



North Island Laboratories

• 2755 B Moray Avenue, Courtenay, B.C. V9N 8M9 Tel: (250) 338-7786 Fax: (250) 338-7553

Certificate of Analysis

Report To: Union Bay Improvement District
PO Box 70
Union Bay BC
V0R 3B0

Lab Number: 115137
Date Reported: 27 Oct 14
Date Completed: 27 Oct 14
Date Received: 16 Oct 14 9:16

115137-01 McLeod Rd reservoir

Sampled By: Dan McGill
Sampling Date: 16 Oct 14 9:00

Test	Result	Units	Drinking Water Guideline
Alkalinity	<20	mg/L (CaCO ₃)	
Bromide	<0.02	mg/L	
Colour - Apparent	15	Colour Units	15
Colour - True	8	Colour Units	15
d-Aluminium	<0.005	mg/L	
d-Antimony	<0.0002	mg/L	
d-Arsenic	<0.0002	mg/L	
d-Barium	0.004	mg/L	
d-Beryllium	<0.00004	mg/L	
d-Bismuth	<0.001	mg/L	
d-Boron	0.011	mg/L	
d-Cadmium	<0.00001	mg/L	
d-Calcium	2.94	mg/L	
d-Chromium	<0.0004	mg/L	
d-Cobalt	<0.00002	mg/L	
d-Copper	0.005	mg/L	
d-Iron	0.034	mg/L	
d-Lead	<0.0001	mg/L	
d-Lithium	<0.001	mg/L	
d-Magnesium	0.81	mg/L	
d-Manganese	0.001	mg/L	
d-Molybdenum	0.00016	mg/L	
d-Nickel	<0.001	mg/L	
d-Potassium	0.1	mg/L	
d-Selenium	<0.0006	mg/L	
d-Silicon	0.81	mg/L	

AO = Aesthetic Objective; MAC = Max. Allowable Concentration; IMAC = Interim MAC

> = Greater than; < = Less than

Results relate only to samples as submitted. This certificate must not be reproduced, except in its entirety, without written consent from the laboratory.

Canadian Drinking Water Guidelines as listed on Dec. 5th, 2005 and are subject to change. Method uncertainties for specified analyses are available upon request.

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115137-01 McLeod Rd reservoir

Sampled By: Dan McGill

Sampling Date: 16 Oct 14 9:00

Test	Result	Units	Drinking Water Guideline
d-Silver	<0.00001	mg/L	
d-Sodium	2.7	mg/L	
d-Strontium	0.019	mg/L	
d-Thallium	<0.00001	mg/L	
d-Tin	<0.0001	mg/L	
d-Titanium	<0.010	mg/L	
d-Uranium	<0.0004	mg/L	
d-Vanadium	<0.00010	mg/L	
d-Zinc	0.002	mg/L	
Hardness (CaCO ₃)	11	mg/L	
DOC - Dissolved Organic Carbon	3.8	mg/L	
pH at 25 C	6.7	pH Units	6.5-8.5
Total Organic Carbon	3.6	mg/L	
T-Aluminium	0.009	mg/L	0.1 Operational Std
T-Antimony	<0.0001	mg/L	0.006 MAC
T-Arsenic	0.00008	mg/L	0.010 MAC
T-Barium	0.00489	mg/L	1.0 MAC
T-Beryllium	<0.00005	mg/L	
T-Boron	0.011	mg/L	5 MAC
T-Bismuth	<0.0001	mg/L	
T-Cadmium	<0.00001	mg/L	0.005 MAC
T-Calcium	2.66	mg/L	
T-Chromium	<0.0005	mg/L	0.05 MAC
T-Cobalt	<0.0001	mg/L	
T-Copper	0.0056	mg/L	1.0 AO
T-Iron	0.073	mg/L	0.3 AO
T-Lead	0.0002	mg/L	0.010 MAC
T-Lithium	<0.0005	mg/L	
T-Magnesium	0.78	mg/L	
T-Manganese	0.0091	mg/L	0.05 AO
T-Molybdenum	<0.00005	mg/L	
T-Nickel	<0.0002	mg/L	
T-Potassium	0.1	mg/L	
T-Selenium	<0.0001	mg/L	0.01 MAC

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115137-01 McLeod Rd reservoir

