

## Report Transmission Cover Page

Bill To: Sunshine Coast Regional District 1975 Field Road Sechelt, BC, Canada V0N 3A1	Project ID: Edgmont & Ruby Lake - WTE01	Lot ID: <b>1555471</b>
Attn: Accounts Payable	Project Name: Surface Water	Control Number:
Sampled By: Gordon B/ Dan H	Project Location: LSD:	Date Received: Feb 25, 2022
Company: SCRD	P.O.: 3003873	Date Reported: Mar 3, 2022
	Proj. Acct. code:	Report Number: 2723323

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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<u>Delivery</u>	<u>Format</u>	<u>Deliverables</u>
Email - Multiple Reports By Lot	PDF	COC / Test Report
Email - Multiple Reports By Lot	Sunshine Coast	Test Report
Email - Single Report	PDF	COA
<b>Emily Lussin</b>	<b>Sunshine Coast Regional District</b>	1975 Field Road Sechelt, BC V0N 3A1 Phone: (604) 885-6800 Fax: Email: emily.lussin@scrd.ca
<u>Delivery</u>	<u>Format</u>	<u>Deliverables</u>
Email - Merge Reports	PDF	COC / Test Report
Email - Single Report	PDF	COA
Email - Single Report	Sunshine Coast	Test Report

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## Analytical Report

Bill To: Sunshine Coast Regional District	Project ID: Edgmont & Ruby Lake - WTE01	Lot ID: <b>1555471</b>
1975 Field Road	Project Name: Surface Water	Control Number:
Sechelt, BC, Canada	Project Location:	Date Received: Feb 25, 2022
V0N 3A1	LSD:	Date Reported: Mar 3, 2022
Attn: Accounts Payable	P.O.: 3003873	Report Number: 2723323
Sampled By: Gordon B/ Dan H	Proj. Acct. code:	
Company: SCRD		

		Reference Number	1555471-1	1555471-2	1555471-3	
		Sample Date	Feb 23, 2022	Feb 23, 2022	Feb 23, 2022	
		Sample Time	09:45	09:30	09:00	
		Sample Location				
		Sample Description	RL-Raw / Ruby Lake / 7.4 °C	RL-03 / Jervis Inlet / 7.4 °C	EG-Raw / Waugh Lake / 7.4 °C	
		Matrix	Water	Water	Water	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
<b>Inorganic Nonmetallic Parameters</b>						
Phosphorus	Total - Low Level	mg/L	<0.005	<0.005	<0.005	0.005
<b>Metals Total</b>						
Calcium	Total	mg/L	4.0	6.4	3.4	0.01
Magnesium	Total	mg/L	0.69	0.69	0.44	0.02
Potassium	Total	mg/L	0.21	0.27	0.12	0.04
Silicon	Total	mg/L	1.7	1.8	2.3	0.005
Sulfur	Total	mg/L	0.83	0.80	0.49	0.02
Sodium	Total	mg/L	2.6	5.0	1.4	0.1
Titanium	Total	mg/L	<0.002	<0.002	<0.002	0.002
Mercury	Total	mg/L	<0.00001	<0.00001	<0.00001	0.00005
<b>Physical and Aggregate Properties</b>						
Colour	True	Colour units	<5	<5	5	5
Solids	Total Dissolved	mg/L	<5	48	<5	5
Turbidity		NTU	0.28	0.23	0.24	0.1
<b>Routine Water</b>						
pH - Holding Time			Exceeded	Exceeded	Exceeded	
pH	at 25 °C		7.16	7.50	7.08	0.01
Bicarbonate		mg/L	15	20	<5	5
Carbonate		mg/L	<6	<6	10	6
Hydroxide		mg/L	<5	<5	<5	5
P-Alkalinity	as CaCO <sub>3</sub>	mg/L	<5	<5	<5	5
T-Alkalinity	as CaCO <sub>3</sub>	mg/L	12	16	9	5
Bromide	Dissolved	mg/L	<0.02	<0.02	<0.02	0.02
Chloride	Dissolved	mg/L	2.41	5.38	0.87	0.05
Fluoride	Dissolved	mg/L	<0.01	0.04	<0.01	0.01
Nitrate - N	Dissolved	mg/L	0.01	0.02	0.05	0.01
Nitrite - N	Dissolved	mg/L	<0.01	<0.01	<0.01	0.01
Sulfate (SO <sub>4</sub> )	Dissolved	mg/L	1.9	2.0	1.0	0.1
Hardness	Total	mg CaCO <sub>3</sub> /L	13	19	10.4	1
<b>Mono-Aromatic Hydrocarbons - Water</b>						
Benzene		mg/L	<0.0005	<0.0005	<0.0005	0.0005
Ethylbenzene		mg/L	<0.0005	<0.0005	<0.0005	0.0005
Methyl t-Butyl Ether		mg/L	<0.0005	<0.0005	<0.0005	0.0005
Styrene		mg/L	<0.0005	<0.0005	<0.0005	0.0005
Toluene		mg/L	<0.0005	<0.0005	<0.0005	0.0005
Total Xylenes (m,p,o)		mg/L	<0.0005	<0.0005	<0.0005	0.0005
4-Bromofluorobenzene	Surrogate	%	92.2	97.4	97.0	80-120
Dibromofluoromethane	Surrogate	%	111	109	114	80-120

