



INAC, Nunavut District
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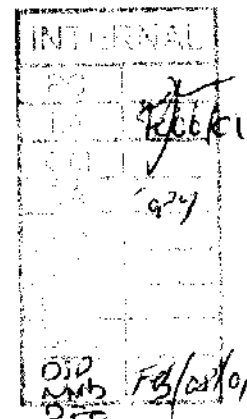
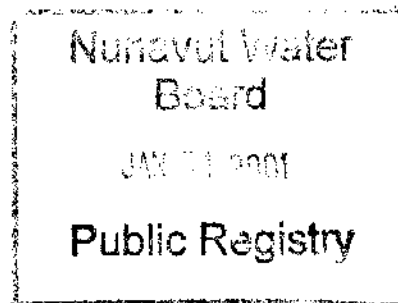
Your file: Votre référence

Our file: Notre référence

N5L4-1441 (expired)

January 16, 2001.

Tommy Akavak
acting Senior Administrative Officer
Hamlet of Kimmirut
P.O. Box 120
Kimmirut, NU X0A 0N0



September 12, 2000 Water Licence Inspection - Report

Firstly, I wish to thank Micky Lyta for the much appreciated time and assistance provided during the tour of the Hamlet's water use and waste disposal facilities. Attached for your records is the Municipal Water Use Inspection Report pertaining to the September 12, 2000 inspection; generally, the Hamlet's somewhat derelict facilities are managed in a satisfactory way. Yet, the following considerations were noted, and will need to be addressed:

- **Sewage waste disposal:** At the time of the inspection, the Hamlet still lacked a proper sewage disposal facility, as only a portion of the waste disposal facility (figure 1) was dedicated to sewage disposal. Indeed, the pit which constitutes the sewage dumping area (figure 2) can hardly provide any significant effluent treatment. As such, the Inspector supports the initiative to upgrade/replace the sewage and solid waste disposal facilities.
- **Solid waste disposal:** Although combustible waste seemed well burned/compacted and covered (figure 1), a considerable quantity of windblown waste was observed beyond the perimeter of the partly fenced waste disposal facility. In addition, hazardous material is segregated, but no form of containment further prevents the release of hazardous waste into water (figure 2). In parallel, the waste oil storage and disposal practices do not appear to prevent hydrocarbon contamination of the surroundings (figure 3).

This being said, the attached analytical results relating to the discharge from the waste disposal facility (figure 4) seem to indicate that effluent treatment is provided along the path of discharge (figure 5). Indeed, although concentrations of iron and phenol exceed those recommended under the *Canadian Water Quality Guidelines for the Protection of Aquatic Life*, the sampled parameters at Surveillance Network Station (SNP) station 1441-4 (figure 6) lie within the Water licence's effluent quality thresholds. However, weather-related delays between time of sampling and analysis rendered treatment of bacteriological data impossible.

- **Operation and Maintenance (O&M) plan:** While an O&M plan for the sewage and solid waste disposal facilities was due by July 1, 1991, the Licensee has yet to submit the relevant information to the Nunavut Water Board (NWB). In light of the anticipated upgrade or replacement of the current facilities, the Inspector recognizes that this requirement may soon become obsolete. Nonetheless, a status report on the progress of the follow-up to the Department of Public Works and Housing (DPW&H) sponsored *Sewage & Solid Waste Site Selection; Kimmirut, NT* would be warranted. Indeed, should new facilities become operational in the short-term, an O&M plan will need to be developed accordingly. Otherwise, the outstanding O&M plan for the existing facility will still prove justified.

In parallel, the Inspector strongly recommends that the final version of the DPW&H sponsored *Sanitary Site Environmental Health Risk Assessment & Closure Plan; Kimmirut, Nunavut* be geared towards becoming a NWB-approved Abandonment and Restoration (A&R) plan for the existing waste disposal facility. For, due to the potential long-term impacts of abandoned or inadequately reclaimed waste disposal sites on receiving waters, the Inspector highlights the need for prior NWB approval in these matters. Thus, by copy of this letter to DPW&H, the Inspector trusts that the Licensee and the involved party will cooperate to ensure the timely submission of pertinent information.

- **Records & Reporting:** Although the Inspector acknowledges that staffing constraints have recently left key Hamlet positions vacant, it nevertheless must be pointed out that several Water licence conditions of an administrative nature remain outstanding. Firstly, annual reports relating to 1995, 1996, and 1999 are overdue. As these documents constitute essential pieces of information to INAC and other implicated agencies, the Inspector encourages the Licensee to submit the reports in a prompt manner. Secondly, terms of the SNP require the Hamlet to collect, monthly during periods of discharge, samples of effluent from the waste disposal facility.

