



General Water Licence Application  
(Application for a new Water Licence)

Document Date: May 2011

Application Submission Date:

\_\_\_\_\_  
Month/Day/Year

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OFFICE DES EAUX DU NUNAVUT

## DOCUMENT MANAGEMENT

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### DOCUMENT AMENDMENTS

	Description	Date
(1)	Updated for public distribution as separate document from NWB Guide 4	June 2010
(2)	Updated NWB logos and reformatted table to allow rows to break across page	May 2011
(3)		
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(5)		
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### 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.

<b>LICENCE NO:</b> (for NWB use only)									
<b>1. APPLICANT (PROPOSED LICENSEE) CONTACT INFORMATION</b> (name, address)  Dr. Gordon Osinski, Western University, Department of Earth Sciences, 1151 Richmond Street, London, ON, N6A 5B7  Phone: (519) 661-4208 Fax: (519) 661-3198 e-mail: <a href="mailto:gosinski@uwo.ca">gosinski@uwo.ca</a>	<b>2. APPLICANT REPRESENTATIVE CONTACT INFORMATION</b> if different from Block 1 (name, address)  Phone: _____ Fax: _____ e-mail: _____ (Attach authorization letter.)								
<b>3. NAME OF PROJECT</b> (including the name of the project location)  The Houghton Impact Structure, Devon Island, Nunavut: Geological, biological and environmental effects.									
<b>4. LOCATION OF UNDERTAKING</b>  <b>Project Extents</b>  <table> <tr> <td>NW: Latitude: ( 75° 28' 11.47" N )</td> <td>Longitude: ( 90° 4' 51.88" W )</td> </tr> <tr> <td>NE: Latitude: ( 75° 28' 14.53" N )</td> <td>Longitude: ( 89° 14' 30.97" W )</td> </tr> <tr> <td>SE: Latitude: ( 75° 16' 40.35" N )</td> <td>Longitude: ( 89° 16' 45.80" W )</td> </tr> <tr> <td>SW: Latitude: ( 75° 16' 53.90" N )</td> <td>Longitude: ( 90° 4' 30.58" W )</td> </tr> </table> <b>Camp Location(s)</b>  Latitude: ( 75° 22' 18.30" N )      Longitude: ( 89° 32' 6.10" W )		NW: Latitude: ( 75° 28' 11.47" N )	Longitude: ( 90° 4' 51.88" W )	NE: Latitude: ( 75° 28' 14.53" N )	Longitude: ( 89° 14' 30.97" W )	SE: Latitude: ( 75° 16' 40.35" N )	Longitude: ( 89° 16' 45.80" W )	SW: Latitude: ( 75° 16' 53.90" N )	Longitude: ( 90° 4' 30.58" W )
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SW: Latitude: ( 75° 16' 53.90" N )	Longitude: ( 90° 4' 30.58" W )								
<b>5. MAP</b> - Attach a topographical map, indicating the main components of the undertaking.  NTS Map Sheet No.: 58H07      Map Name: Houghton Dome      Map Scale: 1:50 000									

- 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 Land Use Authorization from Indian and Northern Affairs Canada (INAC)  
Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

☐ 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: 15/5/13 Date of expiry: 10/8/13

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

☒ Other: Scientific Research Permit from Nunavut Research Institute (NRI)  
Date (expected date) of issuance: 15/5/13 Date of expiry: 10/8/13

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 expected May 2013

If No, provide written confirmation from NPC confirming that a land use plan conformity review is not required.

**8. NUNAVUT IMPACT REVIEW BOARD (NIRB) DETERMINATION**

Is an Article 12 Part 4 screening determination required?

☒ Yes

☐ No

If Yes, indicate date issued and attach copy expected May 2013

If No, provide written confirmation from NIRB confirming that a screening determination is not required.

**9. DESCRIPTION OF UNDERTAKING – List and attach plans and drawings or project proposal.**

See attached project description and map.

**10. OPTIONS – Provide a brief explanation of the alternative methods or locations that were considered to carry out the project.**

The Houghton Impact Structure is a unique scientific site, therefore no other locations were considered for this project.

**11. CLASSIFICATION OF PRIMARY UNDERTAKING - Indicate the primary classification of undertaking by checking one of the following boxes.**

☐ Industrial

☐ Agricultural

☐ Mining and Milling (includes exploration/drilling/exploration camps)

☐ Conservation

☒ Municipal (includes camps/lodges)

☐ Recreational

☐ Power

☐ Miscellaneous (describe below):

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings.

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.

☐ Hydrostatic Testing

☐ Tannery

☐ Tourist / Remote Camp

☐ Landfarm & On-Site Storage of Hydrocarbon Contaminated Soil

☐ Onshore Oil and Gas Exploration Drilling

☐ Mineral Exploration / Remote Camp

☐ Advanced Exploration

☐ Mine Development

☒ Municipal

☐ General Water Works

☐ Power

**12. WATER USE - Check the appropriate box(s) to indicate the type(s) of water use(s) being applied for.**

☒ To obtain water for camp/ municipal purposes

☐ To obtain water for industrial purposes

☐ To divert a watercourse

☐ To cross a watercourse

☐ To modify the bed or bank of a watercourse

☐ To alter the flow of, or store water

☐ Flood control

☒ Other: Use of water for drilling of core sample.

- 13. QUANTITY AND QUALITY OF WATER INVOLVED** - 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.

