island health

DRINKING WATER SYSTEM ANNUAL REPORT

Reporting Period: January 1st to December 31st, 2023 (year)

Water System Saltair Water System

Water System Owner Cowichan Valley Regional District

Primary Contact Name (Operator or Manager) Vanessa Thomson

Phone Number (Operator or Manager) 250-746-2535

E-mail (Operator or Manager) Vanessa.Thomson@cvrd.bc.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) Radio, Social Media

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)

COMPLIANCE WITH OPERATING PERMIT

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

Operating conditions attached.

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? 99

What is the minimum required sampling frequency for this system? (#samples/month) 4 samples/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?

WATER QUALITY STANDARDS FOR POTABLE WATER

Parameter:	***Standard:***	**Did this system meet standard?**	
Escherichia coli (for all samples)	No detectable *Escherichia coli* per 100ml	☒ Yes	☐ No
Total Coliform Bacteria *(if only 1 sample collected in a 30 day period)*	No detectable total coliform bacteria per 100ml	☒ Yes	☐ 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	☒ Yes	☐ 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
February 6	LT1 GTR200	LT1 GTR200		

CHEMICAL SAMPLING COMPLETED DURING THIS REPORTING PERIOD

Was any chemical sampling conducted during reporting period? ■ Yes ☐ No

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 Full Spectrum Report for Distribution

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) Source - November 2024

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) UV Intensity Alarm

Are the results available on request? Yes

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
THM and HAAs	Reports attached
Giardia and Cryptosporidium testing	Reports attached

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
March 11	Cloudy water	Investigated - due to system shut down. Flushed.
December 5	Silty water	Sampled water. All parameters within limits. Likely due to home location at EOL

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	Upgraded watermain between Seacloud and Dogwood
Purchase or install new equipment	
Equipment repair or replacement	Treatment and Distribution
Annual maintenance of system	System flushing, hydrant maintenance, servicing genset and chlorine equip.
Specialist report	
Other	Monitored Stocking Creek at hydrometric station; Stocking Lake dam remediation

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
PRV installations	2024
Detailed design for new dam	2024

Click here to enter a date. February 12, 2024 **DATE COMPLETED:**	Tai Williams **COMPLETED BY:**

APPENDIX A

Water System Operating Conditions
for the Cowichan Valley Regional District - Saltair Water System
175 Ingram Street,
Duncan, B.C., V9L 1N8

1. Existing Performance Standards

The CVRD – Saltair Water System shall ensure the disinfection systems are in good working order and provide the following:

- A 4-log removal/inactivation of viruses, and a 3-log removal/inactivation of Giardia cysts and Cryptosporidium oocysts, and produce finished water with less than 1 NTU turbidity.
- Raw water must be recorded on a continuous basis and the average daily turbidity levels are not to exceed 1 NTU.
- The Drinking Water Officer must be contacted immediately if the average daily turbidity level exceeds 1 NTU at the water treatment plant.

2. Future Treatment Specifications

On or before January 31, 2018, the Water System Owner shall ensure that the average daily turbidity levels do not exceed 1 NTU as measured at the water treatment plant. The Water System Owner is required to meet the following implementation plan dates:

A. On or before January 31, 2016, complete any and all water quality and water source assessments, tests and evaluations necessary to characterize water quality for the purposes of identifying acceptable treatment and disinfection options.
B. On or before September 31, 2016, finalize your selection of a treatment technology that will meet the objectives established in HPES Policy 3.3 Surface Water Treatment Objectives.
C. On or before May 31, 2017 submit to the HPES Public Health Engineer, in a form acceptable and with sufficient information, a component diagram of the proposed water system revisions necessary for the water supply system to provide potable water in compliance with the HPES Policy 3.3 Surface Water Treatment Objectives.
D. On or before January 31, 2018 complete construction and commissioning of all works in accordance with the construction permit or permit waiver in order to meet the objectives established in HPES Policy 3.3 Surface Water Treatment Objectives.
E. Apply for and obtain all necessary approvals and permits from the Public Health Engineer as required by the *Drinking Water Protection Act* and Drinking *Water Protection Regulation*, including but not limited to obtaining a Construction Permit, or a waiver of the same from the Public Health Engineer, prior to undertaking revisions to the Water Supply Systems.

