



DIAND Nunavut District
Box 100
Iqaluit, NT
XOA OHO

September 11, 1997

Mr. Greg Morash
Senior Administrative Officer
Hamlet of Gjoa Haven
Gjoa Haven, NT
XOE IJO

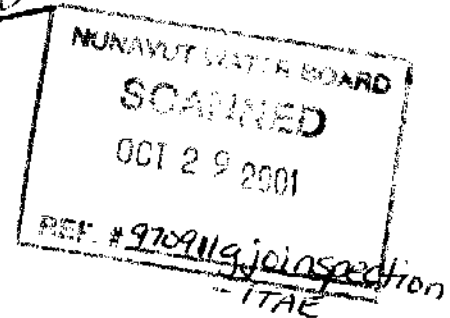
Dear Mr. Morash;

RECEIVED
SEP 19 1997

Your file Votre référence

Our file Notre référence

B9545-5-G6



Water Management Inspection - Hamlet of Gjoa Haven: August 14, 1997

1. Attached for your records is a copy of the inspection report prepared as a result of the water management inspection carried out on the Hamlet of Gjoa Haven, NT on August 14, 1997.
2. There are a number of issues that must be addressed. First and foremost is the requirement for the Hamlet to obtain a water licence. The Nunavut Water Board has provided the appropriate application form and will provide whatever assistance they can. In addition, the possession of a water licence is a requirement of the *NWT Waters Act*.
3. Other operational issues that must be addressed relate to the water and waste disposal facilities.

For the water supply, the following improvements are recommended:

- ☐ given the proximity of the water supply lake to the community, a fence should be placed to reduce the amount of wind blown garbage entering the lake. The lake should also have appropriate warning signs in place advising against littering and snowmachine travel. Consideration should be given to relocating the pumphouse to a water supply that is not threatened by human activities.

For the solid waste disposal facility, the following improvements are recommended:

- ☐ the fencing must be repaired;
- ☐ if the dump is not going to be burned regularly, then it must be covered with sufficient granular material to prevent blown material;
- ☐ appropriate warning signs should be placed;

.../2

MUNICIPAL WATER USE INSPECTION FORM

DATE: 14 August 1997 COMPANY REP.: Ken Garhnam
LICENSEE: Hamlet of Gjoa Haven LICENCE #: Unlicensed

WATER SUPPLY

Source (s): Water Lake Quantity Used (to date): _____
Owner/Operator: Gjoa Hamlet - note 1 (estimate or actual)

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

Intake Facilities: A Storage Structure N/A Treatment Systems A Chem. Storage note 2
Flow Meas. Device A Convey. Lines A Pumping Stations A construction

Comments: See following pages

WASTE DISPOSAL

Sewage Sewage Treatment System (primary, secondary or tertiary) primary @ lagoon
Natural Water body _____ Continuous Discharge (land or water) overland to sea
Seasonal Discharge ✓ Wetlands Treatment some Trench _____

Solid Waste: Owner/Operator: Hamlet
Landfill _____ Burn & Landfill note 3 Other _____

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

Disch. Quality N/A Decant Structure note 5 Erosion N/A
Disch. Meas. Dev. N/A Dyke Inspection note 4 Seepages present @ dump & lagoon
Dams, Dykes note 4 Freeboard A Spills N/A
Construction N/A O & M Plan N/A - N.I. A & R Plan N/A - N.I.
Periods of Discharge: Summer Effluent Discharge Rate: varies - ~1.2 l/sec.

Comments: See following pages

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: ✓

SURVEILLANCE NETWORK PROGRAM

Samples Collected: (Hamlet) N.I.
(DIAND) Rain water, dump leachate
Signs Posted: SNP N/A Warning Required @ Water Lake, dump
Record & Reporting N/A + Sewage Lagoon

Geotechnical Inspection: N/A

Non-Compliance of Act or Licence: Hamlet is unlicensed. The Nunavut Water Board is providing assistance to Hamlet.

