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NUNAVUT WATER BOARD

NUNAVUT IMALIRIYIN KATIMAYIT

OFFICE DES EAUX DU NUNAVUT

## GENERAL WATER LICENCE APPLICATION (APPLICATION FOR NEW WATER LICENCE)

The applicant is referred to the NWB's Guide 4: *Guide to Completing and Submitting a Water Licence Application for a New Licence* for more information about this application form.

LICENCE NO: (for NWB use only)	
<b>1. APPLICANT (PROPOSED LICENSEE) CONTACT INFORMATION</b> (name, address)  Eleanor McEwan Department of Fisheries and Oceans-Small Craft Harbours (DFO-SCH) 501 University Crescent, Winnipeg, Manitoba R3T 2N6  Phone: 204-984-1102 Fax: e-mail: <a href="mailto:eleanor.mcewan@dfo-mpo.gc.ca">eleanor.mcewan@dfo-mpo.gc.ca</a>	<b>2. APPLICANT REPRESENTATIVE CONTACT INFORMATION</b> if different from Block 1 (name, address)  See Block 1
<b>3. NAME OF PROJECT</b> (including the name of the project location)  <i>Arctic Bay Harbour Development, Geotechnical Investigations, Arctic Bay</i>	
<b>4. LOCATION OF UNDERTAKING</b>  <b>Project Extents:</b> NW: <i>Latitude: (73° 2.373' N)      Longitude: (85°12.653' W)</i> NE: <i>Latitude: (73° 2.203' N)      Longitude: (85°11.819' W)</i> SE: <i>Latitude: (73° 2.149' N)      Longitude: (85°11.872' W)</i> SW: <i>Latitude: (73° 2.326' N)      Longitude: (85°12.741' W)</i>  <b>Camp Location(s) – <i>No camp will be required for this project.</i></b> Latitude: (   °   '   " N)      Longitude: (   °   '   " W)	
<b>5. MAP</b> - Attach a topographical map, indicating the main components of the undertaking. <i>See Figure 1-1 in Environmental Management Plan (EMP) attached for site map.</i>	
NTS Map Sheet No.: <b>48C02</b> Map Name: <i>Canada's North Index 6</i> Map Scale: <b>1:50 0000</b>	

**6. NATURE OF INTEREST IN THE LAND** - Check any of the following that are applicable to the proposed undertaking (at least one box under the 'Surface' header must be checked).

**Sub-surface**

☐ Mineral Lease from Nunavut Tunngavik Incorporated (NTI)  
Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

☐ Mineral Lease from Indian and Northern Affairs Canada (INAC)  
Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

**Surface**

☒ *Crown-Indigenous Relations and Northern Affairs Canada Class A Land Use Permit.*  
*Status: Only for SCH drilling and to be issued prior to the Program. Application will be submitted.*

Date (expected date) of issuance: *TBD* Date of expiry: *TBD*

☐ Inuit Owned Land (IOL) Authorization from Kitikmeot Inuit Association (KIA)  
Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

☐ IOL Authorization from Kivalliq Inuit Association (KivIA)  
Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

☐ IOL Authorization from Qikiqtani Inuit Association (QIA)  
Date (expected date) of issuance: *N/A* \_\_\_\_\_ Date of expiry: \_\_\_\_\_

☐ Commissioner's Land Use Authorization  
Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

☐ Other: \_\_\_\_\_  
Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

Name of entity(s) holding authorizations:

**7. NUNAVUT PLANNING COMMISSION (NPC) DETERMINATION**

Indicate the land use planning area in which the project is located.

<input checked="" type="checkbox"/> North Baffin	<input type="checkbox"/> Keewatin
<input type="checkbox"/> South Baffin	<input type="checkbox"/> Sanikiluaq
<input type="checkbox"/> Akunnig	<input type="checkbox"/> West Kitikmeot

Is a land use plan conformity determination required?

