CERTIFICATE OF ANALYSIS

REPORTED TO	Cherry Ridge Management 158 North Fork Road Cherryville, BC V0E 2G3	**TEL** **FAX**	1-250-547-9091 -
ATTENTION	Melanie Staker	**WORK ORDER**	6110945
PO NUMBER		**RECEIVED / TEMP**	2016-11-14 09:00 / 6°C
PROJECT	Creek Monitoring	**REPORTED**	2016-11-22
PROJECT INFO		**COC NUMBER**	40837.5581

General Comments:

CARO Analytical Services employs methods which are conducted according to procedures accepted by appropriate regulatory agencies, and/or are conducted 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 or Sample Requisition 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.

Authorized By: **Ed Hoppe, B.Sc., P.Chem.**
Division Manager, Kelowna

If you have any questions or concerns, please contact your Account Manager:
Sara Gulenchyn, B.Sc, P.Chem. (sgulenchyn@caro.ca)

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

ANALYSIS INFORMATION

REPORTED TO	Cherry Ridge Management	**WORK ORDER**	6110945
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Analysis Description	Method Reference	Technique	Location
Anions by IC in Water	APHA 4110 B	Ion Chromatography with Chemical Suppression of Eluent Conductivity	Kelowna
Conductivity in Water	APHA 2510 B	Conductivity Meter	Kelowna
Dissolved Metals by ICPMS in Water	APHA 3030 B / APHA 3125 B	0.45 µm Filtration / Inductively Coupled Plasma Mass Spectrometry (ICP-MS)	Richmond
E. coli (MF-NA+MUG) in Water	APHA 9222 G	Membrane Filtration / Nutrient Agar with MUG	Kelowna
Hardness (as CaCO3) in Water	APHA 2340 B*	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Estimated)	N/A
Nitrogen, Total Kjeldahl in Water	APHA 4500-Norg D*	Block Digestion and Flow Injection Analysis	Kelowna
pH in Water	APHA 4500-H+ B	Electrometry	Kelowna
Phosphorus, Total by Colorimetry in Water	APHA 4500-P B.5* / APHA 4500-P F	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	Kelowna
Phosphorus, Total Dissolved by Colorimetry in Water	APHA 4500-P B.5* / APHA 4500-P F	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	Kelowna
Total Metals by ICPMS in Water	APHA 3030E* / APHA 3125 B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma Mass Spectrometry (ICP-MS)	Richmond
Turbidity in Water	APHA 2130 B	Nephelometry	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Method Reference Descriptions:

APHA	Standard Methods for the Examination of Water and Wastewater, 22nd Edition, American Public Health Association/American Water Works Association/Water Environment Federation

Glossary of Terms:

MRL	Method Reporting Limit
<	Less than the Reported Detection Limit (RDL) - the RDL may be higher than the MRL due to various factors such as dilutions, limited sample volume, high moisture, or interferences
AO	Aesthetic objective
MAC	Maximum acceptable concentration (health based)
OG	Operational guideline (treated water)
CFU/100 mL	Colony Forming Units per 100 millilitres
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
pH units	pH < 7 = acidic, ph > 7 = basic
µg/L	Micrograms per litre
µS/cm	Microsiemens per centimetre

Standards / Guidelines Referenced in this Report:

Guidelines for Canadian Drinking Water Quality (Oct 2014)

Website: http://www.hc-sc.gc.ca/ewh-semt/alt_formats/pdf/pubs/water-eau/sum_guide-res_recom/sum_guide-res_recom-eng.pdf

Note: In some cases, the values displayed on the report represent the lowest guideline and are to be verified by the end user

SAMPLE ANALYTICAL DATA

REPORTED TO	Cherry Ridge Management	**WORK ORDER**	6110945
PROJECT	Creek Monitoring	**REPORTED**	2016-11-22

