

**ASSESSMENT STUDY OF  
WATER AND WASTEWATER SYSTEMS  
AND ASSOCIATED  
WATER MANAGEMENT PRACTICES  
AT MOUNT CURRIE**

**A  
REPORT  
TO  
INDIAN AND NORTHERN AFFAIRS CANADA  
BC REGION**

** NovaTec Consultants Inc.  
*Environmental Engineers and Scientists***

September 2002

File No.: 1407.10/2

**Appendix C**  
**Water Testing Results**

**Page(s) 005296 to\à 005296**

**Is(are) under consultation**



Health Canada Santé  
Canada Canada

1702

Health Canada  
First Nations & Inuit Health Branch  
Environmental Health Services  
#540 - 757 West Hastings Street  
Vancouver, BC V6C 3E6

Your file Votre référence

Our file Notre référence

April 22<sup>nd</sup>, 2002

Mount Currie Band  
P.O. Box 602  
Mount Currie, BC V0N 2K0

s.19(1)

Attention: Chief and Council

**RE: Xit'Olacw Community Water System (IR6) - VOC Resamples**

Further testing of the volatile organic compounds (VOC) in the Xit'Olacw IR #6 distribution system and resampling at the new pumphouse was conducted on April 9<sup>th</sup>, 2002 to confirm the results of the ethylbenzene concentrations. The results of the compounds of interested are summarized below.

	New Pumphouse	Health Centre	Richard Dan (Dogwood Cresc)	GCDWQ Aesthetic Limit
Ethylbenzene (µg/L)	<0.5	0.5	<0.5	≤2.4
Xylenes (µg/L)	<0.5	2.0	1.6	≤300

The volatile organic compounds tested including ethylbenzene were found to be within the *Guidelines for Canadian Drinking Water Quality 6<sup>th</sup> ed.* (GCDWQ). A negligible amount of Ethylbenzene and Xylene compounds were detected from the Health Centre and a negligible amount of Xylene was detected from the residence of [redacted]. Ethylbenzene and Xylene were not detected from the re-sample collected at the new pumphouse.

It is recommended that drinking water continue to be monitored for the volatile organic compounds. A copy of the analytical report is attached for your reference. If you have any questions regarding the above or if you would like further interpretation of the attached results, please do not hesitate to contact me at (604) 666-9529.

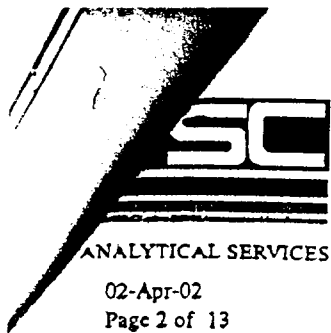
Sincerely,

Vivian Lee, B.Sc., C.P.H.I.(C)  
Environmental Health Officer

cc. : Peter Mazey, Sr EHO  
: Sharon Edmonds, CHR  
: INAC - PWGSC

**Page(s) 005298 to\à 005299**

**Is(are) under consultation**



ANALYTICAL SERVICES

02-Apr-02  
Page 2 of 13

ANALYTICAL REPORT  
Form 08100156

Client : HEALTH CANADA  
Project : MT. CURRIE  
Sampling site :  
Submitted by : VIVIAN LEE

