

Report Transmission Cover Page

Bill To: Sunshine Coast Regional District 1975 Field Road Sechelt, BC, Canada V0N 3A1	Project ID: Egmont & Ruby Lake Project Name: Surface Water Project Location: LSD: P.O.: 3002896 Proj. Acct. code:	Lot ID: 1513357 Control Number: Date Received: Aug 13, 2021 Date Reported: Aug 23, 2021 Report Number: 2650569
Attn: Accounts Payable Sampled By: Nicholas Tran Company: SCRD		

Contact	Company	Address
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<u>Delivery</u>	<u>Format</u>	<u>Deliverables</u>
Email - Single Report	PDF	Invoice
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Email - Multiple Reports By Lot	PDF	COC / Test Report
Email - Multiple Reports By Lot	Standard Crosstab Without Tabs	Test Report
Email - Single Report	PDF	COA
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Email - Multiple Reports By Lot	Standard Crosstab Without Tabs	Test Report
Email - Single Report	PDF	COA
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Email - Merge Reports	PDF	COC / Test Report
Email - Single Report	PDF	COA
Email - Single Report	Standard Crosstab Without Tabs	Test Report
Paul Sheridan	Sunshine Coast Regional District	1975 Field Road Sechelt, BC V0N 3A1 Phone: (604) 885-6800 Fax: Email: paul.sheridan@scrd.ca
<u>Delivery</u>	<u>Format</u>	<u>Deliverables</u>
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1975 Field Road	Project Name: Surface Water	Control Number:
Sechelt, BC, Canada	Project Location:	Date Received: Aug 13, 2021
V0N 3A1	LSD:	Date Reported: Aug 23, 2021
Attn: Accounts Payable	P.O.: 3002896	Report Number: 2650569
Sampled By: Nicholas Tran	Proj. Acct. code:	
Company: SCRD		

Contact	Company	Address
Sandi Bandara	Sunshine Coast Regional District	1975 Field Road Sechelt, BC V0N 3A1 Phone: (604) 885-6800 Fax: Email: sandi.bandara@scrd.ca

Delivery	Format	Deliverables
Email - Merge Reports	PDF	COC / Test Report
Email - Single Report	PDF	COA
Email - Single Report	Standard Crosstab Without Tabs	Test Report

Notes To Clients:

- Aug 16, 2021 - Analysis was performed on samples 1513357-1 to 4 that exceeded the recommended holding time for turbidity analysis.

Analytical Report

Bill To: Sunshine Coast Regional District	Project ID: Egmont & Ruby Lake	Lot ID: 1513357
1975 Field Road	Project Name: Surface Water	Control Number:
Sechelt, BC, Canada	Project Location:	Date Received: Aug 13, 2021
V0N 3A1	LSD:	Date Reported: Aug 23, 2021
Attn: Accounts Payable	P.O.: 3002896	Report Number: 2650569
Sampled By: Nicholas Tran	Proj. Acct. code:	
Company: SCRD		