Lastly, Water licence N5L4-1441 has lapsed into expiry on 2000/12/31. Although the NWB provided an expiry notice on August 3, 2000, the Hamlet has yet, to the Inspector's knowledge, to produce a licence renewal application. Therefore, the Inspector wishes to express that a Water licence is not a mere paperwork formality, but constitutes a legal requirement under both the *Northwest Territories Waters Act* and the *Nunavut Land Claims Agreement*. In this regards, INAC and/or other implicated agencies can provide assistance, if required.

Please feel free to contact me at (867) 975-4298 or lavalleep@inac.gc.ca should any questions/comments arise.

Sincerely,



Philippe Lavallée
Water Resources Officer
INAC, Nunavut District

- c.c. - Nunavut Water Board, Gjoa Haven
 - DPW&H, Iqaluit (Dave Parker)
 - CG&T, Iqaluit (Doug Sitland)
 - Baffin Health & Social Services, Iqaluit (Bonnie Segal)
 - EC Environmental Protection, Yellowknife (Anne Wilson)



Indian and Northern Affairs Canada
Affaires Indiennes et du Nord Canada

MUNICIPAL WATER USE INSPECTION FORM

Date: 2000/09/12 Licensee Rep. (Name/Title): Micky Lyta / Building Maintenance
Licensee: Hamlet of Kimmirut Licence No.: N5L4-1441 (expired)

WATER SUPPLY

Source(s): Lake Fundo Quantity used: meter @ 6 588 700
Owner:/Operator: Hamlet

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 Convey. Lines: NA Pumping Stations: A

Comments: No concerns with well-kept water intake facility. Backup intake line installed due to past freeze-ups of the main line. Chlorination in use.

WASTE DISPOSAL

Sewage: Sewage Treatment System (Prim./Sec/Ter.): none; discharge overland to ocean
Natural Water Body: Continuous Discharge (land or water):
Seasonal Discharge: x Wetlands Treatment: limited Trench:
Solid Waste: Owner/Operator: Hamlet
Landfill: Burn & Landfill: x Other:

Indicate: A - Acceptable U - Unacceptable NA - Not Applicable NI - Not Inspected
Discharge Quality: sampled Decant Structure: NA Erosion: A
Discharge Meas. Device: none Dyke Inspection: NA Seepages: A
Dams, Dykes: NA Freeboard: NA Spills: none reported
Construction: NA O&M Plan: U A&R Plan: NA
Periods of Discharge: A Effluent Discharge Rate: not measured

Comments: Partly fenced waste disposal facility includes both sewage dumping area and solid waste disposal areas. Sewage pit provides very minimal treatment of effluent prior to discharge. Considerable quantity of waste windblown beyond the perimeter of the facility. Hazardous material is segregated, but not contained. Waste oil is stored and disposed of on-site; hydrocarbon staining evident in the area. Overdue Operation and Maintenance (O&M) plan.

FUEL STORAGE

Owner/Operator:
Indicate: A - Acceptable U - Unacceptable NA - Not Applicable NI - Not Inspected
Berms & Liners: Water within Berms: Evidence of Leaks:
Drainage Pipes: Pump Station & Catchment Berm:
Pipeline Condition: Not Applicable: x Condition of Tanks:

SURVEILLANCE NETWORK PROGRAM (SNP)

Samples Collected Hamlet: none
INAC: discharge from waste disposal facility, prior to entering ocean (1441-4)
Signs Posted SNP: none Warning: none
Records & Reporting: overdue 1995, 1996 and 1999 Annual Reports; no licence renewal application
Geotechnical Inspection: none required

Non-Compliance of Act or Licence: Overdue 1995, 1996, and 1999 Annual Reports; respectively due by 1996/03/01, 1997/03/01, and 2000/03/01. Outstanding O&M plan; due by 1991/07/01. Sampling required under the Surveillance Network Program (SNP) not undertaken. Water licence N5L4-1441 expired on 2000/12/31; licence renewal application not yet submitted.

