Maxxam
A Bureau Veritas Group Company

Your Project #: LEECH-METALS
Your C.O.C. #: 08470197

Attention: Christoph Moch

Capital Regional District
Water Department
479 Island Hwy
Victoria, BC
Canada V9B 1H7

Report Date: 2019/05/23
Report #: R2726551
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B937713
Received: 2019/05/17, 12:35

Sample Matrix: Drinking Water
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Hardness Total (calculated as CaCO3) (1)	7	N/A	2019/05/23	BBY WI-00033	Auto Calc
Mercury (Total) by CV	7	2019/05/23	2019/05/23	BBY7SOP-00015	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	7	N/A	2019/05/23	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total)	1	N/A	2019/05/22	BBY7SOP-00003,	EPA 6020b R2 m
Elements by CRC ICPMS (total)	4	N/A	2019/05/23	BBY7SOP-00003,	EPA 6020b R2 m
Elements by CRC ICPMS (total)	2	2019/05/22	2019/05/22	BBY7SOP-00003/02	EPA 6020b R2 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing. Maxxam is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

Maxxam Analytics International Corporation o/a Maxxam Analytics Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

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Encryption Key

Maxxam
23 May 2019 17:26:45

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Debbie Nordbruget, Key Account Specialist
Email: DNordbruget@maxxam.ca
Phone# (250)385-6112
==========
This report has been generated and distributed using a secure automated process.
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam Job #: B937713
Report Date: 2019/05/23

Capital Regional District
Client Project #: LEECH-METALS

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Maxxam ID					VR9981	VR9987		
Sampling Date					2019/05/15 10:30	2019/05/15 09:45		
COC Number					08470197	08470197		
	UNITS	MAC	AO	OG	WEEKS OUT	LEECH HEAD	RDL	QC Batch
Total Metals by ICPMS								
Total Aluminum (Al)	ug/L	-	-	100	**172**	**132**	3.0	9427365
Total Antimony (Sb)	ug/L	6	-	-	<0.50	<0.50	0.50	9427365
Total Arsenic (As)	ug/L	10	-	-	0.21	0.14	0.10	9427365
Total Barium (Ba)	ug/L	1000	-	-	4.2	4.1	1.0	9427365
Total Beryllium (Be)	ug/L	-	-	-	<0.10	<0.10	0.10	9427365
Total Bismuth (Bi)	ug/L	-	-	-	<1.0	<1.0	1.0	9427365
Total Boron (B)	ug/L	5000	-	-	<50	<50	50	9427365
Total Cadmium (Cd)	ug/L	5	-	-	<0.010	0.012	0.010	9427365
Total Chromium (Cr)	ug/L	50	-	-	<1.0	<1.0	1.0	9427365
Total Cobalt (Co)	ug/L	-	-	-	<0.20	<0.20	0.20	9427365
Total Copper (Cu)	ug/L	-	1000	-	0.88	0.72	0.50	9427365
Total Iron (Fe)	ug/L	-	300	-	261	150	10	9427365
Total Lead (Pb)	ug/L	5	-	-	<0.20	<0.20	0.20	9427365
Total Lithium (Li)	ug/L	-	-	-	<2.0	<2.0	2.0	9427365
Total Manganese (Mn)	ug/L	120	20	-	17.4	12.0	1.0	9427365
Total Molybdenum (Mo)	ug/L	-	-	-	<1.0	<1.0	1.0	9427365
Total Nickel (Ni)	ug/L	-	-	-	<1.0	<1.0	1.0	9427365
Total Selenium (Se)	ug/L	50	-	-	<0.10	<0.10	0.10	9427365
Total Silicon (Si)	ug/L	-	-	-	1310	2210	100	9427365
Total Silver (Ag)	ug/L	-	-	-	<0.020	0.050	0.020	9427365
Total Strontium (Sr)	ug/L	-	-	-	15.5	18.3	1.0	9427365
Total Thallium (Tl)	ug/L	-	-	-	<0.010	<0.010	0.010	9427365
Total Tin (Sn)	ug/L	-	-	-	<5.0	<5.0	5.0	9427365
Total Titanium (Ti)	ug/L	-	-	-	<5.0	<5.0	5.0	9427365
Total Uranium (U)	ug/L	20	-	-	<0.10	<0.10	0.10	9427365
Total Vanadium (V)	ug/L	-	-	-	<5.0	<5.0	5.0	9427365
Total Zinc (Zn)	ug/L	-	5000	-	<5.0	<5.0	5.0	9427365
Total Zirconium (Zr)	ug/L	-	-	-	<0.10	<0.10	0.10	9427365