Page 2 attached Yes ✓ No _____

Licensee Representatives Title

Not Available
Licensee Representatives Signature

Pave Smith
Inspectors Name

Pave Smith
Inspectors Signature

- ☐ improvements must be made in which the way that waste oil is stored. The present situation is unacceptable.

For the sewage disposal facilities, the following improvements are recommended:

- ☐ appropriate warning signs should be placed;
- ☐ bagged sewage should be placed within the pit that was built to hold the wastes;
- ☐ sewage discharge chute should be replaced/repared;

4. Results of the water samples collected will be forwardd once analysis has been completed.
5. Please contact this office if you have any questions with respect to the inspection report at the above address or by phone at (819)-979-4405.

Sincerely,



Paul Smith
Water Resources Officer
Nunavut District

- cc.
- Nunavut Water Board, Gjoa Haven
 - DIAND Water Resources, YK
 - RMO, DIAND, Kugluktuk
 - MACA, Cambridge Bay (Kojo Kumi)
 - Public Health, Yellowknife (Bob Phillips)

Inspection Report

Hamlet of Gjoa Haven
Unlicensed

14 August 1997

Notes 1 + 2

Water Supply - The water supply facilities were handed over from GNWT/DPW to the Hamlet late last year. During the inspection and discussions with Mr. Ken Garhnam, Hamlet Foreman, more details relating to the state of the equipment within the water treatment plant were learned. The water treatment plant has all of the equipment to filter, treat and store potable water. When the facility was handed over to the Hamlet, apparently little was done in transferring any of the knowledge required to operate the facility. Consequently, the only portion of the facility that the Hamlet utilizes in the in-line hypochlorination treatment. This has resulted in the building being cramped and cluttered with unusable equipment. Cases of bleach are stored where ever there is available space. There is also an unbermed fuel tank in the building. Significant work needs to be undertaken to either upgrade the facility to its original operating condition or to salvage the unused equipment.

The community of Gjoa Haven almost ran out of water this past winter. There is an earthen berm at one end of the water lake that significant amounts of water were seeping through. Additional material has been added to the dyke this summer and flow has been restricted. The water level was reported to be rising (from run-off) and at the time of the inspection, Mr. Garhnam was hoping that it would not be necessary to fill the lake (via over land pipe) from Swan Lake (water supply).

The community has also encroached closer to the water lake and is now within the water shed of the lake. Fencing and warning signs are required to protect the supply from windblown garbage and human traffic over the lake during the winter.

Waste Disposal

Note 3

Solid Waste Disposal Facility - The waste disposal facility is bermed with the exception of its border that is the access road and one corner which is at the low point and where leachate is allowed to flow unrestricted via a constructed drainage ditch. The dump is fenced along three sides (atop the berm), but has collapsed in several places. Much of the material in the dump is unburnt and uncovered. There is much wind blown garbage in the surrounding area. Because of the rather large perimeter of the berm and the unconsolidated nature of the waste, there are both aesthetic and health concerns with the way in which this facility is operated. In addition, the way in which waste is disposed of is both inefficient and ineffective which means that the dump will have a shorter planned lifespan.

Waste oil storage is adjacent to the waste disposal site. However, many of the drums are on their sides and several were noted to be leaking. All drums should be sound and kept upright, preferably on pallets, until an acceptable means of disposal can be found (i.e. waste oil furnace).

Notes 4 + 5

Sewage Disposal - There are both disposal facilities for bagged and trucked sewage. The bagged sewage disposal facility consists of a large bermed area. However, many of the bags are not disposed of in this area, but rather on the down slope leading from the access road into the bermed area. Given the large number of bags within the bermed area, some cover material should be used to reduce the possibility of windblown material from this area. There are 7 houses remaining on bagged sewage service. The site also requires warning signs.