Sampled By: Dan McGill

Sampling Date: 16 Oct 14 9:00

Test	Result	Units	Drinking Water Guideline
T-Silicon	0.79	mg/L	
T-Silver	<0.00005	mg/L	
T-Sodium	2.8	mg/L	200 AO
T-Strontium	0.0177	mg/L	
T-Thallium	<0.00001	mg/L	
T-Tin	<0.0001	mg/L	
T-Titanium	<0.0005	mg/L	
T-Uranium	<0.00001	mg/L	
T-Vanadium	0.0002	mg/L	
T-Zinc	0.0026	mg/L	5.0 AO
Hardness (CaCO ₃)	9.9	mg/L	80-100
Turbidity	0.6	NTU's	0.1 Operatonal Stand
UV Transmittance	84.5	%/cm	

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115137-01

We suggest the following Health Canada website for further information regarding the latest drinking water quality guidelines to help you assess your results:

<http://www.hc-sc.gc.ca/ewh-semt/water-eau/drink-potab/guide/index-eng.php>

Test	Method	Analyst	Date
Alkalinity	Titration to 4.5, APHA 2320 B -modified	NiSL	10/16/2014
Bromide	Exova Subcontract Exova Subcontract	EXL	10/20/2014
Colour - Apparent	Spectrophotometer, APHA 2120 C -modified	NiSL	10/17/2014
Colour - True	Spectrophotometer, APHA 2120 C -modified	NiSL	10/17/2014
d-Aluminium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Antimony	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Arsenic	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Barium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Beryllium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Bismuth	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Boron	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Cadmium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Calcium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Chromium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Cobalt	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Copper	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Iron	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Lead	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Lithium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Magnesium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Manganese	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Molybdenum	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Nickel	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Potassium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Selenium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Silicon	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Silver	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Sodium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Strontium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Thallium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Tin	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Titanium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Uranium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014

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d-Vanadium	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
d-Zinc	Exova Subcontract, ICP-AES, EPA 6010C -modified	EXL	10/20/2014
DOC - Dissolved Organic Carbo	Exova Subcontract Exova Subcontract	EXL	10/21/2014
Hardness (CaCO3)	Hardness by Calculation, APHA 2340 B -modified	EXL	10/20/2014
Hardness (CaCO3)	Hardness by Calculation, APHA 2340 B -modified	NiSL	10/20/2014
pH at 25 C	Electrometric, APHA 4500 B -modified	NiSL	10/16/2014
T-Aluminium	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Antimony	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Arsenic	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Barium	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Beryllium	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Bismuth	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Boron	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Cadmium	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Calcium	Exova Subcontract, ICP, APHA 3120B -modified	EXL	10/21/2014
T-Chromium	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Cobalt	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Copper	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Iron	Exova Subcontract, ICP, APHA 3120B -modified	EXL	10/21/2014
T-Lead	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Lithium	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Magnesium	Exova Subcontract, ICP, APHA 3120B-modified	EXL	10/21/2014
T-Manganese	Exova Subcontract, ICP, APHA 3120B -modified	EXL	10/21/2014
T-Molybdenum	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Nickel	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Potassium	Exova Subcontract, ICP, APHA 3120B - modified	EXL	10/21/2014
T-Selenium	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Silicon	Exova Subcontract, ICP, APHA 3120B - modified	EXL	10/21/2014
T-Silver	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Sodium	Exova Subcontract, ICP, APHA 3120B - modified	EXL	10/21/2014
T-Strontium	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Thallium	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Tin	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Titanium	Exova Subcontract, ICP, APHA 3120B - modified	EXL	10/21/2014
T-Uranium	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
T-Vanadium	Exova Subcontract, ICP, APHA 3120B - modified	EXL	10/21/2014
T-Zinc	Exova Subcontract, ICP-MS,USEPA 200.8-modified	EXL	10/21/2014
Total Organic Carbon	Exova Subcontract, Ch.34 SSSA BookSeries5-modified	EXL	10/21/2014

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Turbidity	Nephelometric, APHA 2130 B -modified	NiSL	10/16/2014
UV Transmittance	APHA 5910 B -modified	NiSL	10/17/2014

Approved By: 

Catherine Black, Owner/Operator

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