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NUNAVUT WATER BOARD

NUNAVUT IMALIRIYIN KATIMAYIT

OFFICE DES EAUX DU NUNAVUT

APPLICATION FOR APPROVAL FOR THE USE OF WATER OR DEPOSIT OF WASTE WITHOUT A LICENCE

Refer to the Guide to the Approval for the Use of Water or Deposit of Waste Without a Licence
(Guide) in completing this Application.

APPLICATION NO: (for NWB use only)	
<p>1. APPLICANT CONTACT INFORMATION (name, address)</p> <p>Anissa Merzouk Amundsen Science, Université Laval, 1045 av. de la Médecine, room 3432, Quebec City, QC, G1V0A6, Canada</p> <p>Phone: 581-994-6356 Fax: 418-656-2334 e-mail: Anissa.merzouk@as.ulaval.ca</p>	<p>2. APPLICANT REPRESENTATIVE CONTACT INFORMATION if different from Block 1 (name, address)</p> <p>Phone: _____ Fax: _____ e-mail: _____ (Attach authorization letter)</p>
<p>3. NAME OF THE OWNER OF THE LAND THAT WILL BE USED IN RELATION TO THE WATER TO BE USED OR THE WASTE TO BE DEPOSITED</p> <p>Inuit owned land (Qikiqtani Inuit Association)</p>	
<p>4. NAME OF PROJECT (consistent with the name of the project issued by other regulatory agencies)</p> <p>Amundsen Science annual expedition onboard the Canadian research icebreaker CCGS Amundsen</p>	
<p>5. LOCATION OF UNDERTAKING</p> <p>Project Extents (decimal degree format)</p> <p>The CCGS <i>Amundsen</i> research icebreaker will be conducting scientific operations in Labrador Sea, Baffin Bay, Nares Strait, Jones Sound and Lancaster Sound during its 2024 scientific expedition. If time and weather constraints allow, a helicopter will be used to access remote glacial rivers and glaciers. Sampling for river water, glacier ice and melt water will help research teams understand the contaminant levels in the water and their provenance. A maximum of 5 L of water will be collected at each station. Time on site will be kept to a minimum. See next page for a list of stations that could be accessed during the 2024 Expedition.</p>	

Station / River name	Degree North	Degree West	Island
EB01	66,812	63,820	Baffin
EB02	66,413	66,419	Baffin
EB03	66,347	62,876	Baffin
EB04	65,726	64,805	Baffin
Cantley River	63,656	67,629	Baffin
EB05	63,007	65,253	Baffin
EB06	63,603	68,823	Baffin
Soper River	62,968	69,744	Baffin
Makinson 1	77,572	81,576	Ellesmere
Makinson 2	77,391	80,974	Ellesmere
Makinson 3	77,322	80,269	Ellesmere
Makinson 4	77,336	79,590	Ellesmere
Makinson 5	77,409	78,752	Ellesmere
Makinson 6	77,068	80,557	Ellesmere
Makinson 7	77,154	81,782	Ellesmere
Cadogan 1	78,228	76,994	Ellesmere
Cadogan 2	78,248	76,286	Ellesmere
Cadogan 3	78,173	76,817	Ellesmere
Cadogan 4	78,099	76,085	Ellesmere
Cadogan 5	78,087	75,660	Ellesmere
Cadogan 6	78,046	75,693	Ellesmere
Baird 1	78,508	76,667	Ellesmere
Baird 2	78,459	76,102	Ellesmere
Baird 3	78,415	75,461	Ellesmere
Baird 4	78,530	75,332	Ellesmere
Baird 5	78,573	74,920	Ellesmere
Hayes 1	78,758	78,245	Ellesmere
Hayes 2	79,037	78,964	Ellesmere
Hayes 3	79,153	78,306	Ellesmere
Hayes 4	78,850	76,527	Ellesmere
Hayes 5	78,653	74,873	Ellesmere
Princess Marie 1	79,363	78,018	Ellesmere
Princess Marie 2	79,461	77,389	Ellesmere
Princess Marie 3	79,559	77,155	Ellesmere
Princess Marie 4	79,436	75,655	Ellesmere
Princess Marie 5	79,513	74,983	Ellesmere
Princess Marie 6	79,558	73,953	Ellesmere
Princess Marie 7	79,237	77,622	Ellesmere
Dobbin 1	79,813	74,940	Ellesmere
Dobbin 2	79,898	74,345	Ellesmere
Dobbin 3	79,816	72,772	Ellesmere
Dobbin 4	79,557	73,967	Ellesmere
Rawling 1	80,554	70,890	Ellesmere
Rawling 2	80,500	70,756	Ellesmere
Archer 1	81,789	72,809	Ellesmere
Archer 2	81,834	70,266	Ellesmere
Archer 3	81,681	69,027	Ellesmere
Archer 4	81,520	68,762	Ellesmere
Archer 5	81,068	70,159	Ellesmere

