



QIKIQTANI INUIT ASSOCIATION

APPLICATION FOR ACCESS TO INUIT OWNED LAND

Nunavut Water
Board

MAR 29 2012

Public Registry

Office use only

Category	Application No:	Accepted By:	Date Accepted:
----------	-----------------	--------------	----------------

To be completed by all applicants

1. Applicant's name and mailing address (Full name, no initials or abbreviations)

Jeffery M. Saarela, Ph.D.
Research Scientist
Canadian Museum of Nature
PO Box 3443 Stn D Ottawa ON K1P 6P4

Telephone no.

1.613.364.4080

Fax no

1.613.364.4027

2. Head Office address

Telephone no.

Fax no.

3. Field supervisor and address if different from above

Jeffery M. Saarela

Telephone no.

same as above

4. Other personnel list (Subcontractors or contractors to be used)

Research Team:
Lynn Gillespie, Ph.D.
Roger Bull, M.Sc.
Paul Sokoloff, M.Sc.
Jennifer Doubt, M.Sc.
One TBD

Total no. of personnel:

6

No. of person days: 90 (6 x 15 days)

5. Location of activities by map coordinates. Attach **ORIGINAL** maps and sketches. (See map at end of document)

MAX Latitude	63°11'32"N	MAX Longitude	70°39'50"W
MIN Latitude	62°04'31"N	MIN Longitude	66°59'39"W
Map Sheet No:	based on Map 25L (Big Island), 25 M (Markham Bay), 25N (Frobisher) and 25K (Lake Harbour). Map Scale: 1: 300 000.	Inuit Land Parcel No:	

Coordinate of camp (if applicable) Lat. 62° 36' 23 " Long. 68° 50' 29 " (head of Barrier Inlet)
We will have a second camp at Taqaiqsirvik Territorial Park (Campground) at Kimmirut (62°51'N 69°53'W)

NOTE: Please specify projection, datum, and digital format. Please provide the data as an Arc Info cover, ArcView Shape file or an .E00 file.

6. Periods of operation; including periods of seasonal shut down and periods for restoration.

28 June - 18 July: Katannilik Territorial Park, travelling to Kimmirut via canoe

18-25 July: Barrier Inlet and vicinity

25-30 July: Kimmirut and vicinity

**ca. 15 days on Inuit Owned Land (Barrier Inlet, and Kimmirut and vicinity)

7. Period of access required (up to one or two years for licenses, depending on license level, up to five years for residential/recreational leases and level I and II commercial leases, and up to forty years for level III commercial leases)	Start date: 28 June 2012	Completion Date: 31 July 2012
--	---------------------------------	--------------------------------------

8. Other rights, licenses, permits or leases related to this application. Provide proof of rights or indicate if in the process of applying for rights.

<input type="checkbox"/> NTI Subsurface Right	<input type="checkbox"/> NRI Research License	<input type="checkbox"/> CWS Permit
<input type="checkbox"/> DIAND Subsurface Right	<input type="checkbox"/> RWED Tourism License	<input checked="" type="checkbox"/> Other
<input checked="" type="checkbox"/> NWB Water License (in process)	<input type="checkbox"/> Explosives Permit	Nunavut Wildlife Research Permit (in process)
#		

9. TYPE OF LAND USE ACTIVITY

Check off the appropriate land use activities.

Mining/Oil & Gas

- ☐ Staking and Prospecting
- ☐ Exploration (geophys-grd/air)
- ☐ Drilling (diamond/ice, etc)
- ☐ Mine (open pit, underground)
- ☐ Bulk fuel storage
- ☐ Other:

Construction:

- ☐ Camp
- ☐ Building
- ☐ Winter road
- ☐ All Season road
- ☐ Quarrying
- ☐ Other:

Tourism:

- ☐ Tourism facility
- ☐ Outfitting
- ☐ Other

Municipality:

- ☐ Bulk Storage
- ☐ Residential Building
- ☐ Commercial Building
- ☐ Other:

Research:

