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Nunavut District Office

P.O. Box 100

Iqaluit, NU

X0A 0H0

Tel.: (867) 975-4298

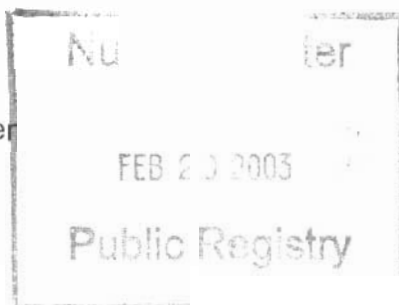
Fax.: (867) 979-6445

Your file - Votre référence

Our file - Notre référence

November 29, 2002

Imelda Angootealuk  
Senior Administrative Officer  
Hamlet of Whale Cove  
P.O. Box 120  
Whale Cove, NU X0C 0J0



NWB3-WHA0207

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**RE: July 12, 2002 Municipal Water Use Inspection - Report**

The Water Resources Officer (WRO) appreciate the assistance provided during the tour of the Hamlet's water use and waste disposal facilities. Enclosed for your records is a copy of the Municipal Water Use Inspection Report performed on July 12, 2002. As of September 1, 2002 the Municipality of Whale Cove has held a Water Licence as required under *Nunavut Land Claims Agreement, Nunavut Waters and Nunavut Surface Rights Tribunal Act*. During the inspection the following observations were noted.

- ☐ **Water Supply:** The Water Intake Facility located on Fish Lake has a well kept interior. Noted at the time of inspection, was the spilled fuel by the fuel tank at the Water Intake Facility (Photo 3). There was also no spill equipment at the facility, in the event of a fuel or oil spill. There was a formula for mixing up the concentrated chlorine for water disinfection (Photo 4). The attached analysis of samples taken from (WHA-1) Fish Lake Water Intake Facility, indicate that Colour ( 20 TCU vs 15 TCU), Turbidity (4.2 NTU vs 1.0 NTU) are in excess of the *Guidelines for Canadian Drinking Water Quality*.
- ☐ **Sewage Disposal:** The sewage lagoon appeared to be operating within designed parameters. The sewage truck discharge structure was in good condition ( Photo 5 & 6). All berms appeared in good shape. Enclosed analysis of (WHA-3) Sewage Lagoon effluent indicate that Biological Oxygen Demand (9 mg/L vs 100), Total Suspended Solids ( 20 mg/L vs 120) and pH (8.05 vs 6.5-9), are within *Municipal Wastewater Effluent Quality Guidelines*.
- ☐ **Solid Waste Disposal:** There appears to be some segregation of waste streams at the solid waste disposal facility. The Old Sewage Lagoon and Honey

Canada

Bag area at the dump, appears to be seeping to the ocean (Photo 8). The solid waste disposal facility has some fencing, while other sections of the facility are contained by rock cliffs. Samples taken of effluent from (WHA-2) the Solid Waste Disposal Facility have yet to be analyzed by the laboratory, these analysis will be made available once received by the WRO.

- **Fuel Storage:** The Tank Farm berms, appear to need re-contouring. There are several sections along the berm that have the geomembrane showing (Photo 9). Two new fuel tanks have been installed and at the time of inspection they have yet to be commissioned, these tanks also have no form of secondary containment (Photo 10).
- **Non-Compliance of Act or Licence:** A spill report should be made, for the spill that occurred at Fish Lake Water Intake Facility. New fuel tanks at the Tank Farm, should have spill containment in place prior to use. In accordance with General Conditions, Part B of the *Water Licence*; Within 90 days of the first visit of the Inspector, all necessary signs including Surveillance Network Program (SNP) stations will be posted in all official languages of Nunavut to the satisfaction of the Inspector.

If there are any concerns or questions in regards to this inspection, please contact me at (867) 975 4298 or [bodykevichc@inac.gc.ca](mailto:bodykevichc@inac.gc.ca).

