



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee		Licensee Representative	
Department of Community Government and Services Government of Nunavut		Bhabesh Roy –	
Licence No. / Expiry		Representative's Title	
3BM-RUT1520		Regional Engineer	
Land / Other Authorizations		Land / Other Authorizations	
Date of Inspection		Inspector	
July 7,2016		A.Keim	
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 checked="" type="checkbox"/> Other: Municipal	<input type="checkbox"/> Reclamation
<input type="checkbox"/> Fuel Storage			

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
Intake/Screen	NI			Water Management Structures	NA			Storage	NA		
Flow Measure. Device	NI			Culverts / Bridges	NA			Spills	NI		
Source: Char Lake				Drainage	NA			Spill Plan	A		
Water Use:	A			Erosion / Sediment	NA						
Recirculation (y /n)	A			Mitigation Measures	NA			Administrative			
				Reclamation Activities	NA			Records	A		
				Materials Storage	A			Reports	A		
Waste Disposal				Signage	C			Plans	A		
Waste Water	U							Notifications	NA		
Solid Waste	NA			Monitoring		Other					
Hazardous Waste	NA			Sample Collection / Analysis	A						
*The number in the comments field will correspond with specific comments provided below.											
Samples taken by Inspector:				Location(s): AANDC Inspectors collected Raw water and effluent samples							
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											

SECTION 1	<input checked="" type="checkbox"/> Comments (s. __)	<input type="checkbox"/> Non-Compliance with Act or Licence (s. __)	<input type="checkbox"/> Action Required (s. __)
<p>Resolute Bay is located on the south coast of Cornwallis Island and is about 1,550 Km North West of Iqaluit. The community's current population totals less than 200 persons.</p> <p>The community of Resolute Bay is on a underground piped water and sewage system built in the early 1970's. As the system was designed for 1500 people (original forecast of community population), there is insufficient inflow of waste water into the system to prevent continual freezing of the pipes during the winter months (9 month of the year).. Over the years the system was modified to increase the volume of bleeding (continual water flow) entering the waste water pipeline to prevent the pipeline from freezing. Over the course of the last two years the Government of Nunavut has untaken a project to replace the original existing pipes and, to date, have almost completely rebuilt the system.</p> <p>There is no sewage treatment system in place in the community. A macerator was used to grind up large particles etc and remove large objects from the discharge however it has been off line for over four years. Therefore the system has and continues to directly discharge raw effluent to the shoreline of the Arctic Ocean. Sampling at the outfall continues to pass criteria simply due to the volume of water passing through the system.</p> <p>The Department of Community and Government Services, Government of Nunavut recently renewed the Water License for Water and Waste Water Services within the community of Resolute Bay. It was noted that the Water treatment facility also provides potable water to the Airport, and associated buildings (Hotels/ Polar shelf facilities etc) through a separate local contractor via truck services. Sewage wastes from these facilities are deposited in an unlicensed lagoon adjacent to the airport dump. Currently, an expired license exists for these facilities issued to the Government of Nunavut – Transportation department but that will soon be changed to also be the Department of Community and Government Services.</p> <p>Water treatment services are provided by Contract in the community.</p> <ul style="list-style-type: none">Intake and Pumping station were found in good orderTreatment and testing records were available for review in the pump house at the time of the InspectionWater usage records were not available for review during the InspectionChlorination records were present on siteSignage continues to be an issue in the community			



Waste water is a direct discharge to the shoreline in from of the community

- Sewage from community is continuously pumped onto the shoreline in front of town. Obvious nutrient loading is present along shoreline as identified by the algae growing on the ice and on the surface of the water.
- Noted at outfall were; Waste paper, Food particles and other detritus from the outfall.

It is also noted in the 2015 annual report as well as during discussion had during the Inspection that the Government of Nunavut intends to direct the trucked sewage from the airport to the New waste water treatment plant when constructed. This extra volume of sewage being deposited into the foreshore of the community may not meet discharge criteria and should be studied to ensure the extra volume of effluent will not have serious negative effects on the community and the environment. .

SECTION 2 ☐ Comments (s.____) ☒ Non-Compliance with Act or Licence (s.____) ☐ Action Required (s.____)

The Government of Nunavut continues to operate in contravention of the terms and conditions contained within renewed license as well as those contained with the Nunavut Water and Nunavut Surface Rights Tribunal Act. It is an expectation that the Operator will make all efforts to come into compliance as soon as possible.