- ☐ Wildlife/fish/birds/marine
- ☐ Survey (grd/aerial/collars)
- ☒ Collection of species (plants)
- ☐ Research Station
- ☐ Other :

Other:

- ☐ Commercial harvest
- ☐ Recreational Camp
- ☐ Other

10. TYPE OF WATER USE

Select the kind of project for which you will use the water, and the type of water use

Undertaking

- ☐ Advanced Exploration
- ☐ Exploration Drilling
- ☐ Industrial
- ☐ Mine Development
- ☐ Power
- ☐ Remote/Tourism
- ☒ Other: Domestic use in camp: cooking,

cleaning dishes and drinking

Water Use:

- ☒ To Obtain Water for domestic use only
- ☐ To Modify the bed or bank of water course
- ☐ To Alter the flow of, or store water
- ☒ To Cross the Watercourse during dayhikes
- ☐ To Divert the Watercourse
- ☐ Flood Control
- ☐ Other:

11. QUANTITY OF WATER INVOLVED

Please include the quantity of water to be used during the Land Use activity

5 L / day / person x 6 people x 15 days = 450 L

Quantity of water to be used:

0.45

m³/year

Quantity to be returned:

0

m³/year

12. WASTE

Describe the type of waste produced by the activity

- | | |
|---|---|
| <input type="checkbox"/> Bulky Items/Scrap metals | Describe: |
| <input checked="" type="checkbox"/> Grey water | Grey water is produced washing cooking gear. |
| <input type="checkbox"/> Hazardous | |
| <input checked="" type="checkbox"/> Sewage | Sewage will be minimal -- human excrement x 6 people will be buried |
| <input type="checkbox"/> Sludge | |
| <input type="checkbox"/> Solid waste | |
| <input type="checkbox"/> Waste Oil | |
| <input type="checkbox"/> Other: | |

13. LAND USE PERMIT

Select Land Use Permit You have been Issued

<input type="checkbox"/> DIAND	date expected	
<input checked="" type="checkbox"/> Qikiqtani Inuit Association	date expected	current application (expected 31 May 2012)
<input type="checkbox"/> Commissioner	date expected	
<input type="checkbox"/> Department of Environment	date expected	

14. IMPACT

Predicted environmental impacts of undertaking and proposed mitigation measures (direct, cumulative impacts)

Describe:

The environmental impacts of our work is low. We are a small team (six people) of botanists. We will set up a temporary camp comprising six or seven small tents (one work tent, one cook tent, and four or five sleep tents). The goal of our work is to document plant biodiversity. To do this we explore areas directly around our camps on foot (ca. 5 days) and we collect samples of all species we encounter. Depending on helicopter availability, we visit 3-6 remote sites by helicopter over a 1-2 day period.

Increased human activity in the vicinity of our camp will increase ambient noise levels in the immediate area, which may disturb wildlife. These activities will be highly localized and the impact is expected to be very small. Helicopter transportation to and from the camp will also create noise that may affect wildlife. This will be very short term as a helicopter is never in camp for a long period of time. Food in camp may attract local wildlife. We will minimize food smells by storing all food in sealed containers.

Care will be taken to ensure that all non-biodegradable waste (garbage) will be packed out. Garbage will be minimal, as most of our food will be packaged in re-usable containers. All solid human waste will be buried. Toilet paper will be burned or packed out.

NPC conformity check
NIRB Screening

****PLEASE NOTE QIA TO FORWARD APPLICATION
TO NPC & NIRB**

Proposed Time Schedule

☐ Same as the Land Use

15.

☒ Check for **Annual Work**, specify the days of operation [Leave unchecked for multi year work]

Start day

28 June 2012

Completion date

30 July 2012

16. On a separate page, provide a **NON-TECHNICAL project summary**. This should include a non-technical description of the project proposal, no more than 300 words, in **English and Inuktitut**. The project description should outline the project activities and their necessity, method of transportation, any structures that will be erected, expected duration of activity and alternatives considered. If the proposed activity fits into any long-term developments, please describe the projected outcome of the development for the area and its timeline.

