

## Report Transmission Cover Page

Bill To: Aaron Service 4703 Marine Avenue Powell River, BC, Canada V8A 2L2	Project ID: Savary Shores Improvement	Lot ID: <b>1265629</b>
Attn: Coranne Anderson	Project Name: Savary Shores Improvement	Control Number:
Sampled By: Courtney Robertson	Project Location: Well # 2	Date Received: Apr 19, 2018
Company: Savary Shores Improv.	LSD:	Date Reported: Apr 24, 2018
	P.O.: 320731	Report Number: 2278953
	Proj. Acct. code:	

Contact	Company	Address
Coranne Anderson	Aaron Service	4703 Marine Avenue Powell River, BC V8A 2L2 Phone: (604) 485-5611 Fax: (604) 485-6858 Email: coranne@aaronservice.com

Delivery	Format	Deliverables
Email - Merge Reports	PDF	COA
Email - Merge Reports	PDF	COC / Test Report
Email - Merge Reports	PDF	COR
Email - Merge Reports	PDF	Invoice

Contact	Company	Address
Ryan Anderson	Aaron Service	4703 Marine Avenue Powell River, BC V8A 2L2 Phone: (604) 485-5611 Fax: (604) 485-6858 Email: ryan@aaronservice.com

Delivery	Format	Deliverables
Email - Merge Reports	PDF	COC / Test Report

Contact	Company	Address
Trevor Anderson	Aaron Service	4703 Marine Avenue Powell River, BC V8A 2L2 Phone: (604) 485-5611 Fax: (604) 485-6858 Email: trevor@aaronservice.com

Delivery	Format	Deliverables
Email - Merge Reports	PDF	Test Report

### Notes To Clients:

- Apr 20, 2018 - Sample 1265629-1; 6066805: Reduction of analytical volume was necessary for chloride to bring results within the analytical range for sample 1265629-1. Detection limits are adjusted accordingly.
- Apr 24, 2018 - The analysis of water sample 1265629-1 is below Maximum Acceptable Concentrations for the chemical and bacteriological health related guidelines specified by the February 2017 Guidelines for Canadian Drinking Water Quality for the parameters tested.

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## Analytical Report

Bill To: Aaron Service 4703 Marine Avenue Powell River, BC, Canada V8A 2L2 Attn: Coranne Anderson	Project ID: Savary Shores Improvement Project Name: Savary Shores Improvement Project Location: Well # 2 LSD: P.O.: 320731 Proj. Acct. code:	Lot ID: <b>1265629</b> Control Number: Date Received: Apr 19, 2018 Date Reported: Apr 24, 2018 Report Number: 2278953
Sampled By: Courtney Robertson Company: Savary Shores Improv.		

<b>Reference Number</b>	1265629-1
<b>Sample Date</b>	April 18, 2018
<b>Sample Time</b>	08:07
<b>Sample Location</b>	
<b>Sample Description</b>	Savary Shores Improvement Well # 2 / 7.0 °C
<b>Sample Matrix</b>	Drinking Water

Analyte	Units	Result	Nominal Detection Limit	Guideline Limit	Guideline Comments	
<b>Inorganic Nonmetallic Parameters</b>						
Tannin & Lignin	as Tannic Acid	mg/L	<0.1	0.1		
<b>Metals Extractable</b>						
Aluminum	Extractable	mg/L	<0.001	0.001	0.1	Below OG
Antimony	Extractable	mg/L	0.00003	0.00002	0.006	Below MAC
Arsenic	Extractable	mg/L	<0.0001	0.0001	0.010	Below MAC
Barium	Extractable	mg/L	0.0155	0.0001	1	Below MAC
Boron	Extractable	mg/L	0.014	0.002	5	Below MAC
Cadmium	Extractable	mg/L	<0.00001	0.00001	0.005	Below MAC
Chromium	Extractable	mg/L	0.00016	0.00005	0.05	Below MAC
Copper	Extractable	mg/L	0.0006	0.0005	1.0	Below AO
Lead	Extractable	mg/L	0.00005	0.00001	0.01	Below MAC
Selenium	Extractable	mg/L	<0.0002	0.0002	0.05	Below MAC
Uranium	Extractable	mg/L	0.00020	0.00001	0.02	Below MAC
Vanadium	Extractable	mg/L	0.00138	0.00005		
Zinc	Extractable	mg/L	0.0030	0.0005	5.0	Below AO
<b>Microbiological Analysis</b>						
Total Coliforms	Enzyme Substrate Test	MPN/100 mL	<1.0	1.0	0 per 100 mL	Below MAC
Escherichia coli	Enzyme Substrate Test	MPN/100 mL	<1.0	1.0	0 per 100 mL	Below MAC
<b>Physical and Aggregate Properties</b>						
Colour	True	Colour units	<5	5		
Turbidity		NTU	1.2	0.05		
<b>Routine Water</b>						
pH - Holding Time			Exceeded			
pH	at 25 °C		7.05	0.01	7.0-10.5	Within Range
Electrical Conductivity		µS/cm at 25 °C	277	1		
Calcium	Extractable	mg/L	14	0.01		
Iron	Extractable	mg/L	0.067	0.004	0.3	Below AO
Magnesium	Extractable	mg/L	6.1	0.02		
Manganese	Extractable	mg/L	0.002	0.001	0.05	Below AO
Potassium	Extractable	mg/L	1.9	0.04		
Silicon	Extractable	mg/L	12	0.005		
Sodium	Extractable	mg/L	28	0.1	200	Below AO
T-Alkalinity	as CaCO3	mg/L	43	5		
Chloride	Dissolved	mg/L	49.3	0.05	250	Below AO
Fluoride	Dissolved	mg/L	0.04	0.01	1.5	Below MAC
Nitrate - N	Dissolved	mg/L	2.35	0.01	10	Below MAC
Nitrite - N	Dissolved	mg/L	<0.01	0.01	1	Below MAC

