



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee	Licensee Representative
Hamlet of Resolute Bay	Bhabesh Roy
Licence No. / Expiry	Representative's Title
3BM-YRB1621	Municipal Engineer
Land / Other Authorizations	Land / Other Authorizations
Date of Inspection	Inspector
July 21, 2018	Joseph Monteith & Jonathan Mesher
Activities Inspected	
<input type="checkbox"/> Camp <input type="checkbox"/> Drilling <input type="checkbox"/> Mining <input type="checkbox"/> Construction <input type="checkbox"/> Reclamation <input type="checkbox"/> Fuel Storage	
<input type="checkbox"/> Roads/Hauling <input checked="" type="checkbox"/> Other: Sewage Disposal Facility <input type="checkbox"/> Other:	

Conditions:	A- Acceptable	U-Unacceptable	C-Concern	NI-Not Inspected	NA- Not applicable
PART:	Item No.*	Condition	Observation No.*		
A: SCOPE, DEFINITIONS AND ENFORCEMENT		A			
B: GENERAL CONDITIONS		C			
C: CONDITIONS APPLYING TO SECURITY		NI			
D: CONDITIONS APPLYING TO WATER USE		C			
E: CONDITIONS APPLYING TO WASTE DISPOSAL AND MANAGEMENT		C	1-7		
F: CONDITIONS APPLYING TO MODIFICATIONS		NI			
G: CONDITIONS APPLYING TO CONSTRUCTION		A			
H: CONDITIONS APPLYING TO EMERGENCY RESPONSE AND CONTINGENCY PLANNING		C			
I: CONDITIONS APPLYING TO ABANDONMENT, RECLAMATION AND CLOSURE PLANNING		NI			
J: CONDITIONS APPLYING TO MONITORING		C			
SCHEDULES		NI			
<i>*The item number corresponds with specific conditions within the licence and the observation number corresponds with specific comments provided below.</i>					
Samples taken by Inspector:		Location(s):			
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Latitude: 74° 42' 00" N Longitude: 94° 50' 00" W			

SECTION 1	<input checked="" type="checkbox"/> Comments (s. __)	<input type="checkbox"/> Non-Compliance with Act or Licence (s. __)	<input type="checkbox"/> Action Required (s. __)
BACKGROUND <p>Application is by the Government of Nunavut – Community and Government Services, on behalf of the Government of Nunavut – Department of Economic Development and Transportation (the Licensee), for the renewal, for a term of five (5) years, as well as the amendment of an expired, Type “B” Water Licence (Licence No. 3BM-YRB0308/NWB3YRB0308), to allow for the continued operation of a Sewage Disposal Facility (the Facility). The Facility in question is located within the Hamlet of Resolute Bay, in the Qikiqtani Region, Nunavut. The Licence under which the Facility operated was issued on November 30, 2003 and expired on November 30, 2008. The Expired Licence allowed for the use of Water and the deposit of Waste in support of a Municipal undertaking that included the operation of a potable water treatment facility, solid waste disposal facility, and sewage treatment facility. The scope of the Renewal-Amendment Application, however, excluded the portable water supply facility and several other facilities and/or activities either discontinued or currently covered under distinct licences issued to the Hamlet of Resolute Bay or other entities.</p>			
Inspector Statement <p>On July 21, 2018, A Water Licence Inspection was conducted on the Resolute Bay Sewage Disposal Facility at the Resolute Bay Airport.</p>			
General Condition <p>On July 12, 2018 Richard Dwyer, Nunavut Water Board, Manager of Licencing, emailed Water Resource Officer(WRO) Monteith a copy of Resolute Bay Airport’s 2017 Annual Report. Satisfying Part B: Item 1 of the Water Licence. Although an Annual Report was submitted within the time required, not all aspects of</p>			



submission requirements were achieved. As detailed in Richard Dwyer’s review of the submission it was noted that Part H, Item 3 and Part H, Item4, Part D, Item 3 was not satisfied. Also the amount of water consumption can be misleading as the licence states only 1 cubic metre per year for sampling, they reported above the 1 cubic metre per year, due to the mixed submission of water consumption for 3BM-RUT1520 rather than 3BM-YRB1621. The Hamlet does not have a water/waste flow metre and does not articulate its calculation for waste deposited into the Sewage Disposal Facility.

