

## Analytical Report

<b>Bill To:</b> Gillies Bay Improvement District	<b>Project ID:</b>	<b>Lot ID:</b> 1320529
PO Box 237	<b>Project Name:</b> Raw Water Baseline	<b>Control Number:</b> C0030756
Gillies Bay, BC, Canada	<b>Project Location:</b> Gillies Bay	<b>Date Received:</b> Nov 30, 2018
VON 1W0	<b>LSD:</b> 4600 Gillies Bay Rd.	<b>Date Reported:</b> Dec 6, 2018
<b>Attn:</b> Ken Taylor	<b>P.O.:</b>	<b>Report Number:</b> 2360760
<b>Sampled By:</b> Ken Taylor	<b>Proj. Acct. code:</b>	
<b>Company:</b> G.B.I.D.		

<b>Reference Number</b>	1320529-1
<b>Sample Date</b>	November 28, 2018
<b>Sample Time</b>	NA
<b>Sample Location</b>	
<b>Sample Description</b>	Raw Water / Annual Baseline
<b>Sample Matrix</b>	Drinking Water

Analyte	Units	Result	Nominal Detection Limit	Guideline Limit	Guideline Comments
<b>Inorganic Nonmetallic Parameters</b>					
Organic Carbon	Total Nonpurgeable	mg/L	7.0	0.5	
<b>Metals Extractable</b>					
Aluminum	Extractable	mg/L	0.002	0.001	Below OG
Antimony	Extractable	mg/L	0.00010	0.00002	Below MAC
Arsenic	Extractable	mg/L	0.0002	0.0001	Below MAC
Barium	Extractable	mg/L	0.0040	0.0001	Below MAC
Boron	Extractable	mg/L	0.005	0.002	Below MAC
Cadmium	Extractable	mg/L	<0.00001	0.00001	Below MAC
Chromium	Extractable	mg/L	<0.00005	0.00005	Below MAC
Copper	Extractable	mg/L	0.0014	0.0005	Below AO
Lead	Extractable	mg/L	0.00012	0.00001	Below MAC
Selenium	Extractable	mg/L	<0.0002	0.0002	Below MAC
Uranium	Extractable	mg/L	<0.00001	0.00001	Below MAC
Vanadium	Extractable	mg/L	<0.00005	0.00005	
Zinc	Extractable	mg/L	0.0014	0.0005	Below AO
<b>Metals Total</b>					
Mercury	Total	mg/L	<0.00001	0.00001	Below MAC
<b>Physical and Aggregate Properties</b>					
Colour	True	Colour units	18	5	
Turbidity		NTU	0.33	0.05	
<b>Routine Water</b>					
pH - Holding Time		Exceeded			
pH	at 25 °C	7.78	0.01	7.0-10.5	Within Range
Electrical Conductivity		µS/cm at 25 °C	116	1	
Calcium	Extractable	mg/L	17	0.01	
Iron	Extractable	mg/L	0.10	0.004	Below AO
Magnesium	Extractable	mg/L	1.9	0.02	
Manganese	Extractable	mg/L	0.003	0.001	Below AO
Potassium	Extractable	mg/L	0.33	0.04	
Silicon	Extractable	mg/L	1.2	0.005	
Sodium	Extractable	mg/L	3.7	0.1	Below AO
T-Alkalinity	as CaCO3	mg/L	44	5	
Chloride	Dissolved	mg/L	4.59	0.05	Below AO
Fluoride	Dissolved	mg/L	<0.01	0.01	Below MAC
Nitrate - N	Dissolved	mg/L	0.05	0.01	Below MAC
Nitrite - N	Dissolved	mg/L	<0.01	0.01	Below MAC
Sulfate (SO4)	Dissolved	mg/L	3.0	0.1	Below AO
Hardness	as CaCO3 (extractable)	mg/L	49	1	

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VON 1W0	LSD: 4600 Gillies Bay Rd.	Date Reported: Dec 6, 2018
Attn: Ken Taylor	P.O.:	Report Number: 2360760
Sampled By: Ken Taylor	Proj. Acct. code:	
Company: G.B.I.D.		

Reference Number	1320529-1
Sample Date	November 28, 2018
Sample Time	NA
Sample Location	
Sample Description	Raw Water / Annual Baseline
Sample Matrix	Drinking Water

Analyte	Units	Result	Nominal Detection Limit	Guideline Limit	Guideline Comments
<b>Routine Water - Continued</b>					
Total Dissolved Solids    Extractable	mg/L	60	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: Gillies Bay Improvement District PO Box 237 Gillies Bay, BC, Canada V0N 1W0 Attn: Ken Taylor Sampled By: Ken Taylor Company: G.B.I.D.	Project ID: Project Name: Raw Water Baseline Project Location: Gillies Bay LSD: 4600 Gillies Bay Rd. P.O.: Proj. Acct. code:	Lot ID: <b>1320529</b> Control Number: C0030756 Date Received: Nov 30, 2018 Date Reported: Dec 6, 2018 Report Number: 2360760
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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	Dec 3, 2018	Exova Surrey
Alk, pH, EC, Turb in water (BC)	APHA	* Conductivity, 2510 B	Dec 3, 2018	Exova Surrey
Alk, pH, EC, Turb in water (BC)	APHA	* pH - Electrometric Method, 4500-H+ B	Dec 3, 2018	Exova Surrey
Anions by IEC in water (Surrey)	APHA	* Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	Dec 1, 2018	Exova Surrey
Carbon Organic (Total) in water (TOC)	APHA	High-Temperature Combustion Method, 5310 B	Dec 3, 2018	Exova Edmonton
Mercury Low Level (Total) in water (Surrey)	EPA	* Mercury in Water by Cold Vapor Atomic Fluorescence Spectrometry, 245.7	Dec 3, 2018	Exova Surrey
Metals SemiTrace (Extractable) in water (Surrey)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	Dec 4, 2018	Exova Surrey
Trace Metals (extractable) in Water (Surrey)	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Dec 4, 2018	Exova Surrey
True Color in water (Surrey)	APHA	* Spectrophotometric - Single Wavelength Method, 2120 C	Dec 3, 2018	Exova Surrey
Turbidity - Water (Surrey)	APHA	* Turbidity - Nephelometric Method, 2130 B	Dec 3, 2018	Exova Surrey

\* Reference Method Modified

## References

APHA	Standard Methods for the Examination of Water and Wastewater
EPA	Environmental Protection Agency Test Methods - US
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 <a href="http://www.hc-sc.gc.ca">www.hc-sc.gc.ca</a>

## Comments:

- Dec 03, 2018 - Analysis was performed on sample 1320529-1 that exceeded the recommended holding time for turbidity analysis.
- Dec 04, 2018 - An appropriately preserved sample was not received for total mercury analysis. Analysis was performed on unpreserved sample.

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.

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