☒ Yes ☐ No

If Yes, indicate date issued and attach copy: *See Attachment 2 of the Geotechnical Drilling Survey Regulatory Compliance and Environment Management Plan (EMP) (here after referred to as the Program EMP)*

*NPC File No. 149425 issued on December 10, 2020*

*- File No. 149425 is an amendment to the Conformity Determination issued on June 3, 2019 (NPC File No. 149159)*

	<p>If No, provide written confirmation from NPC confirming that a land use plan conformity review is not required.</p>																			
<b>8.</b>	<p><b>NUNAVUT IMPACT REVIEW BOARD (NIRB) DETERMINATION</b></p> <p>Is an Article 12 Part 4 screening determination required?</p> <p> <input checked="" type="checkbox"/> Yes             <input type="checkbox"/> No           </p> <p>If Yes, indicate date issued and attach copy: <i>See Attachment 3 of the Program EMP</i></p> <p><i>Screening Decision Report (SDR) NIRB File No. 19YN031, dated August 19, 2019</i></p> <p>If No, provide written confirmation from NIRB confirming that a screening determination is not required.</p>																			
<b>9.</b>	<p><b>DESCRIPTION OF UNDERTAKING</b> – List and attach plans and drawings or project proposal.</p> <p><i>Geotechnical investigations are required to support the engineering design phase of the Arctic Bay Harbour Development wherein a small craft harbour is being designed for the community of Arctic Bay. The operation will use a 5 ton portable rotary drill to drill 2 terrestrial holes at the intended quarry, located approximately 2 kms upland from the harbour. All borehole locations will be field selected but will be within the quarry footprint Drill water for terrestrial boreholes will be pumped from the Alternate Water Supply Lake and/or from Dead Dog Lake.</i></p> <p><i>Refer to the Geotechnical Drilling Survey Regulatory Compliance and EMP Document for further information.</i></p>																			
<b>10.</b>	<p><b>OPTIONS</b> – Provide a brief explanation of the alternative methods or locations that were considered to carry out the project.</p> <p><i>Due to the minimal impacts of this work, alternatives were not necessary.</i></p>																			
<b>11.</b>	<p><b>CLASSIFICATION OF PRIMARY UNDERTAKING</b> - Indicate the primary classification of undertaking by checking one of the following boxes.</p> <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Industrial</td> <td><input type="checkbox"/> Agricultural</td> </tr> <tr> <td><input type="checkbox"/> Mining and Milling (includes exploration/drilling/exploration camps)</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Conservation</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Municipal (includes camps/lodges)</td> <td><input type="checkbox"/> Recreational</td> </tr> <tr> <td><input type="checkbox"/> Power</td> <td></td> </tr> <tr> <td colspan="2"><input checked="" type="checkbox"/> Miscellaneous (describe below):</td> </tr> <tr> <td colspan="2"><i>Geotechnical Investigations</i></td> </tr> </table> <p>See Schedule II of <i>Northwest Territories Waters Regulations</i> for Description of Undertakings.</p> <p>Information in accordance with applicable Supplemental Information Guidelines (SIG) must be submitted with a New Water Licence Application. Indicate which SIG(s) are applicable to your application.</p> <table style="width: 100%; border: none;"> <tr><td><input type="checkbox"/> Hydrostatic Testing</td></tr> <tr><td><input type="checkbox"/> Tannery</td></tr> <tr><td><input type="checkbox"/> Tourist / Remote Camp</td></tr> <tr><td><input type="checkbox"/> Landfarm &amp; On-Site Storage of Hydrocarbon Contaminated Soil</td></tr> <tr><td><input type="checkbox"/> Onshore Oil and Gas Exploration Drilling</td></tr> </table>	<input type="checkbox"/> Industrial	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Mining and Milling (includes exploration/drilling/exploration camps)		<input type="checkbox"/> Conservation		<input type="checkbox"/> Municipal (includes camps/lodges)	<input type="checkbox"/> Recreational	<input type="checkbox"/> Power		<input checked="" type="checkbox"/> Miscellaneous (describe below):		<i>Geotechnical Investigations</i>		<input type="checkbox"/> Hydrostatic Testing	<input type="checkbox"/> Tannery	<input type="checkbox"/> Tourist / Remote Camp	<input type="checkbox"/> Landfarm & On-Site Storage of Hydrocarbon Contaminated Soil	<input type="checkbox"/> Onshore Oil and Gas Exploration Drilling
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<input type="checkbox"/> Landfarm & On-Site Storage of Hydrocarbon Contaminated Soil																				
<input type="checkbox"/> Onshore Oil and Gas Exploration Drilling																				

