

REPORTED TO Cherry Ridge Management
158 North Fork Road
Cherryville, BC V0E 2G3

TEL 1-250-547-9091
FAX -

ATTENTION Melanie Staker

WORK ORDER 7081109

PO NUMBER

RECEIVED / TEMP 2017-08-14 09:00 / 12°C

PROJECT Creek Monitoring

REPORTED 2017-08-21

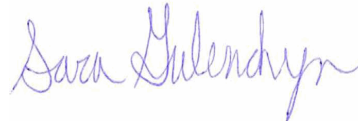
PROJECT INFO

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:

Sara Gulenchyn, B.Sc, P.Chem.
Client Service Coordinator

If you have any questions or concerns, please contact me at sgulenchyn@caro.ca

Locations:

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

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

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

www.caro.ca

REPORTED TO PROJECT Cherry Ridge Management
Creek Monitoring

WORK ORDER REPORTED 7081109
2017-08-21

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 CaCO ₃) 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 3030 E* / APHA 3125 B	HNO ₃ +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 (Feb 2017)

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

REPORTED TO PROJECT Cherry Ridge Management
Creek Monitoring

WORK ORDER REPORTED 7081109
2017-08-21

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	-------------------	----------------------	--------------	-------	----------	----------	-------

Sample ID: North Fork Cherry Creek (7081109-01) [Water] Sampled: 2017-08-13 12:12

FILT,
PRES

Anions

Chloride	0.12	AO ≤ 250	0.10	mg/L	N/A	2017-08-16	
Nitrate (as N)	0.012	MAC = 10	0.010	mg/L	N/A	2017-08-16	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2017-08-16	
Sulfate	67.7	AO ≤ 500	1.0	mg/L	N/A	2017-08-16	

General Parameters

Conductivity (EC)	199	N/A	2.0	µS/cm	N/A	2017-08-14	
Nitrogen, Total Kjeldahl	0.216	N/A	0.050	mg/L	2017-08-14	2017-08-16	
pH	8.10	7.0-10.5	0.10	pH units	N/A	2017-08-14	HT2
Phosphorus, Total (as P)	0.0024	N/A	0.0020	mg/L	2017-08-14	2017-08-15	
Phosphorus, Total Dissolved	< 0.0020	N/A	0.0020	mg/L	2017-08-14	2017-08-15	
Turbidity	0.37	OG < 0.1	0.10	NTU	N/A	2017-08-14	

Calculated Parameters

Hardness, Total (as CaCO3)	99.2	N/A	0.100	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	0.0121	N/A	0.0100	mg/L	N/A	N/A	
Nitrogen, Total	0.228	N/A	0.0500	mg/L	N/A	N/A	

Dissolved Metals

Aluminum, dissolved	7.3	N/A	1.0	µg/L	N/A	2017-08-17	
---------------------	-----	-----	-----	------	-----	------------	--

Total Metals

Aluminum, total	18.5	OG < 100	1.0	µg/L	2017-08-15	2017-08-18	
Antimony, total	< 0.050	MAC = 6	0.050	µg/L	2017-08-15	2017-08-18	
Arsenic, total	0.207	MAC = 10	0.050	µg/L	2017-08-15	2017-08-18	
Barium, total	19.3	MAC = 1000	0.10	µg/L	2017-08-15	2017-08-18	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Boron, total	1.8	MAC = 5000	1.0	µg/L	2017-08-15	2017-08-18	
Cadmium, total	0.0152	MAC = 5	0.0020	µg/L	2017-08-15	2017-08-18	
Calcium, total	32700	N/A	40	µg/L	2017-08-15	2017-08-18	
Chromium, total	0.52	MAC = 50	0.10	µg/L	2017-08-15	2017-08-18	
Cobalt, total	0.0199	N/A	0.0050	µg/L	2017-08-15	2017-08-18	
Copper, total	0.34	AO ≤ 1000	0.10	µg/L	2017-08-15	2017-08-18	
Iron, total	21.9	AO ≤ 300	2.0	µg/L	2017-08-15	2017-08-18	
Lead, total	< 0.050	MAC = 10	0.050	µg/L	2017-08-15	2017-08-18	
Lithium, total	1.37	N/A	0.050	µg/L	2017-08-15	2017-08-18	
Magnesium, total	4260	N/A	5.0	µg/L	2017-08-15	2017-08-18	
Manganese, total	1.83	AO ≤ 50	0.050	µg/L	2017-08-15	2017-08-18	
Mercury, total	< 0.010	MAC = 1	0.010	µg/L	2017-08-15	2017-08-18	
Molybdenum, total	2.30	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Nickel, total	0.223	N/A	0.020	µg/L	2017-08-15	2017-08-18	
Phosphorus, total	< 10	N/A	10	µg/L	2017-08-15	2017-08-18	
Potassium, total	1470	N/A	10	µg/L	2017-08-15	2017-08-18	
Selenium, total	1.75	MAC = 50	0.10	µg/L	2017-08-15	2017-08-18	
Silicon, total	4530	N/A	50	µg/L	2017-08-15	2017-08-18	