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

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Capital Regional District
Client Project #: LEECH-METALS

TOT. METALS W/ CV HG FOR DRINKING WATER (DRINKING WATER)

Maxxam ID					VR9981			VR9982	VR9983	VR9984		
Sampling Date					2019/05/15 10:30			2019/05/15 15:30	2019/05/15 12:15	2019/05/15 14:30		
COC Number					08470197			08470197	08470197	08470197		
	UNITS	MAC	AO	OG	WEEKS OUT	RDL	QC Batch	BONE YARD	CRAGG CREEK	WEST LEECH	RDL	QC Batch
Calculated Parameters												
Total Hardness (CaCO3)	mg/L	-	-	-	7.75	0.50	9422249	14.5	11.2	9.68	0.50	9422249
Elements												
Total Mercury (Hg)	ug/L	1	-	-	<0.0020	0.0020	9428677	<0.0020	<0.0020	<0.0020	0.0020	9428677
Total Metals by ICPMS												
Total Aluminum (Al)	ug/L	-	-	100				28.6	35.8	38.8	3.0	9428243
Total Antimony (Sb)	ug/L	6	-	-				<0.50	<0.50	<0.50	0.50	9428243
Total Arsenic (As)	ug/L	10	-	-				0.22	<0.10	0.19	0.10	9428243
Total Barium (Ba)	ug/L	1000	-	-				4.4	3.0	4.1	1.0	9428243
Total Beryllium (Be)	ug/L	-	-	-				<0.10	<0.10	<0.10	0.10	9428243
Total Bismuth (Bi)	ug/L	-	-	-				<1.0	<1.0	<1.0	1.0	9428243
Total Boron (B)	ug/L	5000	-	-				<50	<50	<50	50	9428243
Total Cadmium (Cd)	ug/L	5	-	-				<0.010	<0.010	<0.010	0.010	9428243
Total Chromium (Cr)	ug/L	50	-	-				<1.0	<1.0	<1.0	1.0	9428243
Total Cobalt (Co)	ug/L	-	-	-				<0.20	<0.20	<0.20	0.20	9428243
Total Copper (Cu)	ug/L	-	1000	-				0.58	0.49	0.51	0.20	9428243
Total Iron (Fe)	ug/L	-	300	-				86.0	6.3	12.1	5.0	9428243
Total Lead (Pb)	ug/L	5	-	-				<0.20	<0.20	<0.20	0.20	9428243
Total Manganese (Mn)	ug/L	120	20	-				<1.0	<1.0	<1.0	1.0	9428243
Total Molybdenum (Mo)	ug/L	-	-	-				<1.0	<1.0	<1.0	1.0	9428243
Total Nickel (Ni)	ug/L	-	-	-				<1.0	<1.0	<1.0	1.0	9428243
Total Selenium (Se)	ug/L	50	-	-				<0.10	<0.10	<0.10	0.10	9428243
Total Silicon (Si)	ug/L	-	-	-				3020	2330	3060	100	9428243
Total Silver (Ag)	ug/L	-	-	-				<0.020	<0.020	<0.020	0.020	9428243
Total Strontium (Sr)	ug/L	-	-	-				29.5	16.2	21.0	1.0	9428243
Total Thallium (Tl)	ug/L	-	-	-				<0.010	<0.010	<0.010	0.010	9428243
Total Tin (Sn)	ug/L	-	-	-				<5.0	<5.0	<5.0	5.0	9428243
Total Titanium (Ti)	ug/L	-	-	-				<5.0	<5.0	<5.0	5.0	9428243
Total Uranium (U)	ug/L	20	-	-				<0.10	<0.10	<0.10	0.10	9428243
Total Vanadium (V)	ug/L	-	-	-				<5.0	<5.0	<5.0	5.0	9428243
Total Zinc (Zn)	ug/L	-	5000	-				7.6	<5.0	<5.0	5.0	9428243
Total Zirconium (Zr)	ug/L	-	-	-				<0.10	<0.10	<0.10	0.10	9428243
Total Calcium (Ca)	mg/L	-	-	-	2.17	0.050	9423105	4.53	3.16	2.93	0.050	9423105
Total Magnesium (Mg)	mg/L	-	-	-	0.563	0.050	9423105	0.763	0.799	0.576	0.050	9423105