	<div style="display: flex; flex-direction: column; gap: 5px;"> <div><input type="checkbox"/> Mineral Exploration / Remote Camp</div> <div><input type="checkbox"/> Advanced Exploration</div> <div><input type="checkbox"/> Mine Development</div> <div><input type="checkbox"/> Municipal</div> <div><input type="checkbox"/> General Water Works</div> <div><input type="checkbox"/> Power</div> <div><input checked="" type="checkbox"/> N/A</div> </div>
<b>12.</b>	<p><b>WATER USE</b> - Check the appropriate box(s) to indicate the type(s) of water use(s) being applied for.</p> <div style="display: flex; flex-wrap: wrap; gap: 10px;"> <div style="width: 50%;"> <input type="checkbox"/> To obtain water for camp/ municipal purposes  <input type="checkbox"/> To obtain water for industrial purposes  <input type="checkbox"/> To cross a watercourse  <input type="checkbox"/> To alter the flow of, or store water  <input checked="" type="checkbox"/> Other: <i>Geotechnical Drilling</i> </div> <div style="width: 50%;"> <input type="checkbox"/> To divert a watercourse  <input type="checkbox"/> To modify the bed or bank of a watercourse  <input type="checkbox"/> Flood control         </div> </div>
<b>3.</b>	<p><b>QUANTITY AND QUALITY OF WATER INVOLVED</b> - For each type of water use indicated in Block 12, provide the source of water, the quality of the water source and available capacity, the estimated quantity to be used in cubic meters per day, method of extraction, as well as the quantities and qualities of water to be returned to source.</p> <p>Name of water source(s) (show location(s) on map: <i>Terrestrial boreholes - Dead Dog Lake or Alternate Water Supply Lake (see Figure 1-1 of the Program EMP for location)</i></p> <p>Describe the quality of the water source(s) and the available capacity: <i>freshwater with capacity well beyond what is required.</i></p> <p>Provide the overall estimated quantity of water to be used: <i>2–3 m³/day</i></p> <p>Provide the estimated quantity(s) of water to be used from each source: <i>Maximum of 3 m³/day</i></p> <p>Indicate the estimated quantities to be used for each purpose (camp, drilling, etc.): <i>All water will be used for geotechnical drilling.</i></p> <p>Describe the method of extraction(s): <i>Drill water will be pumped from the municipality and/or pumped from Dead Dog Lake.</i></p> <p>Estimated quantity(s) of water returned to source(s): <i>Maximum of 3 m³/day</i></p> <p>Describe the quality of water(s) returned to source(s): <i>Drill cuttings (including drilling muds) that will be pumped down borehole on completion, will contain traces of the chemical, xanthan gum.</i></p>
<b>14.</b>	<p><b>WASTE</b> – Check the appropriate box(s) to indicate the types of waste(s) generated and deposited.</p> <div style="display: flex; flex-wrap: wrap; gap: 10px;"> <div style="width: 50%;"> <input type="checkbox"/> Sewage  <input type="checkbox"/> Solid Waste  <input type="checkbox"/> Hazardous  <input type="checkbox"/> Bulky Items/Scrap Metal  <input type="checkbox"/> Animal Waste  <input checked="" type="checkbox"/> Other (describe): <i>Drill cuttings/mud/fluid generated from geotechnical work</i> </div> <div style="width: 50%;"> <input type="checkbox"/> Waste oil  <input type="checkbox"/> Greywater  <input type="checkbox"/> Sludges  <input type="checkbox"/> Contaminated soil and/or water         </div> </div>

- 15. QUANTITY AND QUALITY OF WASTE INVOLVED** – For each type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, method of treatment and method of disposal.