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		Sample Location				
		Sample Description	RL-Raw / Ruby Lake / 7.4 °C	RL-03 / Jervis Inlet / 7.4 °C	EG-Raw / Waugh Lake / 7.4 °C	
		Matrix	Water	Water	Water	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Mono-Aromatic Hydrocarbons - Water - Continued						
Toluene-d8	Surrogate	%	87.3	92.1	94.6	80-120
Trace Metals Total						
Aluminum	Total	mg/L	0.007	0.006	0.029	0.001
Antimony	Total	mg/L	0.00005	0.00004	<0.00002	0.00002
Arsenic	Total	mg/L	0.0004	0.0005	0.0003	0.0001
Barium	Total	mg/L	0.0020	0.0038	0.0033	0.0001
Beryllium	Total	mg/L	<0.00005	<0.00005	<0.00005	0.00005
Bismuth	Total	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Boron	Total	mg/L	0.010	0.009	0.003	0.002
Cadmium	Total	mg/L	0.00002	<0.00001	<0.00001	0.00001
Chromium	Total	mg/L	<0.00005	0.00008	0.00012	0.00005
Cobalt	Total	mg/L	<0.00002	<0.00002	<0.00002	0.00002
Copper	Total	mg/L	0.0023	0.0025	0.0042	0.0002
Iron	Total	mg/L	0.015	0.14	0.029	0.002
Lead	Total	mg/L	0.00065	0.00006	0.00019	0.00001
Lithium	Total	mg/L	<0.0005	<0.0005	<0.0005	0.0005
Manganese	Total	mg/L	0.002	0.002	0.004	0.001
Molybdenum	Total	mg/L	0.00054	0.00050	0.00053	0.00002
Nickel	Total	mg/L	0.0002	0.0003	0.0002	0.0002
Selenium	Total	mg/L	<0.0002	<0.0002	<0.0002	0.0002
Silver	Total	mg/L	<0.00001	<0.00001	<0.00001	0.00001
Strontium	Total	mg/L	0.013	0.016	0.012	0.0001
Thallium	Total	mg/L	<0.00001	<0.00001	<0.00001	0.00001
Thorium	Total	mg/L	<0.00005	<0.00005	<0.00005	0.00005
Tin	Total	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Titanium	Total	mg/L	0.0002	0.0004	0.0005	0.0001
Uranium	Total	mg/L	0.00002	0.00001	0.00001	0.00001
Vanadium	Total	mg/L	0.00035	0.00035	0.00052	0.00005
Zinc	Total	mg/L	0.014	0.025	0.019	0.0005
Zirconium	Total	mg/L	0.0002	<0.0001	<0.0001	0.0001

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Attn: Accounts Payable	P.O.: 3003873	Report Number: 2723323
Sampled By: Gordon B/ Dan H	Proj. Acct. code:	
Company: SCRD		

Reference Number 1555471-4  
Sample Date Feb 23, 2022  
Sample Time 08:56  
Sample Location  
Sample Description EG-02 / Edgmont Hall / 7.4 °C

Matrix Water

Analyte	Units	Results	Results	Nominal Detection Limit
<b>Inorganic Nonmetallic Parameters</b>				
Phosphorus	Total - Low Level	mg/L	<0.005	0.005
<b>Metals Total</b>				
Calcium	Total	mg/L	4.7	0.01
Magnesium	Total	mg/L	0.44	0.02
Potassium	Total	mg/L	0.13	0.04
Silicon	Total	mg/L	2.4	0.005
Sulfur	Total	mg/L	0.49	0.02
Sodium	Total	mg/L	5.2	0.1
Titanium	Total	mg/L	<0.002	0.002
Mercury	Total	mg/L	<0.00001	0.00005
<b>Physical and Aggregate Properties</b>				
Colour	True	Colour units	<5	5
Solids	Total Dissolved	mg/L	46	5
Turbidity		NTU	0.49	0.1
<b>Routine Water</b>				
pH - Holding Time			Exceeded	
pH	at 25 °C		7.30	0.01
Bicarbonate		mg/L	15	5
Carbonate		mg/L	<6	6
Hydroxide		mg/L	<5	5
P-Alkalinity	as CaCO <sub>3</sub>	mg/L	<5	5
T-Alkalinity	as CaCO <sub>3</sub>	mg/L	12	5
Bromide	Dissolved	mg/L	<0.02	0.02
Chloride	Dissolved	mg/L	5.61	0.05
Fluoride	Dissolved	mg/L	<0.01	0.01
Nitrate - N	Dissolved	mg/L	0.06	0.01
Nitrite - N	Dissolved	mg/L	<0.01	0.01
Sulfate (SO <sub>4</sub> )	Dissolved	mg/L	1.0	0.1
Hardness	Total	mg CaCO <sub>3</sub> /L	14	1
<b>Mono-Aromatic Hydrocarbons - Water</b>				
Benzene		mg/L	<0.0005	0.0005
Ethylbenzene		mg/L	<0.0005	0.0005
Methyl t-Butyl Ether		mg/L	<0.0005	0.0005
Styrene		mg/L	<0.0005	0.0005
Toluene		mg/L	<0.0005	0.0005
Total Xylenes (m,p,o)		mg/L	<0.0005	0.0005
4-Bromofluorobenzene	Surrogate	%	99.5	80-120
Dibromofluoromethane	Surrogate	%	113	80-120

