

**R E P O R T**

## **QUATSINO FIRST NATION**

# **Assessment Studies of Water and Wastewater Systems and Associated Water Management Practices at Selected First Nation Communities**

**ASSOCIATED  
ENGINEERING**



**September  
2002**

005861

Centre for  
Disease Control  
Society

BCCDC LABORATORY SERVICES  
655 12th Avenue West  
Vancouver, B.C. V5Z 4R4

**F C M D**  
Fax: (604) 660-6073

ENVIRONMENTAL  
BACTERIOLOGY

Phone Number :

Printed : 2001 JAN 12

HEALTH CANADA (CAMPBELL RIVER) - 342  
OCCUPATIONAL & ENVIRONMENTAL HEALTH  
1180 IRONWOOD ST SUITE 119  
CAMPBELL RIVER BC V9W 5P7

Requisition : A0WW043397  
Submitter Ref :

Specimen Submitter

: 342-HEALTH CANADA (CAMPBELL RI\*

Site Information

Code/Name : 02M5605 - 02M5605

Site Desc : 4160, TAP, QUATSINO HEALTH CLINIC, QUATSINO

City/Area : Type : COM.W.S.

Source : Lake

Specimen

Treatment : Ph Level : Free Chlorine Level : ppm

Nature : WATER Exams Req : Total Coliform

HO : CAROL MACRAE : Fecal Coliform

Collected : 2001 JAN 10

Received : 2001 JAN 11

RESULTS

Reported on 2001 JAN 12

<u>Test</u>	<u>Result</u>	<u>Units</u>
1. Total Coliform (Membrane Filtration)	L1	TC Count/100ml
2. Fecal Coliform (Membrane Filtration)	L1	FC Count/100ml
L: LESS THAN		
3. [KITCHEN - COPIED FROM SAMPLE BOTTLE LABEL]		

**DON'T WAIT FOR THESE RESULTS TO ARRIVE IN THE MAIL!**

MEDINET delivers lab reports electronically throughout the province--on your computer or on your fax. It's easy, fast and convenient, at no charge to you.

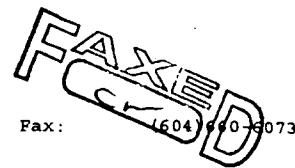
Call now, at 737-1477 in Vancouver or toll free at 1-800-737-3771.

For inquiries from medical personnel regarding laboratory results, please contact the Central Inquiry Line at 604-660-5100.

Specimen was 24 hours in transit

BCCDC LABORATORY SERVICES

The Province's centre of expertise in communicable disease control and provider of specialty health support services.



ENVIRONMENTAL  
BACTERIOLOGY  
Phone Number :

Printed :2001 JAN 12

HEALTH CANADA (CAMPBELL RIVER) - 342  
OCCUPATIONAL & ENVIRONMENTAL HEALTH  
1180 IRONWOOD ST SUITE 119  
CAMPBELL RIVER BC V9W 5P7

Requisition :A0WW043398  
Submitter Ref :

Specimen Submitter  
:342-HEALTH CANADA (CAMPBELL RI\*

Site Information

Code/Name :02M5611 - 02M5611 s.19(1)

Site Desc : QUATSINO

City/Area : Type :COM.W.S.

Source :Lake

Specimen

Treatment :TREATED Ph Level :Free Chlorine Level :ppm

Nature :WATER Exams Req :Total Coliform

WHO :CAROL MACRAE :Fecal Coliform

Collected :2001 JAN 10

Received :2001 JAN 11

RESULTS

Reported on 2001 JAN 12

<u>Test</u>	<u>Result</u>	<u>Units</u>
1. Total Coliform (Membrane Filtration)	L1	TC Count/100ml
2. Fecal Coliform (Membrane Filtration)	L1	FC Count/100ml
L:LESS THAN		

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Call now, at 737-1477 in Vancouver or toll free at 1-800-737-3771.

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please contact the Central Inquiry Line at 604-660-5100.