August 28, 2015

Environmental Health Officer

SALTAIR WATER SYSTEM

Facility Information

Location 175 Ingram Street Duncan

Type 301 - 10,0000 Connections

Facility Sampling History

Location	Date	Total Coliform	E. Coli/Enterococci
Saltair 2 S2 3254 Dogwood Road	19-Dec-2023	LT1	LT1
Saltair 7 10980 Westdowne Road	19-Dec-2023	LT1	LT1
Saltair 8 10879 Chemainus Road	19-Dec-2023	LT1	LT1
Saltair 12 11185 Baker Road	11-Dec-2023	LT1	LT1
SALTAIR 4 10651 Olsen Road	11-Dec-2023	LT1	LT1
Saltair 6 10311 Old Victoria Road Victoria Road	11-Dec-2023	LT1	LT1
Saltair AUDIT SALTAIR WATER SYSTEM	06-Dec-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	05-Dec-2023	LT1	LT1
Saltair 5 at 3771 Gardner Road	05-Dec-2023	LT1	LT1
Saltair 7 10980 Westdowne Road	27-Nov-2023	LT1	LT1
Saltair 8 10879 Chemainus Road	27-Nov-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	22-Nov-2023	LT1	LT1
SALTAIR 4 10651 Olsen Road	22-Nov-2023	LT1	LT1
Saltair 6 10311 Old Victoria Road	15-Nov-2023	LT1	LT1
Saltair 12 11185 Baker Road	06-Nov-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	06-Nov-2023	LT1	LT1
Saltair 5 at 3771 Gardner Road	31- Oct-2023	LT1	LT1
Saltair 8 10879 Chemainus Road	31- Oct-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	24- Oct-2023	LT1	LT1
Saltair 7 10980 Westdowne Road	24- Oct-2023	LT1	LT1
SALTAIR 4 10651 Olsen Road	17- Oct-2023	LT1	LT1
Saltair 6 10311 Old Victoria Road	17- Oct-2023	LT1	LT1
Saltair 12 11185 Baker Road	10- Oct-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	10- Oct-2023	LT1	LT1
Saltair 5 at 3771 Gardner Road	03- Oct-2023	LT1	LT1
Saltair 8 10879 Chemainus Road	03- Oct-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	27-Sep-2023	LT1	LT1
Saltair 7 10980 Westdowne Road	27-Sep-2023	LT1	LT1
SALTAIR 4 10651 Olsen Road	19-Sep-2023	LT1	LT1
Saltair 6 10311 Old Victoria Road	19-Sep-2023	LT1	LT1
Saltair 12 11185 Baker Road	13-Sep-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	13-Sep-2023	LT1	LT1
Saltair 5 at 3771 Gardner Road	05-Sep-2023	LT1	LT1
Saltair 8 10879 Chemainus Road	05-Sep-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	29-Aug-2023	LT1	LT1
Saltair 6 10311 Old Victoria Road	21-Aug-2023	LT1	LT1
Saltair 7 10980 Westdowne Road	21-Aug-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	15-Aug-2023	LT1	LT1
SALTAIR 4 10651 Olsen Road	15-Aug-2023	LT1	LT1
Saltair 12 11185 Baker Road	09-Aug-2023	LT1	LT1
Saltair 5 at 3771 Gardner Road	09-Aug-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	31-Jul-2023	LT1	LT1
Saltair 8 10879 Chemainus Road	31-Jul-2023	LT1	LT1