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

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TOT. METALS W/ CV HG FOR DRINKING WATER (DRINKING WATER)

Maxxam ID					VR9981			VR9982	VR9983	VR9984		
Sampling Date					2019/05/15 10:30			2019/05/15 15:30	2019/05/15 12:15	2019/05/15 14:30		
COC Number					08470197			08470197	08470197	08470197		
	UNITS	MAC	AO	OG	WEEKS OUT	RDL	QC Batch	BONE YARD	CRAGG CREEK	WEST LEECH	RDL	QC Batch
Total Potassium (K)	mg/L	-	-	-	0.097	0.050	9423105	0.282	0.073	0.362	0.050	9423105
Total Sodium (Na)	mg/L	-	200	-	1.68	0.050	9423105	2.98	1.81	3.15	0.050	9423105
Total Sulphur (S)	mg/L	-	-	-	<3.0	3.0	9423105	<3.0	<3.0	<3.0	3.0	9423105

No Fill	No Exceedance
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TOT. METALS W/ CV HG FOR DRINKING WATER (DRINKING WATER)

Maxxam ID					VR9985		VR9986			VR9987		
Sampling Date					2019/05/15 13:15		2019/05/15 11:15			2019/05/15 09:45		
COC Number					08470197		08470197			08470197		
	UNITS	MAC	AO	OG	TUNNEL	QC Batch	CHRIS CREEK	RDL	QC Batch	LEECH HEAD	RDL	QC Batch
Calculated Parameters												
Total Hardness (CaCO3)	mg/L	-	-	-	13.7	9422249	11.7	0.50	9422249	10.2	0.50	9422249
Elements												
Total Mercury (Hg)	ug/L	1	-	-	<0.0020	9428677	<0.0020	0.0020	9428677	<0.0020	0.0020	9428677
Total Metals by ICPMS												
Total Aluminum (Al)	ug/L	-	-	100	31.6	9428243	25.9	3.0	9426680			
Total Antimony (Sb)	ug/L	6	-	-	<0.50	9428243	<0.50	0.50	9426680			
Total Arsenic (As)	ug/L	10	-	-	0.18	9428243	<0.10	0.10	9426680			
Total Barium (Ba)	ug/L	1000	-	-	4.1	9428243	2.9	1.0	9426680			
Total Beryllium (Be)	ug/L	-	-	-	<0.10	9428243	<0.10	0.10	9426680			
Total Bismuth (Bi)	ug/L	-	-	-	<1.0	9428243	<1.0	1.0	9426680			
Total Boron (B)	ug/L	5000	-	-	<50	9428243	<50	50	9426680			
Total Cadmium (Cd)	ug/L	5	-	-	<0.010	9428243	<0.010	0.010	9426680			
Total Chromium (Cr)	ug/L	50	-	-	<1.0	9428243	<1.0	1.0	9426680			
Total Cobalt (Co)	ug/L	-	-	-	<0.20	9428243	<0.20	0.20	9426680			
Total Copper (Cu)	ug/L	-	1000	-	0.62	9428243	0.42	0.20	9426680			
Total Iron (Fe)	ug/L	-	300	-	11.5	9428243	12.0	5.0	9426680			
Total Lead (Pb)	ug/L	5	-	-	<0.20	9428243	<0.20	0.20	9426680			
Total Manganese (Mn)	ug/L	120	20	-	<1.0	9428243	<1.0	1.0	9426680			
Total Molybdenum (Mo)	ug/L	-	-	-	<1.0	9428243	<1.0	1.0	9426680			
Total Nickel (Ni)	ug/L	-	-	-	<1.0	9428243	<1.0	1.0	9426680			
Total Selenium (Se)	ug/L	50	-	-	<0.10	9428243	<0.10	0.10	9426680			
Total Silicon (Si)	ug/L	-	-	-	2850	9428243	2820	100	9426680			
Total Silver (Ag)	ug/L	-	-	-	<0.020	9428243	<0.020	0.020	9426680			
Total Strontium (Sr)	ug/L	-	-	-	27.7	9428243	13.7	1.0	9426680			
Total Thallium (Tl)	ug/L	-	-	-	<0.010	9428243	<0.010	0.010	9426680			
Total Tin (Sn)	ug/L	-	-	-	<5.0	9428243	<5.0	5.0	9426680			
Total Titanium (Ti)	ug/L	-	-	-	<5.0	9428243	<5.0	5.0	9426680			
Total Uranium (U)	ug/L	20	-	-	<0.10	9428243	<0.10	0.10	9426680			
Total Vanadium (V)	ug/L	-	-	-	<5.0	9428243	<5.0	5.0	9426680			
Total Zinc (Zn)	ug/L	-	5000	-	<5.0	9428243	<5.0	5.0	9426680			
Total Zirconium (Zr)	ug/L	-	-	-	<0.10	9428243	<0.10	0.10	9426680			
Total Calcium (Ca)	mg/L	-	-	-	4.31	9423105	3.12	0.050	9423105	2.85	0.050	9423105
Total Magnesium (Mg)	mg/L	-	-	-	0.700	9423105	0.940	0.050	9423105	0.734	0.050	9423105