Analyte	Result / *Recovery*	Standard / Guideline	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: North Fork Cherry Creek (6110945-01) [Water] Sampled: 2016-11-13 11:53							F1, F2, FILT, PRESa
Anions							
Chloride	**1.13**	AO ≤ 250	0.10	mg/L	N/A	2016-11-16	
Nitrate (as N)	**0.026**	MAC = 10	0.010	mg/L	N/A	2016-11-16	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-11-16	
Sulfate	**5.5**	AO ≤ 500	1.0	mg/L	N/A	2016-11-16	
General Parameters							
Conductivity (EC)	**107**	N/A	2	µS/cm	N/A	2016-11-16	
Nitrogen, Total Kjeldahl	**0.08**	N/A	0.05	mg/L	2016-11-16	2016-11-18	
pH	**7.64**	6.5-8.5	0.01	pH units	N/A	2016-11-16	HT2
Phosphorus, Total (as P)	**0.005**	N/A	0.002	mg/L	2016-11-21	2016-11-21	
Phosphorus, Total Dissolved	**0.003**	N/A	0.002	mg/L	2016-11-21	2016-11-21	
Turbidity	**0.54**	OG < 0.1	0.10	NTU	N/A	2016-11-14	
Calculated Parameters							
Hardness, Total (as CaCO3)	**51.4**	N/A	0.1	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	**0.026**	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	**0.104**	N/A	0.050	mg/L	N/A	N/A	
Dissolved Metals							
Aluminum, dissolved	**20**	N/A	1	µg/L	N/A	2016-11-18	
Total Metals							
Aluminum, total	**36**	OG < 100	1	µg/L	2016-11-18	2016-11-18	
Antimony, total	< 0.05	MAC = 6	0.05	µg/L	2016-11-18	2016-11-18	
Arsenic, total	**0.12**	MAC = 10	0.05	µg/L	2016-11-18	2016-11-18	
Barium, total	**10.8**	MAC = 1000	0.1	µg/L	2016-11-18	2016-11-18	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Boron, total	**3**	MAC = 5000	1	µg/L	2016-11-18	2016-11-18	
Cadmium, total	**0.012**	MAC = 5	0.002	µg/L	2016-11-18	2016-11-18	
Calcium, total	**17900**	N/A	40	µg/L	2016-11-18	2016-11-18	
Chromium, total	**0.70**	MAC = 50	0.10	µg/L	2016-11-18	2016-11-18	
Cobalt, total	**0.037**	N/A	0.005	µg/L	2016-11-18	2016-11-18	
Copper, total	**0.38**	AO ≤ 1000	0.10	µg/L	2016-11-18	2016-11-18	
Iron, total	**41**	AO ≤ 300	2	µg/L	2016-11-18	2016-11-18	
Lead, total	< 0.05	MAC = 10	0.05	µg/L	2016-11-18	2016-11-18	
Lithium, total	**0.65**	N/A	0.05	µg/L	2016-11-18	2016-11-18	
Magnesium, total	**1610**	N/A	5.0	µg/L	2016-11-18	2016-11-18	
Manganese, total	**1.85**	AO ≤ 50	0.05	µg/L	2016-11-18	2016-11-18	
Mercury, total	< 0.01	MAC = 1	0.01	µg/L	2016-11-18	2016-11-18	CT5
Molybdenum, total	**1.09**	N/A	0.01	µg/L	2016-11-18	2016-11-18	
Nickel, total	**0.50**	N/A	0.02	µg/L	2016-11-18	2016-11-18	
Phosphorus, total	< 10	N/A	10	µg/L	2016-11-18	2016-11-18	
Potassium, total	**745**	N/A	10	µg/L	2016-11-18	2016-11-18	
Selenium, total	**0.82**	MAC = 50	0.10	µg/L	2016-11-18	2016-11-18	

