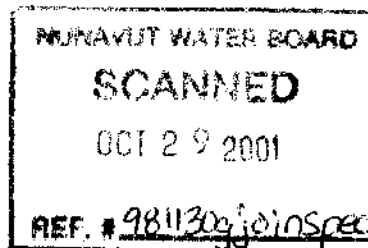




DIAND Nunavut District
Box 100
Iqaluit, NT
XOA OHO



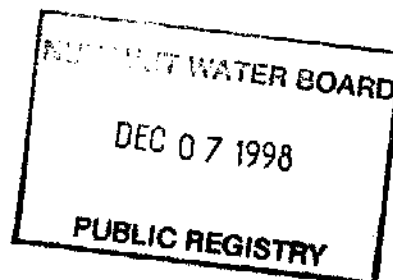
Your file with reference

Our file with reference

November 30, 1998

NWB3GJO

Mr. Raymond Kamooka
Senior Administrative Officer
Hamlet of Gjoa Haven
Gjoa Haven, NT
XOE 1J0



Dear Mr. Kamooka;

**Water Management Inspection - Hamlet of Gjoa Haven; August 24, 1998
and Results from Water Samples Collected.**

1. Please find attached a copy of the inspection report prepared as a result of the water management inspection carried out on August 24, 1998 as well as the analytical results for water samples collected the same day.
2. May I first begin by thanking you for your assistance during the wrap-up meeting and for ensuring that the Hamlet has met its obligations by applying for a municipal water licence per the requirements of the *NWT Waters Act* and the Nunavut Land Claims Agreement.
3. To summarize the inspection report, there are a number of issues that will have to be addressed. Please note that some of these issues will have to be addressed once a water licence is issued.
 - Repairs have to be made to the discharge area of the sewage lagoon;
 - Waste oil storage has to be improved to prevent the further contamination of soil;
 - Warning signs at the dump, sewage lagoon and water lake should be placed.
 - Fencing is recommended along the side of the water lake that faces the community.
4. Please advise this office on the status of the various upgrade plans that Mr. Morash mentioned. Have the repairs to the sewage discharge chutes been completed? Have any further decisions been made with regard to the construction of a second lagoon cell? Was the solid waste disposal site covered with granular material?

.../2



MUNICIPAL WATER USE INSPECTION FORM

DATE: August 24, 1998 COMPANY REP: Greg Marshall, Regional Engineer
LICENSEE: Hamlet of Glen Harbour LICENCE #: unlicensed

WATER SUPPLY

Source (s): water lake, Sweet Lake Quantity Used (to date): ~29,000 m³/year
Owner/Operator: Hamlet (estimate or actual)

Indicate: A - Acceptable U - Unacceptable N/A - Not Applicable

Intake Facilities: A Storage Structure: N/A 1 Treatment Systems: N/A 2 Chem. Storage: A
Flow Meas. Device: A Convey. Lines: N/A 2 Pumping Stations: N/A
Comments: See following page

WASTE DISPOSAL

Sewage Sewage Treatment System (primary, secondary or tertiary): primary, plus some secondary
Natural Water body: _____ Continuous Discharge (land or water): _____
Seasonal Discharge: W Wetlands Treatment: some Trench: _____

Solid Waste: Owner/Operator: Hamlet
Landfill: _____ Burn & Landfill: N/A Other: _____

Indicate: A - Acceptable U - Unacceptable N/A - Not Applicable

Disch. Quality: unknown Decant Structure: N/A Erosion: N/A 4
Disch. Meas. Dev.: N/A Dyke Inspection: N/A Seepages: N/A
Dams, Dykes: N/A 1 Freeboard: U Spills: N/A (waste oil)
Construction: N/A O & M Plan: N/A A & R Plan: N/A
Periods of Discharge: grossed Effluent Discharge Rate: unknown, no devices are used
Comments: See following page

FUEL STORAGE

Owner: _____ Operator: _____ Condition of Tanks: _____
Berms & Liners: _____ Water within berm: _____ Evidence of Leaks: _____
Drainage Pipes: _____ Pump Station and Catchment Berm: _____
Pipeline Condition: _____ Not Applicable: W

SURVEILLANCE NETWORK PROGRAM

Samples Collected: (Hamlet) _____
(DIAND) Raw water Dump Leach to
Signs Posted: SNP Required once licensed Warning Required
Record & Reporting: N/A

Geotechnical Inspection: N/A

Non-Compliance of Act or Licence: Hamlet is unlicensed, but has gone through to obtain the application shortly.