17. Attach a detailed project description as outlined in **APPENDIX A**.

17. Land Use Application Fees:

Land Use License I	
<input checked="" type="checkbox"/>	Inuit \$0 Non-Inuit \$250.00
<input type="checkbox"/>	Land Use License II \$500.00
<input type="checkbox"/>	Land Use License III \$1000.00
Residential/Recreational Lease	
<input type="checkbox"/>	Inuit \$0 Non-Inuit \$250.00
<input type="checkbox"/>	Exemption Certificate \$0
<input type="checkbox"/>	Commercial Lease I \$500.00
<input type="checkbox"/>	Commercial Lease II \$2500.00
<input type="checkbox"/>	Commercial Lease III \$5000.00
<input type="checkbox"/>	Right of Way Agreement \$500

Land use fees: # of hectares used @ \$50.00/hectare = \$ 1 hectare (camp) @ \$50 = \$50.00

Note: The land use fee is for the amount of land used on an annual basis.

18. Water Application Fees:

Water License Application type:

- ☐ For Land Use license Class I
the corresponding *Water Application fee* is **\$50.00** per year plus **\$ 1** for
Water use charge, *Volumetric fee*, **Total \$51** every year
(this fee will be submitted to the Nunavut Water Board with our water
board application)
- ☐ For Land Use License Class II the
corresponding *Water Application fee* is
\$250.00 every year plus **\$ 1** for Water use charge, *Volumetric fee*,
Total \$251.00 every year
- ☐ For Land Use License III
The corresponding *Water Application fee* is **\$500.00** every 2 years and
\$26.35/1000m³ for Water Use charge *Volumetric fee*. **Total \$276.35**
every year
- ☐ For Commercial Lease I
The corresponding *Water Application fee* is **\$50.00** and **\$ 26.35 /1000m³**
for Water use charge, *Volumetric fee*. **Total \$76.35** every year
- ☐ For Commercial Lease II
The corresponding *Water Application fee* is **\$500.00** and **\$ 26.35 /1000m³**
for Water use charge, *Volumetric fee*. **Total \$526.35** every year
- ☐ For Commercial Lease III,
The corresponding *Water Application fee* is **\$5000.00** and **\$ 26.35**
/1000m³ for Water use charge, *Volumetric fee*. **Total \$5026.35** every year

Water Use Fee [Volumetric fee]: # volume water use (m³) * \$26.35/1000m³ = \$ _____

Note: The water application type is related to the Land use application type. A water Protection fee will be charged according to the type and stage of the development project.

19. a) The Applicant request a Certificate of Exemption ☐

or

b) The Applicant agrees to be bound by terms and conditions to be attached to the Inuit Land User License or Lease ☒

Sign name in full:

Signature

Jeffery M. Saarela

Date

APPENDIX A

All applicants must provide a detailed project description that includes ALL of the following:

1. Outline project activities, their necessity, their expected duration and alternatives considered. If the proposed activity fits into any long-term developments, describe the projected outcome of the development for the area and its timeline.
2. Schedule of activities including both operations and shutdowns.
3. Provide a preliminary plan showing the location of the lands proposed to be used and an estimate of their area in hectares. The preliminary plan should show the approximate location of all:
 - i) existing or new lines, trails, rights-of-way and cleared areas proposed to be used in the exercise of the Right;
 - ii) buildings, campsites, air landing strips, air navigation aids, fuel and supply storage sites, waste disposal sites, excavations, ponds, reservoirs and other works and places proposed to be constructed or used during the exercise of the Right;
 - iii) manmade structures and works, including bridges, dams, ditches, highways, roads, transmission lines, pipelines, survey lines and monuments, air landing strips; all topographical and natural features, including eskers, rivers, streams, lakes, inland seas and ponds; and all areas of biological interest, including wildlife and fish habitat, specifically, calving, denning, spawning or nesting areas, identified in consultation with the NWMB, RWO, or HTO, as appropriate, that may be affected by the exercise of the Right; and
 - iv) the accurate location of all carving stone, archaeological sites, and archaeological specimens.
4. Provide a list of structures that will be erected.
5. Equipment to be used, indicating type and number, size and ground pressure and proposed use. Include all drills, pumps, vehicles etc.
6. Fuels to be used, capacity of containers and number of litres. Include diesel, gasoline, aviation fuel, propane and other fuel types. Describe method of fuel transfer.
7. Provide a copy of fuel spill contingency plan.
8. Describe the methods of transportation.
9. Indicate the components of the environment that are near the project area, as applicable. Include the type of species, the important habitat area (calving, staging, denning, migratory pathways, spawning, nesting etc.), and the critical time periods (calving, post-calving, spawning, nesting, breeding etc.). Also, include information on eskers, communities, and historical/archaeological sites.
10. Summary of potential environmental, wildlife and resource impacts and mitigation measures to be used. Describe the effects of the proposed program on lands, water, flora and fauna.
11. Reclamation cost analysis for advanced exploration activities.

