

## CERTIFICATE OF ANALYSIS



**CLIENT** **Cherry Ridge Management**  
37 Hollingsworth Rd  
Cherryville BC  
VOE 2G2

TEL 1-250-547-9091  
FAX -

**ATTENTION** **Melanie Staker**

**RECEIVED / TEMP** Nov-19-12 13:45 / 7.0 °C  
**REPORTED** Nov-26-12  
**WORK ORDER** 2110871  
**PROJECT** Creek Monitoring  
**COC #(s)** 11804

### General Comments:

CARO Analytical Services employs methods which are based on those found in "Standard Methods for the Examination of Water and Wastewater", 21st Edition, 2005, published by the American Public Health Association (APHA); US EPA protocols found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846", 3rd Edition; protocols published by the British Columbia Ministry of Environment (BCMOE); and/or CCME Canada-wide Standard Reference methods.

Methods not described in these publications are conducted according to procedures accepted by appropriate regulatory agencies, and/or are done in accordance with recognized professional standards using accepted testing methodologies and quality control efforts except where otherwise agreed to by the client.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued unless otherwise agreed to in writing.

- All solids results are reported on a dry weight basis unless otherwise noted
- Units: mg/kg = milligrams per kilogram, equivalent to parts per million (ppm)  
mg/L = milligrams per litre, equivalent to parts per million (ppm)  
ug/L = micrograms per litre, equivalent to parts per billion (ppb)  
ug/g = micrograms per gram, equivalent to parts per million (ppm)  
ug/m<sup>3</sup> = micrograms per cubic meter of air
- "RDL" Reported detection limit
- "<" Less than reported detection limit
- "AO" Aesthetic objective
- "MAC" Maximum acceptable concentration (health-related guideline)
- "LAB" RMD = Richmond location, KEL = Kelowna location, EDM = Edmonton location, SUB = Subcontracted

Please contact CARO if more information is needed or to provide feedback on our services.

### CARO Analytical Services

Final Review Per:

**Jennifer Shanko, ASCT**  
Administration Coordinator, Kelowna

### Locations:

#110 4011 Viking Way  
Richmond, BC V6V 2K9  
Tel: 604-279-1499 Fax: 604-279-1599

#102 3677 Highway 97N  
Kelowna, BC V1X 5C3  
Tel: 250-765-9646 Fax: 250-765-3893

17225 109 Avenue  
Edmonton, AB T5S 1H7  
Tel: 780-489-9100 Fax: 780-489-9700

[www.caro.ca](http://www.caro.ca)

## SAMPLE DATA



**CLIENT** Cherry Ridge Management  
**PROJECT** Creek Monitoring

**WORK ORDER #** 2110871  
**REPORTED** Nov-26-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
---------	--------	-----	-------	----------	----------	-------

### General Parameters

#### North Fork Cherry Creek (2110871-01) Matrix: Water Sampled: Nov-19-12 10:55

Chloride	0.15	0.10	mg/L	Nov-19-12	Nov-20-12	
Nitrogen, Nitrate as N	0.033	0.010	mg/L	Nov-19-12	Nov-20-12	
Nitrogen, Nitrite as N	< 0.010	0.010	mg/L	Nov-19-12	Nov-20-12	
Nitrogen, Total Kjeldahl	0.13	0.05	mg/L	Nov-19-12	Nov-23-12	
Phosphorus, Total Kjeldahl	0.01	0.01	mg/L	Nov-19-12	Nov-23-12	
Phosphorus, Total Kjeldahl Dissolved	0.01	0.01	mg/L	Nov-19-12	Nov-23-12	
Turbidity	0.5	0.1	NTU	Nov-21-12	Nov-21-12	

#### South Fork Cherry Creek (2110871-02) Matrix: Water Sampled: Nov-19-12 10:10

Chloride	1.30	0.10	mg/L	Nov-19-12	Nov-20-12	
Nitrogen, Nitrate as N	0.093	0.010	mg/L	Nov-19-12	Nov-20-12	
Nitrogen, Nitrite as N	< 0.010	0.010	mg/L	Nov-19-12	Nov-20-12	
Nitrogen, Total Kjeldahl	0.19	0.05	mg/L	Nov-19-12	Nov-23-12	
Phosphorus, Total Kjeldahl	0.01	0.01	mg/L	Nov-19-12	Nov-23-12	
Phosphorus, Total Kjeldahl Dissolved	< 0.01	0.01	mg/L	Nov-19-12	Nov-23-12	
Turbidity	2.1	0.1	NTU	Nov-21-12	Nov-21-12	