SALTAIR WATER SYSTEM

Facility Information

Location 175 Ingram Street Duncan

Type 301 - 10,0000 Connections

Facility Sampling History

Location	Date	Total Coliform	E. Coli/Enterococci
Saltair 7 10980 Westdowne Road	25-Jul-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	17-Jul-2023	LT1	LT1
SALTAIR 4 10651 Olsen Road	17-Jul-2023	LT1	LT1
Saltair 6 10311 Old Victoria Road	17-Jul-2023	LT1	LT1
Saltair 12 11185 Baker Road	10-Jul-2023	LT1	LT1
Saltair 5 at 3771 Gardner Road	10-Jul-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	05-Jul-2023	LT1	LT1
Saltair 8 10879 Chemainus Road	05-Jul-2023	LT1	LT1
Saltair 5 at 3771 Gardner Road	26-Jun-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	19-Jun-2023	QRWRT	QRWRT
Saltair 6 10311 Old Victoria Road	19-Jun-2023	QRWRT	QRWRT
Saltair 7 10980 Westdowne Road	19-Jun-2023	QRWRT	QRWRT
Saltair 12 11185 Baker Road	13-Jun-2023	LT1	LT1
SALTAIR 4 10651 Olsen Road	13-Jun-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	06-Jun-2023	QRWRT	QRWRT
Saltair 8 10879 Chemainus Road	06-Jun-2023	QRWRT	QRWRT
Saltair 5 at 3771 Gardner Road	30-May-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	24-May-2023	LT1	LT1
Saltair 6 10311 Old Victoria Road	24-May-2023	LT1	LT1
SALTAIR 4 10651 Olsen Road	15-May-2023	LT1	LT1
Saltair 7 10980 Westdowne Road	15-May-2023	LT1	LT1
Saltair 12 11185 Baker Road	08-May-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	08-May-2023	LT1	LT1
Saltair 5 at 3771 Gardner Road	02-May-2023	LT1	LT1
Saltair 8 10879 Chemainus Road	02-May-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	24-Apr-2023	LT1	LT1
Saltair 7 10980 Westdowne Road	24-Apr-2023	LT1	LT1
Saltair 6 10311 Old Victoria Road	18-Apr-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	11-Apr-2023	LT1	LT1
Saltair 5 at 3771 Gardner Road	11-Apr-2023	LT1	LT1
Saltair 8 10879 Chemainus Road	11-Apr-2023	LT1	LT1
Saltair 12 11185 Baker Road	04-Apr-2023	LT1	LT1
SALTAIR 4 10651 Olsen Road	04-Apr-2023	LT1	LT1
Saltair 5 at 3771 Gardner Road	28-Mar-2023	QRWRT	QRWRT
Saltair 7 10980 Westdowne Road	28-Mar-2023	QRWRT	QRWRT
Saltair 2 S2 3254 Dogwood Road	20-Mar-2023	LT1	LT1
Saltair 6 10311 Old Victoria Road	20-Mar-2023	LT1	LT1
Saltair 5 at 3771 Gardner Road	13-Mar-2023	LT1	LT1
Saltair 8 10879 Chemainus Road	13-Mar-2023	LT1	LT1
Saltair 12 11185 Baker Road	06-Mar-2023	LT1	LT1
SALTAIR 4 10651 Olsen Road	06-Mar-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	01-Mar-2023	LT1	LT1
Saltair 7 10980 Westdowne Road	01-Mar-2023	LT1	LT1

SALTAIR WATER SYSTEM

Facility Information

Location 175 Ingram Street Duncan

Type 301 - 10,0000 Connections

Facility Sampling History

Location	Date	Total Coliform	E. Coli/Enterococci
Saltair 2 S2 3254 Dogwood Road	14-Feb-2023	LT1	LT1
Saltair 8 10879 Chemainus Road	14-Feb-2023	LT1	LT1
SALTAIR 4 10651 Olsen Road	06-Feb-2023	LT1	LT1
Saltair 7 10980 Westdowne Road	06-Feb-2023	LT1 GTR200	LT1 GTR200
Saltair 12 11185 Baker Road	30-Jan-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	30-Jan-2023	LT1	LT1
Saltair 5 at 3771 Gardner Road	23-Jan-2023	LT1	LT1
Saltair 8 10879 Chemainus Road	23-Jan-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	16-Jan-2023	LT1	LT1
Saltair 6 10311 Old Victoria Road	16-Jan-2023	LT1	LT1
Saltair 12 11185 Baker Road	04-Jan-2023	LT1	LT1
Saltair 2 S2 3254 Dogwood Road	04-Jan-2023	LT1	LT1
Saltair 5 at 3771 Gardner Road	04-Jan-2023	LT1	LT1