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Analyte	Result / *Recovery*	Standard / Guideline	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: North Fork Cherry Creek (6110945-01) [Water] Sampled: 2016-11-13 11:53, Continued							F1, F2, FILT, PRESa
Total Metals, Continued							
Silicon, total	**3500**	N/A	50	µg/L	2016-11-18	2016-11-18	
Silver, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Sodium, total	**830**	AO ≤ 200000	10	µg/L	2016-11-18	2016-11-18	
Strontium, total	**85.4**	N/A	0.10	µg/L	2016-11-18	2016-11-18	
Sulfur, total	**1600**	N/A	500	µg/L	2016-11-18	2016-11-18	
Tellurium, total	< 0.05	N/A	0.05	µg/L	2016-11-18	2016-11-18	
Thallium, total	< 0.004	N/A	0.004	µg/L	2016-11-18	2016-11-18	
Thorium, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Tin, total	< 0.05	N/A	0.05	µg/L	2016-11-18	2016-11-18	
Titanium, total	**1.1**	N/A	0.2	µg/L	2016-11-18	2016-11-18	
Uranium, total	**0.222**	MAC = 20	0.001	µg/L	2016-11-18	2016-11-18	
Vanadium, total	**0.3**	N/A	0.2	µg/L	2016-11-18	2016-11-18	
Zinc, total	**1.8**	AO ≤ 5000	1.0	µg/L	2016-11-18	2016-11-18	
Zirconium, total	**0.04**	N/A	0.02	µg/L	2016-11-18	2016-11-18	
Microbiological Parameters							
E. coli	**4**	MAC = None Detected	1	CFU/100 mL	N/A	2016-11-14	
Sample ID: South Fork Cherry Creek (6110945-02) [Water] Sampled: 2016-11-13 11:15							F1, F2, FILT, PRESa
Anions							
Chloride	**0.87**	AO ≤ 250	0.10	mg/L	N/A	2016-11-16	
Nitrate (as N)	**0.103**	MAC = 10	0.010	mg/L	N/A	2016-11-16	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-11-16	
Sulfate	**11.5**	AO ≤ 500	1.0	mg/L	N/A	2016-11-16	
General Parameters							
Conductivity (EC)	**186**	N/A	2	µS/cm	N/A	2016-11-16	
Nitrogen, Total Kjeldahl	< 0.05	N/A	0.05	mg/L	2016-11-16	2016-11-18	
pH	**7.90**	6.5-8.5	0.01	pH units	N/A	2016-11-16	HT2
Phosphorus, Total (as P)	**0.005**	N/A	0.002	mg/L	2016-11-21	2016-11-21	
Phosphorus, Total Dissolved	**0.005**	N/A	0.002	mg/L	2016-11-21	2016-11-21	
Turbidity	**0.58**	OG < 0.1	0.10	NTU	N/A	2016-11-14	
Calculated Parameters							
Hardness, Total (as CaCO3)	**94.9**	N/A	0.1	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	**0.103**	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	**0.103**	N/A	0.050	mg/L	N/A	N/A	
Dissolved Metals							
Aluminum, dissolved	**3**	N/A	1	µg/L	N/A	2016-11-18	
Total Metals							