Page 2 attached Yes W No _____

Licensee Representatives Title

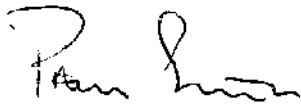
Licensee Representatives Signature

Inspector's Name

Inspector's Signature

5. It would be worthy for the Hamlet to pursue the idea of having a separate area for the disposal/recycling of wood, and a pit for the disposal of animal carcasses and a sealift container for hazardous materials.
6. Also enclosed are the results of water samples I collected during the inspection. I collected two sets of samples - one of raw water from the water lake and another from below the dump (leachate). With respect to the drinking water, there are no particular concerns with the raw water.
7. If you have any questions about the inspection report or with the analytical results, please do not hesitate to contact me at the above address or by phone at (867)-979-4405.

Sincerely,



Paul Smith
Water Resources Officer
Nunavut District

- cc.
- Nunavut Water Board, Gjoa Haven
 - DIAND Water Resources, YK
 - Kojo Kumi, MACA, Cambridge Bay
 - Bob Philips, Environmental Health Officer, YK

Inspection Report

Gjoa Haven
August 24, 1998

Page 2

Note 1 and 2

Truck fill station also contains a filtration and reserve tankage for storage. When the facility was handed over from the GNWT, the Hamlet was unable to maintain the entire system and by-passed all but the chlorination aspects.

Note 3

On an annual basis, water is piped overland from Swan Lake (ca. 3.5 km away) to recharge the water lake.

Note 4

There is an earthen berm around the perimeter of the lagoon. However, at the discharge point, there is a low spot that is full of cobble stones. At the time of the inspection, there was no visible flow from this spot. There is a great deal of erosion in this area. This area should be repaired in order to provide additional retention and to provide a more 'positive' means of controlling discharge. There is no freeboard at this point. Further, there has been a good deal of erosion around the discharge chutes. Work was to begin shortly to repair the erosion damage and install better chutes.

Note 5

The waste oil storage area is in poor condition. Many drums are leaking and the ground is heavily stained. A bermed and lined storage is recommended until the material can be properly incinerated. In the meantime, all leaky drums should be replaced, and all drums should be placed upright on pallets. Mr. Morash stated that a waste oil furnace is being considered for a 3-bay garage that is planned for 1999-2000.

General

The capacity of the water lake was increased by raising the earthen berm around the low end of the lake. The water level was nearly topping over this berm. An overflow pipe was installed, but this was right at the surface. I am concerned that this berm could wash out and significantly threaten the communities immediate supply of water.

Mr. Morash stated that a second sewage cell was in the works. He also mentioned that there were plans to have an animal pit for the disposal of carcasses as well as a wood salvage area.

The solid waste site is now being burned as wind conditions permit and work was being done to push and compact burned wastes. The area still required to be capped with granular material. The fencing around the dump is in poor condition and needs repairing. Appropriate warning signs are also required.

Due to the proximity of houses to the water lake, warning signs and fencing are required around the water lake. Fencing should be considered along the one side that borders the community. This would help reduce traffic and wind blown garbage from impact the supply.

End

TAIGA ENVIRONMENTAL LABORATORY
Dept. Indian Affairs & Northern Development
4601-52 nd Ave., Box 1500
Yellowknife, NT. X1A 2R3
Tel. (403) 669-2788
Fax: (403) 669-2718

To: NUNAVUT
WATER RESOURCES, NAP, DIAND
BOX 100
IQALUIT NT X0A 0H0
PAUL SMITH

SAMPLE INFORMATION

Our Lab#: 971559
Your Sample ID: WATER LAKE
Sample Matrix: RAW WATER

Account No:

Collection:

Location: HAMLET OF Gjoa Haven

Date: 8/14/97

By: P.SMITH

SEP 22 1997

D.I.A.N.D.
IQALUIT, NT

Received Date: 20-August-1997

Report Date: 08-Sep-97

Approved By: W. Smith

- SAMPLE ANALYSIS REPORT -

Lab#	Test	Result	Units	Detection Limit	Analysis Date	Analytical Method
971559	pH	8.24	pH	0.05	8/20/97	010301
	Fluoride	0.13	mg/L	0.05	8/22/97	009105
	Conductivity	415	uS/cm	0.3	8/20/97	02041
	Colour	10.0		5.00	8/19/97	02021
	Alkalinity	91.8	mg/L	0.3	8/20/97	010101
	Calcium	27.4	mg/L	0.03	8/20/97	20103
	Chloride	44.1	mg/L	0.08	8/20/97	17206
	Potassium	2.02	mg/L	0.002	8/20/97	019106
	Sodium	29.6	mg/L	0.02	8/20/97	011102
	Magnesium	17.6	mg/L	0.005	8/20/97	012102
	Turbidity	2.6	NTU	0.1	8/19/97	002081
	Tot-Suspended-Solids	L3	mg/L	3	8/20/97	grav
	Tot-Diss-Solids	259	mg/L	10.0	8/20/97	grav
	Tot-Mercury(water)	L0.01	ug/L	0.01	9/2/97	080314

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To: NUNAVUT
 WATER RESOURCES, NAP, DIAND
 BOX 100
 IQALUIT NT X0A 0H0
 PAUL SMITH

971559

Tot-Cadmium(ICP-MS)	10.1	ug/L	0.1	8/20/97	ICP-MS
Tot-Cobalt(ICP-MS)	0.8	ug/L	0.1	8/20/97	ICP-MS
Tot-Chromium(ICP-MS)	2.2	ug/L	2.0	8/20/97	ICP-MS
Tot-Copper(ICP/MS)	125	ug/L	0.1	8/20/97	ICP-MS
Tot-Iron(AA)	0.805	mg/L	0.012	8/28/97	ICP-MS
Tot-Manganese(ICP-MS)	10.0	ug/L	0.1	8/20/97	ICP-MS
Tot-Nickel(ICP-MS)	1.0	ug/L	0.1	8/20/97	ICP-MS
Tot-Lead(ICP-MS)	4.6	ug/L	0.2	8/20/97	ICP-MS
Tot-Zinc(ICP-MS)	108	ug/L	5.0	8/20/97	ICP-MS

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To: NUNAVUT
WATER RESOURCES, NAP, DIAND
BOX 100
IQUALUIT NT X0A 0H0
PAUL SMITH

RECEIVED

SEP 22 1997

D.I.A.N.D.
IQUALUIT, NT
SAMPLE INFORMATION

Our Lab#: 971560
Your Sample ID: DUMP LEACHATE
Sample Matrix: WATER GRAB

Account No:

Collection:

Location: HAMLET OF G
Date: 8/14/97
By: P.SMITH

Received Date: 20-August-1997

Report Date: 02-Sep-97

Approved By: W. Smith

- SAMPLE ANALYSIS REPORT -

Lab#	Test	Result	Units	Detection Limit	Analysis Date	Analytical Method
971560	Ammonia-N	36.6	mg/L	0.002	8/20/97	007562
	Tot-Arsenic(water)	4.4	ug/L	0.2	8/26/97	hydride
	Tot-Cadmium(ICP-MS)	0.8	ug/L	0.1	8/20/97	ICP-MS
	Tot-Cobalt(ICP-MS)	2.2	ug/L	0.1	8/20/97	ICP-MS
	Tot-Chromium(ICP-MS)	8.9	ug/L	2.0	8/20/97	ICP-MS
	Tot-Copper(ICP/MS)	66.7	ug/L	0.1	8/20/97	ICP-MS
	Tot-Iron(AA)	27.7	mg/L	0.012	8/28/97	ICP-MS
	Tot-Manganesec(ICP-MS)	148	ug/L	0.1	8/20/97	ICP-MS
	Tot-Nickel(ICP-MS)	19.8	ug/L	0.1	8/20/97	ICP-MS
	Tot-Lead(ICP-MS)	52.9	ug/L	0.2	8/20/97	ICP-MS
	Tot-Zinc(ICP-MS)	741	ug/L	5.0	8/20/97	ICP-MS