

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 Formation and preservation of elemental sulfur in springs relevant to Mars and Europa

1b. Project Number

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

If yes, please indicate the previous NRI licence number: N/A

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

If yes, please indicate the previous NIRB project number(s): N/A

2. Applicant's full name and mailing address:

Prof. Alexis Templeton	Phone: 303-735-6069
Department of Geological Sciences	Fax: 303-492-2616
UCB 399, Boulder CO 80309, USA	Email: alexis.templeton@colorado.edu

3. Field Supervisor's name and mailing address:

Dr. Stephen Grasby	Phone: 403-292-7111
Geological Survey of Canada – Calgary	Fax: _____
Natural Resources Canada	Email: sgrasby@nrcan.gc.ca
3303 33 rd St N.W., Calgary Alberta T2L-2A7	

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

Graham Lau	PhD Student, University of Colorado
John Spear	Professor, Colorado School of Mines
Chris Trivedi	PhD Student, Colorado School of Mines
Student with Dr. Grasby (TBA)	University of Calgary

SECTION 2: AUTHORIZATION NEEDED

1. Indicate all authorizations associated with the project proposal:

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

2. List the active permits, licences, or other rights related to the project proposal and their expiry date:

None – still in the application process

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

2. Personnel

Total No. of personnel on site = (A)	6	Total No. of days on-site = (B)	14	Total No. of Person days (A) × (B) = 84
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3. Timing

Period of operation: June 19, 2014 to July 2, 2014
Proposed term of authorization: June 15, 2014 to July 15, 2014

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

June 19, 2014 – arrive at field site and establish temporary camp (weather dependent)

July 2, 2014 – pack camp and depart field site (weather dependent)

4. Location(s) of data collection:

Location Name	Region North Baffin, South Baffin, Kivalliq, Kitikmeot	Co-ordinates Lat (degree / minute), Long (degree / minute)	NTS Map Sheet #	Land Status Crown, Commissioners', Inuit Owned
Borup Fiord	Qikiqtaaluk	81°01' N: 081°33'W	340C	Crown

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

Lat (degree/minute) 81°01' N Long (degree/minute) 81°01' N:
NTS Map Sheet # (if different from above) same

See Map file also provided (Templeton_NRI_Borup_Map)

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:

Please see attached documents in English and in Inuktitut
(Templeton_NRIProjectDescription_English/Inuktitut.doc)

SECTION 5: MATERIAL USE

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

Equipment type and number	Size – dimensions	Proposed use
Twin Otter		Transport to field area
Bell 206		Transport to field area

2. Detail fuel and hazardous material use:

Fuel	Number of	Total Amount	Proposed Storage Methods
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	Containers and Capacity of Containers	of Fuel (in Litres)	
Diesel	n/a		
Gasoline	1- 20L	20 L	On ground
Aviation fuel	n/a		
Propane	1 - 20 lb	20 lb	On ground
Other	n/a		
Hazardous Materials and Chemicals		Total Amount of Hazardous Materials and Chemicals (in Litres)	
n/a			

3. Detail daily water consumption rates

Daily amount (in Litres)	Proposed water retrieval methods	Proposed water retrieval location
35 l	Collected from river	Closest stream to camp

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

☐ YES

☒ NO

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)	15 kg	burial	none
Greywater	120 l	Sump pit	Passed through strainer
Combustible wastes	5 kg	Burning	Remains packed out for disposal
Non-Combustible wastes	5 kg	Packed out for disposal	None
Overburden (organic soil, waste material, tailings)	N/A		
Hazardous waste	N/A		
Other:	N/A		

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:

Community	Name	Organization	Date Contacted
none			

2. How will the proposed project benefit Nunavut?

Research results will provide new knowledge on that natural history of Nunavut, with all results and data, including images, video and samples, being made available to the people of Nunavut

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

none

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

N/A

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:



Associate Professor

2/21/2014

Signature

Title

Date