

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

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

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

December 2001

File No.: 1407.08B

Appendix C

Water Testing Results

Page(s) 004925 to/à 004925

**is(are) not relevant
n'est(ne sont) pas pertinente(s)**

BAND WATER SUPPLY INFORMATION RECORD

BAND NAME: Iskut

DISTRICT: COASTAL

DATE: DEC. 2000

1. COMMUNITY SYSTEMS

System Name	Source/Type	Number of Homes	Category & Reason	Chem Sampling Freq.	Bact Sampling Freq.	Boil Advisory?	Other Advisory?	Treatment Plant	Maintenance Concerns
Iskut H ₂ O System	Ground Well	> 90	4	1/3-5 yr	4/yr	⊖	⊖	⊖	⊖

Notes: Source/Type - Indicate surface or groundwater.
 Chem Sampling Frequency: State annually, once every 2,3 years etc.
 Bact Sampling Frequency: State weekly, bi-weekly or monthly
 Other Advisory: eg. Bottled water due to high arsenic
 Maintenance Concerns: Indicate if this is a treatment plant concern or system infrastructure concern (or both)

2. INDIVIDUAL SYSTEMS

# Wells	# Hold Tanks	# Other	Number of Category 1 & 2	Chem Sampling Frequency	Bact Sampling Frequency	Number on Boil Advisory	Number with Other Advisory
⊖	-	-	-	-	-	-	-

Notes: Chem Sampling Frequency: Every 5 years, Yearly, Only When New, On Demand
 Bact Sampling Frequency: Yearly, Only When New, On Demand
 Other Advisory: eg. Bottled water due to high arsenic etc.

Contact: Mary Quoch -
 290-234-3511

Table 3. Quality of Groundwater from Iskut Village Production Wells

Test		Iskut Village Well No. 1 (1)	Iskut Village Well No. 2 (2)	Drinking Water Guidelines (3)
PHYSICAL PARAMETERS				
pH		7.47	7.68	6.5 - 8.5
Conductivity (umhos/cm)		-	298.	-
Colour (CU)		2.	<5.0	15.
Turbidity (NTU)		-	0.28	5.
Suspended Solids (mg/L)		<1.5	<1.0	-
Dissolved Solids (mg/L)		163.	260.	500.
Total Hardness (mg/L)	CaCO ₃	156.	182.	-
DISSOLVED ANIONS (mg/L)				
Alkalinity	CaCO ₃	131.	132.	-
	HCO ₃	159.7	160.9	-
Sulphate	SO ₄	31.8	35.9	500.
Chloride	Cl	<0.2	<0.5	250.
Fluoride	F	<0.08	0.06	1.5
Silicate	SiO ₂	-	5.8	-
Nitrate and nitrite	N	<0.047	0.068	10.0
Phosphate	PO ₄	0.041		
DISSOLVED METALS (mg/L)				
Iron	Fe	0.041	<0.03	
Manganese	Mn	<0.01	<0.005	
TOTAL METALS (mg/L)				
Arsenic	As	0.004	0.0002	0.05
Barium	Ba	-	0.027	1.0
Cadmium	Cd	-	<0.0002	0.005
Chromium	Cr	-	<0.015	0.05
Copper	Cu	-	<0.010	1.0
Iron	Fe	<0.01	<0.030	0.30
Lead	Pb	-	<0.001	0.01
Manganese	Mn	<0.01	<0.005	0.05
Zinc	Zn	-	<0.005	5.0
Calcium	Ca	50.7	56.8	-
Magnesium	Mg	13.1	9.43	-
Potassium	K	0.71	0.53	-
Sodium	Na	5.9	2.12	-
OTHER TESTS				
Coliform	Total	<1	0	
	Fecal	-	0	

Sources of information:

1. Aquaterre Consultants Inc. Project 82127; January 1983.
2. Analytical Service Laboratories Ltd. File 7728; August 13, 1991.
3. Maximum acceptable concentration defined by Health and Welfare Canada 1989.

ASL

CHEMICAL ANALYSIS REPORT

Date: August 30, 1991

File No. 7728B

Report On: Water Analysis

Report To: Pacific Hydrology Consultants
204 - 1929 West Broadway
Vancouver, BC
V6J 1Z3

Attention: Ms. Anne Badry

Date Received: August 15, 1991

METHODOLOGY

Conventional Parameters

This analysis is carried out in accordance with the procedures described in "Standard Methods for the Examination of Water and Wastewater" 17th Ed. published by the American Public Health Association, 1989. Further details are available on request.

REMARKS

The water as represented by the sample "Iskut Band Council" can be characterized as moderately high with respect to dissolved mineralization. The water sample met Canadian and British Columbia drinking water guidelines for all parameters analysed.

ASL ANALYTICAL SERVICE LABORATORIES LTD.

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	Iskut Band Council Aug13/91	Drinking *1 Water Guidelines
<u>Physical Tests</u>		
Colour CU	<5.0	15. (A)
Conductivity umhos/cm	298	-
Total Dissolved Solids	260	500. (A)
Hardness CaCO3	182	- *2(A)
pH	7.68	6.5--8.5 (A)
Total Suspended Solids	<1	-
Turbidity NTU	0.28	5. (A)
<u>Dissolved Anions</u>		
Alkalinity CaCO3	132	-
Chloride Cl	<0.5	250. (A)
Fluoride F	0.06	1.5 (H&A)
Silicate SiO2	5.8	-
Sulphate SO4	35.9	500. (H&A)
<u>Nutrients</u>		
Nitrite/Nitrate Nitrogen N	0.068	10.0 (H)
<u>Bacteriological Tests</u>		
Coliform Bacteria - Fecal	0	- *5(H)
Coliform Bacteria - Total	0	- *4(H)
<u>Total Metals</u>		
Arsenic T-As	0.0002	0.05 (H)
Barium T-Ba	0.027	1.0 (H)
Cadmium T-Cd	<0.0002	0.005 (H)
Calcium T-Ca	56.8	-
Chromium T-Cr	<0.015	0.05 (H)
Copper T-Cu	<0.010	1.0 (H)
Iron T-Fe	<0.030	0.30 (A)
Lead T-Pb	<0.001	0.01 (H)
Magnesium T-Mg	9.43	-
Manganese T-Mn	<0.005	0.05 (A)
Potassium T-K	0.53	-
Sodium T-Na	2.12	- *3
Zinc T-Zn	<0.005	5.0 (A)

< = Less than A = Aesthetic reasons H = Health Considerations

Results expressed as milligrams per litre except for pH, Conductivity ($\mu\text{mhos/cm}$), Colour (CU), Turbidity (NTU) and Coliform Bacteria (colonies/100 ml)

*1 "Maximum acceptable concentration" as published by Health & Welfare Canada, 1989

*2 Maximum level not established - water supplies with a hardness exceeding 200 mg/L are considered poor but will be tolerated.

*3 Maximum level not established - of concern to consumers with sodium restricted diet. Levels exceeding 20 mg/L may be of concern in this circumstance.

*4&*5 No coliform bacteria should be detected, for more information please contact the lab.