12. Proposed reclamation plan, that includes, but is not limited to the proposed methods and procedures for the progressive:

- i) removal of all structures, equipment, and other manmade debris;
- ii) rehabilitation of the area to its previous standard of human utilization and natural productivity;
- iii) replacement of overburden and soil;
- iv) grading of the area back to its natural contours; and
- v) re-establishment, to the extent possible, of flora.

Include information about on going site remediation throughout the duration of the project.

13. Indicate the number of Inuit to be employed, the Inuit firms to be contracted, and the socio-economic benefits to the area.

In addition to the above requirements, COMMERCIAL LEASE APPLICANTS must provide the following information:

- If the land is surveyed, state the lot and block number. If unsurveyed, state the size of the parcel and general area. Provide a detailed description and detailed sketch of the area applied for.
- Describe the type of commercial use.

In addition to the above requirements, RESIDENTIAL/RECREATIONAL LEASE APPLICANTS must provide the following information:

- If the land is surveyed, state the lot and block number. If unsurveyed, state the size of the parcel and general area. Provide a detailed description and detailed sketch of the area applied for.
- For what purposes will the land be used? Describe any buildings or improvements on this land. What is the value of the improvements on the land and who is the owner of the improvements.
- Provide a list of improvements planned for construction, the value of these improvements and within how many months of the effective date of the lease these improvements be finished.

In addition to the above requirements, QUARRY LICENSE or QUARRY CONCESSION AGREEMENT applicants must provide the following information:

- A description by meters and bounds of the land applied for;
- The name of the specified substances that the applicant desires to remove from the area; and
- A sketch showing clearly the position of the parcel in relation to a survey monument, prominent topographical feature or other known point and shown in its margin, copies of the markings on the posts or cairns.
- If for commercial use, the description shall contain an affidavit sworn by the applicant setting forth:
 - i) that the land contains material of the kind applied for in merchantable quantities;
 - ii) that the volume of specified substances are required for a project that has been approved by the appropriate level of government; and
 - iii) that the applicant has obtained a contract for the delivery of those Specified Substances.

Please prepare this project description on a separate sheet of paper and attach it to your application form marked as APPENDIX A. Return the original, signed and dated application form, with attached APPENDICES A and all ORIGINAL maps of the area to QIA Lands Office at Box 1340, Iqaluit, NU, X0A 0H0.