REPORTED TO PROJECT Cherry Ridge Management
Creek Monitoring

WORK ORDER REPORTED 7081109
2017-08-21

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	-------------------	----------------------	--------------	-------	----------	----------	-------

Sample ID: North Fork Cherry Creek (7081109-01) [Water] Sampled: 2017-08-13 12:12, Continued

FILT,
PRES

Total Metals, Continued

Silver, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Sodium, total	1790	AO ≤ 200000	10	µg/L	2017-08-15	2017-08-18	
Strontium, total	186	N/A	0.10	µg/L	2017-08-15	2017-08-18	
Sulfur, total	4700	N/A	1000	µg/L	2017-08-15	2017-08-18	
Tellurium, total	< 0.050	N/A	0.050	µg/L	2017-08-15	2017-08-18	
Thallium, total	< 0.0040	N/A	0.0040	µg/L	2017-08-15	2017-08-18	
Thorium, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Tin, total	0.077	N/A	0.050	µg/L	2017-08-15	2017-08-18	
Titanium, total	0.65	N/A	0.20	µg/L	2017-08-15	2017-08-18	
Uranium, total	0.702	MAC = 20	0.0010	µg/L	2017-08-15	2017-08-18	
Vanadium, total	0.51	N/A	0.20	µg/L	2017-08-15	2017-08-18	
Zinc, total	< 1.0	AO ≤ 5000	1.0	µg/L	2017-08-15	2017-08-18	
Zirconium, total	< 0.020	N/A	0.020	µg/L	2017-08-15	2017-08-18	

Microbiological Parameters

E. coli	12	MAC = None Detected	1	CFU/100 mL	N/A	2017-08-14	
---------	-----------	---------------------	---	------------	-----	------------	--

Sample ID: South Fork Cherry Creek (7081109-02) [Water] Sampled: 2017-08-13 11:25

FILT,
PRES

Anions

Chloride	1.65	AO ≤ 250	0.10	mg/L	N/A	2017-08-16	
Nitrate (as N)	0.046	MAC = 10	0.010	mg/L	N/A	2017-08-16	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2017-08-16	
Sulfate	18.6	AO ≤ 500	1.0	mg/L	N/A	2017-08-16	

General Parameters

Conductivity (EC)	250	N/A	2.0	µS/cm	N/A	2017-08-14	
Nitrogen, Total Kjeldahl	0.078	N/A	0.050	mg/L	2017-08-14	2017-08-16	
pH	8.19	7.0-10.5	0.10	pH units	N/A	2017-08-14	HT2
Phosphorus, Total (as P)	0.0099	N/A	0.0020	mg/L	2017-08-14	2017-08-15	
Phosphorus, Total Dissolved	0.0064	N/A	0.0020	mg/L	2017-08-14	2017-08-15	
Turbidity	0.74	OG < 0.1	0.10	NTU	N/A	2017-08-14	

Calculated Parameters

Hardness, Total (as CaCO ₃)	127	N/A	0.100	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	0.0456	N/A	0.0100	mg/L	N/A	N/A	
Nitrogen, Total	0.124	N/A	0.0500	mg/L	N/A	N/A	

Dissolved Metals

Aluminum, dissolved	3.1	N/A	1.0	µg/L	N/A	2017-08-17	
---------------------	------------	-----	-----	------	-----	------------	--