Sewage Disposal Facility

- 1.The Sewage Disposal Facility is a non-engineered 3 cell lagoon.
- 2.Two yellow triangle signs were observed, with no writing in the Official Languages of Nunavut. (See Photo #1 & 2).
- 3.The Freeboard was above 1 metre (See Photo #3).
- 4.Signs of over flow were observed (See Photo #4). Spill report 2017-127 was reported on April 25, 2017 for 50,000 Litres of waste water from an overflow event at the Sewage Lagoon.
- 5.Signs of Slumping and Erosion were observed (See Photo #5). This observation appears to not have been addressed as requested in past inspection reports. The state of the walls appears to have gone into further decline.
- 6.No Flow metre on water intake or waste discharge. On October 26, 2018 Jayson Mablick, Government of Nunavut(GN), Community Government and Services(CGS) emailed WRO Monteith a excel Spreadheet copy of the Water Consumption Report for the months of January 2018, to August 2018, listing ATCO Truck consumption numbers total of 3830138 Litres consumed. This figure should be articulated as the amount discharged into the Sewage Disposal Facility (See Photo #6).
- 7.On July 22, 2018 Bhabesh Roy, GN,CGS, Municipal Engineer, emailed WRO Monteith a copy of Resolute Water Consumption Report, Jan. to June 2018 which would appear to be submitted apart of the Annual Report submission showing 2539382 litres withdrawn for 2018 Truck Report, listing the Quantity of Sewage Waste Discharged as “SAME”. This record of water consumption is the same as the one emailed to WRO Monteith on October 26, 2018 from Jayson Mablick, except the record for June is different, probably due to that months water consumption was compiled yet (See Photo # 7).

☐ Comments

☐ Non-Compliance with Act or Licence

☒ Action Required

The following information is a summary of the Actions Required by the licensee to promote and ensure compliance:

- articulate how you calculate the amount of waste deposited into the Sewage Disposal Facility.
- label the two monitoring posts as listed in the water licence
- provide all requirements for submission of Annual Reports
- maintain the 1 metre free board at the Sewage Disposal Facility
- repair the walls of the Sewage Disposal Facility
- notify WRO Monteith at Joseph.Monteith@Canada .ca when decanting the Sewage Disposal Facility.
- report to the Spill Line when overflow is observed at the Sewage Disposal Facility
- the Licensee is reminded to remain diligent to prevent wastes from entering water, the environment, and to adhere to the discharge criteria listed in the licence.

SECTION 3

☐ Comments

☒ Non-Compliance with Act or Licence

☐ Action Required

Part B: Item 5 - The Licensee shall, within ninety (90) days after the first visit by an Inspector, following issuance of the Licence, post the necessary signs to identify the stations of the “Monitoring Program”. All signage postings shall be in the Official Languages of Nunavut.

Part D: Item 4 - The Licensee shall ensure that a Freeboard limit of 1.0 metre, or as recommended by a qualified Geotechnical Engineer and approved by the Board, is maintained at all dykes and earth-fill structures associated with the Sewage Disposal Facilities.

Part D: Item 5 - The Licensee shall advise an Inspector at least ten (10) days prior to initiating any decant of the Sewage Disposal Facility.

Part D: Item 6 - The Sewage Disposal Facilities shall be maintained to the satisfaction of an Inspector, and operated in such a manner as to prevent erosion and structural failure.

Licensee or Representative	Inspector's Name
Bhabesh Roy, Todd MacKay	Joseph Monteith
Signature	Signature
Date	Date
	November 25, 2018

CC: Licensing Department, NWB



Justin, Manager of Field Operations, CIRNAC

PHOTO LOG

Date	Camera	Inspector
July 21, 2018	Nikon CoolPix	Joseph Monteith
Photo Log #1	Location	
Photo 1	Resolute Bay	
		
Description: Trucks discharge waste into Sewage Disposal Facility		

Photo Log #	Location
Photo 2	Resolute Bay
	
Description:	



Photo Log #	Location
Photo 3	Resolute Bay
	
Description: Walls on the north side shows less than 1 metre freeboard. The sludge on the ground shows the height of walls of Sewage Disposal Facility	