Camp Location(s) (decimal degree format)

No camp. _____

Name of the Water Management Area in which the Undertaking is located. (Please see Appendix D of the Guide):

Northwestern Davis Strait Watershed
 Northern Cumberland Sound Watershed
 Frobisher Bay Watershed
 Northeastern Ellesmere Island
 Southeastern Ellesmere Island
 Hudson Strait Watershed

6. Previous Approvals or Licences Associated with Undertaking ("Type A", "Type B" or Approval Without a Licence)

☒ **NA or**

Previous Licence/Approval Number: _____

The Board reminds the Applicant that as stated in s. 46 of the NWNSRTA, the expiry or cancellation of any previous licence does not relieve the holder from any outstanding obligations imposed under the licence.

7. CLASSIFICATION OF UNDERTAKING - Indicate the classification of undertaking by checking one of the following boxes.

☐ Industrial
☐ Mining
☐ Conservation
☐ Municipal

☐ Agricultural
☐ Recreational
☐ Power
☒ Other: (describe)

Research project about glaciers, meltwater and Arctic rivers.

See Appendix C of the Guide for descriptions of classifications of undertakings.

8. DESCRIPTION OF UNDERTAKING AND EQUIPMENT USED – Provide a brief description of the undertaking including a description of any equipment that will be used in using water or depositing waste.

River sampling: The sampling sites will be accessed using the ship's helicopter. Sampling at each river will take approximately one hour. One scientist will wade into the river and collect water sample with a syringe (total volume: 500 mL) or a small pump. All samples will be brought back on the ship, refrigerated or frozen, and analyzed in laboratories after the expedition. No chemicals will be used on the field, and no waste will be produced.

Glacier sampling: The ship's helicopter will be used to conduct aerial surveys of the outlet glaciers and adjacent ice cap regions. On-ice operations on the glaciers could include ice and melt water sampling. Ice would be collected with an ice corer, and meltwater would be collected with a syringe, a water bottle or a small pump.

- 9. SCHEDULE** – Applicants are advised that approvals without a licence are issued for a one year term.

Proposed Start Date: 11 July 2024 Proposed Completion Date: 30 October 2024
(Day/Month/Year) (Day/Month/Year)

The period proposed here covers Leg 2 to 5 of the 2024 Amundsen Expedition. Although most of the sampling is planned between July 11 and September 5, the additional period until 30 October would give us a second chance to sample the rivers during the return voyage if weather conditions were too bad the first time.

- 10. TYPE OF USE OF WATER WITHOUT A LICENCE PROPOSED** - Check the box that applies to the type of water use proposed. If none of the water uses listed below applies to the proposed water use, an application for a water licence will be required. See the NWB's Guide 4 – Completing and Submitting a Water Licence Application for a New Licence.

- ☐ For an undertaking other than a Power undertaking and for a use of water related to the construction of a structure across a watercourse that is less than 5 metres wide at the ordinary high water mark at the point of construction.
- ☐ For an undertaking other than a Power undertaking and for a use of water related to the training of an intermittent watercourse.
- ☐ For an undertaking other than a Power undertaking and for a use of water related to the training of a watercourse that is less than 5 metres wide at the ordinary high water mark at the point of training.
- ☐ For an undertaking other than a Power undertaking and for a use of water related to the training of a watercourse that involves the infilling of the watercourse, if the watercourse has no inflow or outflow and a surface area of less than 0.5 hectares.
- ☐ For an undertaking other than a Power undertaking and for a use of water related to the training of a watercourse that involves removal or placement of less than 100 m³ of material.
- ☐ For an undertaking other than a Power undertaking and for a use of water related to the construction of a temporary structure in a watercourse for the purpose of flood control.
- ☐ For an undertaking other than a Power undertaking and for any use of water related to the storage of 2,500 m³ or less.
- ☒ For an undertaking other than a Power undertaking and for any use of water less than 50 m³ per day.

- 11. QUANTITY AND QUALITY OF WATER INVOLVED** - For each type of water use indicated in Block 10, provide the source of water, the estimated quantity to be used in cubic metres per day, and the periods during which water will be extracted.