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Analyte	Result / *Recovery*	Standard / Guideline	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: South Fork Cherry Creek (6110945-02) [Water] Sampled: 2016-11-13 11:15, Continued							F1, F2, FILT, PRESa
Total Metals, Continued							
Aluminum, total	**10**	OG < 100	1	µg/L	2016-11-18	2016-11-18	
Antimony, total	**0.08**	MAC = 6	0.05	µg/L	2016-11-18	2016-11-18	
Arsenic, total	**0.49**	MAC = 10	0.05	µg/L	2016-11-18	2016-11-18	
Barium, total	**15.5**	MAC = 1000	0.1	µg/L	2016-11-18	2016-11-18	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Boron, total	**3**	MAC = 5000	1	µg/L	2016-11-18	2016-11-18	
Cadmium, total	**0.013**	MAC = 5	0.002	µg/L	2016-11-18	2016-11-18	
Calcium, total	**32000**	N/A	40	µg/L	2016-11-18	2016-11-18	
Chromium, total	**0.77**	MAC = 50	0.10	µg/L	2016-11-18	2016-11-18	
Cobalt, total	**0.019**	N/A	0.005	µg/L	2016-11-18	2016-11-18	
Copper, total	**0.44**	AO ≤ 1000	0.10	µg/L	2016-11-18	2016-11-18	
Iron, total	**45**	AO ≤ 300	2	µg/L	2016-11-18	2016-11-18	
Lead, total	< 0.05	MAC = 10	0.05	µg/L	2016-11-18	2016-11-18	
Lithium, total	**0.95**	N/A	0.05	µg/L	2016-11-18	2016-11-18	
Magnesium, total	**3620**	N/A	5.0	µg/L	2016-11-18	2016-11-18	
Manganese, total	**1.44**	AO ≤ 50	0.05	µg/L	2016-11-18	2016-11-18	
Mercury, total	< 0.01	MAC = 1	0.01	µg/L	2016-11-18	2016-11-18	CT5
Molybdenum, total	**1.32**	N/A	0.01	µg/L	2016-11-18	2016-11-18	
Nickel, total	**0.22**	N/A	0.02	µg/L	2016-11-18	2016-11-18	
Phosphorus, total	< 10	N/A	10	µg/L	2016-11-18	2016-11-18	
Potassium, total	**484**	N/A	10	µg/L	2016-11-18	2016-11-18	
Selenium, total	**1.25**	MAC = 50	0.10	µg/L	2016-11-18	2016-11-18	
Silicon, total	**3700**	N/A	50	µg/L	2016-11-18	2016-11-18	
Silver, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Sodium, total	**1300**	AO ≤ 200000	10	µg/L	2016-11-18	2016-11-18	
Strontium, total	**176**	N/A	0.10	µg/L	2016-11-18	2016-11-18	
Sulfur, total	**3300**	N/A	500	µg/L	2016-11-18	2016-11-18	
Tellurium, total	< 0.05	N/A	0.05	µg/L	2016-11-18	2016-11-18	
Thallium, total	< 0.004	N/A	0.004	µg/L	2016-11-18	2016-11-18	
Thorium, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Tin, total	< 0.05	N/A	0.05	µg/L	2016-11-18	2016-11-18	
Titanium, total	**0.4**	N/A	0.2	µg/L	2016-11-18	2016-11-18	
Uranium, total	**0.382**	MAC = 20	0.001	µg/L	2016-11-18	2016-11-18	
Vanadium, total	< 0.2	N/A	0.2	µg/L	2016-11-18	2016-11-18	
Zinc, total	**1.0**	AO ≤ 5000	1.0	µg/L	2016-11-18	2016-11-18	
Zirconium, total	< 0.02	N/A	0.02	µg/L	2016-11-18	2016-11-18	
Microbiological Parameters							
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-11-14	

