



Prairie & Northern Region  
3<sup>rd</sup> Floor – 344 Edmonton Street  
Winnipeg, Manitoba R3C 0P6

July 11th, 2019

Richard Dwyer  
Manager of Licensing  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, NU, X0B 1J0

Dear Mr. Dwyer:

**Re: Crown-Indigenous Relations and Northern Affairs Canada's comments on Transport Canada's new application for water licence #1BR-IAF – Monitoring Well Installation and Groundwater Sampling at Iqaluit Airport Project**

Please see below for the response to comments provided in the letter sent July 5<sup>th</sup> from Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC).

1. While the project is estimated to require withdrawing 0.1 m<sup>3</sup>/day during sampling, Transport Canada would appreciate the water license allow for **up to** 0.3 m<sup>3</sup>/day.
2. The following parameters will be tested for in purged groundwater and soil:

Purged Groundwater	Soil (Drill Cuttings)
<b>Extractable Petroleum Hydrocarbons:</b> F2 (C10-C16 Hydrocarbons), F3 (C16-C34 Hydrocarbons), F4 (C34-C50 Hydrocarbons)	<b>Leachable Metals:</b> Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Mercury, Nickel, Selenium, Silver, Thallium, Uranium, Vanadium, Zinc, Zirconium
<b>Volatiles:</b> Benzene, Toluene, Ethylbenzene, o-Xylene, m & p-Xylene, Xylenes (Total), F1 (C6-C10) – BTEX, F1 (C6-C10)	<b>Leachable Volatiles:</b> Benzene, Toluene, Ethylbenzene, o-Xylene, m & p-Xylene, Xylenes (Total)
<b>PFAS:</b> 6:2 Fluorotelomer sulfonate, 8:2 Fluorotelomer sulfonate, Perfluorobutane Sulfonate (PFBS), Perfluorobutanoic acid, Perfluorodecane Sulfonate, Perfluorodecanoic Acid (PFDA), Perfluorododecanoic Acid (PFDoA), Perfluoroheptanoic Acid (PFHpA), Perfluorohexane Sulfonate (PFHxS), Perfluorohexanoic Acid (PFHxA), Perfluoro-n-Octanoic Acid (PFOA), Perfluorononanoic Acid (PFNA), Perfluorooctane Sulfonamide (PFOSA), Perfluorooctane Sulfonate (PFOS),	<b>PFAS:</b> Perfluorobutane Sulfonate (PFBS), Perfluorobutanoic acid, Perfluorodecane Sulfonate, Perfluorodecanoic Acid (PFDA), Perfluorododecanoic Acid (PFDoA), Perfluoroheptanoic Acid (PFHpA), Perfluorohexane Sulfonate (PFHxS), Perfluorohexanoic Acid (PFHxA), Perfluoro-n-Octanoic Acid (PFOA), Perfluorononanoic Acid (PFNA), Perfluorooctane Sulfonamide (PFOSA), Perfluorooctane Sulfonate (PFOS),

Perfluoropentanoic Acid (PFPeA), Perfluorotetradecanoic Acid, Perfluorotridecanoic Acid, Perfluoroundecanoic Acid (PFUnA)	Perfluoropentanoic Acid (PFPeA), Perfluorotetradecanoic Acid, Perfluorotridecanoic Acid, Perfluoroundecanoic Acid (PFUnA)
<b>Misc. Inorganics, Anions and Nutrients:</b> Alkalinity, Conductivity, pH, Bicarbonate, Carbonate, Hydroxide, Dissolved Chloride, Dissolved Sulphate, Dissolved Nitrite, Dissolved Nitrate	
<b>Elements:</b> Total Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Calcium, Chromium, Cobalt, Iron, Lead, Lithium, Magnesium, Manganese, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silicon, Silver, Sodium, Strontium, Sulphur, Thallium, Tin, Titanium, Uranium, Vanadium, Zinc, Mercury, Dissolved Calcium, Dissolved Iron, Dissolved Magnesium, Dissolved Manganese, Dissolved Potassium, Dissolved Sodium	
<b>Calculated Parameters:</b> Hardness, Iron Balance, Dissolved Nitrate, Nitrate plus Nitrite, Dissolved Nitrite, Calculated Total Dissolved Solids	

3. All drilling waste will be contained onsite in a safe manner and stored until they can be treated and/or disposed of appropriately following analysis. They will be stored in such a way to avoid any potential contamination of surface water and soil.
4. Project activities will include groundwater monitoring and well elevation surveys following development of the three monitoring wells. This information will be used to attempt to determine groundwater flow direction and included in reporting.
5. Any revisions to the Spill Contingency Plan and Waste Management Plan will be recorded in a section within the plan.

Please contact me if you have any questions or concerns regarding TC's application.

Regards,



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