Sincerely,

Constantine Bodykevich  
Water Resources Officer (WRO)  
INAC, Nunavut District

cc. -Nunavut Water Board, (Jim Wall)  
-CG&T, Rankin Inlet (Don Forsyth)  
- Keewatin Health & Social Services, Rankin Inlet (Wanda Poirier)  
- EC Environmental Protection, Yellowknife (Anne Wilson)  
- INAC Water Management, Iqaluit (Michelle Mc Christie)



## MUNICIPAL WATER USE INSPECTION REPORT

Date: July 12, 2002

Licensee Rep. (Name/Title): Imelda Angootenluk/ SAO

Licensee: Hamlet of Whale Cove

Licence No.: NWB3-WHA0207 (NEW)

### WATER SUPPLY

Source(s): Fish Lake

Quantity used: 0119641

Owner:/Operator: Government of Nunavut

Indicate: **A** - Acceptable **U** - Unacceptable **NA** - Not Applicable **NI** - Not Inspected

Intake Facilities: A

Storage Structure: NA

Treatment Systems: A

Chemical Storage: A

Flow Meas. Device: A

Conveyance Lines: NA

Pumping Stations: NA

**Comments:** Water Intake Facility located on Fish Lake is a clean operational facility. It was noted at the time of inspection that there had been a spill of fuel oil at the Water Intake Facility fuel oil tank. The chlorination system for potable water is presently in use.

### WASTE DISPOSAL

**Sewage:** Sewage Treatment System (Prim./Sec/Ter.): Secondary; discharge overland to ocean.

Natural Water Body:

Continuous Discharge (land or water): land

Seasonal Discharge: X

Wetlands Treatment: moderate

Trench:

**Solid Waste:** Owner/Operator: Hamlet of Whale Cove

Landfill:

Burn & Landfill: X

Other:

Indicate: **A** - Acceptable **U** - Unacceptable **NA** - Not Applicable **NI** - Not Inspected

Discharge Quality: Sampled

Decant Structure: NA

Erosion: U

Discharge Meas. Device: NIL

Dyke Inspection: U

Seepages: U

Dams, Dykes: U

Freeboard: A

Spills: NIL

Construction: NA

O&M Plan: NA

A&R Plan: NA

Periods of Discharge: A

Effluent Discharge Rate: Not measured

**Comments:** The Sewage Lagoon has sufficient freeboard. Sewage Lagoon truck discharge structure and berm are in good condition. Seepage of effluent from the dump to the ocean was observed.

### FUEL STORAGE

Owner/Operator:

Indicate: **A** - Acceptable **U** - Unacceptable **NA** - Not Applicable **NI** - Not Inspected

Berms & Liners: U

Water within Berms: A

Evidence of Leaks: A

Drainage Pipes: A

Pump Station & Catchment Berm: NA

Pipeline Condition: NI

Not Applicable:

Condition of Tanks: NI

### SURVEILLANCE NETWORK PROGRAM (SNP)

Samples Collected Hamlet: NIL

INAC: potable water, sewage effluent, dump leachate

Signs Posted SNP: Not Applicable

Warning: None Observed

Records & Reporting: Not Applicable

Geotechnical Inspection: Not Applicable

**Non-Compliance of Act or Licence:** At the time of inspection, the Hamlet of Whale Cove did not hold a Water Licence as required under both *Nunavut Land Claims Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, for the use of water and disposal of waste.

Constantine Bodykevich

Inspector's Name

Inspector's Signature



## Global Positioning System Coordinates for Whale Cove 2002

### Whale Cove-1

Whale Cove Potable Water sample-1

N62.07004 W92.0135

### Whale Cove-2

Sewage Lagoon-2

N62.06012W92.1199

### Whale Cove-3

Whale Cove lagoon truck discharge-3

N62.06037W92.21084

### Whale Cove-4

Whale Cove Dump Sample-4

N62.06038 W92.14074

### Whale Cove-5

Whale Cove Tank Farm-5

N62.06056 W92.20521

## Whale Cove Inspection Pictures 2002



Photo # 1 Water Intake Facility on Water Lake, truck fill station.



Photo # 2 Location of potable water sample on water supply facility intake line on Water Lake.





Photo # 3 Spilled fuel oil was noted at the time of inspection. No spill protection or recovery equipment was available at the intake facility.



Photo # 4 Chlorination system inside Water Intake Facility.



Photo # 5 Sewage truck discharge structure at Sewage Treatment Facility.



Photo # 6 Effluent path from sewage disposal facility overland to the ocean. Centre of photo location of sewage effluent sample .





Photo # 7 Solid waste disposal facility showing inlet proximity to dump tipping face.



Photo # 8 Old sewage lagoon shown in solid waste disposal grounds. Liquid noted in picture was seen leaching out into ocean.

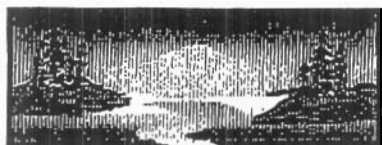




Photo # 9 Tank farm showing exposed liner in berm.