Total Metals

Aluminum, total	46.8	OG < 100	1.0	µg/L	2017-08-15	2017-08-18	
Antimony, total	0.103	MAC = 6	0.050	µg/L	2017-08-15	2017-08-18	
Arsenic, total	0.495	MAC = 10	0.050	µg/L	2017-08-15	2017-08-18	

REPORTED TO PROJECT Cherry Ridge Management
Creek Monitoring

WORK ORDER REPORTED 7081109
2017-08-21

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	-------------------	----------------------	--------------	-------	----------	----------	-------

Sample ID: South Fork Cherry Creek (7081109-02) [Water] Sampled: 2017-08-13 11:25, Continued

FILTa,
PRES

Total Metals, Continued

Barium, total	20.2	MAC = 1000	0.10	µg/L	2017-08-15	2017-08-18	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Boron, total	1.9	MAC = 5000	1.0	µg/L	2017-08-15	2017-08-18	
Cadmium, total	0.0258	MAC = 5	0.0020	µg/L	2017-08-15	2017-08-18	
Calcium, total	40600	N/A	40	µg/L	2017-08-15	2017-08-18	
Chromium, total	0.35	MAC = 50	0.10	µg/L	2017-08-15	2017-08-18	
Cobalt, total	0.0512	N/A	0.0050	µg/L	2017-08-15	2017-08-18	
Copper, total	0.37	AO ≤ 1000	0.10	µg/L	2017-08-15	2017-08-18	
Iron, total	81.5	AO ≤ 300	2.0	µg/L	2017-08-15	2017-08-18	
Lead, total	0.052	MAC = 10	0.050	µg/L	2017-08-15	2017-08-18	
Lithium, total	1.46	N/A	0.050	µg/L	2017-08-15	2017-08-18	
Magnesium, total	6120	N/A	5.0	µg/L	2017-08-15	2017-08-18	
Manganese, total	4.44	AO ≤ 50	0.050	µg/L	2017-08-15	2017-08-18	
Mercury, total	< 0.010	MAC = 1	0.010	µg/L	2017-08-15	2017-08-18	
Molybdenum, total	1.61	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Nickel, total	0.222	N/A	0.020	µg/L	2017-08-15	2017-08-18	
Phosphorus, total	11	N/A	10	µg/L	2017-08-15	2017-08-18	
Potassium, total	771	N/A	10	µg/L	2017-08-15	2017-08-18	
Selenium, total	1.76	MAC = 50	0.10	µg/L	2017-08-15	2017-08-18	
Silicon, total	4110	N/A	50	µg/L	2017-08-15	2017-08-18	
Silver, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Sodium, total	2470	AO ≤ 200000	10	µg/L	2017-08-15	2017-08-18	
Strontium, total	255	N/A	0.10	µg/L	2017-08-15	2017-08-18	
Sulfur, total	6600	N/A	1000	µg/L	2017-08-15	2017-08-18	
Tellurium, total	< 0.050	N/A	0.050	µg/L	2017-08-15	2017-08-18	
Thallium, total	< 0.0040	N/A	0.0040	µg/L	2017-08-15	2017-08-18	
Thorium, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Tin, total	0.137	N/A	0.050	µg/L	2017-08-15	2017-08-18	
Titanium, total	1.95	N/A	0.20	µg/L	2017-08-15	2017-08-18	
Uranium, total	0.623	MAC = 20	0.0010	µg/L	2017-08-15	2017-08-18	
Vanadium, total	0.45	N/A	0.20	µg/L	2017-08-15	2017-08-18	
Zinc, total	1.2	AO ≤ 5000	1.0	µg/L	2017-08-15	2017-08-18	
Zirconium, total	< 0.020	N/A	0.020	µg/L	2017-08-15	2017-08-18	

Microbiological Parameters

E. coli	6	MAC = None Detected	1	CFU/100 mL	N/A	2017-08-14	
---------	---	---------------------	---	------------	-----	------------	--

Sample ID: Cherry Creek at Hall (7081109-03) [Water] Sampled: 2017-08-13 11:45

Anions

Chloride	1.87	AO ≤ 250	0.10	mg/L	N/A	2017-08-16	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	N/A	2017-08-16	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2017-08-16	

REPORTED TO PROJECT Cherry Ridge Management
Creek Monitoring

WORK ORDER REPORTED 7081109
2017-08-21

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	-------------------	----------------------	--------------	-------	----------	----------	-------