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
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TOT. METALS W/ CV HG FOR DRINKING WATER (DRINKING WATER)

Maxxam ID					VR9985		VR9986			VR9987		
Sampling Date					2019/05/15 13:15		2019/05/15 11:15			2019/05/15 09:45		
COC Number					08470197		08470197			08470197		
	UNITS	MAC	AO	OG	TUNNEL	QC Batch	CHRIS CREEK	RDL	QC Batch	LEECH HEAD	RDL	QC Batch
Total Potassium (K)	mg/L	-	-	-	0.224	9423105	0.066	0.050	9423105	0.101	0.050	9423105
Total Sodium (Na)	mg/L	-	200	-	2.72	9423105	1.75	0.050	9423105	1.79	0.050	9423105
Total Sulphur (S)	mg/L	-	-	-	<3.0	9423105	<3.0	3.0	9423105	<3.0	3.0	9423105

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.0°C

MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, February 2017and the Guideline Technical Document – Lead, March 2019.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:
1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.
Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

Capital Regional District
Client Project #: LEECH-METALS

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9426680	Total Aluminum (Al)	2019/05/22	103	80 - 120	107	80 - 120	<3.0	ug/L	NC	20
9426680	Total Antimony (Sb)	2019/05/22	101	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
9426680	Total Arsenic (As)	2019/05/22	107	80 - 120	104	80 - 120	<0.10	ug/L	2.0	20
9426680	Total Barium (Ba)	2019/05/22	98	80 - 120	100	80 - 120	<1.0	ug/L	0.88	20
9426680	Total Beryllium (Be)	2019/05/22	99	80 - 120	97	80 - 120	<0.10	ug/L	NC	20
9426680	Total Bismuth (Bi)	2019/05/22	105	80 - 120	105	80 - 120	<1.0	ug/L	NC	20
9426680	Total Boron (B)	2019/05/22	97	80 - 120	102	80 - 120	<50	ug/L	NC	20
9426680	Total Cadmium (Cd)	2019/05/22	98	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
9426680	Total Chromium (Cr)	2019/05/22	97	80 - 120	96	80 - 120	<1.0	ug/L	NC	20
9426680	Total Cobalt (Co)	2019/05/22	97	80 - 120	97	80 - 120	<0.20	ug/L	NC	20
9426680	Total Copper (Cu)	2019/05/22	94	80 - 120	96	80 - 120	<0.20	ug/L	1.6	20
9426680	Total Iron (Fe)	2019/05/22	101	80 - 120	105	80 - 120	<5.0	ug/L	NC	20
9426680	Total Lead (Pb)	2019/05/22	102	80 - 120	102	80 - 120	<0.20	ug/L	1.5	20
9426680	Total Manganese (Mn)	2019/05/22	93	80 - 120	96	80 - 120	<1.0	ug/L	NC	20
9426680	Total Molybdenum (Mo)	2019/05/22	101	80 - 120	101	80 - 120	<1.0	ug/L	NC	20
9426680	Total Nickel (Ni)	2019/05/22	93	80 - 120	95	80 - 120	<1.0	ug/L	NC	20
9426680	Total Selenium (Se)	2019/05/22	103	80 - 120	99	80 - 120	<0.10	ug/L	11	20
9426680	Total Silicon (Si)	2019/05/22	NC	80 - 120	104	80 - 120	<100	ug/L	1.7	20
9426680	Total Silver (Ag)	2019/05/22	101	80 - 120	102	80 - 120	<0.020	ug/L	NC	20
9426680	Total Strontium (Sr)	2019/05/22	NC	80 - 120	99	80 - 120	<1.0	ug/L	0.12	20
9426680	Total Thallium (Tl)	2019/05/22	106	80 - 120	104	80 - 120	<0.010	ug/L	NC	20
9426680	Total Tin (Sn)	2019/05/22	98	80 - 120	102	80 - 120	<5.0	ug/L	NC	20
9426680	Total Titanium (Ti)	2019/05/22	94	80 - 120	96	80 - 120	<5.0	ug/L	NC	20
9426680	Total Uranium (U)	2019/05/22	104	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
9426680	Total Vanadium (V)	2019/05/22	96	80 - 120	95	80 - 120	<5.0	ug/L	NC	20
9426680	Total Zinc (Zn)	2019/05/22	100	80 - 120	100	80 - 120	<5.0	ug/L	2.4	20