Specimen was 24 hours in transit

ENVIRONMENTAL  
BACTERIOLOGY

Phone Number :

Printed :2001 JUL 3

Requisition :A1WW016495

Submitter Ref :

HEALTH CANADA (CAMPBELL RIVER) - 342  
 OCCUPATIONAL & ENVIRONMENTAL HEALTH  
 1180 IRONWOOD ST SUITE 119  
 CAMPBELL RIVER BC V9W 5P7

Specimen Submitter

:342-HEALTH CANADA (CAMPBELL RI\*

Site Information

Code/Name :0209631 - 0209631

Site Desc :KITCHEN TAP, QUATSINO HEALTH CENTRE, 4160, COAL HARBOUR

City/Area : Type :COM.W.S.

Source :Lake

Specimen

Treatment :TREATED Ph Level :Free Chlorine Level :ppm

Nature :WATER Exams Req :Total Coliform

HO :CAROL MACRAE :Fecal Coliform

Collected :2001 JUN 27

Received :2001 JUN 28

RESULTS

Reported on 2001 JUL 3

<u>Test</u>	<u>Result</u>	<u>Units</u>
1. Total Coliform (Membrane Filtration)	L1	TC Count/100ml
2. Fecal Coliform (Membrane Filtration)	L1	FC Count/100ml
L:LESS THAN		

**DON'T WAIT FOR THESE RESULTS TO ARRIVE IN THE MAIL!**

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For inquiries from medical personnel regarding laboratory results, please contact the Central Inquiry Line at 604-660-5100.

Specimen was 24 hours in transit



THE PROVINCE OF BRITISH COLUMBIA—WATER ACT  
CONDITIONAL WATER LICENCE

Regional District of Mount Waddington of Box 729, Port McNeil, B. C., V0N 2R0

is hereby authorized to divert and use water as follows.

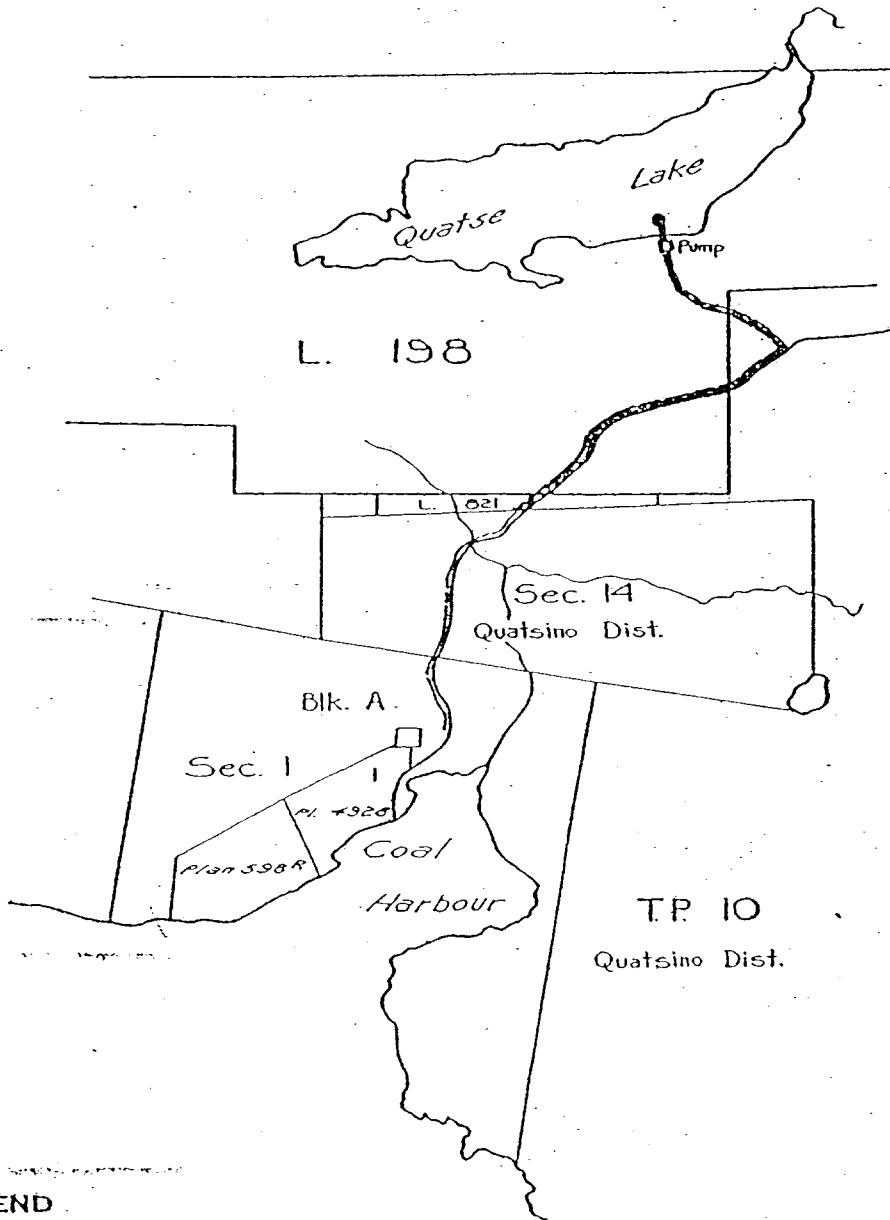
- (a) The source of the water supply is Quatse Lake.
- (b) The point of diversion is located as shown on the attached plan.
- (c) The date from which this licence shall have precedence is 12th December, 1980.
- (d) The purpose for which the water is to be used is waterworks.
- (e) The maximum quantity of water which may be diverted is 47,888,000 gallons per annum (average daily use - 131,200 gallons), (maximum daily use - 175,000 gallons).
- (f) The period of the year during which the water may be used is the whole year.
- (g) This licence is appurtenant to the waterworks undertaking of the licensee within Block A, Section 1, Township 10, Quatsino District, within Rupert District.
- (h) The works authorized to be constructed are diversion structure, pump and pipe, which shall be located approximately as shown on the attached plan.
- (i) The construction of the said works shall be commenced on or before the 30th day of April, 1983, and shall be completed and the water beneficially used on or before the 31st day of December 1986.