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Analyte	Result / *Recovery*	Standard / Guideline	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: Cherry Creek at Hall (6110945-03) [Water] Sampled: 2016-11-13 11:35							F1, F2, FILT, PRESa
Anions							
Chloride	**1.17**	AO ≤ 250	0.10	mg/L	N/A	2016-11-16	
Nitrate (as N)	**0.047**	MAC = 10	0.010	mg/L	N/A	2016-11-16	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-11-16	
Sulfate	**9.1**	AO ≤ 500	1.0	mg/L	N/A	2016-11-16	
General Parameters							
Conductivity (EC)	**167**	N/A	2	µS/cm	N/A	2016-11-16	
Nitrogen, Total Kjeldahl	**0.10**	N/A	0.05	mg/L	2016-11-16	2016-11-18	
pH	**7.87**	6.5-8.5	0.01	pH units	N/A	2016-11-16	HT2
Phosphorus, Total (as P)	**0.007**	N/A	0.002	mg/L	2016-11-21	2016-11-21	
Phosphorus, Total Dissolved	**0.004**	N/A	0.002	mg/L	2016-11-21	2016-11-21	
Turbidity	**0.64**	OG < 0.1	0.10	NTU	N/A	2016-11-14	
Calculated Parameters							
Hardness, Total (as CaCO3)	**84.1**	N/A	0.1	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	**0.047**	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	**0.151**	N/A	0.050	mg/L	N/A	N/A	
Dissolved Metals							
Aluminum, dissolved	**9**	N/A	1	µg/L	N/A	2016-11-18	
Total Metals							
Aluminum, total	**19**	OG < 100	1	µg/L	2016-11-18	2016-11-18	
Antimony, total	**0.05**	MAC = 6	0.05	µg/L	2016-11-18	2016-11-18	
Arsenic, total	**0.31**	MAC = 10	0.05	µg/L	2016-11-18	2016-11-18	
Barium, total	**14.2**	MAC = 1000	0.1	µg/L	2016-11-18	2016-11-18	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Boron, total	**2**	MAC = 5000	1	µg/L	2016-11-18	2016-11-18	
Cadmium, total	**0.013**	MAC = 5	0.002	µg/L	2016-11-18	2016-11-18	
Calcium, total	**27500**	N/A	40	µg/L	2016-11-18	2016-11-18	
Chromium, total	**0.23**	MAC = 50	0.10	µg/L	2016-11-18	2016-11-18	
Cobalt, total	**0.022**	N/A	0.005	µg/L	2016-11-18	2016-11-18	
Copper, total	**0.24**	AO ≤ 1000	0.10	µg/L	2016-11-18	2016-11-18	
Iron, total	**21**	AO ≤ 300	2	µg/L	2016-11-18	2016-11-18	
Lead, total	< 0.05	MAC = 10	0.05	µg/L	2016-11-18	2016-11-18	
Lithium, total	**0.94**	N/A	0.05	µg/L	2016-11-18	2016-11-18	
Magnesium, total	**3760**	N/A	5.0	µg/L	2016-11-18	2016-11-18	
Manganese, total	**1.37**	AO ≤ 50	0.05	µg/L	2016-11-18	2016-11-18	
Mercury, total	< 0.01	MAC = 1	0.01	µg/L	2016-11-18	2016-11-18	CT5
Molybdenum, total	**1.20**	N/A	0.01	µg/L	2016-11-18	2016-11-18	
Nickel, total	**0.15**	N/A	0.02	µg/L	2016-11-18	2016-11-18	
Phosphorus, total	< 10	N/A	10	µg/L	2016-11-18	2016-11-18	
Potassium, total	**704**	N/A	10	µg/L	2016-11-18	2016-11-18	
Selenium, total	**1.03**	MAC = 50	0.10	µg/L	2016-11-18	2016-11-18	

