ANNUAL REPORT FOR THE HAMLET OF PANGNIRTUNG, 2020

YEAR BEING REPORTED: 2020

The following information is compiled pursuant to the requirements of Part A, Item 1 of Water Licence # 3AM-PAN1828 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 (Estimated)
January	4,515,356.50	Same
February	4,077,969.00	Same
March	4,641,949.40	Same
April	3,944,917.90	Same
May	3,751,771.80	Same
June	4,146,847.20	Same
July	4,176,824.70	Same
August	3,729,145.80	Same
September	3,673,307.00	Same
October	4,040,981.10	Same
November	4,044,560.10	Same
December	4,061,082.50	Same
ANNUAL TOTAL	48,804,713.00	

Note: The water consumption volume is considered equal to the discharge volume because there is no method to calculate the effluent volume and sludge volume. In principle,

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the effluent volume is equal to the difference between inflow volume and sludge volume,

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: No major modification and /or maintenance works were carried during the reporting report. A list of unauthorized discharges and summary of follow-up action taken. v. The Leachate of the wastes site is uncontrolled. Especially during rainy reason, the surface runoff moves so fast from the right side of the road to the left side of the road through the culverts towards the sea. The runoff coming from the Hill was diverted through the drainage channel at the upper side of the metal dump and prevented from coming inside the metal dump. vi. A summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year. No abandonment and restoration work were conducted during this reporting year. 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. Under the current Type A Water Licence # 3AM-PAN1828, the following studies

Under the current Type A Water Licence # 3AM-PAN1828, the following studies are recommended:

Water supply system:

The Licensee shall withdraw water from the Duval River at a rate that shall not exceed ten percent (10%) of the instantaneous flow in the river and shall cease all water withdrawal when the instantaneous flow in the river is below thirty percent (30%) of the mean annual discharge.

The licensee shall limit the withdrawal of water from the Duval River to the Months of July and August, unless otherwise recommended by hydrology study as mentioned above.

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Action taken: Hamlet is planning to conduct a hydrological study on the Duval River to establish the above criteria with a year or two once funding is available.

Wastes Management:

- Control surface runoff from the waste's sites
- Erect a fence surrounding the metal wastes and Hazardous wastes Area
- Prepare the standalone drainage /Seepage Monitoring Plan
- Proper storage of the waste oil drums

Action taken: The waste oil drums were relocated inside the metal dump area. Hamlet is planning to deal with the other issues within a year or two.

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

Wastes Management:

a. Control surface runoff from the waste's sites

- b. Erect a fence surrounding the metal wastes and Hazardous wastes Area
- c. Prepare the standalone drainage /Seepage Monitoring Plan
- d. Proper storage of the waste oil drums
- e. Fish waste should be treated with lime and covered with soil prior to the onset of the annual spring freshet and then weekly thereafter during June, July, August and September.

Action taken: The items a, b and d were already dealt with. Hamlet is planning to deal with the remaining items within a year or two.

Water body:

a. No removal of any material is recommended from below the ordinary high-

water mark.

- b. Can not cause erosion to the banks of the water body.
- c. Install a flow meter and a fish screen at the Intake pipe

Action taken; It is noted that a flow meter was already installed. Hamlet is working on the suitable fish screen this summer.

ix.	Updates or revisions to the approved Operation and Maintenance Plans.
-	Hamlet is operating all the Water Licensed facilities using the existing O&M
	manuals. Hamlet is planning to revise them within a few years.

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x. ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

Hamlet is planning to replace the membrane in the WWTP. Hamlet is also planning to improve the drainage system of the waste's site area in this summer.

xi. FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

The Leachate analysis report is attached. Hamlet is planning to start the Hydrology study of the Duval River at any time now.

The Test Lab Results for 2020 are submitted in a separate document.

Hamlet experienced difficulty for shipping samples for Toxicity testing to ALS lab in Winnipeg due to too many transit points of the Cargo. Shipping samples was challenging to the Southern Labs within a certain time period and the samples became spoiled. Due to warning of COVID -19, the business was not as usual.











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