#### Cherry Creek (at Hall) (2110871-03) Matrix: Water Sampled: Nov-19-12 10:30

Chloride	1.64	0.10	mg/L	Nov-19-12	Nov-21-12	
Nitrogen, Nitrate as N	0.050	0.010	mg/L	Nov-19-12	Nov-21-12	
Nitrogen, Nitrite as N	< 0.010	0.010	mg/L	Nov-19-12	Nov-21-12	
Nitrogen, Total Kjeldahl	0.13	0.05	mg/L	Nov-19-12	Nov-23-12	
Phosphorus, Total Kjeldahl	< 0.01	0.01	mg/L	Nov-19-12	Nov-23-12	
Phosphorus, Total Kjeldahl Dissolved	< 0.01	0.01	mg/L	Nov-19-12	Nov-23-12	
Turbidity	1.2	0.1	NTU	Nov-21-12	Nov-21-12	

#### Cherry Creek (at Hall) 2 (2110871-04) Matrix: Water Sampled: Nov-19-12 10:30

Chloride	1.64	0.10	mg/L	Nov-19-12	Nov-21-12	
Nitrogen, Nitrate as N	0.017	0.010	mg/L	Nov-19-12	Nov-21-12	
Nitrogen, Nitrite as N	< 0.010	0.010	mg/L	Nov-19-12	Nov-21-12	
Nitrogen, Total Kjeldahl	0.11	0.05	mg/L	Nov-20-12	Nov-23-12	
Phosphorus, Total Kjeldahl	0.03	0.01	mg/L	Nov-19-12	Nov-21-12	
Phosphorus, Total Kjeldahl Dissolved	0.02	0.01	mg/L	Nov-20-12	Nov-23-12	
Turbidity	6.3	0.1	NTU	Nov-21-12	Nov-21-12	

#### Shuswap River (Picnic Site) (2110871-05) Matrix: Water Sampled: Nov-19-12 09:40

Chloride	0.55	0.10	mg/L	Nov-19-12	Nov-21-12	
Nitrogen, Nitrate as N	0.045	0.010	mg/L	Nov-19-12	Nov-21-12	
Nitrogen, Nitrite as N	< 0.010	0.010	mg/L	Nov-19-12	Nov-21-12	
Nitrogen, Total Kjeldahl	0.15	0.05	mg/L	Nov-20-12	Nov-23-12	
Phosphorus, Total Kjeldahl	0.01	0.01	mg/L	Nov-19-12	Nov-21-12	
Phosphorus, Total Kjeldahl Dissolved	0.01	0.01	mg/L	Nov-20-12	Nov-23-12	
Turbidity	0.4	0.1	NTU	Nov-21-12	Nov-21-12	

#### Ferry Creek (2110871-06) Matrix: Water Sampled: Nov-19-12 11:30

Chloride	0.70	0.10	mg/L	Nov-19-12	Nov-21-12	
Nitrogen, Nitrate as N	0.027	0.010	mg/L	Nov-19-12	Nov-21-12	
Nitrogen, Nitrite as N	< 0.010	0.010	mg/L	Nov-19-12	Nov-21-12	

## SAMPLE DATA



**CLIENT** Cherry Ridge Management  
**PROJECT** Creek Monitoring

**WORK ORDER #** 2110871  
**REPORTED** Nov-26-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
---------	--------	-----	-------	----------	----------	-------

### General Parameters, Continued

#### Ferry Creek (2110871-06) Matrix: Water Sampled: Nov-19-12 11:30, Continued

Nitrogen, Total Kjeldahl	0.14	0.05	mg/L	Nov-20-12	Nov-23-12	
Phosphorus, Total Kjeldahl	0.02	0.01	mg/L	Nov-19-12	Nov-21-12	
Phosphorus, Total Kjeldahl Dissolved	0.01	0.01	mg/L	Nov-20-12	Nov-23-12	
Turbidity	0.5	0.1	NTU	Nov-21-12	Nov-21-12	

#### Ferry Creek 2 (2110871-07) Matrix: Water Sampled: Nov-19-12 11:30

Chloride	1.64	0.10	mg/L	Nov-19-12	Nov-21-12	
Nitrogen, Nitrate as N	0.013	0.010	mg/L	Nov-19-12	Nov-21-12	
Nitrogen, Nitrite as N	< 0.010	0.010	mg/L	Nov-19-12	Nov-21-12	
Nitrogen, Total Kjeldahl	0.09	0.05	mg/L	Nov-20-12	Nov-23-12	
Phosphorus, Total Kjeldahl	0.01	0.01	mg/L	Nov-19-12	Nov-21-12	
Phosphorus, Total Kjeldahl Dissolved	0.01	0.01	mg/L	Nov-20-12	Nov-23-12	
Turbidity	1.4	0.1	NTU	Nov-21-12	Nov-21-12	

### Calculated Parameters

#### North Fork Cherry Creek (2110871-01) Matrix: Water Sampled: Nov-19-12 10:55

Nitrogen, Nitrate+Nitrite as N	0.033	0.020	mg/L	N/A	N/A	
Nitrogen, Total	0.167	0.070	mg/L	N/A	N/A	