REPORTED TO Cherry Ridge Management
PROJECT Creek Monitoring

WORK ORDER 6110945
REPORTED 2016-11-22

Analyte	Result / *Recovery*	Standard / Guideline	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: Cherry Creek at Hall (6110945-03) [Water] Sampled: 2016-11-13 11:35, Continued							F1, F2, FILT, PRESa
Total Metals, Continued							
Silicon, total	**4000**	N/A	50	µg/L	2016-11-18	2016-11-18	
Silver, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Sodium, total	**1540**	AO ≤ 200000	10	µg/L	2016-11-18	2016-11-18	
Strontium, total	**154**	N/A	0.10	µg/L	2016-11-18	2016-11-18	
Sulfur, total	**2900**	N/A	500	µg/L	2016-11-18	2016-11-18	
Tellurium, total	< 0.05	N/A	0.05	µg/L	2016-11-18	2016-11-18	
Thallium, total	< 0.004	N/A	0.004	µg/L	2016-11-18	2016-11-18	
Thorium, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Tin, total	< 0.05	N/A	0.05	µg/L	2016-11-18	2016-11-18	
Titanium, total	**0.5**	N/A	0.2	µg/L	2016-11-18	2016-11-18	
Uranium, total	**0.348**	MAC = 20	0.001	µg/L	2016-11-18	2016-11-18	
Vanadium, total	**0.3**	N/A	0.2	µg/L	2016-11-18	2016-11-18	
Zinc, total	**1.1**	AO ≤ 5000	1.0	µg/L	2016-11-18	2016-11-18	
Zirconium, total	**0.03**	N/A	0.02	µg/L	2016-11-18	2016-11-18	
Microbiological Parameters							
E. coli	7	MAC = None Detected	1	CFU/100 mL	N/A	2016-11-14	
Sample ID: Shuswap River Picnic Site (6110945-04) [Water] Sampled: 2016-11-13 10:20							FILT, PRESa, F1, F2
Anions							
Chloride	**0.36**	AO ≤ 250	0.10	mg/L	N/A	2016-11-16	
Nitrate (as N)	**0.036**	MAC = 10	0.010	mg/L	N/A	2016-11-16	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-11-16	
Sulfate	**4.5**	AO ≤ 500	1.0	mg/L	N/A	2016-11-16	
General Parameters							
Conductivity (EC)	**85**	N/A	2	µS/cm	N/A	2016-11-16	
Nitrogen, Total Kjeldahl	**0.06**	N/A	0.05	mg/L	2016-11-16	2016-11-18	
pH	**7.57**	6.5-8.5	0.01	pH units	N/A	2016-11-16	HT2
Phosphorus, Total (as P)	**0.007**	N/A	0.002	mg/L	2016-11-21	2016-11-21	
Phosphorus, Total Dissolved	**0.004**	N/A	0.002	mg/L	2016-11-21	2016-11-21	
Turbidity	**0.49**	OG < 0.1	0.10	NTU	N/A	2016-11-14	
Calculated Parameters							
Hardness, Total (as CaCO3)	**40.7**	N/A	0.1	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	**0.036**	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	**0.095**	N/A	0.050	mg/L	N/A	N/A	
Dissolved Metals							
Aluminum, dissolved	**11**	N/A	1	µg/L	N/A	2016-11-18	
Total Metals							

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PROJECT	Creek Monitoring	**REPORTED**	2016-11-22

Analyte	Result / *Recovery*	Standard / Guideline	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: Shuswap River Picnic Site (6110945-04) [Water] Sampled: 2016-11-13 10:20, Continued							FILT, PRESa, F1, F2
Total Metals, Continued							
Aluminum, total	**22**	OG < 100	1	µg/L	2016-11-18	2016-11-18	
Antimony, total	< 0.05	MAC = 6	0.05	µg/L	2016-11-18	2016-11-18	
Arsenic, total	**0.12**	MAC = 10	0.05	µg/L	2016-11-18	2016-11-18	
Barium, total	**8.4**	MAC = 1000	0.1	µg/L	2016-11-18	2016-11-18	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Boron, total	**1**	MAC = 5000	1	µg/L	2016-11-18	2016-11-18	
Cadmium, total	**0.005**	MAC = 5	0.002	µg/L	2016-11-18	2016-11-18	
Calcium, total	**13900**	N/A	40	µg/L	2016-11-18	2016-11-18	
Chromium, total	**0.63**	MAC = 50	0.10	µg/L	2016-11-18	2016-11-18	
Cobalt, total	**0.027**	N/A	0.005	µg/L	2016-11-18	2016-11-18	
Copper, total	**0.31**	AO ≤ 1000	0.10	µg/L	2016-11-18	2016-11-18	
Iron, total	**65**	AO ≤ 300	2	µg/L	2016-11-18	2016-11-18	
Lead, total	< 0.05	MAC = 10	0.05	µg/L	2016-11-18	2016-11-18	
Lithium, total	**0.48**	N/A	0.05	µg/L	2016-11-18	2016-11-18	
Magnesium, total	**1460**	N/A	5.0	µg/L	2016-11-18	2016-11-18	
Manganese, total	**5.21**	AO ≤ 50	0.05	µg/L	2016-11-18	2016-11-18	
Mercury, total	< 0.01	MAC = 1	0.01	µg/L	2016-11-18	2016-11-18	CT5
Molybdenum, total	**0.71**	N/A	0.01	µg/L	2016-11-18	2016-11-18	
Nickel, total	**0.27**	N/A	0.02	µg/L	2016-11-18	2016-11-18	
Phosphorus, total	< 10	N/A	10	µg/L	2016-11-18	2016-11-18	
Potassium, total	**729**	N/A	10	µg/L	2016-11-18	2016-11-18	
Selenium, total	**0.29**	MAC = 50	0.10	µg/L	2016-11-18	2016-11-18	
Silicon, total	**2900**	N/A	50	µg/L	2016-11-18	2016-11-18	
Silver, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Sodium, total	**924**	AO ≤ 200000	10	µg/L	2016-11-18	2016-11-18	
Strontium, total	**57.0**	N/A	0.10	µg/L	2016-11-18	2016-11-18	
Sulfur, total	**1200**	N/A	500	µg/L	2016-11-18	2016-11-18	
Tellurium, total	< 0.05	N/A	0.05	µg/L	2016-11-18	2016-11-18	
Thallium, total	< 0.004	N/A	0.004	µg/L	2016-11-18	2016-11-18	
Thorium, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Tin, total	< 0.05	N/A	0.05	µg/L	2016-11-18	2016-11-18	
Titanium, total	**0.7**	N/A	0.2	µg/L	2016-11-18	2016-11-18	
Uranium, total	**0.299**	MAC = 20	0.001	µg/L	2016-11-18	2016-11-18	
Vanadium, total	**0.3**	N/A	0.2	µg/L	2016-11-18	2016-11-18	
Zinc, total	**1.8**	AO ≤ 5000	1.0	µg/L	2016-11-18	2016-11-18	
Zirconium, total	**0.04**	N/A	0.02	µg/L	2016-11-18	2016-11-18	
Microbiological Parameters							
E. coli	**2**	MAC = None Detected	1	CFU/100 mL	N/A	2016-11-14	