APPENDIX A – DETAILED PROJECT DESCRIPTION

QIKIQTANI INUIT ASSOCIATION: APPLICATION FOR ACCESS TO INUIT-OWNED LAND

Applicant: Jeffery M. Saarela

Flora of the Canadian Arctic

Arctic Plant Research

Species inventories and identifications are important for investigating the effects of global warming on arctic ecosystems. The composition and distribution of the Canadian Arctic flora is likely to experience a dramatic shift in the coming century in response to environmental change, but comprehensive present-day floristic data, necessary to track future change, is lacking for many Arctic regions. There are many gaps in current knowledge of the diversity and distribution of the Canadian Arctic flora. Some regions have never been explored botanically, and many remain poorly and incompletely studied. We are still discovering plant species new to science on the arctic islands (e.g., *Puccinellia banksiensis* Consaul), documenting many range extensions, and refining species circumscriptions. Accurate information on current distributions of species and robust identification tools are critical for understanding the impact of climate change on arctic plant species and plant communities. This project will provide comprehensive baseline data on arctic plants (taxonomy, distribution, ecology), with the goal of producing a complete Canadian Arctic Flora. It builds on our extensive, ongoing work on the arctic flora (see Publications in Appendix), and continues the strong, century-long tradition of arctic botany at the Canadian Museum of Nature (CMN), the only Canadian institution with major plant systematic research activities in the Arctic.

We aim to gain a more complete understanding of the present state of the distribution and composition of the Canadian arctic flora, to expand the knowledge base for understanding the broad-scale impacts of environmental change on the arctic flora, and to develop a DNA-based identification system (DNA barcoding) for arctic plants. In 2011 we started a new project to produce the first Arctic Flora of Canada and Alaska, a flora that will treat all vascular plants in the entire Canadian Arctic and the North Slope of Alaska (<http://arcticplants.myspecies.info/>). All specimens that we collect in 2012 will be incorporated into the Arctic Flora, and new information about the diversity and distribution about the flora of southern Baffin Island (e.g., major range extensions, additions to the flora of the island, etc.) will be published in a peer-reviewed journal.

Our current research team has been conducting comprehensive floristic studies in the Arctic since 2008. We have worked in three areas so far: (1) Southwestern Victoria Island, Nunavut (Nunavut Wildlife Research Permit number WL 2008-1039) in 2008; (2) Tukut National Park of Canada and Paulatuk and vicinity, Northwest Territories, in 2009; and (3) Uluhaktok and Minto Inlet, Victoria Island, Northwest Territories, in 2010. These trips yielded over 3000 new vascular plant collections, substantially increasing knowledge of the floras of Victoria Island, the western Arctic Archipelago, the Canadian Arctic, and Canada.

Proposed 2012 Fieldwork in Nunavut

Southern Baffin Island is one region in the Canadian Arctic Archipelago that has received relatively little botanical attention to date, yet, being on the southern coast and close to the mainland, may be one of the first areas in the Arctic Islands to experience predicted changes associated with climate warming. We propose to focus our 2012 fieldwork on southern Baffin Island, in the Kimmirut area and to the east of Kimmirut along the Meta Incognita peninsula. This region is the most floristically diverse area of southern Baffin Island, yet its flora is documented fairly poorly. The majority of the collections from this

area were made in the 1920s by J. Dewey Soper and M. O. Malte with imprecise collection localities, and no comprehensive studies of the flora of the region have been conducted. Several low arctic species known from the Kimmirut area, documented in the region by only one or a few plant collections, are not otherwise documented as occurring on Baffin Island (Aiken et al. 2007). Given its low arctic floristic affinities, we expect the flora of the region to be more diverse than is currently known.

We propose to study the flora of southern Baffin Island in three main areas: (1) along the Soper River from Mount Joy to Kimmirut, (2) in the vicinity of Kimmirut, and (3) in the vicinity of a remote camp at the head of Barrier Inlet 60 km SE of Kimmirut. We will travel from Mount Joy to Kimmirut by canoe, camping along the way, and will undertake field research in the vicinities of each camp by foot. At the Barrier Inlet camp and in Kimmirut we will undertake field research by foot, and at remote and ecologically diverse sites reached by helicopter, if such support is available.

We will document all vascular plants and bryophytes in the region by completing plant inventories of each of the main study areas, and will collect data on conservation status, ecology, distribution, and population variation as appropriate. All of these data will be useful for long-term monitoring of potential changes in species diversity in the future. Approximately 1000 vascular plant and 1000 bryophyte specimens will be collected, photographed, and studied. Collections will be deposited at the National Herbarium of Canada (Canadian Museum of Nature), and duplicate specimens will be distributed to national and international herbaria, all contributing to the permanent scientific record documenting the distributions of Arctic plant species in time and space.