#### South Fork Cherry Creek (2110871-02) Matrix: Water Sampled: Nov-19-12 10:10

Nitrogen, Nitrate+Nitrite as N	0.093	0.020	mg/L	N/A	N/A	
Nitrogen, Total	0.279	0.070	mg/L	N/A	N/A	

#### Cherry Creek (at Hall) (2110871-03) Matrix: Water Sampled: Nov-19-12 10:30

Nitrogen, Nitrate+Nitrite as N	0.050	0.020	mg/L	N/A	N/A	
Nitrogen, Total	0.181	0.070	mg/L	N/A	N/A	

#### Cherry Creek (at Hall) 2 (2110871-04) Matrix: Water Sampled: Nov-19-12 10:30

Nitrogen, Nitrate+Nitrite as N	< 0.020	0.020	mg/L	N/A	N/A	
Nitrogen, Total	0.131	0.070	mg/L	N/A	N/A	

#### Shuswap River (Picnic Site) (2110871-05) Matrix: Water Sampled: Nov-19-12 09:40

Nitrogen, Nitrate+Nitrite as N	0.045	0.020	mg/L	N/A	N/A	
Nitrogen, Total	0.193	0.070	mg/L	N/A	N/A	

#### Ferry Creek (2110871-06) Matrix: Water Sampled: Nov-19-12 11:30

Nitrogen, Nitrate+Nitrite as N	0.027	0.020	mg/L	N/A	N/A	
Nitrogen, Total	0.171	0.070	mg/L	N/A	N/A	

#### Ferry Creek 2 (2110871-07) Matrix: Water Sampled: Nov-19-12 11:30

Nitrogen, Nitrate+Nitrite as N	< 0.020	0.020	mg/L	N/A	N/A	
Nitrogen, Total	0.102	0.070	mg/L	N/A	N/A	

### Microbiological Parameters

#### North Fork Cherry Creek (2110871-01) Matrix: Water Sampled: Nov-19-12 10:55

E. coli	1	1	CFU/100mL	Nov-20-12	Nov-21-12	
---------	---	---	-----------	-----------	-----------	--

**SAMPLE DATA**



**CLIENT** Cherry Ridge Management  
**PROJECT** Creek Monitoring

**WORK ORDER #** 2110871  
**REPORTED** Nov-26-12

Analyte	Result	RDL	Units	Prepared	Analyzed	Notes
---------	--------	-----	-------	----------	----------	-------

**Microbiological Parameters, Continued**

<b>South Fork Cherry Creek (2110871-02) Matrix: Water Sampled: Nov-19-12 10:10</b>						
E. coli	< 1	1	CFU/100mL	Nov-20-12	Nov-21-12	
<b>Cherry Creek (at Hall) (2110871-03) Matrix: Water Sampled: Nov-19-12 10:30</b>						
E. coli	< 1	1	CFU/100mL	Nov-20-12	Nov-21-12	
<b>Cherry Creek (at Hall) 2 (2110871-04) Matrix: Water Sampled: Nov-19-12 10:30</b>						
E. coli	< 1	1	CFU/100mL	Nov-20-12	Nov-21-12	
<b>Shuswap River (Picnic Site) (2110871-05) Matrix: Water Sampled: Nov-19-12 09:40</b>						
E. coli	< 1	1	CFU/100mL	Nov-20-12	Nov-21-12	
<b>Ferry Creek (2110871-06) Matrix: Water Sampled: Nov-19-12 11:30</b>						
E. coli	3	1	CFU/100mL	Nov-20-12	Nov-21-12	
<b>Ferry Creek 2 (2110871-07) Matrix: Water Sampled: Nov-19-12 11:30</b>						
E. coli	< 1	1	CFU/100mL	Nov-20-12	Nov-21-12	

**ANALYSIS / REPORT INFORMATION****CLIENT** Cherry Ridge Management  
**PROJECT** Creek Monitoring**WORK ORDER #** 2110871  
**REPORTED** Nov-26-12

<b>Analysis Description</b>	<b>Method Reference(s) (* = modified from)</b>		<b>LAB</b>
	<b>Preparation</b>	<b>Analysis</b>	
Total Nitrogen (TKN + NO3-N+NO2-N) Pkg	N/A	[CALC]	KEL
Phosphorus, Total Dissolved Kjeldahl	N/A	EPA 365.4 *	KEL
Phosphorus, Total Kjeldahl	N/A	EPA 365.4 *	KEL
Total Kjeldahl Nitrogen	N/A	EPA 351.2 *	KEL
Chloride in Water by IC	N/A	APHA 4110 B	KEL
Nitrite-N in Water by IC	N/A	APHA 4110 B	KEL
Nitrate-N in Water by IC	N/A	APHA 4110 B	KEL
Turbidity	N/A	APHA 2130 B	KEL
E. coli (Partition Method)	N/A	APHA 9222 G	KEL