SALTAIR WATER SYSTEM

DISTRIBUTION - S8

			Sample ID	S8-10879 CHEMAINUS ROAD (WTX 27AE8)
			Sampling Date	05/24/23
			Sampling Time	09:35 AM
Parameter Name	***MAC***	***AO***	***Units***	***Result***
Nitrite (N)	1		mg/L	<0.0050
Nitrate (N)	10		mg/L	<0.020
Conductivity			uS/cm	39
pH			pH	6.66
Total Dissolved Solids		500	mg/L	22
Alkalinity (PP as CaCO3)			mg/L	<1.0
Alkalinity (Total as CaCO3)			mg/L	8.7
Bicarbonate (HCO3)			mg/L	11
Carbonate (CO3)			mg/L	<1.0
Hydroxide (OH)			mg/L	<1.0
Chloride (Cl)		250	mg/L	3.8
Sulphate (SO4)		500	mg/L	1.2
True Colour		15	Col. Unit	<5.0
Nitrate plus Nitrite (N)			mg/L	<0.020
Langelier Index (@ 20C)			N/A	-3.2
Langelier Index (@ 4C)			N/A	-3.46
Saturation pH (@ 20C)			N/A	9.86
Saturation pH (@ 4C)			N/A	10.1
Dissolved Fluoride (F)	1.5		mg/L	<0.050
Tannins and Lignins			mg/L	<0.2
Turbidity	see remark	see remark	NTU	0.65
Total Hardness (CaCO3)			mg/L	9.02
Total Aluminum (Al)	2900		ug/L	33.8
Total Antimony (Sb)	6		ug/L	<0.50
Total Arsenic (As)	10		ug/L	0.11
Total Barium (Ba)	2000		ug/L	2.7
Total Beryllium (Be)			ug/L	<0.10
Total Bismuth (Bi)			ug/L	<1.0
Total Boron (B)	5000		ug/L	<50
Total Cadmium (Cd)	7		ug/L	<0.010
Total Chromium (Cr)	50		ug/L	<1.0
Total Cobalt (Co)			ug/L	<0.20
Total Copper (Cu)	2000	1000	ug/L	6.84
Total Iron (Fe)		300	ug/L	32.6
Total Lead (Pb)	5		ug/L	0.36
Total Manganese (Mn)	120	20	ug/L	5.3

SALTAIR WATER SYSTEM

DISTRIBUTION - S8

			Sample ID	S8-10879 CHEMAINUS ROAD (WTX 27AE8)
			Sampling Date	05/24/23
			Sampling Time	09:35 AM
Parameter Name	***MAC***	***AO***	***Units***	***Result***
Total Molybdenum (Mo)			ug/L	<1.0
Total Nickel (Ni)			ug/L	<1.0
Total Selenium (Se)	50		ug/L	<0.10
Total Silicon (Si)			ug/L	1490
Total Silver (Ag)			ug/L	<0.020
Total Strontium (Sr)	7000		ug/L	9
Total Thallium (Tl)			ug/L	<0.010
Total Tin (Sn)			ug/L	<5.0
Total Titanium (Ti)			ug/L	<5.0
Total Uranium (U)	20		ug/L	<0.10
Total Vanadium (V)			ug/L	<5.0
Total Zinc (Zn)		5000	ug/L	<5.0
Total Zirconium (Zr)			ug/L	<0.10
Total Calcium (Ca)			mg/L	3.01
Total Magnesium (Mg)			mg/L	0.368
Total Potassium (K)			mg/L	0.233
Total Sodium (Na)		200	mg/L	3.56
Total Sulphur (S)			mg/L	<3.0
Total Mercury (Hg)	1		ug/L	0.0023
Total Total Kjeldahl Nitrogen (Calc)			mg/L	0.1
Total Organic Carbon (C)			mg/L	2.7
Total Nitrogen (N)			mg/L	0.1
Total Ammonia (N)			mg/L	<0.015
Sulphide (as H2S)		0.05	mg/L	<0.0020
Total Sulphide		0.05	mg/L	<0.0018
Total Coliforms	0		CFU/100mL	0
E. coli	0		CFU/100mL	0
Heterotrophic Plate Count			CFU/mL	<1.0
Fecal Coliforms			CFU/100mL	0
Non-Coliform (Background)			CFU/100mL	<1
Iron Bacteria			CFU/mL	<25
Sulphate reducing bacteria			CFU/mL	<75
Total Trihalomethanes	100		ug/L	86
Bromodichloromethane			ug/L	2.2
Bromoform			ug/L	<1.0
Dibromochloromethane			ug/L	<1.0