Plant Collecting Methods

We document plant biodiversity by exploring as many different habitats as possible, and spending time in each habitat to find all the different species that are present. We make collections of all the species at a site, with the aim of comprehensively documenting with voucher specimens the local plant diversity. We collect plants specimens using a plant press, the standard method that botanists have used for several centuries. Once collected, plant specimens are arranged into sheets of newspaper, placed between two pieces of cardboard, piled up, and tightened with two straps. The specimens are flattened and dry in the press; once dry they will last for centuries when stored in a herbarium (dried plant collection).

For each collection event we:

- Collect a few to several individuals of a species (depending on the size of an individual, and how common the species is locally). If a species is not common, we collect only enough material (i.e., enough for one or two herbarium sheets) to properly document its occurrence at the site. If a species is rare, we do not collect any specimens, and document its occurrence only with photographs.
- Record detailed notes on the location of the species, its local growing conditions, and other species that grow at the site. In a subset of instances we take photographs of the species growing in its natural state.
- Preserve a small amount of leaf tissue in silica gel (a dessicant), which rapidly dries the genetic material in the leaf tissue in a way that is suitable for later study (e.g., DNA sequencing) in the molecular laboratory.

Transportation in the Field

Transportation to field camps and study sites will be provided by PCSP (twin otter and helicopter); transportation in the vicinity of each camp will be by foot. While in Katannilik Territorial Park we will travel an approximately 60 km stretch of the Soper River by canoe,

over a three week period. During this period we will establish five to seven camps, spending an average of three days at each camp and exploring the flora around each camp site. We plan to have one camp at the head of Barrier Inlet for one week, and a final camp in Kimmirut at Taqaiqsirvik Territorial Park (Campground). Accommodation will be in small backpacking tents. No permanent or large temporary structures will be erected; impact will be minimal. All items associated with the project will be removed at the end of each camp stay.

2. SCHEDULE OF ACTIVITIES

- | | |
|---------------------|---|
| 25 June 2012 | Arrive at Iqaluit |
| 28 June 2012 | Arrive at Mt. Joy, Katannilik Territorial Park. Travel to Kimmirut by canoe along the Soper Heritage River, studying the plants along the way. |
| 17 July 2012 | Arrive in Kimmirut (by canoe) |
| 18 July 2012 | Ferry (helicopter) from Kimmirut to remote camp at the head of Barrier Inlet. We will spend 8 days at this camp, exploring the flora of area by foot. If helicopter support is available, we will explore 3-6 remote sites to the west and south (i.e., along the coast) of our camp. |
| 25 July 2012 | Ferry (helicopter) to Kimmirut. Establish camp at Taqaiqsirvik Territorial Park (Campground). Explore the plants of the local Kimmirut area. If helicopter support is available, we will visit a few remote sites in the area, including eastern Big Island south of Kimmirut. |
| 30 July 2012 | Return to Iqaluit, then to Ottawa. |

3. PRELIMINARY PLAN SHOWING LOCATION OF LANDS PROPOSED TO BE USED ON INUIT-OWNED LANDS

In the map below, we will set up our small camp adjacent to the unnamed river (Barrier Inlet) in the inset of the figure (i.e., approximately where the orange circle is located on the map). The helicopter will land at our campsite, and a small amount of helicopter fuel (maximum 2 barrels [205 L/barrel] at a time) will be stored at our camp. Our camp will be temporary, comprised of small tents. We will not erect any buildings, land strips, survey lines, etc.