J. E. Farrell,  
Deputy Comptroller of Water Rights.

File No. 0367713 Date issued: 15th October, 1982 Conditional Licence 57669

NANAIMO WATER DISTRICT  
RUPERT DISTRICT

Scale: 40 Chains to 1 inch



LEGEND

- Point of Diversion
- Ref. Map 92L/12-E (a)
- Pipe
- Permit over Crown Land

Signature

Date 15th Oct. 196

CL 57669  
Fik 0367713

P.C.L. No. 13310

Sayward

Precinct



Province of  
British Columbia

Ministry of  
Environment

## PERMIT UNDER THE WATER ACT AUTHORIZING THE OCCUPATION OF CROWN LAND

Regional District of Mount Waddington of Box 729, Port McNeill, B. C. V0N 2R0

the holder(s) of Conditional ~~Flow~~ Water Licence(s) 57669 authorizing  
the diversion of water from Quatse Lake is/are hereby

authorized to occupy Crown land by constructing, maintaining, and operating thereon the works authorized under the said water licence and any licences which may be issued in substitution thereof.

(a) The Crown land which is authorized to be occupied under this permit is a portion of  
Lots 198 and 821, and unsurveyed land, Rupert District,

the location of which is shown approximately on the plan attached to the said water licence.

(b) The approximate dimensions of the Crown land authorized to be occupied under this permit are  
9000 feet in length and 20 feet in width, having an area of 4.1 acres.

(c) Subject to the payment of royalty, stumpage, and other compensation, and the obtaining of a licence to cut timber as provided under Condition 5, the permittee may cut and remove from the said land any timber, the removal of which is necessary to permit construction and maintenance of the said works.

(d) The annual rental for this permit is \$ 10,000, which is subject to review and revision at any time at the discretion of the Crown.

(e) This permit is appurtenant to the land, mine, or undertaking to which the aforesaid water licence is appurtenant.

(f) The conditions relative to the rights granted under this permit are printed on the back of this form.

File No. 0367713

Ref. Map 92 L/12 - E (a)

W. R. Map ---

Date issued: 15 October, 1982

Permit No. 13310

**B. E. Marr**

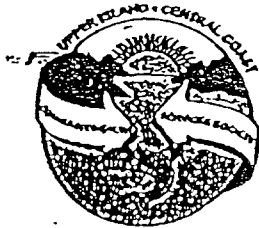
*Deputy Minister of Environment*

W.R.B. 11  
0

I HEREBY CERTIFY THIS PERMIT IS IN FULL PAYMENT OF ALL DUES AND FEES  
ON RECORD IN THE LAND REGISTRATION BRANCH

DEPUTY COMMISSIONER OF WATER AFFAIRS

005867



UPPER ISLAND/CENTRAL COAST  
COMMUNITY HEALTH SERVICES SOCIETY

PUBLIC HEALTH PROTECTION

FACSIMILE COVER SHEET

Date: 31, January, 2001.

