



WATER LICENCE INSPECTION FORM

Original
 Follow-Up Report

Licensee Raytheon	Licensee Representative William Wyman
Licence No. / Expiry 8BC-DYE1929	Representative's Title Raytheon Environmental Services Officer
Land / Other Authorizations	Land / Other Authorizations
Date of Inspection July 29, 2019	Inspector Joseph Monteith
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: Water Treatment Facility, Waste Water Utilidor Hazardous Waste Facility	<input type="checkbox"/> Other:

Conditions:	A- Acceptable	U-Unacceptable	C-Concern	NI-Not Inspected	NA- Not applicable
PART:				Condition	Observation No.*
A: SCOPE, DEFINITIONS AND ENFORCEMENT					
B: GENERAL CONDITIONS			A		
C: CONDITIONS APPLYING TO SECURITY			NI		
D: CONDITIONS APPLYING TO WATER USE			A	1-5	
E: CONDITIONS APPLYING TO WASTE DISPOSAL AND MANAGEMENT			A	6-10	
F: CONDITIONS APPLYING TO MODIFICATIONS			NI		
G: CONDITIONS APPLYING TO CONSTRUCTION			NI		
H: CONDITIONS APPLYING TO EMERGENCY RESPONSE AND CONTINGENCY PLANNING			A		
I: CONDITIONS APPLYING TO ABANDONMENT, RECLAMATION AND CLOSURE PLANNING			NA		
J: CONDITIONS APPLYING TO MONITORING			A		
SCHEDULES			A		
<i>*The observation number corresponds with specific comments provided below.</i>					
Samples taken by Inspector: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location(s): N66° 39' 53.6" W61° 21' 20.6				

SECTION 1	<input type="checkbox"/> Comments (s. __)	<input type="checkbox"/> Non-Compliance with Act or Licence (s. __)	<input type="checkbox"/> Action Required (s. __)
BACKGROUND			
The DYE-M Site is located 462 km North East of Iqaluit, and 200km northeast of Pangnirtung. Has been in operation since the 1950's. (photo 1) The North Warning System Office, Department of National Defence (Licensee or DND) has held Water Licences for this site continuously since 2004 (NWB6DYE0409 / 3BC-DYE0409), that was amended in 2005 and 2009, and renewed in 2009 (3BC-DYE0919). On January 28, 2019 the NWB received an application to renew and amend the current Licence which expires on August 31, 2019. Following an internal review of the application, on February 7, 2019 the NWB acknowledged receipt and distributed the application to interested parties for a fifteen-day comment and review period. On February 19, 2019 a submissions was received from Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC). In accordance with Schedule 1 of the new <i>Nunavut Waters Regulations</i> which came into effect during the term of the current Licence 3BC-DYE0919, the classification of the undertaking changed from "Municipal" to "Other". For that reason, the application was assigned the new file number 8BC-DYE. In review of the comments received, the NWB has noted that there were no concerns expressed with respect to the requested Licence term of ten (10) years as proposed by the Applicant. In review of the information available during the renewal process, the NWB concurs with the Applicant that a Licence term of approximately ten (10) years is appropriate. Therefore Department of National Defence was granted a new water licence 8BC-DYE1929. The geographical foot print consists of the main buildings (photo1), the airstrip and warehouse (photo 2), the beach lay down area (photo 3), the water source (photo 4 & 5), and the discharge locations (photo 7 & 8). DND/Raytheon is allowed to withdrawal 1440m³ per annum and with a limit of 300 m³ per day.	<input type="checkbox"/>		

**Inspector Statement**

On July 29, 2019 at 1:45pm, A Water Licence Inspection was conducted by Water Resource Officer (WRO) Joseph Monteith at Cape Dyer, Qikiqtani Region, Nunavut, for water licence 8BC-DYE1929. The inspection was complete by 3:10pm on July 29, 2019.