Sample ID: Cherry Creek at Hall (7081109-03) [Water] Sampled: 2017-08-13 11:45, Continued

Anions, Continued

Sulfate	19.7	AO ≤ 500	1.0	mg/L	N/A	2017-08-16	
---------	------	----------	-----	------	-----	------------	--

General Parameters

Conductivity (EC)	255	N/A	2.0	µS/cm	N/A	2017-08-14	
Nitrogen, Total Kjeldahl	0.072	N/A	0.050	mg/L	2017-08-14	2017-08-16	
pH	8.29	7.0-10.5	0.10	pH units	N/A	2017-08-14	HT2
Phosphorus, Total (as P)	< 0.0020	N/A	0.0020	mg/L	2017-08-14	2017-08-15	
Phosphorus, Total Dissolved	< 0.0020	N/A	0.0020	mg/L	2017-08-14	2017-08-15	
Turbidity	0.35	OG < 0.1	0.10	NTU	N/A	2017-08-14	

Calculated Parameters

Hardness, Total (as CaCO3)	127	N/A	0.100	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L	N/A	N/A	
Nitrogen, Total	0.0720	N/A	0.0500	mg/L	N/A	N/A	

Dissolved Metals

Aluminum, dissolved	4.3	N/A	1.0	µg/L	N/A	2017-08-17	
---------------------	-----	-----	-----	------	-----	------------	--

Total Metals

Aluminum, total	9.4	OG < 100	1.0	µg/L	2017-08-15	2017-08-18	
Antimony, total	0.081	MAC = 6	0.050	µg/L	2017-08-15	2017-08-18	
Arsenic, total	0.384	MAC = 10	0.050	µg/L	2017-08-15	2017-08-18	
Barium, total	20.0	MAC = 1000	0.10	µg/L	2017-08-15	2017-08-18	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Boron, total	1.9	MAC = 5000	1.0	µg/L	2017-08-15	2017-08-18	
Cadmium, total	0.0133	MAC = 5	0.0020	µg/L	2017-08-15	2017-08-18	
Calcium, total	39400	N/A	40	µg/L	2017-08-15	2017-08-18	
Chromium, total	0.47	MAC = 50	0.10	µg/L	2017-08-15	2017-08-18	
Cobalt, total	0.0203	N/A	0.0050	µg/L	2017-08-15	2017-08-18	
Copper, total	0.32	AO ≤ 1000	0.10	µg/L	2017-08-15	2017-08-18	
Iron, total	12.6	AO ≤ 300	2.0	µg/L	2017-08-15	2017-08-18	
Lead, total	< 0.050	MAC = 10	0.050	µg/L	2017-08-15	2017-08-18	
Lithium, total	1.53	N/A	0.050	µg/L	2017-08-15	2017-08-18	
Magnesium, total	6850	N/A	5.0	µg/L	2017-08-15	2017-08-18	
Manganese, total	2.21	AO ≤ 50	0.050	µg/L	2017-08-15	2017-08-18	
Mercury, total	< 0.010	MAC = 1	0.010	µg/L	2017-08-15	2017-08-18	
Molybdenum, total	1.81	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Nickel, total	0.164	N/A	0.020	µg/L	2017-08-15	2017-08-18	
Phosphorus, total	< 10	N/A	10	µg/L	2017-08-15	2017-08-18	
Potassium, total	1080	N/A	10	µg/L	2017-08-15	2017-08-18	
Selenium, total	1.64	MAC = 50	0.10	µg/L	2017-08-15	2017-08-18	
Silicon, total	4230	N/A	50	µg/L	2017-08-15	2017-08-18	
Silver, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Sodium, total	2840	AO ≤ 200000	10	µg/L	2017-08-15	2017-08-18	
Strontium, total	251	N/A	0.10	µg/L	2017-08-15	2017-08-18	
Sulfur, total	6200	N/A	1000	µg/L	2017-08-15	2017-08-18	

REPORTED TO PROJECT Cherry Ridge Management
Creek Monitoring

WORK ORDER REPORTED 7081109
2017-08-21

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	-------------------	----------------------	--------------	-------	----------	----------	-------