Philip ID : 12014068 12014069  
Client ID : IR 10 - PH IR 6 - NEW  
WELL

Sparcode	Parameter	Unit	MDL	CDWG		
<b>PHYSICAL</b>						
00041220	pH	pH units	0.1	6.5-8.5	7.2	7.9
00021300	Color True	Col. Unit	5	15	< 5	< 5
00111160	Specific Conductance	uS/cm	1	---	72	235
SCCACALC	Computed Conductance	uS/cm		---	73	246
CCPDCALC	Conductance % Diff.	%		---	1.0	4.7
00081071	Residue Nonfilterable (TSS)	mg/L	4	---	< 4	< 4
007H1035	Residue Filterable 1.0u (TDS)	mg/L	10	500	36	140
CTDSCALC	Computed TDS	mg/L		---	38	128
TDSRCALC	TDS % Diff.	%		---	5.8	-9.1
00151140	Turbidity	NTU	0.10	1.0	< 0.10	0.34
0107CALC	Hardness Total -T	mg/L		500	32.2	115
<b>GENERAL INORGANICS</b>						
01011211	Alkalinity Phen. 8.3 as CaCO3	mg/L	1	---	< 1	< 1
01021210	Alkalinity Total as CaCO3	mg/L	1	---	23	100
CO3-CALC	Carbonate as CO3=	mg/L		---	< 0.5	< 0.5
HCO3CALC	Bicarbonate as HCO3-	mg/L		---	28.0	122
OH--CALC	Hydroxide as OH-	mg/L		---	< 0.5	< 0.5
2105AA04	Cyanide(SAD) + Thiocyanate	mg/L	0.0005	0.2	0.0011	0.0013
0125LLHS	Sulfide Total	mg/L	0.005	0.05	< 0.005	< 0.005
<b>ANIONS</b>						
11041334	Chloride Dissolved	mg/L	0.5	< 250	0.8	0.5
11061341	Fluoride Dissolved	mg/L	0.01	1.5	0.01	0.04
IonBCALC	Ion Balance	%		---	1.3	2.7
AnnscALC	Total Anions	meq/L		---	0.69	2.40
CmsCALC	Total Cations	meq/L		---	0.70	2.54
LangCALC	Langelier Index	pH units		---	-1.8	0.0
pHSACALC	Saturation pH	pH units		---	9.0	7.9
<b>CARBON</b>						
01030912	Organic Carbon - Total	mg/L	0.5	---	0.9	0.5

Matrix : Water Water  
Sampled on: 02/03/11 04:30 02/03/11 02:15

CONTINUED on page 3



ANALYTICAL SERVICES

02-Apr-02  
Page 3 of 13

ANALYTICAL REPORT  
Form 08100156

Client : HEALTH CANADA  
Project : MT. CURRIE  
Sampling site :  
Submitted by : VIVIAN LEE

Philip ID : 12014068  
Client ID : IR 10 - PH  
12014069  
IR 6 - NEW  
WELL

Sparcode	Parameter	Unit	MDL	CDWG		
<b>NITROGEN</b>						
11081351	Ammonia Nitrogen (N)	mg/L	0.005	---	< 0.005	< 0.005
1110CALC	Nitrate Nitrogen Dissolved (N)	mg/L		10.0	0.08	< 0.02
11091350	Nitrate + Nitrite (N)	mg/L	0.02	10.0	0.08	< 0.02
11111354	Nitrite Nitrogen (N)	mg/L	0.005	1.0	< 0.005	< 0.005
<b>SULFATE</b>						
11211405	Sulfate	mg/L	0.5	< 500	9.8	18.5
<b>METALS TOTAL</b>						
Al-T0031	Aluminum	mg/L	0.02	---	< 0.02	< 0.02
Sb-TMS31	Antimony	mg/L	0.001	---	< 0.001	< 0.001
As-TMS31	Arsenic	mg/L	0.001	0.025	< 0.001	0.003
Ba-T0031	Barium	mg/L	0.001	1.0	0.005	0.009
B-T0031	Boron	mg/L	0.008	5.0	< 0.008	0.035
Cd-TMS31	Cadmium	mg/L	0.0001	0.005	< 0.0001	< 0.0001
Ca-T0031	Calcium	mg/L	0.05	---	11.3	38.0
Cr-T0031	Chromium	mg/L	0.005	0.05	< 0.005	< 0.005
Co-T0031	Cobalt	mg/L	0.005	---	< 0.005	< 0.005
Cu-T0031	Copper	mg/L	0.005	1.0	< 0.005	< 0.005
Fe-T0031	Iron	mg/L	0.005	0.3	< 0.005	0.036
Pb-TMS31	Lead	mg/L	0.0005	0.01	< 0.0005	< 0.0005
Mg-T0031	Magnesium	mg/L	0.05	---	0.97	4.99
Mn-T0031	Manganese	mg/L	0.001	0.05	< 0.001	0.001
Hg-T0310	Mercury	mg/L	0.00005	0.001	< 0.00005	< 0.00005
Mo-T0031	Molybdenum	mg/L	0.005	---	< 0.005	< 0.005
Ni-T0031	Nickel	mg/L	0.008	---	< 0.008	< 0.008
K_T0031	Potassium	mg/L	1	---	< 1	2
Se-TMS31	Selenium	mg/L	0.001	0.01	< 0.001	< 0.001
Ag-T0031	Silver	mg/L	0.01	---	< 0.01	< 0.01
Na_T0031	Sodium	mg/L	0.05	200	1.13	3.84
U--TLLMS	Uranium	mg/L	0.00001	0.1	0.00002	0.00063
V--T0031	Vanadium	mg/L	0.005	---	< 0.005	< 0.005
Zn-T0031	Zinc	mg/L	0.005	5.0	0.006	< 0.005