9426680	Total Zirconium (Zr)	2019/05/22	108	80 - 120	103	80 - 120	<0.10	ug/L	NC	20
9427365	Total Aluminum (Al)	2019/05/22	103	80 - 120	102	80 - 120	<3.0	ug/L	3.7	20
9427365	Total Antimony (Sb)	2019/05/22	106	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
9427365	Total Arsenic (As)	2019/05/22	113	80 - 120	106	80 - 120	<0.10	ug/L	3.2	20
9427365	Total Barium (Ba)	2019/05/22	105	80 - 120	103	80 - 120	<1.0	ug/L	2.7	20
9427365	Total Beryllium (Be)	2019/05/22	98	80 - 120	97	80 - 120	<0.10	ug/L	NC	20
9427365	Total Bismuth (Bi)	2019/05/22	99	80 - 120	105	80 - 120	<1.0	ug/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9427365	Total Boron (B)	2019/05/22	107	80 - 120	101	80 - 120	<50	ug/L	6.6	20
9427365	Total Cadmium (Cd)	2019/05/22	100	80 - 120	100	80 - 120	<0.010	ug/L	NC	20
9427365	Total Chromium (Cr)	2019/05/22	95	80 - 120	96	80 - 120	<1.0	ug/L	NC	20
9427365	Total Cobalt (Co)	2019/05/22	94	80 - 120	97	80 - 120	<0.20	ug/L	5.5	20
9427365	Total Copper (Cu)	2019/05/22	90	80 - 120	96	80 - 120	<0.50	ug/L	14	20
9427365	Total Iron (Fe)	2019/05/22	NC	80 - 120	102	80 - 120	<10	ug/L	5.4	20
9427365	Total Lead (Pb)	2019/05/22	99	80 - 120	102	80 - 120	<0.20	ug/L	NC	20
9427365	Total Lithium (Li)	2019/05/22	102	80 - 120	99	80 - 120	<2.0	ug/L	2.7	20
9427365	Total Manganese (Mn)	2019/05/22	NC	80 - 120	95	80 - 120	<1.0	ug/L	7.7	20
9427365	Total Molybdenum (Mo)	2019/05/22	108	80 - 120	101	80 - 120	<1.0	ug/L	11	20
9427365	Total Nickel (Ni)	2019/05/22	91	80 - 120	94	80 - 120	<1.0	ug/L	0.60	20
9427365	Total Selenium (Se)	2019/05/22	101	80 - 120	99	80 - 120	<0.10	ug/L	NC	20
9427365	Total Silicon (Si)	2019/05/22	NC	80 - 120	104	80 - 120	<100	ug/L	2.5	20
9427365	Total Silver (Ag)	2019/05/22	100	80 - 120	101	80 - 120	<0.020	ug/L	NC	20
9427365	Total Strontium (Sr)	2019/05/22	NC	80 - 120	104	80 - 120	<1.0	ug/L	3.0	20
9427365	Total Thallium (Tl)	2019/05/22	102	80 - 120	103	80 - 120	<0.010	ug/L	NC	20
9427365	Total Tin (Sn)	2019/05/22	105	80 - 120	103	80 - 120	<5.0	ug/L	NC	20
9427365	Total Titanium (Ti)	2019/05/22	101	80 - 120	98	80 - 120	<5.0	ug/L	NC	20
9427365	Total Uranium (U)	2019/05/22	102	80 - 120	101	80 - 120	<0.10	ug/L	7.1	20
9427365	Total Vanadium (V)	2019/05/22	97	80 - 120	96	80 - 120	<5.0	ug/L	NC	20
9427365	Total Zinc (Zn)	2019/05/22	93	80 - 120	98	80 - 120	<5.0	ug/L	NC	20
9427365	Total Zirconium (Zr)	2019/05/22	110	80 - 120	106	80 - 120	<0.10	ug/L	NC	20
9428243	Total Aluminum (Al)	2019/05/23	101	80 - 120	104	80 - 120	<3.0	ug/L		
9428243	Total Antimony (Sb)	2019/05/23	101	80 - 120	100	80 - 120	<0.50	ug/L		
9428243	Total Arsenic (As)	2019/05/23	104	80 - 120	106	80 - 120	<0.10	ug/L	NC	20
9428243	Total Barium (Ba)	2019/05/23	97	80 - 120	101	80 - 120	<1.0	ug/L		
9428243	Total Beryllium (Be)	2019/05/23	97	80 - 120	103	80 - 120	<0.10	ug/L		
9428243	Total Bismuth (Bi)	2019/05/23	105	80 - 120	105	80 - 120	<1.0	ug/L		
9428243	Total Boron (B)	2019/05/23	97	80 - 120	101	80 - 120	<50	ug/L		
9428243	Total Cadmium (Cd)	2019/05/23	100	80 - 120	99	80 - 120	<0.010	ug/L		
9428243	Total Chromium (Cr)	2019/05/23	97	80 - 120	101	80 - 120	<1.0	ug/L		
9428243	Total Cobalt (Co)	2019/05/23	96	80 - 120	101	80 - 120	<0.20	ug/L		
9428243	Total Copper (Cu)	2019/05/23	94	80 - 120	99	80 - 120	<0.20	ug/L		

