No

Received Within Temperature Range (2-6°C): Yes / No

Sample Preservative: Ice Acid Other
None

WO # 2404

eANALYTICS: Environmental testing made Easy

Page 1 of 1

Certificate of Analysis

Sample Information

Client: Colorado State University

Project: CWW

Methods: SM4500H (pH) SM2510B (Specific Conductance)
SM2540C (TDS) SM2320B (Alkalinity) EPA180.1

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 |
|-------------|-----|----------------------------------|-------------|---|--|--|--------------|---------------|--------|
| LaSalle | 6.4 | 3.56 | 2356 | 295 | 295 | < 10 | 10/31/14 | 10/31/14 | 2404-1 |
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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 |
|-------------|-----------------|-----------------|---------------------------|-----------------------|--------------|--------------|-----------------|------------------|--------|
| LaSalle | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 0.5 | < 1.0 | 10/31/14 | 10/31/14 | 2404-1 |
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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 |
|-------------|--|---|------------------------------------|--|-----------------|------------------|--------|
| LaSalle | 106 | 109 | 104 | 113 | 10/31/14 | 10/31/14 | 2404-1 |
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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 |
|-------------|----------------|---------------|-----------------|--------------|-------------------|-------------------|---------------------|-----------------|------------------|--------|
| LaSalle | 0.038 | 0.308 | 262 | 1.36 | 73.9 | 0.019 | < 0.05 | 10/31/14 | 11/04/14 | 2404-1 |
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Certificate of Analysis

Sample Information

Client: Colorado State University

Project: CWW

Methods: EPA6010C (COGCC Groundwater Baseline Metals)

Dissolved Metals Analysis

| Sample Name | Potassium mg/L | Selenium mg/L | Sodium mg/L | Strontium mg/L | Date Sampled | Date Analyzed | Lab ID |
|-------------|-------------------|------------------|----------------|-------------------|-----------------|------------------|--------|
| LaSalle | 11.7 | < 0.001 | 555 | 3.25 | 10/31/14 | 11/04/14 | 2404-1 |
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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 |
|-------------|-----------------|----------------|-----------------|-----------------|------------------|--------|
| LaSalle | < 100 | < 150 | < 80 | 10/31/14 | 10/31/14 | 2404-1 |
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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 |
|-------------|-----------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|------------------|--------|
| LaSalle | < 0.5 | 238 | < 0.5 | 19 | < 0.5 | 898 | 10/31/14 | 10/31/14 | 2404-1 |
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Certificate of Analysis

Sample Information

Client: Colorado State University

Project: CWW

Methods: HACH-BART (Presence of Bacteria)

Water Sample Analysis

| Sample Name | Iron Related Bacteria cfu/mL | Sulfate Reducing Bacteria cfu/mL | Slime Forming Bacteria cfu/mL | Date Sampled | Date Analyzed | Lab ID |
|-------------|------------------------------|----------------------------------|-------------------------------|--------------|-------------------|--------|
| LaSalle | Positive | Positive | Negative | 10/31/14 | 10/31/14-11/08/14 | 2404-1 |
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