		Reference Number	1513357-1	1513357-2	1513357-3	
		Sample Date	Aug 11, 2021	Aug 11, 2021	Aug 11, 2021	
		Sample Time	11:57	13:20	12:20	
		Sample Location				
		Sample Description	EG-02 / Egmont Hall / 14.4 °C	RL-03 / Jervis Inlet / 14.4 °C	EG-Raw / Waugh Lake Raw / 14.4 °C	
		Matrix	Water	Water	Water	
Analyte	Units	Results	Results	Results	Nominal Detection Limit	
Inorganic Nonmetallic Parameters						
Phosphorus	Total - Low Level	mg/L	<0.005	<0.005	<0.005	0.005
Metals Total						
Calcium	Total	mg/L	3.5	5.9	3.3	0.01
Magnesium	Total	mg/L	0.47	0.67	0.44	0.02
Potassium	Total	mg/L	0.11	0.21	0.07	0.04
Silicon	Total	mg/L	2.1	1.5	2.1	0.005
Sulfur	Total	mg/L	0.48	0.79	0.48	0.02
Sodium	Total	mg/L	6.8	5.8	1.6	0.1
Titanium	Total	mg/L	<0.002	<0.002	<0.002	0.002
Mercury	Total	µg/L	<0.01	<0.01	<0.01	0.05
Physical and Aggregate Properties						
Colour	True	Colour units	<5	<5	7	5
Solids	Total Dissolved	mg/L	28	28	76	5
Turbidity		NTU	0.22	0.59	0.48	0.1
Routine Water						
pH - Holding Time			Exceeded	Exceeded	Exceeded	
pH	at 25 °C		7.03	7.62	6.93	0.01
Bicarbonate		mg/L	13	19	<5	5
Carbonate		mg/L	<6	<6	10	6
Hydroxide		mg/L	<5	<5	<5	5
P-Alkalinity	as CaCO ₃	mg/L	<5	<5	<5	5
T-Alkalinity	as CaCO ₃	mg/L	10	15	9	5
Bromide	Dissolved	mg/L	<0.02	<0.02	<0.02	0.02
Chloride	Dissolved	mg/L	7.98	6.69	0.94	0.05
Fluoride	Dissolved	mg/L	<0.01	<0.01	<0.01	0.01
Nitrate - N	Dissolved	mg/L	0.01	<0.01	0.01	0.01
Nitrite - N	Dissolved	mg/L	<0.01	<0.01	<0.01	0.01
Sulfate (SO ₄)	Dissolved	mg/L	1.2	1.9	1.1	0.1
Hardness	Total	mg CaCO ₃ /L	10.7	17	10.1	1
Mono-Aromatic Hydrocarbons - Water						
Benzene		µg/L	<0.5	<0.5	<0.5	0.5
Ethylbenzene		µg/L	<0.5	<0.5	<0.5	0.5
Methyl t-Butyl Ether		µg/L	<0.5	<0.5	<0.5	0.5
Styrene		µg/L	<0.5	<0.5	<0.5	0.5
Toluene		µg/L	<0.5	<0.5	<0.5	0.5
Total Xylenes (m,p,o)		µg/L	<0.5	<0.5	<0.5	0.5
4-Bromofluorobenzene	Surrogate	%	102	97.4	95.2	80-120
Dibromofluoromethane	Surrogate	%	103	105	105	80-120

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Sechelt, BC, Canada	Project Location:	Date Received: Aug 13, 2021
V0N 3A1	LSD:	Date Reported: Aug 23, 2021
Attn: Accounts Payable	P.O.: 3002896	Report Number: 2650569
Sampled By: Nicholas Tran	Proj. Acct. code:	
Company: SCRD		

		Reference Number	1513357-1	1513357-2	1513357-3	
		Sample Date	Aug 11, 2021	Aug 11, 2021	Aug 11, 2021	
		Sample Time	11:57	13:20	12:20	
		Sample Location				
		Sample Description	EG-02 / Egmont Hall / 14.4 °C	RL-03 / Jervis Inlet / 14.4 °C	EG-Raw / Waugh Lake Raw / 14.4 °C	
		Matrix	Water	Water	Water	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Mono-Aromatic Hydrocarbons - Water - Continued						
Toluene-d8	Surrogate	%	111	107	107	80-120
Trace Metals Total						
Aluminum	Total	µg/L	16	5	19	1
Antimony	Total	µg/L	<0.02	0.04	<0.02	0.02
Arsenic	Total	µg/L	0.2	0.4	0.2	0.1
Barium	Total	µg/L	2.4	2.8	2.3	0.1
Beryllium	Total	µg/L	<0.05	<0.05	<0.05	0.05
Bismuth	Total	µg/L	<0.1	<0.1	<0.1	0.1
Boron	Total	µg/L	4	9	3	2
Cadmium	Total	µg/L	<0.01	<0.01	<0.01	0.01
Chromium	Total	µg/L	<0.05	<0.05	<0.05	0.05
Cobalt	Total	µg/L	<0.02	<0.02	<0.02	0.02
Copper	Total	µg/L	27	2.5	2.1	0.2
Iron	Total	µg/L	20	140	6	2
Lead	Total	µg/L	0.16	0.10	0.08	0.01
Lithium	Total	µg/L	<0.5	<0.5	<0.5	0.5
Manganese	Total	µg/L	1	2	1	1
Molybdenum	Total	µg/L	0.46	0.48	0.43	0.02
Nickel	Total	µg/L	0.8	0.4	0.2	0.2
Selenium	Total	µg/L	<0.2	<0.2	<0.2	0.2
Silver	Total	µg/L	<0.01	<0.01	<0.01	0.01
Strontium	Total	µg/L	11	14	11	0.1
Thallium	Total	µg/L	<0.01	<0.01	<0.01	0.01
Thorium	Total	µg/L	<0.05	<0.05	<0.05	0.05
Tin	Total	µg/L	0.4	<0.1	<0.1	0.1
Uranium	Total	µg/L	0.01	0.01	0.01	0.01
Vanadium	Total	µg/L	0.18	0.18	0.20	0.05
Zinc	Total	µg/L	4.6	11	1.7	0.5
Zirconium	Total	µg/L	<0.1	<0.1	<0.1	0.1