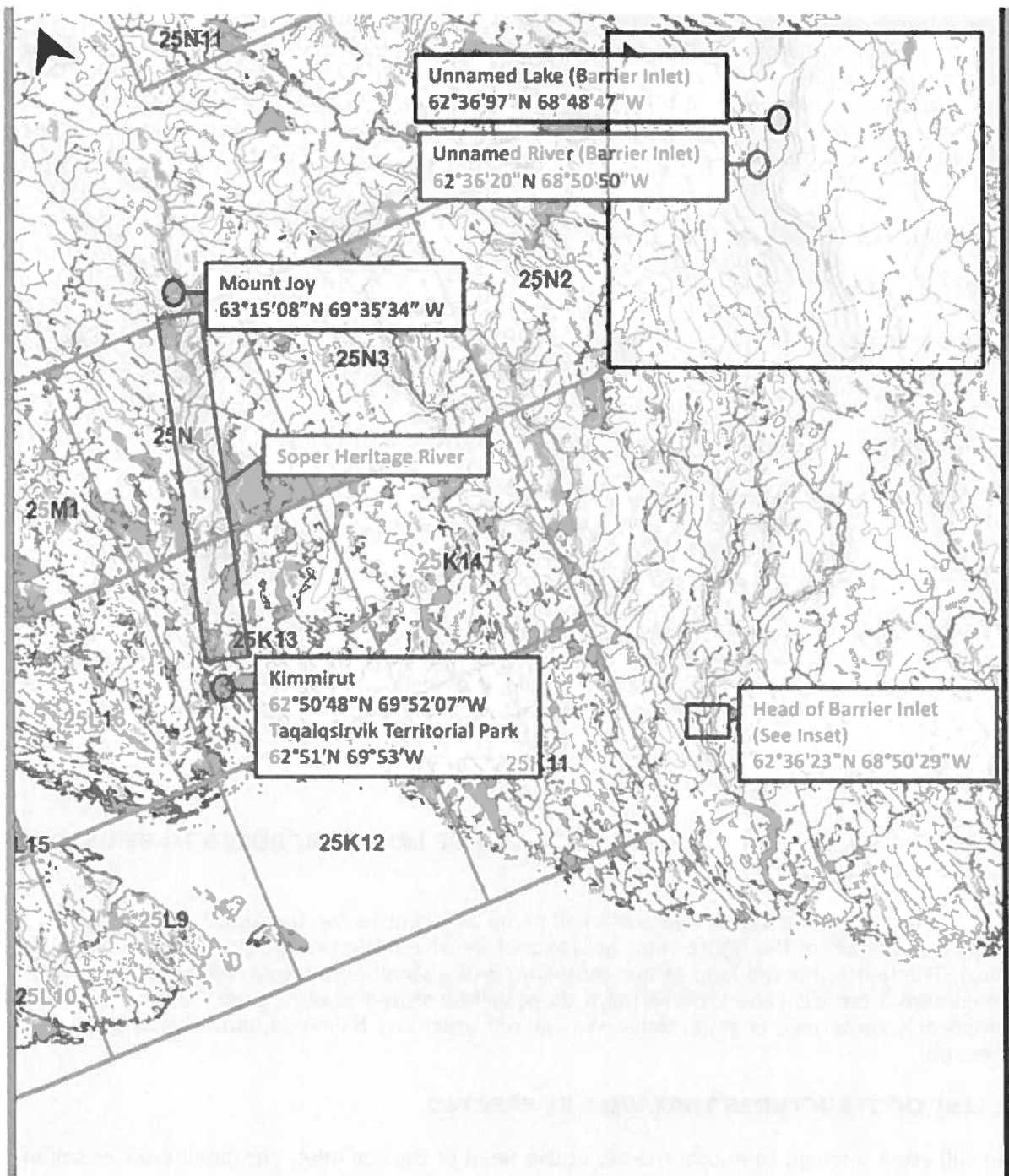
4. LIST OF STRUCTURES THAT WILL BE ERECTED

We will erect a small, temporary camp at the head of Barrier Inlet, comprising six or seven personal tents: one work tent, one cook tent, four or five sleep tents.

5. EQUIPMENT TO BE USED

Equipment is primitive, standard camping gear and includes:

- Camping gear (tents)
- Personal gear (sleeping bags, backpacks, clothes, etc.)
- Cooking gear (pots, pans, 2 camp stoves, food, etc.)
- Plant presses for plant collecting



6. FUELS TO BE USED

Camp stove fuel (white gas): 5 L

Helicopter fuel: 6 x 205 L drums [not more than 2 drums will be present at our camp at a single time]

7. FUEL SPILL CONTINGENCY PLAN

Attached at the end of this document.

