

SCIENTIFIC RESEARCH LICENCE APPLICATION

LAND, FRESHWATER & MARINE BASED RESEARCH

NRI strongly recommends that applicants review the following documents prior to submitting an application: *Scientific Research Licencing Guidelines* and *Negotiating Research Relationships in Inuit Communities: A Guide for Researchers*.

For more information about the Nunavut Research Institute (NRI) please visit our web site www.nri.nu.ca

IMPORTANT

This application fulfills the requirements for the NIRB environmental screening. Please be advised that your application will not be processed until the application form, project summary, and maps are received.

SECTION 1: APPLICANT INFORMATION

1a. Project Title Iqaluit Hydroelectric Project

1b. Project Number

Please indicate if applicant has submitted any previous application(s) to NRI related to this project proposal? Yes ☒ No ☐

If yes, please indicate the previous NRI licence number: 0101708R-M; 0101808R-M

Please indicate if applicant has submitted any previous application(s) to NIRB related to this project proposal? Yes ☒ No ☒

If yes, please indicate the previous NIRB project number(s): _____

2. Applicant's full name and mailing address:

Stephan Kerr, Quilliq Energy Corporation
P.O. Box 580, Iqaluit, Nunavut
X0A 0H0

Phone: 867-979-7540
Fax: 867-979-7540
Email: _____

3. Field Supervisor's name and mailing address:

Richard Cook
1650 Main St. West, North Bay, Ontario
P1B 8G5, Canada

Phone: 1-705-476-2165
Fax: 1-705-474-8095
Email: rcook@knightpiesold.com

4. Other Personnel list (name, position, affiliation)

Warren Bernhardt, North/South Consultants Inc.

SECTION 2: AUTHORIZATION NEEDED

1. Indicate all authorizations associated with the project proposal:

<input checked="" type="checkbox"/> Regional Inuit Association (RIA) <input checked="" type="checkbox"/> Nunavut Water Board (NWB) <input type="checkbox"/> Nunavut Planning Commission (NPC) <input checked="" type="checkbox"/> Department of Indian And Northern Development (DIAND) <input type="checkbox"/> Department of Fisheries and Oceans (DFO) <input type="checkbox"/> Community Government & Services (CG&S) <input checked="" type="checkbox"/> Nunavut Research Institute (NRI/GN) <input checked="" type="checkbox"/> Department of Culture, Language, Elders, and Youth (CLEY/GN)	<input type="checkbox"/> Canadian Launch Safety (CLS) <input type="checkbox"/> Environment Canada (EC) <input checked="" type="checkbox"/> Department of Environment (GN) <input type="checkbox"/> Department of National Defense (DND) <input type="checkbox"/> Hamlet <input type="checkbox"/> Parks Canada (PC) <input type="checkbox"/> Canadian Wildlife Service (CWS) <input type="checkbox"/> Other (please specify):
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2. List the active permits, licences, or other rights related to the project proposal and their expiry date:

QEC is in the process of applying for an Inuit Land Use License, Federal Land use License and Type B water License.

3. Have you applied for all authorizations required to conduct the project proposal activities?

☒ YES

☐ NO

SECTION 3: PROJECT PROPOSAL DESCRIPTION

1. Indicate the activities related to the project proposal:

<input checked="" type="checkbox"/> Temporary camp (to be removed at end of field season) <input type="checkbox"/> Permanent camp (to remain for life of authorization) <input type="checkbox"/> Construction of recreational or safety cabin <input checked="" type="checkbox"/> Temporary fuel storage (to be removed at end of field season) <input type="checkbox"/> Permanent fuel storage (to remain for life of authorization) <input type="checkbox"/> Placement of structures for life of permit (other than camp or cabin – i.e. scientific instruments) <input type="checkbox"/> Placement of permanent structures (other than camp or cabin – i.e. scientific instruments) <input checked="" type="checkbox"/> Air surveys (i.e. geophysical, wildlife) <input checked="" type="checkbox"/> Use of aircraft/watercraft/land vehicle for personnel drop-off and pick-up to project location <input checked="" type="checkbox"/> Use of on-site mechanized vehicles (i.e. atv, snowmobile, truck, zodiac) <input checked="" type="checkbox"/> Sewage or grey water disposal via sump <input type="checkbox"/> Hazardous waste storage or disposal <input checked="" type="checkbox"/> Solid waste disposal <input type="checkbox"/> Chemical storage <input type="checkbox"/> Explosives storage <input checked="" type="checkbox"/> Soil testing	<input type="checkbox"/> Soil disposal/ soil storage <input checked="" type="checkbox"/> Incineration of combustible wastes and removal of non-combustible wastes <input type="checkbox"/> River/ stream/ lake crossing or work/ bridge <input type="checkbox"/> Drainage alteration <input checked="" type="checkbox"/> Geoscientific sampling by diamond drilling <input checked="" type="checkbox"/> Geoscientific sampling by soil sampling <input type="checkbox"/> Geoscientific sampling by trenching <input checked="" type="checkbox"/> Geoscientific sampling by borehole core <input type="checkbox"/> Blasting <input type="checkbox"/> Channeling <input type="checkbox"/> Excavation <input checked="" type="checkbox"/> Hydrological testing <input type="checkbox"/> Abandonment and restoration <input type="checkbox"/> Site restoration (fertilization/ grubbing/ scarification/ spraying/ recontouring) <input checked="" type="checkbox"/> Research <input checked="" type="checkbox"/> Ecological survey <input type="checkbox"/> Harvesting <input type="checkbox"/> Removal of vegetation for scientific purposes <input type="checkbox"/> Other:
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2. Personnel

Total No. of personnel on 22 Total No. of days on-site 135

site = (A) _____ = (B) _____
 _____ **2970** _____

Total No. of Person days
(A) × (B) =

3. Timing

Period of operation: March 1st, 2013 to September 30th, 2013
Proposed term of authorization: March 1st, 2013 to February 28th, 2016

Please outline the phases of the proposed project (construction/ operation/ decommissioning) including the timing and scheduling of each phase.