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Sechelt, BC, Canada	Project Location:	Date Received: Aug 13, 2021
V0N 3A1	LSD:	Date Reported: Aug 23, 2021
Attn: Accounts Payable	P.O.: 3002896	Report Number: 2650569
Sampled By: Nicholas Tran	Proj. Acct. code:	
Company: SCRD		

Reference Number 1513357-4
Sample Date Aug 11, 2021
Sample Time 13:33
Sample Location
Sample Description RL-Raw / Ruby Lake
Raw / 14.4 °C

Matrix Water

Analyte	Units	Results	Results	Results	Nominal Detection Limit
Inorganic Nonmetallic Parameters					
Phosphorus	Total - Low Level	mg/L	<0.005		0.005
Metals Total					
Calcium	Total	mg/L	4.5		0.01
Magnesium	Total	mg/L	0.70		0.02
Potassium	Total	mg/L	0.24		0.04
Silicon	Total	mg/L	1.4		0.005
Sulfur	Total	mg/L	0.76		0.02
Sodium	Total	mg/L	2.9		0.1
Titanium	Total	mg/L	<0.002		0.002
Mercury	Total	µg/L	<0.01		0.05
Physical and Aggregate Properties					
Colour	True	Colour units	<5		5
Solids	Total Dissolved	mg/L	76		5
Turbidity		NTU	0.24		0.1
Routine Water					
pH - Holding Time			Exceeded		
pH	at 25 °C		7.24		0.01
Bicarbonate		mg/L	15		5
Carbonate		mg/L	<6		6
Hydroxide		mg/L	<5		5
P-Alkalinity	as CaCO ₃	mg/L	<5		5
T-Alkalinity	as CaCO ₃	mg/L	12		5
Bromide	Dissolved	mg/L	<0.02		0.02
Chloride	Dissolved	mg/L	2.60		0.05
Fluoride	Dissolved	mg/L	<0.01		0.01
Nitrate - N	Dissolved	mg/L	<0.01		0.01
Nitrite - N	Dissolved	mg/L	<0.01		0.01
Sulfate (SO ₄)	Dissolved	mg/L	2.0		0.1
Hardness	Total	mg CaCO ₃ /L	14		1
Mono-Aromatic Hydrocarbons - Water					
Benzene		µg/L	<0.5		0.5
Ethylbenzene		µg/L	<0.5		0.5
Methyl t-Butyl Ether		µg/L	<0.5		0.5
Styrene		µg/L	<0.5		0.5
Toluene		µg/L	<0.5		0.5
Total Xylenes (m,p,o)		µg/L	<0.5		0.5
4-Bromofluorobenzene	Surrogate	%	100		80-120
Dibromofluoromethane	Surrogate	%	109		80-120

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V0N 3A1	LSD:	Date Reported: Aug 23, 2021
Attn: Accounts Payable	P.O.: 3002896	Report Number: 2650569
Sampled By: Nicholas Tran	Proj. Acct. code:	
Company: SCRD		

Reference Number 1513357-4
Sample Date Aug 11, 2021
Sample Time 13:33
Sample Location
Sample Description RL-Raw / Ruby Lake
Raw / 14.4 °C