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			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9428243	Total Iron (Fe)	2019/05/23	100	80 - 120	102	80 - 120	<5.0	ug/L		
9428243	Total Lead (Pb)	2019/05/23	103	80 - 120	103	80 - 120	<0.20	ug/L		
9428243	Total Manganese (Mn)	2019/05/23	95	80 - 120	100	80 - 120	<1.0	ug/L		
9428243	Total Molybdenum (Mo)	2019/05/23	104	80 - 120	104	80 - 120	<1.0	ug/L		
9428243	Total Nickel (Ni)	2019/05/23	94	80 - 120	99	80 - 120	<1.0	ug/L		
9428243	Total Selenium (Se)	2019/05/23	101	80 - 120	103	80 - 120	<0.10	ug/L		
9428243	Total Silicon (Si)	2019/05/23	NC	80 - 120	100	80 - 120	<100	ug/L		
9428243	Total Silver (Ag)	2019/05/23	104	80 - 120	102	80 - 120	<0.020	ug/L		
9428243	Total Strontium (Sr)	2019/05/23	97	80 - 120	101	80 - 120	<1.0	ug/L		
9428243	Total Thallium (Tl)	2019/05/23	106	80 - 120	105	80 - 120	<0.010	ug/L		
9428243	Total Tin (Sn)	2019/05/23	101	80 - 120	99	80 - 120	<5.0	ug/L		
9428243	Total Titanium (Ti)	2019/05/23	99	80 - 120	101	80 - 120	<5.0	ug/L		
9428243	Total Uranium (U)	2019/05/23	105	80 - 120	104	80 - 120	<0.10	ug/L		
9428243	Total Vanadium (V)	2019/05/23	99	80 - 120	101	80 - 120	<5.0	ug/L		
9428243	Total Zinc (Zn)	2019/05/23	98	80 - 120	104	80 - 120	<5.0	ug/L		
9428243	Total Zirconium (Zr)	2019/05/23	103	80 - 120	105	80 - 120	<0.10	ug/L		
9428677	Total Mercury (Hg)	2019/05/23	98	80 - 120	97	80 - 120	<0.0020	ug/L	NC	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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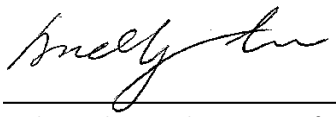
VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Andy Lu, Ph.D., P.Chem., Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam
A Bureau Veritas Group Company