8. METHODS OF TRANSPORTATION

Plant exploration will be done on foot. We will ferry to and from camp by helicopter. If additional helicopter support is available, we will visit 3-6 remote sites and explore those areas by foot.

9. COMPONENTS OF THE ENVIRONMENT NEAR THE PROJECT AREA

Components of the environment near the Barrier Inlet camp include various water bodies, including a small river/stream running into Barrier Inlet, several small lakes, and the head of Barrier Inlet. Elevation varies from ca. 34 m to ca. 400 m within 5 km of the camp. Plant diversity in the area has not been documented. There are no eskers in the Barrier Inlet vicinity.

10. SUMMARY OF POTENTIAL WILDLIFE AND RESOURCE IMPACTS

The environmental impacts of our work and small research team is low. Increased human activity in the vicinity of our camp will increase ambient noise levels in the immediate area, which may disturb wildlife. These activities will be highly localized and the impact is expected to be very small. Helicopter transportation to and from the camp will also create noise that may affect wildlife. This will be very short term as a helicopter is never in camp for a long period of time. Food in camp may attract local wildlife. We will minimize food smells by storing all food in sealed containers.

Care will be taken to ensure that all non-biodegradable waste (garbage) will be packed out. Garbage will be minimal, as most of our food will be packaged in re-usable containers. All solid human waste will be buried. Toilet paper will be burned.

We will be making collections of plant species, but these will not impact local plant populations as we will only collect plants from populations with many individuals.

Water usage will be very low, as we will only be using water for domestic purposes (cooking, cleaning, drinking).

11. RECLAMATION COSTS ANALYSIS FOR ADVANCED EXPLORATION ACTIVITIES

n/a

12. PROPOSED RECLAMATION PLAN

n/a

13. NUMBER OF INUIT TO BE EMPLOYED, INUIT FIRMS TO BE CONTRACTED, AND THE SOCIO-ECONOMIC BENEFITS TO THE AREA

There likely will be opportunity for us to hire a wildlife monitor from Kimmirut for the week we are at the head of Barrier Inlet. No Inuit firms will be contracted, given the nature of our work. There will be no socio-economic benefits from our work, which is basic research about the plant biodiversity of the region.

**Qikiqtani Inuit Association
Application for Access to Inuit Owned Land**

Applicant: Jeffery M. Saarela

Non-Technical Project Summary (English)

Flora of the Canadian Arctic

The composition and distribution of plants in the Canadian Arctic is likely to experience a major shift in the coming century in response to climate change, but detailed information on plant diversity, necessary to track future change, is lacking for many Arctic regions. The plants of some Arctic regions have never been explored, and many regions are poorly and incompletely studied. Kimmirut and vicinity on southern Baffin Island is one area where plant diversity has not been studied in detail. Most plant collections from the area were made in the 1920s, over 100 years ago. Being on the southern coast and close to the mainland, southern Baffin Island may be one of the first areas in the Arctic Islands to experience predicted changes associated with climate warming. In July 2012 we propose to study plant diversity in the Kimmirut area, to document all the species that grow in the region. We propose to work at three major sites: in Katannilik Territorial Park, travelling from Mt. Joy to Kimmirut by canoe along the Soper Heritage River; at a remote site 60 km southeast of Kimmirut at the head of Barrier Inlet, which will be accessed by helicopter; and in and around the community of Kimmirut, based out of the campground at Taqaiqsirvik Territorial Park. We will also explore some remote sites accessed by helicopter, including the southern coast of Baffin Island, where the plants are different than those inland. We will document plant biodiversity at all sites by exploring (on foot) different habitats, and making collections of all the species we find. Collections will be dried in a plant press, and the specimens will be stored in the plant collection at the Canadian Museum of Nature, Ottawa, where they will contribute to on-going efforts to document all the plants in the Canadian Arctic. Our research team includes six people, and we will set up several small, temporary camps with six or seven small tents.

[illegible]