SALTAIR WATER SYSTEM

DISTRIBUTION - S8

			Sample ID	S8-10879 CHEMAINUS ROAD (WTX 27AE8)
			Sampling Date	05/24/23
			Sampling Time	09:35 AM
Parameter Name	***MAC***	***AO***	***Units***	***Result***
Chloroform			ug/L	84
Dalapon			ug/L	<5.0
Monochloroacetic Acid			ug/L	<5.0
Monobromoacetic Acid			ug/L	<5.0
Dichloroacetic Acid			ug/L	27
Trichloroacetic Acid			ug/L	46
Bromochloroacetic Acid			ug/L	<5.0
Dibromoacetic Acid			ug/L	<5.0
Total Haloacetic Acids	80		ug/L	73

SALTAIR WATER SYSTEM

THM/HAAs

			Sample ID	S8-10879 CHEMAINUS ROAD (WTX 27AE8)	S8-10879 CHEMAINUS ROAD (WTX 27AE8)	S8-10879 Chemainus Road (WTX 27AE8)	S8-10879 Chemainus Road (WTX 27AE8)
			Sampling Date	02/16/23	05/24/23	08/22/23	11/22/23
			Sampling Time	01:02 PM	09:35 AM	12:45 PM	02:10 PM
Parameter Name	***MAC***	***AO***	***Units***	***Result***	***Result***	***Result***	***Result***
Total Trihalomethanes	100		ug/L	59	86	77	86
Bromodichloromethane			ug/L	<1.0	2.2	2.7	2.7
Bromoform			ug/L	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane			ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform			ug/L	59	84	74	84
Dalapon			ug/L	<5.0	<5.0	<5.0	<5.0
Monochloroacetic Acid			ug/L	<5.0	<5.0	<5.0	<5.0
Monobromoacetic Acid			ug/L	<5.0	<5.0	<5.0	<5.0
Dichloroacetic Acid			ug/L	26	27	27	24
Trichloroacetic Acid			ug/L	48	46	49	42
Bromochloroacetic Acid			ug/L	<5.0	<5.0	<5.0	<5.0
Dibromoacetic Acid			ug/L	<5.0	<5.0	<5.0	<5.0
Total Haloacetic Acids	80		ug/L	74	73	76	66

Cowichan Valley Reg. Dist. - E
*A PO 23-223 (2023)
*A 175 Ingram Street
Duncan, BC
V9L 1N8

TEL: (250) 746-2530

29Sep23 1:31p W176882
FWS
filter(s)
2

Arrival temp.: 11.8C

group

PARASITE ANALYSIS

	Sample	Cysts/100L	Organisms Identified	Comments
1	SW:Stock Lake Inlet	ND	Giardia (cysts)	-protozoan; enteric parasite
	28Sep23 09:45	ND	Cryptosporidium (oocysts)	-protozoan; enteric parasite
2	HBW:Well4 Lilys Park	ND	Giardia (cysts)	-protozoan; enteric parasite
	28Sep23 11:53	ND	Cryptosporidium (oocysts)	-protozoan; enteric parasite

Detection Limit = 1 per 100L *
Lab Test Recovery = 94.6%
* test is strongly influenced by volume collected, amount & type of sediment present

ND = none detected
ref: Direct Antibody -Hydrofluor Meridian
Monitoring for Giardia & Cryptosporidium, JL Clancy, WD Gollnitz & Z Tabib, 1994
Prop. ICR Protozoan Methods for Detection of Giardia Cysts and Cryptospordium Oocysts in Water by Fluorescent Antibody Procedures 1993
US EPA Consensus Method for Determining Groundwaters Under the Direct Influence of Surface Water Using Microscopic Particulate Analysis (MPA), Vasconcelos, J., S. Harris., 1992
Manual of Clinical Microbiology, EH Lennette etal. Am. Soc for Microbiology
Clinical Diagnosis by Laboratory Methods, Davidson & Henry
Veterinary Clinical Parasitology, MW Sloss, RL Kemp. Iowa State Univ. Press 5th ed.
Parasitology for Veterinarians, JR Georgi & ME Georgi. WB Saunders & Co, 1990
Personal Communications re methodologies & taxonomy: US EPA -S. Harris,
US EPA (Cinc) F. Schaefer
US EPA (retired) J.Vasconcelos
BC CDC Magda Moricz (1995)

W. Riggs
Sr. Microbiologist

M.B. LABS LTD
T: 250 656-1334 E: info@mblabs.com W: www.mblabs.com