

ANNUAL REPORT FOR THE HAMLET OF KUGAARUK

YEAR BEING REPORTED: 2008

The following information is compiled pursuant to the requirements of Part B, Item 1 of Water Licence (3BM-PEL0712) issued to the Hamlet of Kugaaruk.

- 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;**

Sampling for detailed chemical, physical and biological analysis required at PEL-3-1, PEL-3-2, PEL-4, PEL-5 and PEL-6 for the months of July to October, inclusive was not completed due to on-going construction.

Month Reported	Quantity of Water Obtained from all sources (m ³) (PEL-1)	Quantity of Sewage Waste Discharged ¹ (m ³) (PEL-2)
January	2,190	1,372
February	2,111	1,372
March	2,078	1,372
April	1,963	1,372
May	2,015	1,372
June	1,847	1,372
July	2,089	1,372
August	2,078	1,372
September	2,260	1,372
October	2,070	1,372
November	2,050	1,372
December	2,241	1,372
ANNUAL TOTAL	24,993	16,464

Please indicate volumes in cubic metres - 1 cubic meter equals 1000 litres

¹*Note: Volume of sewage delivered is estimated based on volume of sewage trucks and number of daily deliveries. Sewage is not measured by a meter on the truck.*

ANNUAL REPORT FOR THE HAMLET OF KUGAARUK

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;

Beginning in the summer of 2007, construction of a new wastewater lagoon began. Construction was not completed by the fall of 2007, so construction was suspended for the winter and began again in the summer of 2008. Construction was completed in 2008 with the exception of the heat trace installation at the discharge pipe.

SNP monitoring sign posts and signs were installed to mark the locations for each SNP point.

A feature that was added to the system, was the extension and leveling of the smaller lagoon cell's berm. The purpose of this is to allow discharge from the main lagoon to fill the smaller cell first. Then, once the wastewater level reaches the top of the berm, wastewater will slowly discharge into the wetland evenly across the total area of the wetland. A liner was also placed over the berm and then covered with rip rap to ensure that discharge does not seep through the berm wall.

Other major works completed included clean up of the solid waste and metals dump sites. Clean up of these sites included:

- Separating, crushing and stock piling waste barrels found in both sites. Barrels containing unclassified waste liquids were placed on pallets in a designated barrel storage area. Empty barrels were crushed and buried in the metal dump site;
- Consolidation of wood waste into one area and crushed with back hoe and dozer;
- White goods, vehicles and other metals were removed from the municipal solid waste site and segregated into various metals piles (white goods, vehicles, reusable metals/materials) in the metals dump site;
- Non-reusable metals were crushed and buried in the metals dump site. All oil, antifreeze and other hazmats were removed beforehand;
- Waste tires were separated and stored in designated area of the metals dump;
- Clean areas within the site were created for the storage of vehicles, white goods and useful wood products disposal to encourage community access and recycling. Both dump sites were cleaned to allow for more municipal solid waste and general metal goods disposal.

A fence was installed to delineate the area of the solid waste facility and to prevent wind blown debris from being blown off of the site. Drainage improvements were also made to direct surface run off to drainage outfall structures.

ANNUAL REPORT FOR THE HAMLET OF KUGAARUK

As well three lined bermed areas were constructed for the storage of crushed barrels, batteries and hazardous materials until these materials can be properly crated and shipped off site.

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

One spill was reported to the NWT-NU Spill Report Line for 2008. The spill was reported on April 7, 2008, occurred at the tank farm dispenser and involved 115L of Heating Fuel P-50 from a storage tank greater than 4000L. The contractor was asked to clean up the spill. By April 10, 2008 clean up of the spill had been completed.

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

The new main lagoon cell was constructed where the old lagoon cell use to be. During the construction season, sewage was deposited in the smaller lagoon cell located below the main lagoon to prevent dumping of sewage into the main lagoon. As the main lagoon cell has been completed, sewage can now be deposited into the main lagoon.

With regards to both solid waste and metals dump facilities, the sites are remaining in the same location. Modifications and clean up are happening on the existing sites.

Anticipated work for the summer 2009 construction includes:

- Installation of heat trace unit at discharge pipe of main sewage lagoon;
- Sampling of discharge three times throughout the summer/fall to determine the treatment efficiency of the wetland;
- Incineration of waste oil stored in barrels at the metals dump site;
- Clean up, package and ship out hazardous waste materials for disposal at an appropriate facility;
- Installation of signs identifying the different disposal areas of the solid waste site.

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 Nunavut Water Board has requested that a Wetland Treatment Area Assessment report be completed as part of the Hamlet's water licence. A report describing the wetland design, area usage and anticipated treatment efficiency is currently being produced. The Board has requested that the wetland be evaluated over a period of 5 years at which time the treatment

ANNUAL REPORT FOR THE HAMLET OF KUGAARUK

efficiency of the wetland can be more accurately determined. After 5 years of operation, the results of the study should be reported and submitted to the Board for review.

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

No known extra requests from the Nunavut Water Board.

- ix. updates or revisions to the approved Operation and Maintenance Plans.**

Operational and Maintenance plans for both the Sewage Treatment Facility and Solid Waste Sites are in the process of being completed. Also, a Spill Contingency Plan and Wetland Treatment Area Assessment Report are being completed as per the requirements of the Hamlet's water licence.

ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

No further information to report.

FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

In August 2008, it was discovered that Diamonds North disposed of a number of 45 gallon drums full of ashes from their Barrow Lake Camp. Diamonds North was contacted and instructed to remove their barrels from site. They removed their barrels in late 2008 and sent them out for disposal. During the same site inspection, a "red dye" material was found spilled on the ground in the metals dump site. Testing and clean up of this material is currently being handled through Indian and Northern Affairs Canada, Environment Canada and Community Government Services, Government of Nunavut.