CHAIN OF CUSTODY RE[redacted]

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COC #: 08470197

BBY FCD-00077/05

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Invoice Information		Report Information (if differs from invoice)		Project Information (where applicable)		Turnaround Time (TAT) Required
Company Name:	Capital Regional District	Company Name:	Capital Regional District	Quotation #:		[X] Regular TAT 5 days (Most analyses)
Contact Name:	Christoph Moch	Contact Name:	Christoph Moch, Jessica Dupuis, Jennifer Blaney	P.O. #/ AFE#:		PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address:	479 Island Highway	Address:		Project #:	LEECH - METALS	Rush TAT (Surcharges will be applied)
	Victoria, BC PC: V9B 1H7		PC:	Site Location:		[ ] Same Day [ ] 2 Days [ ] 1 Day [ ] 3 Days
Phone:	250-474-9603	Phone:	CM 250-474-9603; JD 250-474-9643; JB 250-474-9680	Site #:		Date Required:
Email:	cmoch@crd.bc.ca	Email:	cmoch@crd.bc.ca; jdupuis@crd.bc.ca; jblaney@crd.bc.ca	Sampled By:		Rush Confirmation #:

Regulatory Criteria	Special Instructions
[ ] BC CSR Soil [ ] BC CSR Water	[ ] Return Cooler
[ ] CCME (Specify) [ ] Other (Specify)	[ ] Ship Sample Bottles (Please Specify)
[X] Drinking Water [ ] BC Water Quality	

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

	Sample Identification	Lab Identification	Date Sampled (YYYY/MM/DD)	Time Sampled (HH:MM)	Matrix	Analysis Requested: BTEX/VPH [ ] MTBE [ ] VOC/VPH [ ]	EPH [ ] TEH [ ]	PAH [ ] LEPH/HEPH [ ]	CCME-PHC [ ] BTEX/F1 [ ] F2 - F4 [ ]	Dissolved Metals [ ] Filtered? [ ] Preserved?	Dissolved Mercury [ ] Filtered? [ ] Preserved?	Total Metals Field Preserved?	Total Mercury Field Preserved?	Chloride [ ] Fluoride [ ] Sulphate [ ]	TSS [ ] TDS [ ] BOD [ ] COD [ ]	pH [ ] Conductivity [ ] Alkalinity [ ]	Nitrite [ ] Nitrate [ ] Ammonia [ ]	Bromate	Bromide	TOC	DBPs (THMs)	# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE	COMMENTS
1	WEEKS OUT		2019/05/15	10:30	WATER							X	X									2		
2	BONE YARD		2019/05/15	15:30	WATER							X	X									2		
3	CRAGG CREEK		2019/05/15	12:15	WATER							X	X									2		
4	WEST LEECH		2019/05/15	14:30	WATER							X	X									2		
5	TUNNEL		2019/05/15	13:15	Water							X	X									2		
6	CHRIS CREEK		2019/05/15	11:15	WATER							X	X									2		
7	LEECH HEAD		2019/05/15	9:45	WATER							X	X									2		
8																								
9																								
10																								

LABORATORY USE ONLY

CUSTODY SEAL Y / N		COOLER TEMPERATURES
Present	Intact	
		5.1.5

COOLING MEDIA PRESENT Y / N

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
			S. STROUSH	19/05/17	1235
[signature]	2019/05/17	1232	[signature]		

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