Type of Waste	Composition	Quantity Generated	Treatment Method	Disposal Method
<i>Overburden from drilling activities</i>	<i>Drill mud/fluids/cuttings</i>	<i>Five cubic meters (total)</i>	<i>N/A – Environmentally friendly drill mud will be generated.</i>	<i>Pumped into borehole upon completion.</i>

- 16. OTHER AUTHORIZATIONS** – In addition to the sub-surface and surface land use authorizations provided in Block 6, indicate any other authorizations required in relation to the proposed undertaking. See attached *Refer to Table 1-1 in the Program EMP.*

For each provide the following:

Authorization: \_\_\_\_\_

Administering Agency: \_\_\_\_\_

Project Activity: \_\_\_\_\_

Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

- 17. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES** - Describe direct, indirect, and cumulative impacts related to water and waste.

*Refer to Sections 4 and 5 in the Program EMP.*

- 18. WATER RIGHTS OF EXISTING AND OTHER USERS OF WATER**

Provide the names, addresses and nature of use for any known persons or properties that may be adversely affected by the proposed undertaking, including those that hold licences for water use in precedent to the application, domestic users, in-stream users, authorized waste depositors, owners of property, occupiers of property, and/or holders of outfitting concessions, registered trapline holders, and holders of other rights of a similar nature.

Advise the Board if compensation has been paid and/or agreement(s) for compensation have been reached with any existing or other users.

*N/A – No adverse effects anticipated by these proposed works.*

**19. INUIT WATER RIGHTS**

Advise the Board of any substantial affect of the quality, quantity or flow of waters flowing through Inuit Owned Land (IOL), and advise the Board if negotiations have commenced or an agreement to pay compensation for any loss or damage has been reached with one or more Designated Inuit Organization (DIO).

*N/A – No adverse effects anticipated by these proposed works.*

**20. CONSULTATION** – Provide a summary of any consultation meetings including when the meetings were held, where and with whom. Include a list of concerns expressed and measures to address concerns.

*The Program was discussed during a joint community consultation, on September 22, 2020, in Arctic Bay with the Hamlet, the Ikajutit Hunters and Trapper Association (HTA), QIA community representatives, and the Arctic Bay Nauttigsuqtit (the Guardians). The drilling activities were outlined, and no concerns were raised. It's intended to use local support to construct the drill rig enclosure, aid on site, and provide wildlife monitoring services.*

**21. SECURITY INFORMATION**

Provide an estimate of the total financial security for final reclamation equal to the total outstanding reclamation liability for land and water combined sufficient to cover the highest liability over the life of the undertaking. Estimates of reclamation costs must be based on the cost of having the necessary reclamation work done by a third party contractor if the operator defaults. The estimate must also include contingency factors appropriate to the particular work to be undertaken.

Where applicable, the financial security assessment should be prepared in a manner consistent with the principals respecting mine site reclamation and implementation found in the *Mine Site Reclamation Policy for Nunavut*, Indian and Northern Affairs Canada, 2002.

*Not Applicable.*

**22. FINANCIAL INFORMATION**

Provide a statement of financial responsibility. *See application email – DFO-SCH will be financially responsible for NWB fees associated with the Program.*

If the applicant is a business entity, provide a list of the officers of the company.

If the applicant is a business entity attach a copy of the Certificate of Incorporation or evidence of registration of the company name.