## Analytical Report

Bill To: Aaron Service 4703 Marine Avenue Powell River, BC, Canada V8A 2L2 Attn: Coranne Anderson	Project ID: Savary Shores Improvement Project Name: Savary Shores Improvement Project Location: Well # 2 LSD: P.O.: 320731 Proj. Acct. code:	Lot ID: <b>1265629</b> Control Number: Date Received: Apr 19, 2018 Date Reported: Apr 24, 2018 Report Number: 2278953
Sampled By: Courtney Robertson Company: Savary Shores Improv.		

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<b>Reference Number</b>	1265629-1
<b>Sample Date</b>	April 18, 2018
<b>Sample Time</b>	08:07
<b>Sample Location</b>	
<b>Sample Description</b>	Savary Shores Improvement Well # 2 / 7.0 °C
<b>Sample Matrix</b>	Drinking Water

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Analyte		Units	Result	Nominal Detection Limit	Guideline Limit	Guideline Comments
<b>Routine Water - Continued</b>						
Sulfate (SO <sub>4</sub> )	Dissolved	mg/L	10.9	0.1	500	Below AO
Hardness	as CaCO <sub>3</sub> (extractable)	mg/L	61	1		
Total Dissolved Solids	Extractable	mg/L	180	1		

Approved by:   
Mathieu Simoneau  
Operations Manager

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

Generation and distribution of the report, and approval by the digitized signature above, are performed through a secure and controlled automatic process.

## Methodology and Notes

Bill To: Aaron Service 4703 Marine Avenue Powell River, BC, Canada V8A 2L2	Project ID: Savary Shores Improvement	Lot ID: <b>1265629</b>
Attn: Coranne Anderson	Project Name: Savary Shores Improvement	Control Number:
Sampled By: Courtney Robertson	Project Location: Well # 2	Date Received: Apr 19, 2018
Company: Savary Shores Improv.	LSD:	Date Reported: Apr 24, 2018
	P.O.: 320731	Report Number: 2278953
	Proj. Acct. code:	

## Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
Alk, pH, EC, Turb in water (BC)	APHA	* Alkalinity - Titration Method, 2320 B	Apr 21, 2018	Exova Surrey
Alk, pH, EC, Turb in water (BC)	APHA	* Conductivity, 2510 B	Apr 21, 2018	Exova Surrey
Alk, pH, EC, Turb in water (BC)	APHA	* pH - Electrometric Method, 4500-H+ B	Apr 21, 2018	Exova Surrey
Anions by IEC in water (Surrey)	APHA	* Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	Apr 19, 2018	Exova Surrey
Metals SemiTrace (Extractable) in water (Surrey)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	Apr 20, 2018	Exova Surrey
Tannin and Lignin in water (surrey)	APHA	* Colorimetric Method, 5550 B	Apr 24, 2018	Exova Surrey
Total and E-Coli - Colilert - DW (Surrey)	APHA	Enzyme Substrate Test, APHA 9223 B	Apr 19, 2018	Exova Surrey
Trace Metals (extractable) in Water (Surrey)	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Apr 20, 2018	Exova Surrey
True Color in water (Surrey)	APHA	* Spectrophotometric - Single Wavelength Method, 2120 C	Apr 19, 2018	Exova Surrey
Turbidity - Water (Surrey)	APHA	* Turbidity - Nephelometric Method, 2130 B	Apr 19, 2018	Exova Surrey

\* Reference Method Modified

## References

APHA Standard Methods for the Examination of Water and Wastewater  
 US EPA US Environmental Protection Agency Test Methods

## Guidelines

Guideline Description Health Canada GCDWQ  
 Guideline Source Guidelines for Canadian Drinking Water Quality, Health Canada, February 2017  
 Guideline Comments MAC = Maximum Acceptable Concentration  
 AO = Aesthetic Objective  
 OG = Operational Guideline for Water Treatment Plants  
 (does not apply to private groundwater wells).  
 Refer to Health Canada for complete guidelines at [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca)

## Comments:

- Apr 20, 2018 - Sample 1265629-1; 6066805: Reduction of analytical volume was necessary for chloride to bring results within the analytical range for sample 1265629-1. Detection limits are adjusted accordingly.
- Apr 24, 2018 - The analysis of water sample 1265629-1 is below Maximum Acceptable Concentrations for the chemical and bacteriological health related guidelines specified by the February 2017 Guidelines for Canadian Drinking Water Quality for the parameters tested.

