ANNUAL REPORT
FOR THE HAMLET OF PANGNIRTUNG

YEAR BEING REPORTED: ~~2011~~ 2010 PB.

The following information is compiled pursuant to the requirements of Part B, Item 1 of Water License # **3BM-PAN 0810** issued to the hamlet of Pangnirtung.

i)- iii) tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are quantities of water used as reported in our On Tap Water Delivery System and the estimated discharge of sewage waste based on quantities used.

Month Reported	Quantity of Water Obtained from all sources (litres)	Quantity of Sewage Waste Discharged
January 2010	3,697,644	Same
February 2010	4,058,880	Same
March 2010	4,186,319	Same
April 2010	4,139,462	Same
May 2010	3,775,924	Same
June 2010	4,055,907	Same
July 2010	4,379,161	Same
August 2010	4,237,772	Same
September 2010	3,834,829	Same
October 2010	4,032,853	Same
November 2010	3,820,214	Same
December 2010	4,221,325	Same
ANNUAL TOTAL	48,440,290	Same

Total in Cubic Metres = 48,440

iv. a summary of modifications and/or major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures and facilities;

Water Supply: ARTIS, an Engineering Consulting firm, is working on the following modifications:

(1) Increase water distribution, through increased pumping capacity, and/or provisions for a second truck fill arm and piping.
(2) Isolate chlorine disinfection systems and chemicals from remaining truck fills station equipment.
(3) Facilitate installation of a ventilation system in order to comply with Public Health Regulations.
(4) Update the mechanical and electrical devices of the Water Truck fill station.

Wastewater Treatment Plant (WWTP):
Dillon Consulting ltd, an Engineering consulting firm, has completed the following modifications mainly to satisfy health and safety Act and Electrical code:
(1) New Control Room: This facility was built for the operators in the first floor with a metallic stair. From there the operators can oversee the operation of the plant. Now the operators can also conduct there few laboratory activities in house. The operator room can be used for multi uses. This will facilitate the operators for good Health and Safety.
(2) Improve hydronic heating system
(3) Improve electrical devices like gas detector, controls, heating coils and Actuators.

The Process management of the Plant remains unchanged. The degree of odour has significantly been reduced.

v. a list of unauthorized discharges and summary of follow-up action taken;

Nil

vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;

A feasibility study on waste management was completed by Dillon Consulting ltd, an Engineering consulting firm, in 2007. Recently Trow Associates Inc. (Current name is exp) has been retained for the services for design and construction supervision of the new waste management site, and decommission (abandonment and restoration) of the existing site. This project was on hold by GN-CGS Capital Planning until July 31, 2011. At the same time, abandonment and restoration plan of the existing waste management facility was also on hold.
Recently GN-CGS Capital Planning advised to start back this project. The Consultant TROW will review the existing situation and develop an appropriate design concept acceptable by CGS and adaptable to the community demand.

vii. a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;

The Wastewater Treatment Plant (WTP) has been optimized except the process management by Dillon Consulting ltd in 2010.

The Water Truck fill station is currently being upgraded. The Preliminary design has been Completed by the consultant ARTIS for CGS review; however, it has been proposed that the best value for the GN would be achieved by replacement of the truck fill station as opposed to repair.

Feasibility study for waste management was completed by Dillon in 2007. Design was started by Trow but the project was on hold. This project will start back from August 2011.

viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and

Sludge and processing from the fish plant were advised to be buried in the inspection Report of INAC inspector dated August 2, 2010.

ix. Updates or revisions to the approved Operation and Maintenance Plans.

Water Supply: The O&M manual will be revised and upgraded once the construction/

the rehabilitation of the truck fill station is completed. The construction is scheduled in 2012-13.

Wastewater Treatment Plant: The Process management remains unchanged. Only Civil/Architectural modifications and improvement of electrical works were completed in 2010. O&M manual has been revised following the as built drawings after these modifications.

Waste Management Site: The current waste management site is a non engineered facility which accommodates domestic wastes, metal wastes, industrial wastes like sludge bags and fish wastes. No O&M manual exists for this facility.
Once the design and construction of the new facility are completed, a new O&M manual will be developed following the as built drawings. The methods of management of the different types of wastes will be elaborately explained in that manual following the guidelines of the Environment Protection Act to satisfy the requirements of the Water License.

ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

Proper segregation of wastes will be taken place during the decommissioning of the existing Waste Management (land fill) site. The new facility is expected to be operational in 2014-15.

Sludge quality will be monitored along with the wastewater effluent Quality. An Optimization plan for the WWTP will be developed following those Monitoring results to satisfy Environmental Act and the requirements of the Water License.

Water Quality will be maintained to satisfy the Territorial and National drinking water Guidelines. Current deficiency is to satisfy the turbidity limit.

FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

The Hamlet is working closely with GN-CGS for capital programs to deal the issues and to rectify the comments made by the INAC inspector to bring the community under Water License compliancy ASAP.

Hamlet of Pangnirtung Wastewater Treatment Plant
Influent, effluent and sludge monitoing Program

Water consumption(m^3)-10	Serial No	Date	m3	Influent m^3	Effluent m^3	Sludge m^3
3,698	1	Jan-10		4785.4	3758.1	1027.3
4,059	2	Feb-10		3794.9	3595.9	199
4,186	3	Mar-10		3870.7	3681.9	188.9
4,140	4	Apr-10	4140	2471.6	3780.6	-1309
3,776	5	May-10	3776	4133.9	2112.3	2021.6
4,056	6	Jun-10		4258.7	4262.9	-4.2
4,379	7	Jul-10		4270.6	1146.5	3124.1
4,238	8	Aug-10		3486.9	3431	55.9
3,835	9	Sep-10		4054.3	3886.8	167.5
4,033	10	Oct-10		4089.7	3941.9	147.8
3,820	12	Nov-10	3820	3598.9	3765	-166.1
4,221	13	Dec-10		4204.4	3965.1	239.3
48,441	14	Jan-11		4051.8	3920.1	131.7
	15	Feb-11		3433.4	3580.1	-146.7
	16	Mar-11		4072.8	4124.06	-51.26
	17	Apr-11		3835.8	3784.57	51.23
	18	May-11		3914.2	3774.6	139.6
	19	Jun-11		4062	4077.6	-15.6
	20	Jul-11		4243.4	4075.5	167.9
		Total		70,362.80	67518.03	2844.77