Sample ID: Cherry Creek at Hall (7081109-03) [Water] Sampled: 2017-08-13 11:45, Continued

Total Metals, Continued

Tellurium, total	< 0.050	N/A	0.050	µg/L	2017-08-15	2017-08-18	
Thallium, total	< 0.0040	N/A	0.0040	µg/L	2017-08-15	2017-08-18	
Thorium, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Tin, total	0.111	N/A	0.050	µg/L	2017-08-15	2017-08-18	
Titanium, total	0.29	N/A	0.20	µg/L	2017-08-15	2017-08-18	
Uranium, total	0.730	MAC = 20	0.0010	µg/L	2017-08-15	2017-08-18	
Vanadium, total	0.46	N/A	0.20	µg/L	2017-08-15	2017-08-18	
Zinc, total	< 1.0	AO ≤ 5000	1.0	µg/L	2017-08-15	2017-08-18	
Zirconium, total	< 0.020	N/A	0.020	µg/L	2017-08-15	2017-08-18	

Microbiological Parameters

E. coli	21	MAC = None Detected	1	CFU/100 mL	N/A	2017-08-14	
---------	-----------	---------------------	---	------------	-----	------------	--

Sample ID: Shuswap River Picnic Site (7081109-04) [Water] Sampled: 2017-08-13 11:00

Anions

Chloride	0.37	AO ≤ 250	0.10	mg/L	N/A	2017-08-16	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	N/A	2017-08-16	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2017-08-16	
Sulfate	16.0	AO ≤ 500	1.0	mg/L	N/A	2017-08-16	

General Parameters

Conductivity (EC)	112	N/A	2.0	µS/cm	N/A	2017-08-14	
Nitrogen, Total Kjeldahl	0.104	N/A	0.050	mg/L	2017-08-14	2017-08-16	
pH	7.98	7.0-10.5	0.10	pH units	N/A	2017-08-14	HT2
Phosphorus, Total (as P)	< 0.0020	N/A	0.0020	mg/L	2017-08-14	2017-08-15	
Phosphorus, Total Dissolved	< 0.0020	N/A	0.0020	mg/L	2017-08-14	2017-08-15	
Turbidity	0.29	OG < 0.1	0.10	NTU	N/A	2017-08-14	

Calculated Parameters

Hardness, Total (as CaCO ₃)	50.2	N/A	0.100	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L	N/A	N/A	
Nitrogen, Total	0.104	N/A	0.0500	mg/L	N/A	N/A	

Dissolved Metals

Aluminum, dissolved	10.1	N/A	1.0	µg/L	N/A	2017-08-17	
---------------------	-------------	-----	-----	------	-----	------------	--

Total Metals

Aluminum, total	15.0	OG < 100	1.0	µg/L	2017-08-15	2017-08-18	
Antimony, total	< 0.050	MAC = 6	0.050	µg/L	2017-08-15	2017-08-18	
Arsenic, total	0.171	MAC = 10	0.050	µg/L	2017-08-15	2017-08-18	
Barium, total	9.31	MAC = 1000	0.10	µg/L	2017-08-15	2017-08-18	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Boron, total	1.4	MAC = 5000	1.0	µg/L	2017-08-15	2017-08-18	
Cadmium, total	0.0067	MAC = 5	0.0020	µg/L	2017-08-15	2017-08-18	
Calcium, total	16500	N/A	40	µg/L	2017-08-15	2017-08-18	

REPORTED TO PROJECT Cherry Ridge Management
Creek Monitoring

WORK ORDER REPORTED 7081109
2017-08-21

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	-------------------	----------------------	--------------	-------	----------	----------	-------

Sample ID: Shuswap River Picnic Site (7081109-04) [Water] Sampled: 2017-08-13 11:00, Continued