The entire field program will be executed over the above period in 2013, through it may be necessary to carry out follow-up work in 2014 and possibly in 2015.

4. Location(s) of data collection:

Location Name	Region	Co-ordinates Lat (degree / minute), Long (degree / minute)	NTS Map Sheet #	Land Status Crown, Commissioners', Inuit Owned
Armshow	South Baffin	63° 34', -68° 56'	25N	Crown + IOL
Jaynes Inlet	South Baffin	63° 13', -68° 26'	25N	Crown + IOL

If the project proposal includes a **camp**, please provide the coordinates of the camp location

Lat (degree/minute) 63° 22' Long (degree/minute) -68 26'
 NTS Map Sheet # (if different from above) _____

The Nunavut Impact Review Board may require additional location information in a subsequent Project Specific Information Requirement (PSIR) submission. This may take the form of a digital Geographic Information Systems (GIS) file.

SECTION 4: NON-TECHNICAL PROJECT PROPOSAL DESCRIPTION

Please attach a non-technical description of the project proposal, no more than 500 words, in English and Inuktitut (+Inuinnaqtun, if in the Kitikmeot). The project description should outline the following:

- Project Title
- Researcher's Name and Affiliation
- Project Location
- Timeframe
- Project Description
 - purpose
 - goals & objectives
 - method of transportation
 - any structures that will be erected (permanent / temporary)
 - restoration / abandonment plans
- Methodology
 - collection protocol
 - collection mechanisms
 - indicate why specific communities or individuals were selected for your research
- Data
 - short term & long term use of data
 - other uses of data
- Reporting
 - How will the research results be communicated to the individual participants, communities, regional and Nunavut organizations?
 - Will the research result in a publication?

SECTION 5: MATERIAL USE

1. List equipment (including drills, pumps, aircrafts, vehicles etc.):

Equipment type and number	Size – dimensions	Proposed use
Helicopter		Transportation, move drills, field surveys
2 Snowmobiles		Move personnel
1 Rock coring Drill		Drill holes/geotechnical investigations
2 ATV's		Move personnel

2. Detail fuel and hazardous material use:

Fuel	Number of Containers and Capacity of Containers	Total Amount of Fuel (in Litres)	Proposed Storage Methods
Diesel	75-205L	15,000	Drums will be stored at a fuel cache at minimum of 31m from the high water mark of any water body.
Gasoline	2-205L		
Aviation fuel	200-205L	40,000	Drums will be stored at a fuel cache at a minimum of 31m from the high water mark of any water body.
Propane	12-20lbs/100lbs		
Other			
Hazardous Materials and Chemicals		Total Amount of Hazardous Materials and Chemicals (in Litres)	

3. Detail daily water consumption rates

Daily amount (in Litres)	Proposed water retrieval methods	Proposed water retrieval location
68	Pumps	Armshow South and Jaynes Inlet streams and upper lakes.

4. Have you applied for a Class A License with the Nunavut Water Board?

☐ YES

☒ NO

Applied for a Class B Water Licence

SECTION 6: WASTE DISPOSAL AND TREATMENT METHODS

1. List the types of waste:

Type of waste	Projected amount generated	Method of Disposal	Additional treatment procedures
Sewage (human waste)	50 L/Day est.	Incineration or pit latrine	None
Greywater	2-4 m3/day	Buried Sump	None
Combustible wastes	Unknown	Incineration	None
Non-Combustible wastes	Unknown	Off-site transport	Not applicable
Overburden (organic soil, waste material, tailings)	None	Not applicable	Not applicable
Hazardous waste	Unknown	Off-site transport	Not applicable
Other:	Unknown	Off-site transport	Not applicable

2. Will you be incinerating combustible waste, removing all solid waste, and removing the ash generated from incineration?

☒ YES

☐ NO

SECTION 7: COMMUNITY INVOLVEMENT & REGIONAL BENEFITS

1. List the community representatives that have been contacted and provide the minutes of the meetings if available:

See attached record of consultation. QEC is planning a community meeting in Iqaluit on December 12, 2012.

2. How will the proposed project benefit Nunavut?

The project will support the development of Nunavut's first renewable energy source.

4. Describe and attach documentation regarding community support or concerns for the proposed project:

A hydro committee recommended the development of the Armshow River site in 2008 (see attached).

The Amarok HTA indicated in writing in 2007 that it objected to development of hydro at Cantley Bay, which was one of the initial sites identified that is no longer under consideration.

5. Is there a traditional knowledge component to this research project? If yes, please explain:

Some traditional knowledge work was completed in 2007. A workshop on land use and wildlife is proposed for 2013 (separate application).

SECTION 8: GENERAL QUESTIONS

1. Do you give NRI permission to publish project information in the Nunavut Research Institute Annual Compendium of Research Undertaken in Nunavut?

☒ YES

☐ NO

3. In addition to the application form, applicants are required to submit additional information in an electronic format to the Manager, Research Liaison, cfilion@nac.nu.ca. Please check that the following have been submitted to NRI:

- ☒ Project Summary -in English and Inuktitut (+Inuinnaqtun, if in the Kitikmeot)
- ☒ NTS Maps of the project

Applicant:


Signature

Richard Cook - Senior Scientist
Title

Dec 5/12
Date