Type of Water Use indicated in Block 10	Name of water source	Estimated quantity of water to be used in cubic metres per day	Periods during which water will be extracted
other than power undertaking, less than 50 m ³ per day	EB01	0,0005 m ³ (500 mL)	Once between 11 July and 8 August 2024
other than power undertaking, less than 50 m ³ per day	EB02	0,0005 m ³ (500 mL)	Once between 11 July and 8 August 2024
other than power undertaking, less than 50 m ³ per day	EB03	0,0005 m ³ (500 mL)	Once between 11 July and 8 August 2024
other than power undertaking, less than 50 m ³ per day	EB04	0,0005 m ³ (500 mL)	Once between 11 July and 8 August 2024
other than power undertaking, less than 50 m ³ per day	Cantley River	0,0005 m ³ (500 mL)	Once between 11 July and 8 August 2024
other than power undertaking, less than 50 m ³ per day	EB05	0,0005 m ³ (500 mL)	Once between 11 July and 8 August 2024
other than power undertaking, less than 50 m ³ per day	EB06	0,0005 m ³ (500 mL)	Once between 11 July and 8 August 2024
other than power undertaking, less than 50 m ³ per day	Soper River	0,0005 m ³ (500 mL)	Once between 11 July and 8 August 2024
other than power undertaking, less than 50 m ³ per day	Makinson 1 to 7	0,005 m ³ (5 L)	Once between 8 August and 5 September 2024
other than power undertaking, less than 50 m ³ per day	Cadogan 1 to 6	0,005 m ³ (5 L)	Once between 8 August and 5 September 2024
other than power undertaking, less than 50 m ³ per day	Baird 1 to 5	0,005 m ³ (5 L)	Once between 8 August and 5 September 2024
other than power undertaking, less than 50 m ³ per day	Hayes 1 to 5	0,005 m ³ (5 L)	Once between 8 August and 5 September 2024
other than power undertaking, less than 50 m ³ per day	Princess Marie 1 to 7	0,005 m ³ (5 L)	Once between 8 August and 5 September 2024
other than power undertaking, less than 50 m ³ per day	Dobbin 1 to 4	0,005 m ³ (5 L)	Once between 8 August and 5 September 2024
other than power undertaking, less than 50 m ³ per day	Rawling 1 and 2	0,005 m ³ (5 L)	Once between 8 August and 5 September 2024
other than power undertaking, less than 50 m ³ per day	Archer 1 to 5	0,005 m ³ (5 L)	Once between 8 August and 5 September 2024

12. TYPE OF DEPOSIT OF WASTE PROPOSED - Check the box that applies to the type of

deposit of waste proposed. If none of the deposits of waste listed below apply to the proposed deposit of waste, an application for a water licence will be required. See the NWB's Guide 4 – Completing and Submitting a Water Licence Application for a New Licence.

- ☐ For an Industrial undertaking, for an activity related to hydrostatic testing or cleaning of storage tanks and pipelines, and for any deposit of waste resulting from hydrostatic testing or cleaning of unused storage tanks or pipelines.
- ☐ For an Industrial undertaking, for an activity related to quarrying and gravel washing, and for any deposit of waste that is not deposited to surface water and that results from quarrying or gravel washing above the ordinary high water mark.
- ☐ For a Mining undertaking, for an activity related to exploratory work, any deposit of sewage to a sump.
- ☐ For a Power undertaking, any deposit of sewage to a sump.
- ☐ For an Agricultural undertaking, any deposit of sewage to a sump.
- ☐ For a Conservation undertaking, any deposit of sewage to a sump.
- ☐ For a Recreation undertaking, any deposit of sewage to a sump.
- ☐ For any Other type of undertaking not listed above, other than Municipal, any deposit of sewage to a sump.

- 13. QUANTITY AND QUALITY OF WASTE INVOLVED** – For each type of waste indicated in Block 12, describe the quantity in cubic metres/day, measures to avoid or mitigate adverse impacts, and periods of deposition.

Type of Waste indicated in Block 12	Quantity to be deposited in cubic metres per day	Measures to avoid or mitigate any adverse impacts	Periods during which waste will be deposited
No deposit of waste			

14. SIGNATURE

I, Anissa Merzouk (print name), certify that the information given on this form is, to the best of my knowledge, correct and complete.

☒ Yes☐ No**OR**

I, _____ (print name), as an authorized representative of the Applicant, _____, certify that the information given on this form is, to the best of my knowledge, correct and complete.

☐ Yes☐ No

I certify that the Nunavut Planning Commission's land use planning requirements under Article 11 of the Nunavut Land Claims Agreement have been met.