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PROJECT	Creek Monitoring	**REPORTED**	2016-11-22

Analyte	Result / *Recovery*	Standard / Guideline	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: Ferry Creek (6110945-05) [Water] Sampled: 2016-11-13 10:40							F1, F2, FILT, PRES
Anions							
Chloride	**0.59**	AO ≤ 250	0.10	mg/L	N/A	2016-11-16	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	N/A	2016-11-16	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-11-16	
Sulfate	**7.5**	AO ≤ 500	1.0	mg/L	N/A	2016-11-16	
General Parameters							
Conductivity (EC)	**122**	N/A	2	µS/cm	N/A	2016-11-16	
Nitrogen, Total Kjeldahl	**0.19**	N/A	0.05	mg/L	2016-11-16	2016-11-18	
pH	**7.56**	6.5-8.5	0.01	pH units	N/A	2016-11-16	HT2
Phosphorus, Total (as P)	**0.009**	N/A	0.002	mg/L	2016-11-21	2016-11-21	
Phosphorus, Total Dissolved	**0.009**	N/A	0.002	mg/L	2016-11-21	2016-11-21	
Turbidity	**0.58**	OG < 0.1	0.10	NTU	N/A	2016-11-14	
Calculated Parameters							
Hardness, Total (as CaCO3)	**59.3**	N/A	0.1	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	< 0.010	N/A	0.010	mg/L	N/A	N/A	
Nitrogen, Total	**0.187**	N/A	0.050	mg/L	N/A	N/A	
Dissolved Metals							
Aluminum, dissolved	**41**	N/A	1	µg/L	N/A	2016-11-18	
Total Metals							
Aluminum, total	**70**	OG < 100	1	µg/L	2016-11-18	2016-11-18	
Antimony, total	< 0.05	MAC = 6	0.05	µg/L	2016-11-18	2016-11-18	
Arsenic, total	**0.45**	MAC = 10	0.05	µg/L	2016-11-18	2016-11-18	
Barium, total	**9.2**	MAC = 1000	0.1	µg/L	2016-11-18	2016-11-18	
Beryllium, total	**0.014**	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Boron, total	**2**	MAC = 5000	1	µg/L	2016-11-18	2016-11-18	
Cadmium, total	**0.003**	MAC = 5	0.002	µg/L	2016-11-18	2016-11-18	
Calcium, total	**17800**	N/A	40	µg/L	2016-11-18	2016-11-18	
Chromium, total	**0.51**	MAC = 50	0.10	µg/L	2016-11-18	2016-11-18	
Cobalt, total	**0.054**	N/A	0.005	µg/L	2016-11-18	2016-11-18	
Copper, total	**0.77**	AO ≤ 1000	0.10	µg/L	2016-11-18	2016-11-18	
Iron, total	**164**	AO ≤ 300	2	µg/L	2016-11-18	2016-11-18	
Lead, total	< 0.05	MAC = 10	0.05	µg/L	2016-11-18	2016-11-18	
Lithium, total	**1.56**	N/A	0.05	µg/L	2016-11-18	2016-11-18	
Magnesium, total	**3580**	N/A	5.0	µg/L	2016-11-18	2016-11-18	
Manganese, total	**4.56**	AO ≤ 50	0.05	µg/L	2016-11-18	2016-11-18	
Mercury, total	**0.01**	MAC = 1	0.01	µg/L	2016-11-18	2016-11-18	CT5
Molybdenum, total	**0.76**	N/A	0.01	µg/L	2016-11-18	2016-11-18	
Nickel, total	**0.36**	N/A	0.02	µg/L	2016-11-18	2016-11-18	
Phosphorus, total	**10**	N/A	10	µg/L	2016-11-18	2016-11-18	
Potassium, total	**1060**	N/A	10	µg/L	2016-11-18	2016-11-18	
Selenium, total	**0.26**	MAC = 50	0.10	µg/L	2016-11-18	2016-11-18	

