

DRINKING WATER SYSTEM ANNUAL REPORT

Reporting Period: January 1st to December 31st, 2024 (year)

Water System Cowichan River - Stoltz Pool Campground

Water System Owner BC Parks

Primary Contact Name (Operator or Manager) Fred King

Phone Number (Operator or Manager) 250 539-0161

E-mail (Operator or Manager) k2parks@shaw.ca

DESCRIBE YOUR WATER SUPPLY SYSTEM

What is the Source(s) of Raw Water?

Deep Well
 Shallow Well
 Surface Water
 Other

If other, specify details:

Does the Drinking Water System have Primary Disinfection? Yes No

Chlorination
 Ultraviolet Light
 Ozone
 Other

If other, specify details:

Does the Drinking Water System have Secondary Disinfection? Yes No

Chlorination
 Other

If other, specify details:

Does the Drinking Water System have Filtration? Yes No

Check all boxes that apply

Cartridge Filter(s)
 Carbon Filter
 Sand Filtration
 Reverse Osmosis
 Other

If other, specify details:

PUBLIC REPORTING

Emergency Response & Contingency Plan (ERCP)

Is your ERCP up to Date? Yes No

How do you Inform the System Users of the ERCP?

Hand Delivered
 Bulletin Board
 Newspaper
 Utility Bill Insert
 Website

Other (specify details) Contractor - K2 Park Services

Drinking Water System Annual Report

How do you Inform the System Users of the Annual Report?

Hand Delivered
 Bulletin Board
 Newspaper
 Utility Bill Insert
 Website

Other (specify details) V.I.H.A. web site

COMPLIANCE WITH OPERATING PERMIT

List the conditions of your Operating Permit (Contact the DWO for a copy if needed):

EOCP credits current

Are you in compliance with your Operating Permit? Yes No

BACTERIOLOGICAL TESTING AND DRINKING WATER PROTECTION REGULATION WATER QUALITY STANDARDS

How many bacteriological samples were collected during this reporting period? 14

What is the minimum required sampling frequency for this system? (#samples/month) 2/month

Additional sampling details:

Was the minimum required sampling frequency achieved? Yes No

Comments:

Bacteriological summary attached to this report? Yes No

If no, how do the users of the system view the results?

V.I.H.A. website

WATER QUALITY STANDARDS FOR POTABLE WATER

<i>Parameter:</i>	<i>Standard:</i>	<i>Did this system meet standard?</i>	
Escherichia coli (for all samples)	No detectable <i>Escherichia coli</i> per 100ml	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Total Coliform Bacteria (if only 1 sample collected in a 30 day period)	No detectable total coliform bacteria per 100ml	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Total Coliform Bacteria (if more than 1 sample collected in a 30 day period)	No more than 10% of samples contain total coliform bacteria, and No sample has more than 10 total coliform bacteria per 100ml	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

If the system did not meet any of above Drinking Water Protection Regulation standards, record the results in the table below; attach additional sheets if necessary.

Date	TC/100ml	E.coli/100ml	Reason	Corrective Action

CHEMICAL SAMPLING COMPLETED DURING THIS REPORTING PERIOD

Was any chemical sampling conducted during reporting period? Yes

If no, when were the last chemical samples conducted for this system? (date) Don't know

If yes, attach a list of the chemical results - see attachment

If any water samples did not meet the Guidelines for Canadian Drinking Water Quality, record the results in the table below; attach additional sheets if necessary.

Next scheduled full chemical test (date) 2029

Parameter	Result	Corrective Action / Treatment / Comments

ADDITIONAL TESTING

Does the system have analyzers for continuous monitoring? Yes No

If yes, check all boxes that apply:

Chlorine Turbidity Other (details)

Are the results available on request?

If any additional testing or sampling was conducted, record results in the table below; attach additional sheets if necessary.

Additional Testing & Reason for Sampling	Corrective Action Taken

WATER QUALITY COMPLAINTS

Were there any water quality complaints in this reporting period? (e.g. taste, odour, colour etc.) Yes No

If yes, complete the table below; attach additional sheets if necessary.

Date	Water Quality Complaint	Corrective Action / Treatment



OPERATIONAL PROBLEMS

Were there any operational problems during this reporting period? (e.g. insufficient water supply, malfunction of disinfection equipment, line breaks, elevated turbidity etc.). Yes No

If yes, complete the table below; attach additional sheets if necessary.

Incident Date	Type of Operational Problem	Corrective Action Taken

MAJOR UPGRADES/REPAIRS & EXPENSES

Were there any major upgrades/repairs or any major costs incurred during this reporting period? Yes No

If yes, complete the table below; attach additional sheets if necessary.