Matrix Water

Analyte	Units	Results	Results	Results	Nominal Detection Limit
Mono-Aromatic Hydrocarbons - Water - Continued					
Toluene-d8	Surrogate	%	107		80-120
Trace Metals Total					
Aluminum	Total	µg/L	6		1
Antimony	Total	µg/L	0.04		0.02
Arsenic	Total	µg/L	0.4		0.1
Barium	Total	µg/L	1.9		0.1
Beryllium	Total	µg/L	<0.05		0.05
Bismuth	Total	µg/L	<0.1		0.1
Boron	Total	µg/L	8		2
Cadmium	Total	µg/L	<0.01		0.01
Chromium	Total	µg/L	0.10		0.05
Cobalt	Total	µg/L	<0.02		0.02
Copper	Total	µg/L	1.0		0.2
Iron	Total	µg/L	8		2
Lead	Total	µg/L	0.41		0.01
Lithium	Total	µg/L	<0.5		0.5
Manganese	Total	µg/L	<1		1
Molybdenum	Total	µg/L	0.51		0.02
Nickel	Total	µg/L	0.2		0.2
Selenium	Total	µg/L	<0.2		0.2
Silver	Total	µg/L	<0.01		0.01
Strontium	Total	µg/L	12		0.1
Thallium	Total	µg/L	<0.01		0.01
Thorium	Total	µg/L	<0.05		0.05
Tin	Total	µg/L	<0.1		0.1
Uranium	Total	µg/L	0.01		0.01
Vanadium	Total	µg/L	0.14		0.05
Zinc	Total	µg/L	6.6		0.5
Zirconium	Total	µg/L	<0.1		0.1

Approved by:



Max Hewitt
Operations Manager

Data have been validated by Analytical Quality Control and Element's Integrated Data Validation System (IDVS).

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Methodology and Notes

Bill To: Sunshine Coast Regional District 1975 Field Road Sechelt, BC, Canada V0N 3A1	Project ID: Egmont & Ruby Lake Project Name: Surface Water Project Location: LSD: P.O.: 3002896 Proj. Acct. code:	Lot ID: 1513357 Control Number: Date Received: Aug 13, 2021 Date Reported: Aug 23, 2021 Report Number: 2650569
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Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
Alk, pH, EC, Turb in water (BC)	APHA	* Alkalinity - Titration Method, 2320 B	Aug 14, 2021	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	* pH - Electrometric Method, 4500-H+ B	Aug 14, 2021	Element Vancouver
Anions by IEC in water (VAN)	APHA	* Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	Aug 14, 2021	Element Vancouver
Anions by IEC in water (VAN)	APHA	* Single-Column Ion Chromatography with Electronic Suppression, 4110 C	Aug 14, 2021	Element Vancouver
BTEX-VPH - Water (MS) (VAN)	BCELM	* Volatile Hydrocarbons in Water by GC/FID, VH Water	Aug 17, 2021	Element Vancouver
Mercury Low Level (Total) in water (VAN)	EPA	* Mercury in Water by Cold Vapor Atomic Fluorescence Spectrometry, 245.7	Aug 16, 2021	Element Vancouver
Metals SemiTrace (Total) in Water (VAN)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	Aug 17, 2021	Element Vancouver
Phosphorus - Total in Water	APHA	* Automated Ascorbic Acid Reduction Method, 4500-P F	Aug 17, 2021	Element Edmonton - Roper Road
Solids Dissolved (Total, Fixed and Volatile) - VAN	APHA	* Total Dissolved Solids Dried at 180 C, 2540 C	Aug 18, 2021	Element Vancouver
Trace Metals (Total) in Water (VAN)	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Aug 17, 2021	Element Vancouver
True Color in water (VAN)	APHA	* Spectrophotometric - Single Wavelength Method, 2120 C	Aug 14, 2021	Element Vancouver
Turbidity - Water (VAN)	APHA	* Turbidity - Nephelometric Method, 2130 B	Aug 13, 2021	Element Vancouver

* Reference Method Modified

References

APHA	Standard Methods for the Examination of Water and Wastewater
BCELM	B.C. Environmental Laboratory Manual
EPA	Environmental Protection Agency Test Methods - US
US EPA	US Environmental Protection Agency Test Methods

Comments:

- Aug 16, 2021 - Analysis was performed on samples 1513357-1 to 4 that exceeded the recommended holding time for turbidity analysis.

Please direct any inquiries regarding this report to our Client Services group.

Results relate only to samples as submitted.

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