



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee	Licensee Representative
Hamlet of Chesterfield Inlet	Douglas Aggark, Megan Lusty (CGS)
Licence No. / Expiry	Representative's Title
3BM-CHE1013 (30/09/13)	Senior Administrative Officer
Date of Inspection	Inspector
07/07/2014	WRO C. Wilson

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 type="checkbox"/> Other:	<input checked="" type="checkbox"/> Other: MUNICIPAL UNDERTAKING			

Conditions:	A - Acceptable	C - Concern	U - Unacceptable	NA – Not Applicable	NI – Not Inspected			
Water Use	Condition	Comment	Site Conditions	Condition	Comment	Haz/Mat Management	Condition	Comment
Source: FIRST LAKE	A	1	Water Management Structures	U	9	Storage	U	7
Intake/Screen	NI	2	Culverts / Bridges	NA		Spills	U	8
Flow Measure. Device	U	3	Drainage	NI				
Water Use: Unknown	U	3	Erosion / Sediment	NI				
Recirculation (y /n)	NA		Signage	U	10	Administrative		
						Records	U	11
						Reports	U	11
Waste Disposal						Plans	U	14-16
Waste Water	U	4				Notifications	NI	
Solid Waste	U	5,6	Monitoring			Other		
			Sample Collection	U	11	Consultation	U	14
			Analysis	U	12	Modifications/amend.	U	13
*The number in the comments field will correspond with specific comments provided below.								
Samples taken by Inspector: A/WRO Hack			Location(s): One location CHE-4 described in the water Licence as the final discharge point from wetland treatment area prior to Finger Bay.					
Yes <input checked="" type="checkbox"/> No								

SECTION 1	<input checked="" type="checkbox"/> Comments (s. 1_)	<input type="checkbox"/> Non-Compliance with Act or Licence (s. __)	<input type="checkbox"/> Action Required (s. __)
WATER USE			
<p>1) Raw water is pumped once a year (approximately in September) from First Lake to the community reservoir via overland conveyance lines. The Hamlet advised the inspector the line from first lake to the reservoir is leaking and refilling of the reservoir tends to take longer than previously years. As discussed during the inspection all raw water must be metered including the water lost during the refilling of the reservoir.</p> <p>2) The raw water intake line has been moved to N 63° 19' 48.4", W90° 46' 18.4" (photo 1) to avoid additional sediment from arriving in the reservoir. The intake hose was not inspected at this time as it was being repaired. The Hamlet advised the inspector the hose was fitted with two types of screen which helps reduce particulate and debris from entering the reservoir.</p> <p>3) The Hamlet currently records the amount of water drawn from the reservoir via a meter in the water treatment plant. As discussed with Hamlet SAO Douglas Aggark and CGS representative Megan Lusty all raw water from First Lake must be accounted for and recorded from the sources as per PART B item 4 and PART H item 2.</p>			
WASTE DISPOSAL			
<p>4) At the time of the inspection the Hamlet utilizes one of the two sewage discharge locations. This discharge is referred to in the Water, Sewage, and Solid Waste Operations and Maintenance Manual (May 2010) as the "existing sewage truck dumping station". The sewage is discharged into a series of containment ponds (photo 2), boggy areas and a natural wetland before reaching Finger Bay located in Hudson Bay.</p> <p>5) The Hamlet utilizes a solid waste management area which consists of landfill (photo 3), bulky metal storage area (photo 4) and drum storage berms (photo 5) for waste disposal. The landfill is lacking segregation as described in the Water, Sewage, and Solid Waste Operations and Maintenance Manual (May 2010).</p> <p>6) The Hamlet plans to repair the fence surrounding the facility to reduce the amount of wind blow debris. The hamlet is reminded waste is to be disposed and permanently contain in the Solid Waste Management Area as per PART D item 8.</p> <p>7) Two seacans have been placed inside the Solid Waste Management Area for storage of some hazmat waste (e.g.: batteries and paint). The solid waste area has two areas with secondary containment for hazmat waste. The majority of the drums are located outside of the secondary containment and are not clearly identifiable. Hamlet staff are concerned that hazmat waste may have been mixed together which eliminated the possibility to be used in a waste oil burner. No current plans to ship out hazardous waste were discussed.</p> <p>8) Numerous spills are located around the Solid Waste Management Area.</p>			
SITE CONDITONS			
<p>9) It was observed that holding cell 1's flow through berm 'A' outlet requires some maintenance. A continuous flow of sewage is being released to Pond 1 (photo 6). The Hamlet is reminded the Sewage Disposal Facilities must be maintained and operated to prevent structural failure as per PART D item 6. It was also observed that retention berm 'C' is washed out and requires maintenance (photo 7).</p> <p>10) All monitoring stations are lacking signage.</p>			



MONITORING

- 11) The Hamlet has not implemented the Monitoring program as per PART H item 1, 2, 3, 4, 5, 6, 10, 12.
- 12) All 4 sampling locations were reviewed with Hamlet and CGS representatives. The locations as recorded by the inspector are as follows;

- CHE-1 – Volume of raw water drawn from First lake at the pump (N 63° 19’ 48.4”, W90° 46’ 18.4”)

- CHE-2 – Run off from the Solid Waste Disposal Facility a top berm ‘C’ (N 63° 20’ 46.2”, W 90° 45’ 17.8”)

- CHE-3 – Effluent discharged from holding cell 1, top berm ‘A’ of holding cell one (N 63° 20’ 40.5”, W 90° 45’ 04.5”)

- CHE-4- Final Discharge Point for Effluent from wetland to Finger Bay, between berm ‘D’ and ‘E’ (N 63° 20’ 59.7”, W 90° 35.9”)

The berms names are referenced from the 100% design review- Not for construction drawings available on the Nunavut Water Board FTP site

- 13) The Hamlet expressed some concerns with the requirements under the monitoring program (e.g.: parameters, criteria, sampling timeframes and locations). The Hamlet is encouraged to utilize PART H item 13 which allows for modifications to the Monitoring Program.