Major Upgrades/Expenses	Details
Improvements required by DWO	
Additions/changes to system	
Purchase or install new equipment	
Equipment repair or replacement	
Annual maintenance of system	Well shocked at Spring start up of Operating Season.
Specialist report	
Other	

FUTURE IMPROVEMENTS

Are there any plans for future improvements? Yes No

If yes, complete the table below; attach additional sheets if necessary.

Future Upgrades or Improvements	Estimated Date of Completion
Drill wells deeper to avoid turbidity levels - BC Parks	TBA

<p>November 15, 2024 DATE COMPLETED:</p>	<p>Debbie King COMPLETED BY:</p>
---	--------------------------------------

K2 Park Services Ltd. (BC Parks)
*B Fred or Debbie King
Site 3, Comp 9
Galiano Island, BC
V0N 1P0

TEL: (877) 559-2115
k2parks@shaw.ca

05Apr24 4:18p
Source: FWS
Type of Sample: Water
No. of Samples: 1

W179846

Arrival temp.: 14.3C
Pd B1165 05040

Sample: Stoltz Pool

<u>Site Code</u>	<u>Date</u>	<u>Time</u>	CFU/100 ml		CFU/100 ml		CFU/100 mL
			TC_____	T-NC	FC_____	F-NC	<u>E.coli</u>
1 Covey Ground	05Apr24	10:00	0	4	0	0	0

WATER DISTRICT SCREEN

<u>Sample</u>	<u>Date</u>	<u>Time</u>	Lactose	Coliforms	<u>Fecal</u>	<u>E.coli</u>	Total
			<u>Fermentors</u>	<u>Total</u>			<u>Aeromonas</u>
1 Covey Ground	05Apr24	10:00	0.04	ND	ND	ND	ND

<u>Sample</u>	<u>Date</u>	<u>Time</u>	Sulfur Reducing/	<u>Yeast/Fungi</u>	<u>TPC *</u>
			<u>Iron Bacteria</u>		
1 Covey Ground	05Apr24	10:00	ND / ND	ND / ND	1.84

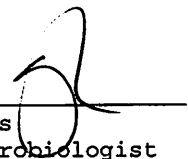
* All counts are colony forming units per milli-litre

TC = total coliform bacteria FC = fecal coliform bacteria (aka Thermotolerant Coliforms)
NC = non-coliform bacteria ND = none detected
TPC = total plate count- spread plate method - 35C/48hr TGEA FDA/BAM 9th ed, Oct 2020
CFU = colony forming units

Results may be adversely affected if samples are submitted to the laboratory more than 24 to 30 hours after collection.

E. coli = Escherichia coli, FDA/BAM 9th ed, Oct 2020
Bergey's Manual of Systematic Bacteriology vol 1, AOAC 1984; J.Clin.Micro.,
J.Intern.System.Bact.

- See following page for chemistry results -


W. Riggs
Sr. Microbiologist

M.B. LABS LTD
T: 250 656-1334

E: info@mblabs.com

W: www.mblabs.com

EMAILED

APR 09 2024

3:15/BL

K2 Park Services Ltd. (BC Parks)
 *B Fred or Debbie King
 Site 3, Comp 9
 Galiano Island, BC
 VON 1P0

05Apr24 4:18p
 Source: FWS
 Type of Sample: Water
 No. of Samples: 1

W179846 pg2

TEL: (877) 559-2115
 k2parks@shaw.ca

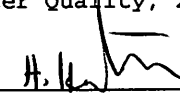
Arrival temp.: 14.3C
 Pd B1165 05040

Sample: Stoltz Pool - Covey Ground 05Apr24 10:00

<u>ELEMENTS</u>		<u>SAMPLE</u>	<u>UNITS</u>	<u>Maximum Limits In Drinking Water*</u>
1) Aluminium	Al	0.221	mg/L	no limit listed
2) Antimony	Sb	<0.500	ug/L	6.00 ug/L
3) Arsenic	As	2.45	ug/L	10.0 ug/L
4) Barium	Ba	<0.009	mg/L	2.00 mg/L
5) Beryllium	Be	<0.003	mg/L	no limit listed
6) Boron	B	0.812	mg/L	5.00 mg/L
7) Cadmium	Cd	<0.010	ug/L	7.00 ug/L
8) Calcium	Ca	15.0	mg/L	200 mg/L
9) Chromium	Cr	<0.003	mg/L	0.050 mg/L
10) Cobalt	Co	<0.005	mg/L	no limit listed
11) Copper	Cu	0.012	mg/L	1.00 mg/L
12) Gold	Au	<0.040	mg/L	no limit listed
13) Iron	Fe	1.92	mg/L	0.300 mg/L
14) Lanthanum	La	<0.020	mg/L	no limit listed
15) Lead	Pb	0.761	ug/L	5.00 ug/L
16) Magnesium	Mg	2.42	mg/L	50.0 mg/L
17) Manganese	Mn	0.215	mg/L	0.120 MAC 0.020 AO
18) Mercury	Hg	<0.010	ug/L	1.00 ug/L
19) Molybdenum	Mo	<0.005	mg/L	no limit listed
20) Nickel	Ni	<0.004	mg/L	no limit listed
21) Phosphorus	P	0.419	mg/L	no limit listed
22) Potassium	K	0.560	mg/L	no limit listed
23) Scandium	Sc	<0.050	mg/L	no limit listed
24) Selenium	Se	<0.500	ug/L	5.0 ug/L
25) Silicon	Si	7.76	mg/L	no limit listed
26) Silver	Ag	<0.010	mg/L	no limit listed
27) Sodium	Na	6.65	mg/L	200 mg/L
28) Strontium	Sr	0.060	mg/L	no limit listed
29) Tin	Sn	<0.020	mg/L	no limit listed
30) Titanium	Ti	<0.010	mg/L	no limit listed
31) Tungsten	W	<0.050	mg/L	no limit listed
32) Vanadium	V	<0.010	mg/L	no limit listed
33) Zinc	Zn	0.009	mg/L	5.00 mg/L
Hardness (mg/L CaCO ₃)		47.4	mg/L	0-75 mg/L = soft
pH		7.77	units	7.0 to 10.5