## Analytical Report

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Sample Location  
Sample Description EG-02 / Edgmont Hall / 7.4 °C

Matrix Water

Analyte	Units	Results	Results	Nominal Detection Limit
<b>Mono-Aromatic Hydrocarbons - Water - Continued</b>				
Toluene-d8	Surrogate	%	92.5	80-120
<b>Trace Metals Total</b>				
Aluminum	Total	mg/L	0.025	0.001
Antimony	Total	mg/L	0.00002	0.00002
Arsenic	Total	mg/L	0.0003	0.0001
Barium	Total	mg/L	0.0036	0.0001
Beryllium	Total	mg/L	<0.00005	0.00005
Bismuth	Total	mg/L	<0.0001	0.0001
Boron	Total	mg/L	0.003	0.002
Cadmium	Total	mg/L	<0.00001	0.00001
Chromium	Total	mg/L	0.00006	0.00005
Cobalt	Total	mg/L	<0.00002	0.00002
Copper	Total	mg/L	0.0043	0.0002
Iron	Total	mg/L	0.091	0.002
Lead	Total	mg/L	0.00014	0.00001
Lithium	Total	mg/L	<0.0005	0.0005
Manganese	Total	mg/L	0.002	0.001
Molybdenum	Total	mg/L	0.00050	0.00002
Nickel	Total	mg/L	0.0006	0.0002
Selenium	Total	mg/L	<0.0002	0.0002
Silver	Total	mg/L	<0.00001	0.00001
Strontium	Total	mg/L	0.015	0.0001
Thallium	Total	mg/L	<0.00001	0.00001
Thorium	Total	mg/L	<0.00005	0.00005
Tin	Total	mg/L	<0.0001	0.0001
Titanium	Total	mg/L	0.0004	0.0001
Uranium	Total	mg/L	0.00001	0.00001
Vanadium	Total	mg/L	0.00050	0.00005
Zinc	Total	mg/L	0.026	0.0005
Zirconium	Total	mg/L	<0.0001	0.0001

Approved by:



Anthony Neumann, MSc  
General Manager

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

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## Methodology and Notes

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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	Mar 1, 2022	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	* pH - Electrometric Method, 4500-H+ B	Mar 1, 2022	Element Vancouver
Anions by IEC in water (VAN)	APHA	* Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	Feb 25, 2022	Element Vancouver
Anions by IEC in water (VAN)	APHA	* Single-Column Ion Chromatography with Electronic Suppression, 4110 C	Feb 25, 2022	Element Vancouver
BTEX-VPH - Water (MS) (VAN)	BCELM	* Volatile Hydrocarbons in Water by GC/FID, VH Water	Feb 25, 2022	Element Vancouver
Mercury Low Level (Total) in water (VAN)	EPA	* Mercury in Water by Cold Vapor Atomic Fluorescence Spectrometry, 245.7	Mar 3, 2022	Element Vancouver
Metals SemiTrace (Total) in Water (VAN)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	Feb 28, 2022	Element Vancouver
Phosphorus - Total in Water	APHA	* Automated Ascorbic Acid Reduction Method, 4500-P F	Mar 2, 2022	Element Edmonton - Roper Road
Solids Dissolved (Total, Fixed and Volatile) - VAN	APHA	* Total Dissolved Solids Dried at 180 C, 2540 C	Feb 28, 2022	Element Vancouver
Trace Metals (Total) in Water (VAN)	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Feb 28, 2022	Element Vancouver
True Color in water (VAN)	APHA	* Spectrophotometric - Single Wavelength Method, 2120 C	Feb 25, 2022	Element Vancouver
Turbidity - Water (VAN)	APHA	* Turbidity - Nephelometric Method, 2130 B	Feb 25, 2022	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

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