Total Metals, Continued

Chromium, total	0.24	MAC = 50	0.10	µg/L	2017-08-15	2017-08-18	
Cobalt, total	0.0175	N/A	0.0050	µg/L	2017-08-15	2017-08-18	
Copper, total	0.36	AO ≤ 1000	0.10	µg/L	2017-08-15	2017-08-18	
Iron, total	20.1	AO ≤ 300	2.0	µg/L	2017-08-15	2017-08-18	
Lead, total	< 0.050	MAC = 10	0.050	µg/L	2017-08-15	2017-08-18	
Lithium, total	0.681	N/A	0.050	µg/L	2017-08-15	2017-08-18	
Magnesium, total	2170	N/A	5.0	µg/L	2017-08-15	2017-08-18	
Manganese, total	3.49	AO ≤ 50	0.050	µg/L	2017-08-15	2017-08-18	
Mercury, total	< 0.010	MAC = 1	0.010	µg/L	2017-08-15	2017-08-18	
Molybdenum, total	0.813	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Nickel, total	0.172	N/A	0.020	µg/L	2017-08-15	2017-08-18	
Phosphorus, total	< 10	N/A	10	µg/L	2017-08-15	2017-08-18	
Potassium, total	871	N/A	10	µg/L	2017-08-15	2017-08-18	
Selenium, total	0.50	MAC = 50	0.10	µg/L	2017-08-15	2017-08-18	
Silicon, total	2480	N/A	50	µg/L	2017-08-15	2017-08-18	
Silver, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Sodium, total	1180	AO ≤ 200000	10	µg/L	2017-08-15	2017-08-18	
Strontium, total	79.8	N/A	0.10	µg/L	2017-08-15	2017-08-18	
Sulfur, total	2400	N/A	1000	µg/L	2017-08-15	2017-08-18	
Tellurium, total	< 0.050	N/A	0.050	µg/L	2017-08-15	2017-08-18	
Thallium, total	< 0.0040	N/A	0.0040	µg/L	2017-08-15	2017-08-18	
Thorium, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Tin, total	0.108	N/A	0.050	µg/L	2017-08-15	2017-08-18	
Titanium, total	0.29	N/A	0.20	µg/L	2017-08-15	2017-08-18	
Uranium, total	0.371	MAC = 20	0.0010	µg/L	2017-08-15	2017-08-18	
Vanadium, total	0.40	N/A	0.20	µg/L	2017-08-15	2017-08-18	
Zinc, total	< 1.0	AO ≤ 5000	1.0	µg/L	2017-08-15	2017-08-18	
Zirconium, total	< 0.020	N/A	0.020	µg/L	2017-08-15	2017-08-18	

Microbiological Parameters

E. coli	33	MAC = None Detected	1	CFU/100 mL	N/A	2017-08-14	
---------	----	---------------------	---	------------	-----	------------	--

Sample ID: Ferry Creek (7081109-05) [Water] Sampled: 2017-08-13 10:40

Anions

Chloride	0.70	AO ≤ 250	0.10	mg/L	N/A	2017-08-16	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	N/A	2017-08-16	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2017-08-16	
Sulfate	28.9	AO ≤ 500	1.0	mg/L	N/A	2017-08-16	

General Parameters

Conductivity (EC)	335	N/A	2.0	µS/cm	N/A	2017-08-14	
Nitrogen, Total Kjeldahl	0.135	N/A	0.050	mg/L	2017-08-14	2017-08-16	
pH	8.37	7.0-10.5	0.10	pH units	N/A	2017-08-14	HT2
Phosphorus, Total (as P)	0.0133	N/A	0.0020	mg/L	2017-08-14	2017-08-15	

REPORTED TO PROJECT Cherry Ridge Management
Creek Monitoring

WORK ORDER REPORTED 7081109
2017-08-21

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
---------	-------------------	----------------------	--------------	-------	----------	----------	-------

Sample ID: Ferry Creek (7081109-05) [Water] Sampled: 2017-08-13 10:40, Continued

General Parameters, Continued

Phosphorus, Total Dissolved	0.0090	N/A	0.0020	mg/L	2017-08-14	2017-08-15	
Turbidity	0.27	OG < 0.1	0.10	NTU	N/A	2017-08-14	

Calculated Parameters

Hardness, Total (as CaCO3)	166	N/A	0.100	mg/L	N/A	N/A	
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L	N/A	N/A	
Nitrogen, Total	0.135	N/A	0.0500	mg/L	N/A	N/A	

Dissolved Metals

Aluminum, dissolved	5.9	N/A	1.0	µg/L	N/A	2017-08-17	
---------------------	-----	-----	-----	------	-----	------------	--