To: Madeline McDonald.

Location: Regional District. (fx) 956-3232

Urgent: Yes   
No

Special

Instructions: This is the THM test results for Coal Harbour, there are three more I have to do and I will forward those results to you as well for your records.

Note: Chloroform & toluene levels are high and typical of Coal Harbour water system types. Not good!

Number of pages (Including this) (3)

Transmitted by: Alan deRosario, EHO

Fax number: 949-2388

This fax is CONFIDENTIAL. It is intended only for the use of the person to whom it is addressed. Any distribution, copying or other use by anyone else is strictly prohibited. If you have received this fax in error, please telephone us immediately and destroy this fax.

Thank you for your attention to this matter.

ENVIRONMENTAL HEALTH PROGRAM  
Box 11,090 - 7070 Market Street  
Port Hardy, B.C. V0N 2F0

Phone: (250) 949-3100  
Fax: (250) 949-2388  
Email: alan.derosario@uicoc.hcsc.bc.ca



Environment  
Canada

Environment  
Canada

2645 Duffin Highway  
North Vancouver, BC, Canada V7H 1B1  
Phone (604) 924-2500 Fax (604) 924-2555

Wednesday January 10, 2001 at 5:11PM

Page 1 of 3

# Final Report

JAN 18 2001

PESC FOLDER # : 200006965

Location: COAL HARBOR WS SCHOOL STAFF ROOM  
 Type of Sample: Fresh Water/General  
 Submitted By: Alan De Rosario  
 Upper Island/Central Coast CHSS  
 941-B England Avenue  
 Courtenay, BC  
 Canada V9N 2N7  
 Fax: 250-334-1439

Logged In: Thursday November 2, 2000  
 Completed: Wednesday January 10, 2001 (5 results)  
 Client Code: HD  
 7020-11 HEALTH-UPPER VANC IS-14

Sample Priority: Normal

Authorized by: \_\_\_\_\_

Richard Strub  
QA Officer

Notes:

TEST DESCRIPTION	MATRIX	RESULT	MDL	UNITS
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Order No: 100108  
 Start Date: 10/2/00 12:40:00 AM Start Time: 0930

Volatiles

THM

Bromodichloromethane	FWGE	< 10	10	ug/L
Bromoform	FWGE	< 10	10	ug/L
Chloroform	FWGE	478	10	ug/L
Dibromochloromethane	FWGE	< 10	10	ug/L
Toluene-d8, surrogate	FWGE	102	40	%

Printed On: 10-Jan-2001



FAXED  
12/6/00

FAX

To: Jack Mussallem Date: Dec. 6, 00  
 Mount Waddington Regional District Pages: 1 of 3  
 Tel: (250)956-3301 cc: Alan de Rosario- (250)949-2388  
 Fax: 1-250-956-3232 Murray Sexton- (250)755-3372

From: John Sainas, P. Eng.

Re: Coal Harbour Microbiological Water Quality Tests

Following conversations with the Alan de Rosario and Steve Stanley, EPCOR operations manager, I am advising you of a shift in the units for the Cryptosporidium test results and action limit.

The units on the original Nov. 3, 2000 fax and the proper units are shown below:

	Original	Corrected
Cryptosporidium	430 oocysts/1000 ml	430 oocysts/1000 l
Giardia	<140 cysts/1000 ml	<140 cysts/1000 l
Cryptosporidium Limit	50 oocysts/1000 ml	50 oocysts/1000 l

The units on the original attached Laboratory report were correct.

As the units correction applies to both test result and limit, our summary, concerns and recommendations do not change.

We apologize for any confusion this may have caused.

A copy of the revised letter and an improved copy of the lab results is attached.

Tel: 604 270 9236  
 Fax: 604 270 3851  
 Cel: 604 612 6421

www.epcor.ca

12260 Vickers Way  
 Richmond, B.C. V6V 1H9  
 Email: jsainas@epcor.ca