The comparison of test results to guideline limits is provided for information purposes only. This is not to be taken as a statement of conformance / nonconformance to any guideline, regulation or limit. The data user is responsible for all conclusions drawn with respect to the data and is advised to consult official regulatory references when evaluating compliance.

Please direct any inquiries regarding this report to our Client Services Group or to the Operations Manager at the coordinates indicated at the top left of this page.

Results relate only to samples as submitted.

The test report shall not be reproduced except in full, without the written approval of the laboratory.



Invoice To:		Report To:		Report Results		Regulatory Requirement	
Company	Aaron Service	Company	Aaron Service	E-Mail	X	HCDWQG	
Address	4703 Marine Avenue Powell River, BC V8A 2L2	Address	4703 Marine Avenue Powell River, BC V8A 2L2	Mail		Ab Tier 1	
Attention	Coranne Anderson	Attention	Coranne Anderson	Online		SPIGEC	
Phone	604-485-5611	Phone	604-485-5611	Fax		BCCSR	
Cell		Cell		PDF		Other (list below)	
Fax		Fax		Excel			
E-mail	coranne@aaronservice.com	E-mail 1	coranne@aaronservice.com	QA/QC			
Agreement ID	66993	E-mail 2	trevor@aaronservice.com				
Copy of Report		Copy of Invoice					

**Project Information**

Project ID: Savary Shores Imp

Project Name: Savary Shores Imp

Project Location: Well #2

Legal Location: \_\_\_\_\_

PO/AFE#: 320731

Proj. Acct. Code: \_\_\_\_\_

Quote #: \_\_\_\_\_

**RUSH Priority**

Emergency (contact lab for turnaround and pricing) \_\_\_\_\_

Priority 1-2 working days (100% surcharge) \_\_\_\_\_

Urgent 2-3 working days (50% surcharge) \_\_\_\_\_

When "ASAP" is requested, turn around will default to a 100% RUSH priority, with pricing and turn around time to match. Please contact the lab prior to submitting RUSH samples. If not all samples require RUSH, please indicate in the special instructions.

Date Required: \_\_\_\_\_ Signature: \_\_\_\_\_

Special Instructions/Comments (please include contact information including ph. # if different from above):

Number of Containers

W99 \_\_\_\_\_

DW20 \_\_\_\_\_

T/L \_\_\_\_\_

UVT \_\_\_\_\_

TOC \_\_\_\_\_

M99R (repeat total & e coli) \_\_\_\_\_

M99S (includes HPC) \_\_\_\_\_

**Sample Custody (please print)**

Sampled by: Courtney Robertson

Company: Savary Shores Improvement

I authorize Exova to proceed with the work indicated on this form:

Date: \_\_\_\_\_ Initial: \_\_\_\_\_

**This section for Lab use**

Date/Time stamp: APR 19 '18 8:31

WAT. TEST W99, DW20, T/L

Site I.D.	Sample description	Depth start end in cm m	Date/Time sampled	Matrix	Sampling method	Enter tests above (√ relevant samples below)														
1																				
2																				
3																				
4	<u>Savary Shores Improvement</u>		<u>April 18</u>																	
5																				
6	<u>Well #2</u>		<u>8:07</u>																	
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				

Indicate in the space allotted any deficiencies by the corresponding number.

1. Indicate any samples that were not packaged well
2. Indicate any samples not received in Exova supplies
3. Indicate any samples that were not clearly labeled
4. Indicate any samples not received within the required hold time or temp.
5. Indicate any missing or extra samples
6. Indicate any samples that were received broken
7. Indicate any samples where sufficient volume was not received
8. Indicate any samples received in an inappropriate container

**Environmental Sample Information Sheet**

Note: Proper completion of this form is required in order to proceed with analysis

**Please indicate any potentially hazardous samples**

Page \_\_\_\_\_ of \_\_\_\_\_ Control # \_\_\_\_\_

Lot: **1265629** COC



Shipping: COD Y/N \_\_\_\_\_

# and size of coolers \_\_\_\_\_

Temp. received: 7.0°C Delivery Method: Dyn

Waybill: \_\_\_\_\_

Received by: LC