REPORTED TO Cherry Ridge Management
PROJECT Creek Monitoring

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Analyte	Result / *Recovery*	Standard / Guideline	MRL / *Limits*	Units	Prepared	Analyzed	Notes
Sample ID: Ferry Creek (6110945-05) [Water] Sampled: 2016-11-13 10:40, Continued							F1, F2, FILT, PRES
Total Metals, Continued							
Silicon, total	**6800**	N/A	50	µg/L	2016-11-18	2016-11-18	
Silver, total	< 0.010	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Sodium, total	**2630**	AO ≤ 200000	10	µg/L	2016-11-18	2016-11-18	
Strontium, total	**100**	N/A	0.10	µg/L	2016-11-18	2016-11-18	
Sulfur, total	**2500**	N/A	500	µg/L	2016-11-18	2016-11-18	
Tellurium, total	< 0.05	N/A	0.05	µg/L	2016-11-18	2016-11-18	
Thallium, total	< 0.004	N/A	0.004	µg/L	2016-11-18	2016-11-18	
Thorium, total	**0.015**	N/A	0.010	µg/L	2016-11-18	2016-11-18	
Tin, total	< 0.05	N/A	0.05	µg/L	2016-11-18	2016-11-18	
Titanium, total	**2.4**	N/A	0.2	µg/L	2016-11-18	2016-11-18	
Uranium, total	**0.286**	MAC = 20	0.001	µg/L	2016-11-18	2016-11-18	
Vanadium, total	**0.5**	N/A	0.2	µg/L	2016-11-18	2016-11-18	
Zinc, total	**1.4**	AO ≤ 5000	1.0	µg/L	2016-11-18	2016-11-18	
Zirconium, total	**0.22**	N/A	0.02	µg/L	2016-11-18	2016-11-18	
Microbiological Parameters							
E. coli	**4**	MAC = None Detected	1	CFU/100 mL	N/A	2016-11-14	

Sample / Analysis Qualifiers:

CT5	This sample has been incorrectly preserved for Mercury analysis
F1	The sample was not field-filtered and was therefore filtered through a 0.45 µm membrane in the laboratory and preserved with HNO3 prior to analysis for dissolved metals.
F2	The sample was not field-preserved with HNO3 and was therefore preserved in the laboratory and held for at least 16 hours prior to analysis for total metals.
FILT	Sample has been filtered for DP in the laboratory.
HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.
PRES	Sample has been preserved for DP and TN in the laboratory and the holding time has been extended.
PRESa	Sample has been preserved for TN and DP in the laboratory and the holding time has been extended.