Photo # 10 Note new fuel tanks at tank farm do not have any secondary spill containment.



Taiga Environmental Laboratory  
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3

Tel: (867)-669-2788  
Fax: (867)-669-2718

## - CERTIFICATE OF ANALYSIS -

Prepared For: DIAND Nunavut District Office

Attn: Constantine Bodykevi

Sample ID: Whale Cove potable water (1,2)

Taiga Sample ID: 222304

Client Project:

Sample Type: water

Received Date: 12-Aug-02

Location: Whale Cove Potable Water *WHA-1*

Sampling Date:

Report Status: Final

Approved by: \_\_\_\_\_

Test Parameter	Result	Units	Detection Limit	Analysis Date
<b>Physicals</b>				
Alkalinity	55.3	mg/L	0.3	15-Aug-02
Colour	20		5	15-Aug-02
Conductivity, Specific	310	µS/cm	0.3	15-Aug-02
pH	7.92	pH units	0.05	15-Aug-02
Solids, Total Dissolved	173	mg/L	10	17-Aug-02
Solids, Total Suspended	<3	mg/L	3	17-Aug-02
Turbidity	4.2	NTU	0.1	20-Aug-02

### Nutrients

Ammonia as N	0.091	mg/L	0.005	14-Aug-02
Biological Oxygen Demand	<2	mg/L	2	12-Aug-02
Nitrate+Nitrite as N	<0.008	mg/L	0.008	27-Aug-02
Organic Carbon, Dissolved	3.6	mg/L	0.5	22-Aug-02
Organic Carbon, Total	3.7	mg/L	0.5	22-Aug-02
Phosphorous, Dissolved	0.015	mg/L	0.004	15-Aug-02
Phosphorous, Total	0.034	mg/L	0.004	15-Aug-02



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- CERTIFICATE OF ANALYSIS -

Prepared For: DIAND Nunavut District Office

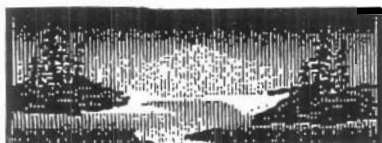
Attn: Constantine Bodykevi

Sample ID: Whale Cove potable water (1,2) *WHA-1*

Taiga Sample ID: 222304

Major Ions

Calcium	20.2	mg/L	0.05	21-Aug-02
Chloride	52.4	mg/L	0.2	16-Aug-02
Hardness as CaCO <sub>3</sub>	70.1	mg/L	0.17	21-Aug-02
Magnesium	4.78	mg/L	0.02	21-Aug-02
Potassium	1.80	mg/L	0.03	20-Aug-02
Silica, Reactive	1.05	mg/L	0.02	19-Aug-02
Sodium	30.3	mg/L	0.02	20-Aug-02
Sulphate	12	mg/L	3	14-Aug-02



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## - CERTIFICATE OF ANALYSIS -

Prepared For: ~~DIAND~~ Nunavut District Office

Attn: Constantine Bodykevi

Sample ID: Whale Cove Lagoon Effluent (3,4)

Taiga Sample ID: 222305

Client Project:

Sample Type: water *waste*

Received Date: 12-Aug-02

Location: Whale Cove Lagoon Effluent *WHA-3*

Sampling Date:

Report Status: Final

Approved by: \_\_\_\_\_

Test Parameter	Result	Units	Detection Limit	Analysis Date
<u>Physicals</u>				
Alkalinity	137	mg/L	0.3	15-Aug-02
Colour	50		5	15-Aug-02
Conductivity, Specific	542	µS/cm	0.3	15-Aug-02
pH	8.05	pH units	0.05	15-Aug-02
Solids, Total Dissolved	323	mg/L	10	19-Aug-02
Solids, Total Suspended	20	mg/L	3	19-Aug-02
Turbidity	17.0	NTU	0.1	28-Aug-02
<u>Nutrients</u>				
Ammonia as N	0.014	mg/L	0.005	14-Aug-02
Biological Oxygen Demand	9	mg/L	2	12-Aug-02
Nitrate+Nitrite as N	0.924	mg/L	0.008	27-Aug-02
Organic Carbon, Dissolved	16.6	mg/L	0.5	22-Aug-02
Organic Carbon, Total	17.3	mg/L	0.5	22-Aug-02
Phosphorous, Dissolved	0.262	mg/L	0.004	21-Aug-02
Phosphorous, Total	0.486	mg/L	0.004	21-Aug-02