Matrix : Water  
Sampled on: 02/03/11 04:30  
Water  
02/03/11 02:15



ANALYTICAL SERVICES

02-Apr-02  
Page 5 of 13

**ANALYTICAL REPORT**  
**Form 08100156**

Client : HEALTH CANADA  
Project : MT. CURRIE  
Sampling site :  
Submitted by : VIVIAN LEE

Philip ID : 12014068  
Client ID : IR 10 - PH  
12014069  
IR 6 - NEW  
WELL

Sparcode	Parameter	Unit	MDL	CDWG		
<b>POLYCYCLIC AROMATIC HYDROCARBONS</b>						
EX9946Z4	PAH Extraction-Water	date			02/03/15	02/03/18
PA05MW02	Bcnzo(a)pyrene	mg/L	0.00001	0.00001	< 0.00001	< 0.00001
<b>VOLATILE ORGANICS-MAH</b>						
B020MS11	Benzene	ug/L	0.5	5.0	< 0.5	< 0.5
V919MS11	Chlorobenzene	ug/L	0.5	80.0	< 0.5	< 0.5
V924MS11	1,2-Dichlorobenzene	ug/L	0.5	200.0	< 0.5	< 0.5
V925MS11	1,3-Dichlorobenzene	ug/L	0.3	---	< 0.3	< 0.3
V926MS11	1,4-Dichlorobenzene	ug/L	0.4	5.0	< 0.4	< 0.4
B021MS11	Ethylbenzene	ug/L	0.5	---	< 0.5	6.5
V921MS11	Styrene	ug/L	0.4	---	< 0.4	< 0.4
T001MS11	Toluene	ug/L	0.5	24.0	< 0.5	< 0.5
X_8842_5	Xylenes	ug/L	0.5	300.0	< 0.5	32
X003MS11	m,p - Xylene	ug/L	0.5	---	< 0.5	27
X002MS11	o - Xylene	ug/L	0.5	---	< 0.5	4.8
MTBEMS11	Methyl t-butyl ether	ug/L	5	---	< 5	< 5
<b>VOLATILE ORGANICS-CHLORINATED ALIPHATIC</b>						
V903MS11	Bromomethane	ug/L	3	---	< 3	< 3
C034MS11	Carbon tetrachloride	ug/L	1	---	< 1	< 1
V904MS11	Chloroethane	ug/L	4	---	< 4	< 4
V914MS11	2-chloroethylvinylether	ug/L	2	---	< 2	< 2
V901MS11	Chloromethane	ug/L	1	---	< 1	< 1
V909MS11	1,1-Dichloroethane	ug/L	0.7	---	< 0.7	< 0.7
V912MS11	1,2-Dichloroethane	ug/L	0.5	---	< 0.5	< 0.5
V906MS11	1,1-Dichloroethene	ug/L	0.4	---	< 0.4	< 0.4
V910MS11	cis-1,2-Dichloroethene	ug/L	0.4	---	< 0.4	< 0.4
V908MS11	trans-1,2-Dichloroethene	ug/L	0.7	---	< 0.7	< 0.7
V907MS11	Dichloromethane	ug/L	0.9	---	< 0.9	< 0.9
V913MS11	1,2-Dichloropropane	ug/L	0.5	---	< 0.5	< 0.5
V915MS11	cis-1,3-Dichloropropene	ug/L	0.4	---	< 0.4	< 0.4
V916MS11	trans-1,3-Dichloropropene	ug/L	0.3	---	< 0.3	< 0.3
V918MS11	1,2-Dibromoethane	ug/L	1	---	< 1	< 1

Matrix : Water  
Sampled on: 02/03/11 04:30  
Water  
02/03/11 02:15

CONTINUED on page 6

005302



**Page(s) 005304 to\à 005337**

**Is(are) under consultation**

**Page(s) 005338 to\à 005339**

**Is(are) duplicate(s)  
est(sont) (des) duplicata(s)**

**Page(s) 005340 to\à 005385**

**Is(are) under consultation**