Name of water source(s) (show location(s) on map):  
The Haughton River (see map for location)

Describe the quality of the water source(s) and the available capacity:  
Water at this source is fresh and should require only filtration for consumption.

Provide the overall estimated quantity of water to be used: 0.1 m<sup>3</sup>/day

Provide the estimated quantity(s) of water to be used from each source:  
All water will be collected from the Haughton River. Approximately 2 m<sup>3</sup> will be used in total.

Indicate the estimated quantities to be used for each purpose (camp, drilling, etc.)  
Approximately 0.05 m<sup>3</sup>/day will be used for domestic purposes (cooking, cleaning, and drinking).  
Approximately 0.05 m<sup>3</sup>/day will be used for drilling.

Describe the method of extraction(s): Camp water will be collected in jugs and stored at the camp. Water for drilling will be pumped from the river into a reservoir mounted on an ATV.

Estimated quantity(s) of water returned to source(s) 0.05 m<sup>3</sup>/day

Describe the quality of water(s) returned to source(s): Water used for drilling will be decanted, the sediments discarded and the clean water returned to the Haughton River.

- 14. WASTE** – Check the appropriate box(s) to indicate the types of waste(s) generated and deposited.

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Sewage       | <input type="checkbox"/> Waste oil                      |
| <input checked="" type="checkbox"/> Solid Waste  | <input checked="" type="checkbox"/> Greywater           |
| <input type="checkbox"/> Hazardous               | <input type="checkbox"/> Sludges                        |
| <input type="checkbox"/> Bulky Items/Scrap Metal | <input type="checkbox"/> Contaminated soil and/or water |
| <input type="checkbox"/> Animal Waste            |   |
| <input type="checkbox"/> Other (describe): _____ |   |

- 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
Sewage	Human waste	12 kg/day	Combustible material will be incinerated in a can.	Transport all remaining waste to PCSP for disposal.
Solid Waste	Garbage, food waste, etc.	4 kg/day	Incineration of all combustible garbage in a can.	Transport all non-combustible garbage to PCSP for

				disposal.
Greywater	Dishwater, cooking, etc.	10 L/day		Greywater will be disposed of in a sump.
Greywater	Water used for drilling	1 m <sup>3</sup> total	Water will be decanted.	Once decanted, the water will be returned to the river.

**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. For each provide the following:

Authorization: Scientific Research Permit

Administering Agency: Nunavut Research Institute

Project Activity: Scientific Research

Date (expected date) of issuance: expected April 2012      Date of expiry: August 10, 2012

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

No environmental impacts are envisaged due to this research. Everything possible will be done to ensure this is the case. Much of the research will be on foot with minimal disturbance to the local environment. All waste will either be flown out or burned on site in a safe, clean manner. Water used for drilling will be collected, decanted and reused in order to minimize the amount of water necessary.

**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.

Devon Island is uninhabited so there will be no adverse effects due to this project.

**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

<b>20.</b>	<p><b>CONSULTATION</b> – 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.</p>
N/A	
<b>21.</b>	<p><b>SECURITY INFORMATION</b></p> <p>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. <u>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.</u> The estimate must also include contingency factors appropriate to the particular work to be undertaken.</p> <p>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 <i>Mine Site Reclamation Policy for Nunavut</i>, Indian and Northern Affairs Canada, 2002.</p>
N/A	
<b>22.</b>	<p><b>FINANCIAL INFORMATION</b></p> <p>Provide a statement of financial responsibility.</p> <p>If the applicant is a business entity, provide a list of the officers of the company.</p> <p>If the applicant is a business entity attach a copy of the Certificate of Incorporation or evidence of registration of the company name.</p>
N/A	
<b>23.</b>	<p><b>STUDIES UNDERTAKEN TO DATE</b> - List and attach copies of studies, reports, research, etc.</p>
N/A	
<b>24.</b>	<p><b>PROPOSED TIME SCHEDULE</b> – Indicate the proposed start and completion dates for each applicable phase of development (construction, operation, closure, and post closure).</p> <p><u>Construction</u>  Proposed Start Date: _____ Proposed Completion Date: _____  (month/year) (month/year)</p> <p><u>Operation</u>  Proposed Start Date: July 2013 Proposed Completion Date: July 2013  (month/year) (month/year)</p> <p><u>Closure</u>  Proposed Start Date: _____ Proposed Completion Date: _____  (month/year) (month/year)</p> <p><u>Post - Closure</u>  Proposed Start Date: _____ Proposed Completion Date: _____  (month/year) (month/year)</p>



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

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 year

Requested Date of Issuance: June 2013  
(month/year)

Requested Expiry Date: August 2013  
(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.

**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 ☒ No If no, date expected April 2013

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

☐ Yes ☒ No If no, date expected \_\_\_\_April 2013\_\_\_\_

Completed General Water Licence Application form.

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

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

☐ Yes ☒ No If no, date expected \_\_\_\_March 2013\_\_\_\_

English Summary of Application.

☒ Yes ☐ 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 \_\_\_\_February 2013\_\_\_\_

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 \_\_\_\_February 2013\_\_\_\_

**28. SIGNATURE**

Gordon Osinski

NSERC/MDA/CSA  
Industrial Research  
Chair



Feb. 28, 2013

**Name (Print)**

**Title (Print)**

**Signature**

**Date**