Total Metals

Aluminum, total	17.1	OG < 100	1.0	µg/L	2017-08-15	2017-08-18	
Antimony, total	0.063	MAC = 6	0.050	µg/L	2017-08-15	2017-08-18	
Arsenic, total	1.45	MAC = 10	0.050	µg/L	2017-08-15	2017-08-18	
Barium, total	20.4	MAC = 1000	0.10	µg/L	2017-08-15	2017-08-18	
Beryllium, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Bismuth, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Boron, total	2.9	MAC = 5000	1.0	µg/L	2017-08-15	2017-08-18	
Cadmium, total	0.0058	MAC = 5	0.0020	µg/L	2017-08-15	2017-08-18	
Calcium, total	50100	N/A	40	µg/L	2017-08-15	2017-08-18	
Chromium, total	0.36	MAC = 50	0.10	µg/L	2017-08-15	2017-08-18	
Cobalt, total	0.0306	N/A	0.0050	µg/L	2017-08-15	2017-08-18	
Copper, total	0.42	AO ≤ 1000	0.10	µg/L	2017-08-15	2017-08-18	
Iron, total	26.1	AO ≤ 300	2.0	µg/L	2017-08-15	2017-08-18	
Lead, total	< 0.050	MAC = 10	0.050	µg/L	2017-08-15	2017-08-18	
Lithium, total	3.66	N/A	0.050	µg/L	2017-08-15	2017-08-18	
Magnesium, total	10000	N/A	5.0	µg/L	2017-08-15	2017-08-18	
Manganese, total	3.66	AO ≤ 50	0.050	µg/L	2017-08-15	2017-08-18	
Mercury, total	< 0.010	MAC = 1	0.010	µg/L	2017-08-15	2017-08-18	
Molybdenum, total	2.17	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Nickel, total	0.231	N/A	0.020	µg/L	2017-08-15	2017-08-18	
Phosphorus, total	18	N/A	10	µg/L	2017-08-15	2017-08-18	
Potassium, total	3210	N/A	10	µg/L	2017-08-15	2017-08-18	
Selenium, total	0.81	MAC = 50	0.10	µg/L	2017-08-15	2017-08-18	
Silicon, total	7820	N/A	50	µg/L	2017-08-15	2017-08-18	
Silver, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Sodium, total	6060	AO ≤ 200000	10	µg/L	2017-08-15	2017-08-18	
Strontium, total	263	N/A	0.10	µg/L	2017-08-15	2017-08-18	
Sulfur, total	10000	N/A	1000	µg/L	2017-08-15	2017-08-18	
Tellurium, total	< 0.050	N/A	0.050	µg/L	2017-08-15	2017-08-18	
Thallium, total	< 0.0040	N/A	0.0040	µg/L	2017-08-15	2017-08-18	
Thorium, total	< 0.010	N/A	0.010	µg/L	2017-08-15	2017-08-18	
Tin, total	0.071	N/A	0.050	µg/L	2017-08-15	2017-08-18	
Titanium, total	0.69	N/A	0.20	µg/L	2017-08-15	2017-08-18	
Uranium, total	1.12	MAC = 20	0.0010	µg/L	2017-08-15	2017-08-18	
Vanadium, total	0.96	N/A	0.20	µg/L	2017-08-15	2017-08-18	

REPORTED TO PROJECT Cherry Ridge Management
Creek Monitoring

WORK ORDER REPORTED 7081109
2017-08-21

Analyte	Result / Recovery	Standard / Guideline	MRL / Units Limits	Prepared	Analyzed	Notes
---------	-------------------	----------------------	--------------------	----------	----------	-------

Sample ID: Ferry Creek (7081109-05) [Water] Sampled: 2017-08-13 10:40, Continued

Total Metals, Continued

Zinc, total	1.2	AO ≤ 5000	1.0 µg/L	2017-08-15	2017-08-18	
Zirconium, total	0.024	N/A	0.020 µg/L	2017-08-15	2017-08-18	

Microbiological Parameters

E. coli	13	MAC = None Detected	1 CFU/100 mL	N/A	2017-08-14	
---------	----	---------------------	--------------	-----	------------	--

Sample / Analysis Qualifiers:

FILT	Sample has been filtered for DISS AL, DP in the laboratory.
FILTa	Sample has been filtered for DP, DISS AL 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 TP, METALS in the laboratory and the holding time has been extended.