



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee		Licensee Representative	
Hamlet of Sanikiluaq		Mike Rowan	
Licence No. / Expiry		Representative's Title	
3BM-SAN1520		Senior Executive Administrator	
Land / Other Authorizations		Land / Other Authorizations	
Date of Inspection		Inspector	
August 16, 2016		Justin Hack	
Activities Inspected			
<input type="checkbox"/> Camp	<input type="checkbox"/> Drilling	<input type="checkbox"/> Mining	<input type="checkbox"/> Construction
<input type="checkbox"/> Roads/Hauling	<input type="checkbox"/> Other: Water Discharge	<input type="checkbox"/> Reclamation	<input checked="" type="checkbox"/> Fuel Storage
<input checked="" type="checkbox"/> Other: Municipal			

Conditions:		A - Acceptable	C - Concern	U - Unacceptable	NA – Not Applicable	NI – Not Inspected
Water Use		Site Conditions		Haz/Mat Management		
	Condition	Comment		Condition	Comment	
Intake/Screen	A		Water Management Structures	A		
Flow Measure. Device	U		Culverts / Bridges	A		
Source:	A		Drainage	NA		
Water Use:	A		Erosion / Sediment	A		
Recirculation (y /n)	NA		Mitigation Measures	A		
			Reclamation Activities	NA		
			Materials Storage	NA		
Waste Disposal			Signage	A		
Waste Water	A					
Solid Waste	C		Monitoring			
Hazardous Waste	A		Sample Collection / Analysis	NI		
*The number in the comments field will correspond with specific comments provided below.						
Samples taken by Inspector:			Location(s): SAN 4			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						

SECTION 1	<input checked="" type="checkbox"/> Comments (s.1-2)	<input type="checkbox"/> Non-Compliance with Act or Licence (s.3)	<input type="checkbox"/> Action Required (s.4)
Inspectors Statement			
<p>On August 16, 2016 a water licence inspection was conducted at the Hamlet of Sanikiluaq, Qikiqtani Region, Nunavut. The Hamlet has a current type “B” water licence that allows the use of 40,000 cubic metres per annum or 229 cubic metres per day from the Hudson Bay Island watershed. Sites inspected include the single cell non-engineered lagoon, the non-engineered wetland, the solid waste storage facility and the Sanikiluaq Lake Truck-Fill Station.</p>			
Inspection			
Water Use and related structures:			
<ol style="list-style-type: none">Water is being withdrawn from Sanikiluaq Lake as approved by the water licence.The withdrawal of water from Sanikiluaq Lake is being measured using meters installed on the water trucks.<ol style="list-style-type: none">This method of measurement does not capture all water used from Sanikiluaq Lake by the Hamlet.Activities such as dust suppression, truck cleaning, and any discharges from the truck not used for portable water deliveries are not reported or recorded.It is recommended that a water meter be installed at the water intake to ensure compliance with Part B Item 1(b) of the Water License, which states that water from all sources be recorded and reported.			
Waste Water Treatment Facility:			
<ol style="list-style-type: none">The lagoon operates by passive exfiltration and overflow of a berm wall. The effluent then travels through a wetland for approximately 500m before it reaches SAN-4 Monitoring Location. The effluent then continues to flow through the wetland for another 500m before it enters the ocean.<ol style="list-style-type: none">Due to the intended design of this facility, maintaining a sufficient freeboard (as required in the licence) is not possible. <i>This condition should be amended or removed from the licence.</i>Samples were taken at SAN-4 to ensure compliance with the licence criteria. However, it appears that			



this sampling point is significantly further downstream of the lagoon than originally intended. It is recommended that either the SAN-4 monitoring location is moved closer to the passive outflow location of the sewage lagoon or another station is created at this location to capture the effluent quality at the point after exfiltration/overflow.

4. Other than the concern related to the location of SAN-4, there are no other concerns with the operation of this facility.

Domestic Waste Facility (unlined):

5. Waste within the domestic waste facility is burned in an open burn box.
6. There is a ditch adjacent to the facility that captures the surface water from this facility. This ditch is filled with water and significant quantities of domestic refuse. Some of the ash from the open burn box likely enters this ditch before it flows downstream into the wetland.
- a. Sampling location SAN-2 is not located adequately to provide representative sampling results as to whether the ash and leachate from the Domestic Waste Facility is causing a detrimental effect on the surface water.
- b. Samples were not taken of the water within this ditch downstream of this facility by INAC at the time of the inspection.
- c. The Licensee was asked to move the sampling location of SAN-2 upstream to within the surface water management ditch to provide a more representative sampling location of the surface water originating from this facility.
- d. The Licensee is asked to take samples of this water and submit to the Inspector.
- i. Depending on the results, an amendment to the water licence may be required for the discharge of waste into water; otherwise, waste into water at this location is not an authorized activity under the current water licence.

SECTION 2



Comments



Non-Compliance with Act or Licence



Action Required

Water Use and related structures:

- To install a device to accurately record the amount of water being withdrawn from Sanikiluaq Lake.

Domestic Waste Facility (unlined):

- To conduct sampling of the surface water originating from the Domestic Waste Facility at the location discussed during the inspection.
- Relocate the sampling location SAN-2 to this location.

PHOTO LOG

Date	Camera	Inspector	Authorization
16/08/2016	SONY DSC-HX50V	Justin Hack	3BM-SAN1520



Figure 1 (sampling at SAN 4)



Figure 2 (Burn box)

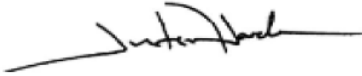


Figure 3(Lagoon overflow berm facing lagoon)



Figure 4 (Lagoon overflow area facing downstream)



Licensee or Representative	Inspector's Name
	Justin Hack
Signature	Signature
	
Date	Date
	September 6, 2016

Office Use Only:	Follow-up report to be issued by Inspector	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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