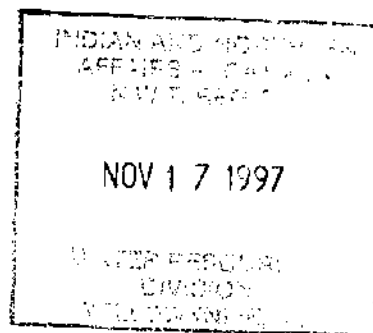
The sewage lagoon appears to be a modified natural pond to which berms have been added to increase the retention capacity. The outflow area is a simple depression of the berm from which all fine material has been washed away leaving larger stones and boulders. There are no warning signs in the area and outflow is not controlled. Given the way in which berm construction material is spread about at the discharge point, it would appear that this area washed out some time ago and has not been repaired. The site also requires warning signs. Lastly, the sewage disposal chute has collapsed. It must be repaired in order to prevent erosion which will otherwise erode the truck discharge pad.

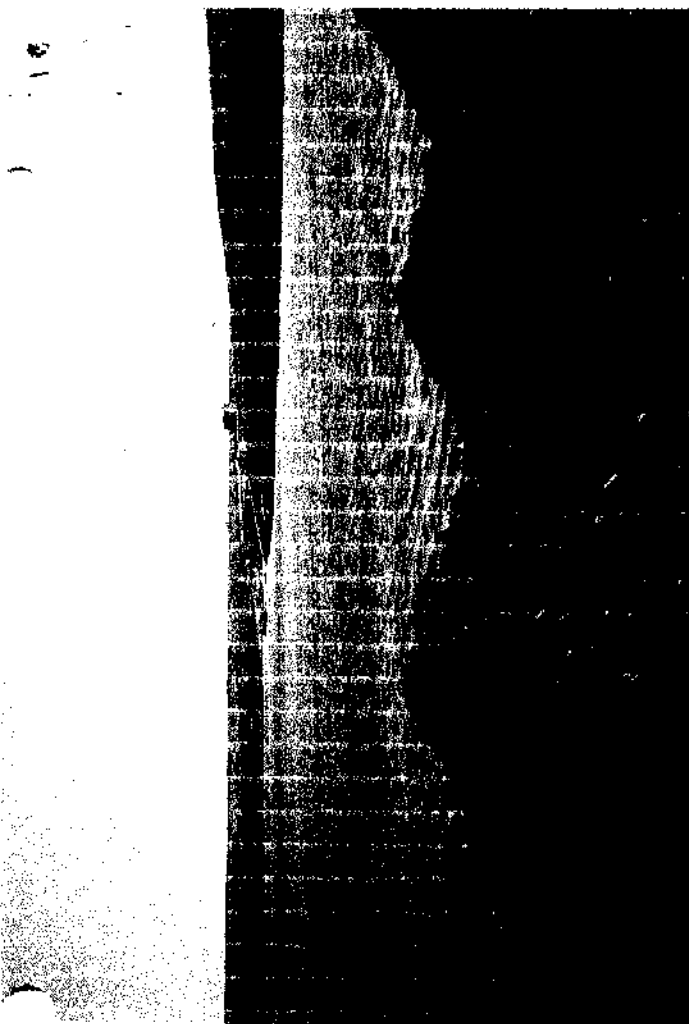
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*Gjoa Haven
Inland Comm
NWB
GNWT/MACB*

Gjoa Haven - August 14, 1997

- 1-3. 3 views of water supply lake. Note proximity of community. Earthworks are the efforts to stem the seepage through the berm (apparently successful).
4. Bagged sewage disposal area.
- 5-8. Sewage lagoon. Note disposal chute in a state of disrepair (photo #5). Note washed out outflow area and drainage path (photo's 7+8).
9. Aerial view of solid waste bulky metal disposal site.
- 10-12. Solid waste disposal site. Note uncompacted, unburned and uncovered nature of facility. Also note state fence (photo 12)
13. Constructed gap in dump berm to allow accumulated water to escape.
- 14-15. Waste oil storage area. Some drums are leaking.





Gijoa Haven
August 14, 1997