☒ Yes☐ No

I certify that the Nunavut Impact Review Board's development impact review requirements under Article 12 of the NLCA have been met.

☒ Yes☐ No

I certify that the proposed water use is of a type set out in column 2 of Schedule 2 of the Regulations that is further specified by column 3, in respect of an undertaking set out in column 1. See list in Block 10.

☒ Yes☐ NA☐ No

I certify that the proposed deposit of waste is an activity that is set out and then further specified in columns 2 and 3 of Schedule 3 of the Regulations, in respect of an undertaking that is set out in column 1 of Schedule 3. See list in Block 12.

☐ Yes☒ NA☐ No

I certify that the proposed water use or deposit of waste will not substantially affect the quality, quantity or flow of the watercourse whose waters are used.

☒ Yes☐ No

I certify that the proposed water use or deposit of waste will not substantially affect the quality, quantity or flow of waters flowing through Inuit Owned Lands.

☒ Yes☐ No

I certify that the proposed water use or deposit of waste will not affect the use of waters by a person who would be entitled to compensation under sections 58 or 60 of the Nunavut Waters Nunavut Surface Rights Tribunal Act (Act) if their use of these waters were to be adversely affected by an applicant for a licence.

☒ Yes☐ No

I certify that a licence is not required for another use of water, or deposit of waste in respect of the proposed undertaking.

☒ Yes☐ No

I have read and agree to comply with the following conditions outlined in sections 4(3), 5(4), 5(5) and 6 of the Nunavut Waters Regulations:

1. In the case of an applicant who has a mineral right and who intends to use waters or deposit waste in relation to that right, the applicant shall respect the priority conferred on Inuit by section 62 of the *Act* as if that applicant had a licence for the use

or deposit.

2. Measures must be taken prior to using water to minimize any alteration to the bed or banks of a watercourse whose waters are to be used, and the measures shall be maintained during the operation of the undertaking.
3. No waste is to be deposited to surface water or within 31 metres of the ordinary high water mark of any body of water.
4. The waste shall not contain more than 15 milligrams per litre of petroleum or petroleum product and must not have a visible hydrocarbon sheen.
5. Prior to the closure or abandonment of the undertaking or end of the period authorized for the use of water or deposit of waste without a licence, whichever occurs first, the site shall be restored — to the extent practicable — to the state in which it was before the water was used or the waste was deposited.^a
6. An applicant who is authorized under the Regulations to use waters or deposit waste without a licence shall:
 - a. maintain accurate and detailed books and records of:
 - i. the quantity of water, in cubic metres, used each day,
 - ii. the quantity, in cubic metres, of waste deposited each day,
 - iii. the type of waste deposited each day,
 - iv. where the waste is deposited,
 - v. the concentration of the substance, or substances, in the deposited solid or liquid that has the effect of making the deposit waste,
 - vi. the methodology used to calculate or determine the information referred to in items (i) to (iv), and
 - vii. the measures that were taken to avoid or mitigate any adverse impacts of the deposit of waste.
 - b. keep the books and records on the site of the undertaking during the period of its operation and make them available during that period to an inspector on request;
 - c. submit to the Board a report containing a summary description and supporting photographs of the restoration of the site of the undertaking within 30 days after the earliest of (i) the day on which the undertaking is closed or abandoned, and (ii) the last day of the period authorized for the use or deposit without a licence;^b and
 - d. keep the books and records for two years after submitting the report describing the restoration of the site of the undertaking.

Notes:

a) A site need not be restored prior to the end of the period authorized for the water use or deposit of waste without a licence, as required by Item 5, if the Board issues a licence for the use of water or deposit of waste on that site prior to the end of that period.

b) An applicant need not submit the report referred to in Item 6 (c), to the Board if the applicant obtains the Board's approval for a use of water or deposit of waste without a licence, or a licence for a use of water or deposit of waste, on the same site within thirty (30) days after the last day of the period authorized for the use or deposit.

☒ Yes

☐ No

I understand that any approval granted by the Board for the use of water or deposit of waste without a licence will be authorized for a period of one year after the day on which the Board approves the Application. The use or deposit is not authorized until the Board approves the Application and it is only valid as long as the applicant is in compliance with the conditions set out in the declaration above.

☒ Yes

☐ No

I understand that if I have answered "No" to any of the above statements a water licence is required from the Nunavut Water Board prior to the use of water or deposit of waste.

☒ Yes

☐ No

Anissa Merzouk

Marine Research
Coordinator



6 juin 2024

Name (Print)

Title (Print)

Signature

Date