General Conditions

1. On February 6, 2019 the Nunavut Water Board uploaded 3BC-DYE0919 2018 Annual Report for DYE-M to the NWB ftp site, satisfying the general requirement to submit an annual report annually

Water Use and Related Structures

2. Water withdrawal is conducted from Water Lake (photo 5) to the Water Storage Reservoir (photo 11 & 12). The Water from South Lake is recharged by annual snow melt. Water is transferred from South Lake to the reservoir by a water truck (photo 6) to 4x 10,000 Litre storage tanks. (See photo 12 & 13).
3. During the inspection their logs showed total of 35m³ withdrawn from both trucked service (see photo 4).
4. Fox-M treats water through 3 x granular carbon filters, a multimedia filter and two UV filter lamps (see photo 9).
5. Water Use Logs - Water usage Logs. 11 water withdrawal events for 2019. The last event on July 24, 2019 reads 3.2030 litres start, 3.6080 litres finish

Solid Waste

6. Solid waste is disposed of at the City of Iqaluit's Landfill.
7. Hazardous Waste is disposed of by palleting the waste, store them in a warehouse to backhaul them to an approved hazardous Waste Disposal Facility.

Sewage Disposal Facility

8. Sewage waste is discharged to two sewage sumps for settling and exfiltration (see photo 7 & 8).

Spill Reports

2018-294- CLOSED -Raytheon Canada Limited (RCL) 1 Litre – Hydraulic Fluid – Failed hydraulic cylinder on a dump truck. On 21-Jul-2018, staff was inspecting the truck prior to use on-site when the hydraulic cylinder failed on the dump truck, releasing approximately 1 L of hydraulic fluid. The spill was stopped and the impacted gravel was cleaned up. The dump truck was placed in the site garage until repairs can be completed. Spill Report 2018-294 will be closed off in the Spills Database, as it does not meet the threshold levels to be reported under the Spills Working Group Agreement. This spill report was submitted as per Part G: Item 6 (b) of the water licence.

SECTION 2	<input type="checkbox"/> Comments	<input type="checkbox"/> Non-Compliance with Act or Licence	<input checked="" type="checkbox"/> Action Required
Do the following items below to bring yourself back into compliance:			
Ensure berm was within the discharge criteria outlined in 8BC-DYE1929			
SECTION 3	<input checked="" type="checkbox"/> Comments	<input checked="" type="checkbox"/> Non-Compliance with Act or Licence	<input type="checkbox"/> Action Required
This site was compliant with all conditions of the water licence. No concerns with any non-compliance issues.			

Licensee or Representative	Inspector's Name
	Joseph Monteith
Signature	Signature
Date	Date
	January 13, 2020

CC: Licensing Department, NWB

Justin Hack, Manager of Field Operations, CIRNAC



PHOTO LOG

Date	Camera	Inspector
July 29, 2019	Nikon Cool Pix	Joseph Monteith
Photo Log #	Location	
Photo 1	Cape Dyer	
		

Description: Summit Site

Photo Log #	Location
Photo 2	Cape Dyer
	

Description: Cape Dyer Airstrip and Hanger.



Photo Log #	Location
Photo 3	Cape Dyer
	

Description: Cape Dyer Beach. 12 storage tanks with built in secondary containment. Road washed out. Repair, and installation of new culverts

Photo Log #	Location
Photo 4	Cape Dyer
	

Description: Cape Dyer emergency water withdrawal site .



Photo Log #	Location
Photo 5	Cape Dyer
	

Description: Water Lake. Main Water Source for DYE-M.

Photo Log #	Location
Photo 6	Cape Dyer
	

Description: Water Truck, used to withdrawal and transport water to the Water Storage Tanks at summit site.



Photo Log #	Location
Photo 7	Cape Dyer

Description: Discharge Location #1 Outfall pipe into a sump pit. Treatment is settling, and exfiltration to the receiving environment.

Photo Log #	Location
Photo 8	Cape Dyer

Description: Discharge Location #2 Outfall pipe into a sump pit. Treatment is settling, and exfiltration to the receiving environment.