ADMINISTRATIVE

- 14) The Hamlet is required to consult with Department of Fisheries and Oceans regarding the fish bearing status of the wetland treatment area as per PART D item 4.
- 15) The Hamlet fails to implement Operations and Maintenance as detailed in the Water, Sewage, and Solid Waste Operations and Maintenance Manual (May 2010) approved by the Board in PART F item 1. The Hamlet is reminded as per PART B item 11 they are request to implement plans as approved by the Nunavut Water Board and as per PART B item 12 carry every plan out to their full extent as all plans become part of this water licence.
- 16) The Hamlet is required to submit an Abandonment and Restoration Plan (A and R plan) which includes the old sewage lagoon as PART G item 2. At the time of the inspection it was unclear as to the location of the old sewage lagoon vrs the new lagoon.

SECTION 2

☐ Comments (s. __)

☒ Non-Compliance with Act or Licence (s. 2)

☐ Action Required (s. __)

PART B item 5- Failure to install and maintain monitoring station signage.
PART B item 4- Failure to meter water from the source.
PART B item 11- Failure to implement Plans as approved by the Board.
PART B item 12- Failure to carry out plans to full extent.
PART D item 4 -Failure to establish fish bearing status of the wetland treatment area.
PART D item 6- Failure to maintain sewage disposal facility water management structures.
PART D item 8- Failure to permanently contain waste with in Solid Waste Disposal Facility.
PART E item 4- Failure to submit as built drawing to NWB for Sewage Lagoon within 90 days of licence issuances.
PART G item 2- Failure to revise A and R plan to include the old sewage lagoon
PART H item 1- Failure to maintain monitoring stations at CHE-1, CHE-2, CHE-3, CHE-4.
PART H item 2- Failure to sample and analyze CHE-2 and CHE-4 for the parameters discussed in this condition.
PART H item 4- Failure to maintain a record of inspection as required by this condition.
PART H item 5- Failure to sample and analyze CHE-3 for the parameters discussed in PART H item 2
PART H item 10- Failure to submit Quality Assurance/Quality Control Plan
PART H item 12- Failure to submit all monitoring program information with annual report

SECTION 3

☐ Comments (s. __)

☐ Non-Compliance with Act or Licence, (s. __)

☒ Action Required (s. 3)

- The Hamlet will install at the intake pump at First Lake and record the meter volume daily while filling the reservoir. A picture of the meter will be provided to the inspector before September 30th, 2014.

• The Hamlet will install and maintain fencing at the Solid Waste Management Area as discussed during the inspection. The upgrades will be recorded via photo log that will be included in the 2014 annual report as per PART B item (1)(d).

• The Hamlet will implement the current monitoring program for 2014 as prescribed in this licence and provide each set of sampling results to the Inspector monthly starting with July and ending in September. This submission will be scheduled and in consultation with the CGS representative and the Inspector. The Hamlet or the associated representative is required to contact the Inspector to discuss this schedule no later than July 30th, 2014.

• The Hamlet will undertake the steps required to obtain a current water licence. The preliminary steps to this process will be submitting a compliance plan which will include a brief summary of the non-compliance items listed above and proposed resolution to each item with dates.

Failure to undertake the actions required as described in this inspection report, and to the satisfaction of the Inspector, may result in enforcement action(s) being undertaken pursuant to the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*.

Licensee or Representative	Inspector's Name
	Christine Wilson
Signature	Signature
	Originally signed on file
Date	Date

Office Use Only: Follow-up report to be issued by Inspector

☒ Yes ☐ No

PHOTO LOG			
Date:	Authorization Number:	Camera/Model:	Inspector
07/07/14	3BM-CHE1014	Sony DSC-HX50V Cyber shot	WRO Wilson

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
PHOTO 1	N 63° 19' 48.4", W90° 46' 18.4"



Descirption:
Raw water intake location at fish lake. This is where the water meter must be installed to count for the raw water drawn to the reservior.

Locations name:	Lat/Long (DD.MM.SS.SS, NAD83)
PHOTO 2	N63 20' 40.499", W 90 45' 4.601"



Description:
From left to right- Current utilized sewage truck offloading location; Berm 'A' wash out; CHE-3 sampling location; Location of Pond 1.

Locations name:		Lat/Long (DD.MM.SS.SS, NAD83)
PHOTO 3		NA
<div><div></div><div></div></div>		
Description: From left to right- Landfill leachate rentention Berm 'C'; Sewage treatment area pond 2 to bog/wetland; Seacan for Hazwaste storage; Landfarm.		
Location name: PHOTO 4		
<div><div></div><div></div></div>		
Desciption: Bulky metal storage area in the foreground and pond 2 of the sewage treatment area in the background.		

Location name:	
PHOTO 5	
	
Description:	
Left to right- Lined Barrel storage age; unlined historical drum storage site	

Locations name:		Lat/Long (DD.MM.SS.SS, NAD83)
PHOTO 6		N63 20' 40.499", W 90 45' 4.601"
		
Description:		
Berm 'A' required maintenance; Monitoring Location CHE-3		

Locations name:		Lat/Long (DD.MM.SS.SS, NAD83)
PHOTO 7		N63 20' 46.372", W 90 45' 17.626"
		
Description:		
Landfill leachate retention Berm 'C' required maintenance; monitoring station CHE-2		