**23. STUDIES UNDERTAKEN TO DATE** - List and attach copies of studies, reports, research, etc.

*An investigation of the quarry occurred in 2019. There was no fresh water use, rocks were collected and preliminarily assessed for strength and durability. This 2019 study was completed with the same permits as listed in the attached permit table.*

**24. PROPOSED TIME SCHEDULE** – Indicate the proposed start and completion dates for each applicable phase of development (construction, operation, closure, and post closure).

*The geotechnical drilling program is anticipated to take ~10 days and is proposed to be initiated and*

*concluded in Spring 2021 (March-April).*

Construction

Proposed Start Date: \_\_\_\_\_ Proposed Completion Date: \_\_\_\_\_  
(month/year) (month/year)

Operation

Proposed Start Date: \_\_\_\_\_ Proposed Completion Date: \_\_\_\_\_  
(month/year) (month/year)

Closure

Proposed Start Date: \_\_\_\_\_ Proposed Completion Date: \_\_\_\_\_  
(month/year) (month/year)

Post - Closure

Proposed Start Date: \_\_\_\_\_ Proposed Completion Date: \_\_\_\_\_  
(month/year) (month/year)

For each applicable phase of development indicate which season(s) activities occur.

*The investigations will be conducted in late winter/early spring.*

Construction

☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season

Operation

☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season

Closure

☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season

Post - Closure

☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season

**25. PROPOSED TERM OF LICENCE**

Number of years (maximum of 25 years): 1 years

Requested Date of Issuance: *March/2021* Requested Expiry Date: *March/2022*  
(month/year) (month/year)

(The requested date of issuance must be at least three (3) months from the date of application for a type B water licence and at least one (1) year from the date of application for a type A water licence, to allow for processing of the water licence application. These timeframes are approximate and do not account for the time to complete any pre-licensing land use planning or development impact requirements, time for the applicant to prepare and submit a water licence application in accordance with any project specific guidelines issued by the NWB, or the time for the applicant to respond to requests for additional information. See the NWB's *Guide 5: Processing Water Licence Applications* for more information)

**26. ANNUAL REPORTING** – If not using the NWB's *Standardized Form for Annual Reporting*, provide details regarding the content of annual reports and a proposed outline or template of the annual report.

*Refer to Section 5.7 of the Program EMP*

**27. CHECKLIST** – The following must be included with the application for the water licensing process to begin.

Written confirmation from the NPC confirming that NPC's requirements regarding land use plan conformity have been addressed.

☒ Yes (File No 149425) see attachment 1 of the Program EMP

☐ No If no, date expected \_\_\_\_\_

Written confirmation from the NIRB confirming that NIRB's requirements regarding development impact assessment have been addressed.

☒ Yes (File No 19YN031) see attachment 1 of the Program EMP

☐ No If no, date expected \_\_\_\_\_

Completed General Water Licence Application form.

☒ Yes ☐ No If no, date expected \_\_\_\_\_

Information addressing Supplemental Information Guideline (SIG) , where applicable (see Block 11)

☒ Yes (see Program EMP)

☐ No If no, date expected \_\_\_\_\_

English Summary of Application.

☒ Yes (appended to application)

☐ No If no, date expected \_\_\_\_\_

Inuktitut and/or Inuinnaqtun Summary of Application.

☒ Yes ☐ No If no, date expected \_\_\_\_\_

Application Fee of \$30.00 CDN (Payee Receiver General for Canada).

☐ Yes ☒ No If no, date expected: Not required – Applicant is Federal Department (Crown)

Water Use Fee Deposit of \$30.00 CDN (Payee Receiver General for Canada). The actual water use fee will be calculated by the NWB based upon the amount of water authorized for use in accordance with the Regulations at the time of issuance of the licence.

☐ Yes ☒ No If no, date expected: Not required – Applicant is Federal Department (Crown)

## 28. SIGNATURE

Eleanor McEwan

Senior Project  
Engineer

McEwan,  
EleanorMcEwa  
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McEwan,  
EleanorMcEwan  
2020-12-23 15:16:28

Name (Print)

Title (Print)

Signature

Date