Photo Log #	Location
Photo 9	Cape Dyer
	

Description: 3 x water filters. Chlorine mixing tank

Photo Log #	Location
Photo 10	Cape Dyer
	

Description: insta pack toilet in emergency warehouse



Photo Log #	Location
Photo 11	Cape Dyer

Description: meter reads 3.6080

Photo Log #	Location
Photo 12	Cape Dyer

Description: 1 of 4 10,000 Litre Water Storage Tanks



Photo Log #	Location
Photo 13	Cape Dyer

Description: 2 of 4 10,000 Litre Water Storage Tanks

Photo Log #	Location
Photo 14	Cape Dyer

Description: Septic Tank

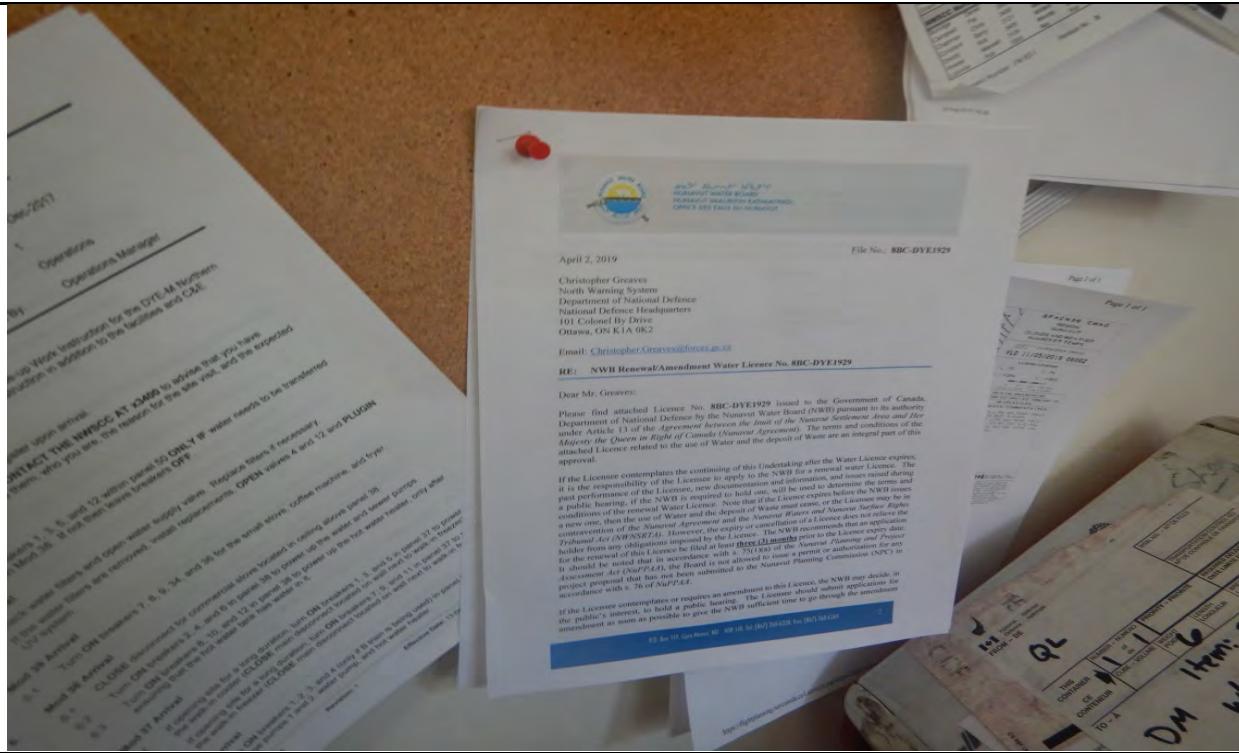


Photo Log

Photo 15

Location

Cape Dyer



Description: water licence 8BC-DYE1929 posted on-site.

Photo Log

Photo 16

Location

Cape Dyer

Date dd-mm-yy	Flow Meter Readings (in litres)			
	Start	Finish	Difference	Initials
19-08-18	37765	42646		R
22-08-18	43646	47737		RC
20-08-18	47737	51327		RC
10-09-18	51327	55012		RE
12-09-18	55012	58994		RE
11-09-18	58994	62864		RE
12-09-18	62864	65585		RE
13-09-18	65585	68472		
16-10-18	65585	68472		RJ
05-05-19	68472	71927		RM
	71927	73059		RM
09-05-19	73059	77102		RC
10-05-19	77102	81150		RC
01-07-19	81150	11692		RC
11-07-19	11692			RC
21-07-19	15694	19664		RF
22-07-19	19664	23705		RCM
22-07-19	23705	27874		RCM
23-07-19	27874	32080		RCM
24-07-19	32080	36080		RF

Description: Water usage Logs. 11 water withdrawal events for 2019. The last event on July 24, 2019 reads 3.2030 litres start, 3.6080 litres finish



Photo Log #	Location
Photo 17	Cape Dyer
	

Description: Fuel Storage Tank berm water. Discharge pipe over berm walls.