Philippe Lavallée

Inspector's Name

Inspector's Signature

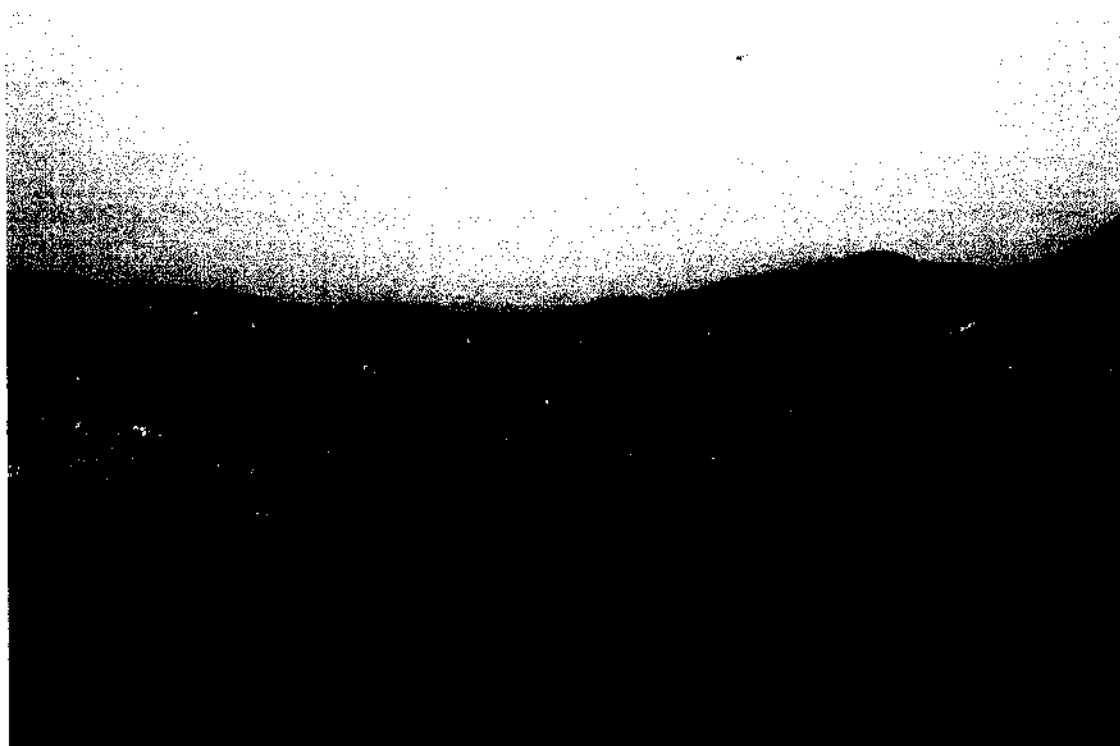


figure 1. Waste disposal facility; 2000/09/12.



figure 2. Sewage disposal area, with hazardous material in foreground; 2000/09/12.



figure 3. Waste oil storage and disposal area, waste disposal facility; 2000/09/12.