* As per Canadian or B.C. Health Act Safe Drinking Water Regulation BC Reg 230/92, & 390 Sch 120, 2001. Task Force of the Canadian Council of Resource and Environment Ministers - Guidelines for Canadian Drinking Water Quality, 2020.

 R. Bilodeau
 Analytical Chemist


 H. Hartmann
 Sr. Analytical Chemist

M.B. LABS LTD
 T: 250 656-1334

E: info@mblabs.com

W: www.mblabs.com

AB

DL

K2 Park Services Ltd. (BC Parks)
 *B Fred or Debbie King
 Site 3, Comp 9
 Galiano Island, BC
 V0N 1P0

05Apr24 4:18p
 Source: FWS
 Type of Sample: Water
 No. of Samples: 1

W179846 pg3

TEL: (877) 559-2115
 k2parks@shaw.ca

Arrival temp.: 14.3C
 Pd B1165 05040

Sample: Stoltz Pool

SAMPLE	DATE	TIME	Alkalinity (mg/L)	NH ₃ -N (ug/L)	Cl ⁻ (mg/L)	Colour (TCU)	E.C. (uS/cm)
Covey Ground	05Apr24	10:00	75.0	282	ND	5.34	125
Lab Blank			ND	ND	ND	ND	ND
So			0.100	0.254	0.015	0.300	0.300
REF. VALUE			100	10.0	10.0	5.00	147
STD ± 2SD			96.1 ± 5.65	9.69 ± 0.578	9.88 ± 0.659	4.87 ± 3.78	142 ± 12.2

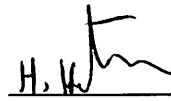
SAMPLE	DATE	TIME	CORROSIVITY (Is @20)	F ⁻ (mg/L)	S ²⁻ (uS/cm)	TKN (mg/L)	NO ₃ -N (ug/L)
Covey Ground	05Apr24	10:00	-0.566	0.311	ND	0.282	3.40
Lab Blank				ND	ND	ND	ND
So				0.007	0.007	0.012	0.160
REF. VALUE				1.00	50.0	1.00	10.0
STD ± 2SD				0.966 ± 0.078	48.2 ± 0.412	0.981 ± 0.059	10.7 ± 0.599

SAMPLE	DATE	TIME	NO ₂ -N (ug/L)	SO ₄ ²⁻ (mg/L)	T.O.C. (mg/L)	T&L (mg/L)	TDS (mg/L)
Covey Ground	05Apr24	10:00	2.60	15.9	8.57	0.012	72.3
Lab Blank			ND	ND	ND	ND	ND
So			0.300	0.075	0.300	0.070	0.010
REF. VALUE			10.0	10.0	10.0	1.00	200
STD ± 2SD			9.55 ± 5.88	9.88 ± 0.640	9.81 ± 0.750	1.07 ± 0.056	192 ± 14.0

SAMPLE	DATE	TIME	Turbidity (NTU)	UVT (%)
Covey Ground	05Apr24	10:00	15.4	89.8
Lab Blank			ND	ND
So			0.015	0.003
REF. VALUE			0.500	90.0
STD ± 2SD			0.540 ± 0.044	90.1 ± 0.02

SD = standard deviation; REF VALUE = primary or secondary reference material
 STD = secondary standard calibrated to primary standard reference material
 S_o = standard deviation at zero analyte concentration; method detection limit
 is generally considered to be 3x S_o value
 ND = none detected n/a = not applicable

 R. Bilodeau
 Analytical Chemist



 H. Hartmann
 Sr. Analytical Chemist

M.B. LABS LTD
 T: 250 656-1334

E: info@mblabs.com

W: www.mblabs.com

BB