Photo Log #	Location
Photo 4	Resolute Bay
	
Description: The white sludge along the walls of the Sewage Disposal Facility shows signs of overflow	



Photo Log #

Photo 5

Location

Resolute Bay



Description: The erosion on the right was observed in the 2017 inspection report, the Erosion on the left is new and wasn't observed in the 2017 inspection report

Photo Log #

Photo 6

Location

Resolute Bay

2018 WATER CONSUMPTION

	January	February	March	April	May	June	July	August	September	October	November	December
24	89,230	85,705	104,346	95,337	86,460	53,540	77,479	80,634				
25	103,467	87,664	103,725	99,331	97,520	137,310	174,821	79,216				
26	78,620	86,220	100,975	104,000	98,400	42,533	81,090	95,545				
27	108,622	77,291	108,039	118,729	89,096	93,737	87,130	62,554				
28	96,391	91,220	106,318	88,961	95,507	74,722	43,672	82,258				
29	67,976		93,908	96,858	100,456	32,835	45,669	78,648				
30	96,135		98,546	103,072	92,345	157,558	89,733	78,997				
31	91,479		105,577		161,961		70,929	77,646				
Total Imp G	2,754,307	2,501,476	3,059,566	3,048,450	3,029,365	2,569,090	2,480,487	2,649,168	1,871,702	1,766,215	0	0
										Yearly Total Imp. G		25,729,826
Total Liters	12,521,355	11,371,960	13,909,093	13,858,559	13,771,796	11,679,340	11,276,542	12,043,383	8,508,944	8,029,390	0	0
										Yearly Total Liters		116,970,362
ATCO Truck												
Liters	312,772	626,907	741,014	335,048	418,241	479,159	571,445	615,542	0	0	0	0
Utilidor	12,208,583	10,745,053	13,168,079	13,523,511	13,353,555	11,200,181	10,705,097	11,427,841	8,508,944	8,029,390	0	0

Description: Review ATCO Truck on bottom. From January to July 2018



Photo Log #	Location																																										
Photo 7	Resolute Bay																																										
<div><div><div>ANNUAL REPORT FOR THE HAMLET OF RESOLUTE BAY, 2018</div><div>YEAR BEING REPORTED: 2018 TRUCK</div><div><p>The following information is compiled pursuant to the requirements of Part B, Item 1 of Water license #3BM issued to the Hamlet of Resolute Bay, NU.</p><p>i) - iii) tabular summeries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic meters of each and all waste discharged;</p><p>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.</p><table><tr><th>Month Reported</th><th>Quantity of Water Obtained from all sources (litres)</th><th>Quantity of Sewage Waste Discharged (Estimated)</th></tr><tr><td>January</td><td>312,772</td><td>SAME</td></tr><tr><td>February</td><td>626,907</td><td>SAME</td></tr><tr><td>March</td><td>741,014</td><td>SAME</td></tr><tr><td>April</td><td>335,048</td><td>SAME</td></tr><tr><td>May</td><td>418,241</td><td>SAME</td></tr><tr><td>June</td><td>105,400</td><td>SAME</td></tr><tr><td>July</td><td>-</td><td>SAME</td></tr><tr><td>August</td><td>-</td><td>SAME</td></tr><tr><td>September</td><td>-</td><td>SAME</td></tr><tr><td>October</td><td>-</td><td>SAME</td></tr><tr><td>November</td><td>-</td><td>SAME</td></tr><tr><td>December</td><td>-</td><td>SAME</td></tr><tr><td>ANNUAL TOTAL</td><td>2,539,382</td><td>SAME</td></tr></table><p>Note: The average consumption volume is considered equal to the discharge volume in each month because there is no meter in the intake or discharge pipe.</p></div></div></div>		Month Reported	Quantity of Water Obtained from all sources (litres)	Quantity of Sewage Waste Discharged (Estimated)	January	312,772	SAME	February	626,907	SAME	March	741,014	SAME	April	335,048	SAME	May	418,241	SAME	June	105,400	SAME	July	-	SAME	August	-	SAME	September	-	SAME	October	-	SAME	November	-	SAME	December	-	SAME	ANNUAL TOTAL	2,539,382	SAME
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