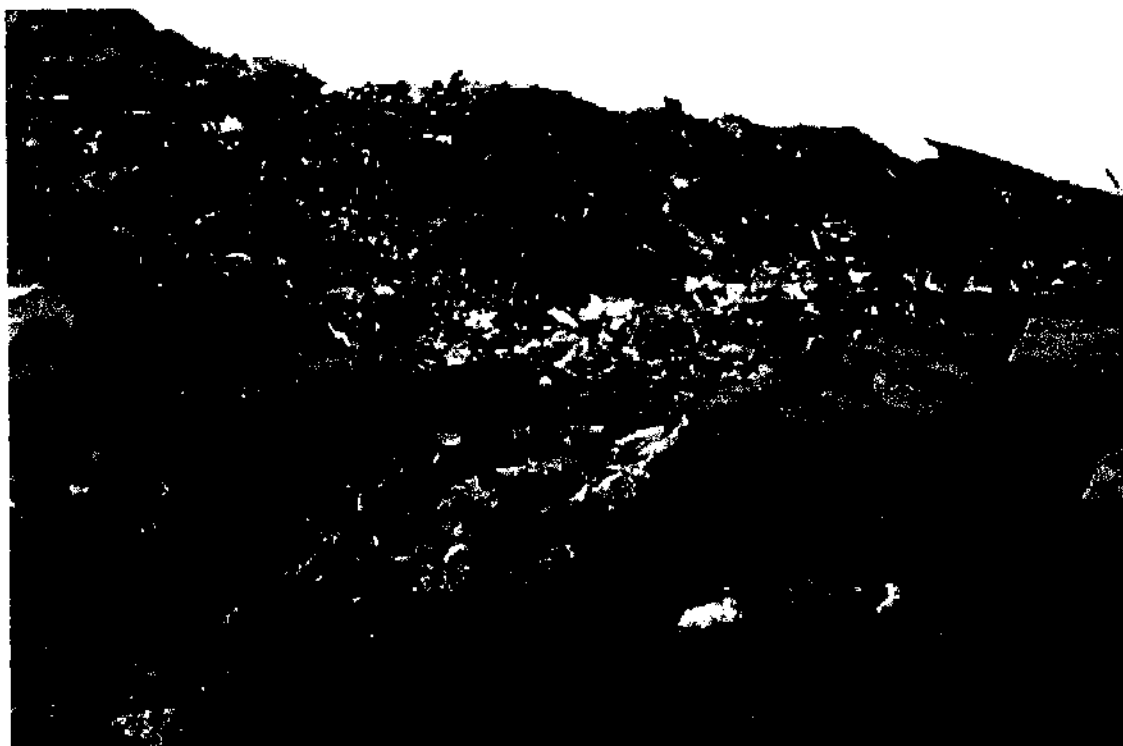


figure 4. Discharge at the toe of the waste disposal facility; 2000/09/12.



figure 5. Path of discharge from the waste disposal facility; 2000/09/12.



figure 6. Final discharge from the waste disposal facility; 2000/09/12.

TAIGA ENVIRONMENT. LABORATORY
Dept. Indian Affairs & Northern Development
4601-52 nd Ave., Box 1500
Yellowknife, NT. X1A 2R3
Tel. (867) 669-2788
Fax: (867) 669-2718

To: NUNAVUT
Operations Directorate, DIAND
BOX 100
IQALUIT
X0A 0H0
Att'n: Philippe Lavallee

LAB# 202080

SAMPLE INFORMATION

Our Lab#: 202080
Your Sample ID: 1441-4 waste discharge @ ocean
Sample Matrix: wtaer

PROJECT:

RECEIVED
NOV 14 2000
D.I.A.N.D.
IQALUIT, NT

Collection:

Location: Kimmirut
Date: 9/12/00
By: Philippe Lavallee

Received Date: 9/18/00

Report Date: 06-Nov-00

Approved By: 

- SAMPLE ANALYSIS REPORT -

Lab#	Test	Result	Units	Detection Limit	Analysis Date	Analytical Method
202080						
	Calcium	124	mg/L	0.05	9/19/2000	EC20003
	Magnesium	20.6	mg/L	0.01	9/19/2000	012102
	Sodium	38.9	mg/L	0.02	9/20/2000	011102
	Potassium	10.9	mg/L	0.03	9/20/2000	EC19102
	Sulphate	52	mg/L	3	10/04/2000	016306
	Tot-Suspended-Solids	11	mg/L	3	9/25/2000	EC10406
	NO3-N+NO2-N	0.985	mg/L	0.008	11/01/2000	07110
	Ammonia-N	0.105	mg/L	0.005	10/04/2000	EC7557
	T-Phosphorous	0.579	mg/L	0.004	10/12/2000	EC15411
	Total Arsenic(w)-GFAA	< 1	ug/L	1	9/26/2000	GFAA
	Tot-Cadmium(ICP-MS)	< 0.3	ug/L	0.3	9/21/2000	ICP-MS
	Tot-Cobalt(ICP-MS)	2	ug/L	1	9/21/2000	ICP-MS
	Tot-Chromium(ICP-MS)	< 3	ug/L	3	9/21/2000	ICP-MS
	Tot-Copper(ICP/MS)	2	ug/L	2	9/21/2000	ICP-MS

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Fax: (867) 669-2718

To: NUNAVUT

Operations Directorate, DIAND

BOX 100

IQALUIT

X0A 0H0

Att'n: Philippe Lavallee

LAB# 202080

Tot-Iron(AA)	1.95	mg/L	0.03	9/27/2000	ICP-MS
Tot-Manganese(ICP-MS)	404	ug/L	1	9/21/2000	ICP-MS
Tot-Nickel(ICP-MS)	19	ug/L	1	9/21/2000	ICP-MS
Tot-Lead(ICP-MS)	< 1	ug/L	1	9/21/2000	ICP-MS
Tot-Zinc(ICP-MS)	18	ug/L	10	9/21/2000	ICP-MS
Tot-Mercury(water)	< 0.01	ug/L	0.01	9/25/2000	080314
Phenols	24	ug/L	2	10/20/2000	006536

Field Data (00/09/12) 1441-4

Temperature: 10.0 °C

Conductivity: 843 µS

pH: 8.4

Time: 09:31