Photo Log			
Date	Authorization	Camera	Inspector
July 7, 2016	3BM-YRBXXXX	Sony Cyber shot	A. Keim

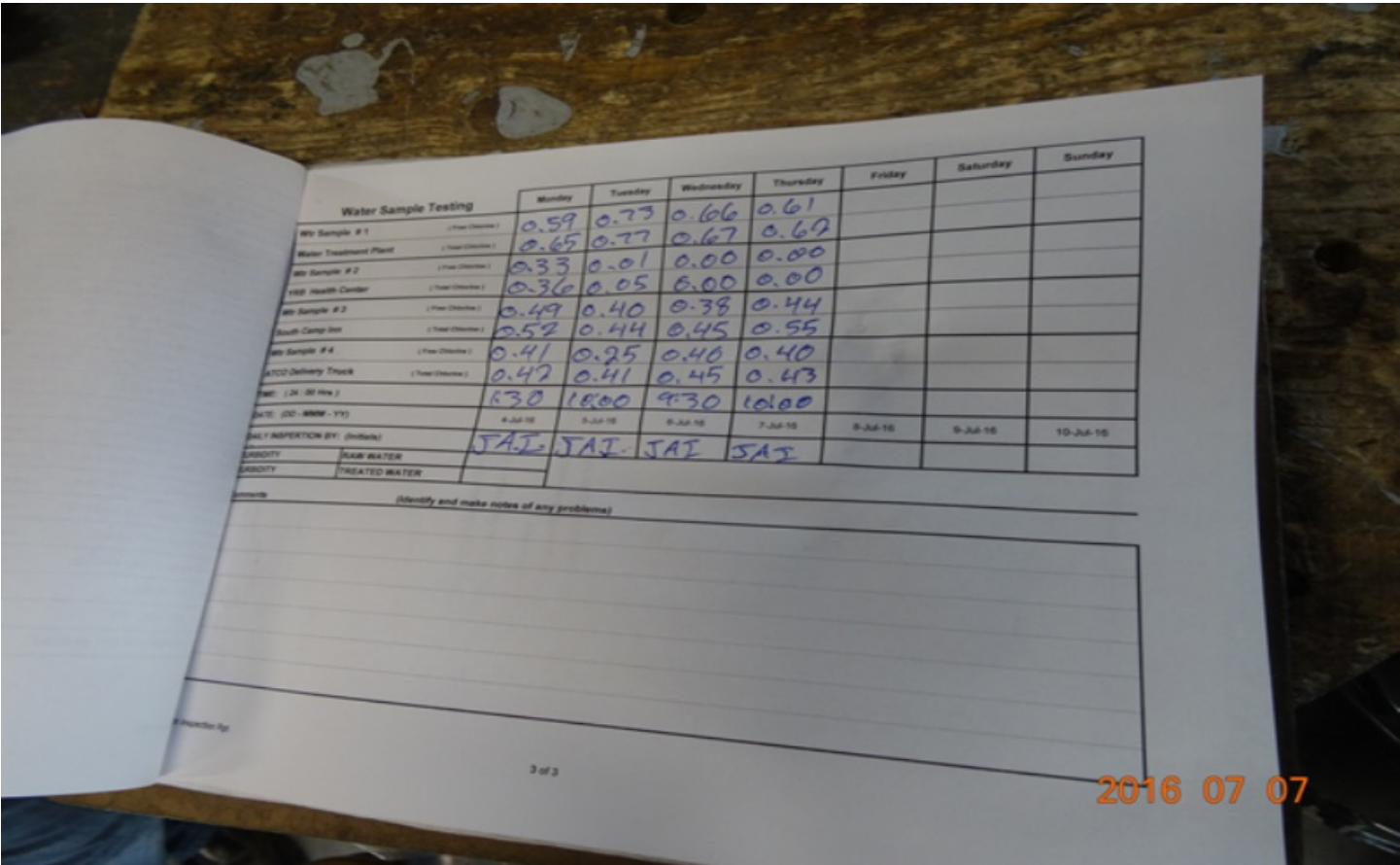


Figure 1 Records at pumping station

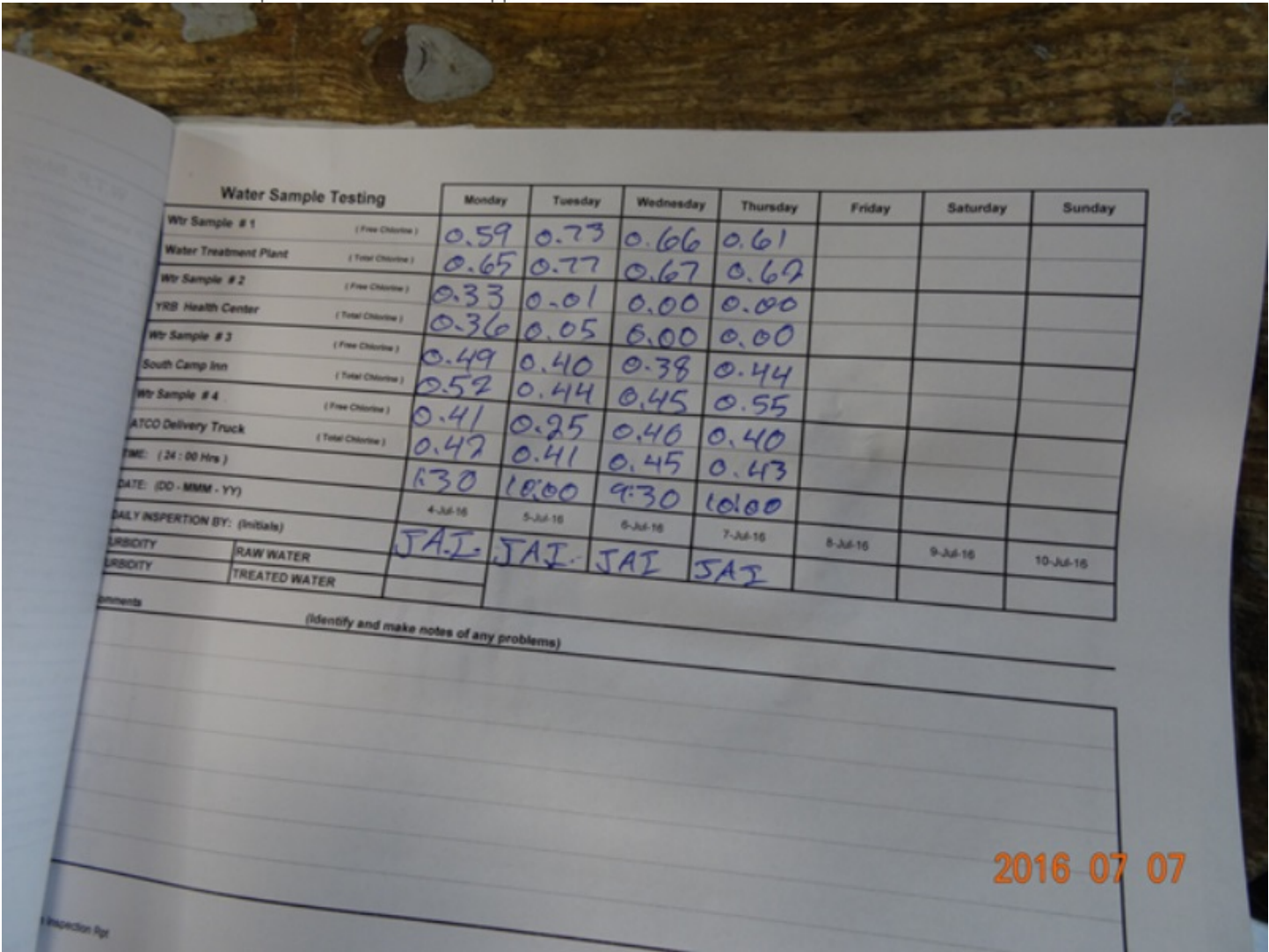


Figure 2Records at pumping station (2)



Figure 3 Chlorine/ chemical storage



Figure 4 Chlorination system



Figure 5 Raw water intake building at char lake



Figure 6 Signage at char lake



Figure 7 Raw water sampling



Figure 8 Signage at outfall



Figure 9 Algae bloom on ice at outfall



Figure 10 Shoreline at outfall



Figure 11 Sampling at outfall



Figure 12 Sampling at outfall #2

Licensee or Representative	Inspector's Name
	A. Keim
Signature	Signature
	Original On File
Date	Date
	August 22 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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