APPENDIX A

Project Title:
Elu Inlet High Value Ecosystem Component Inventory

Applicants:
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1. Project Activities:
This field project will be conducted in an area with high development potential and a number of existing mineral claims. Discussions have been held with TMAC Resources, a company that will undertake geological surveys at the same location this field season. The CHARS team will conducted biological and archeological inventory work at same time and refine the methodology in preparation of extensive future work in cooperation with the NRCAN GEMS program in future years. The aim is to train field crews that will then be able to accompany geological surveys to conduct biological and archeological inventories. More specifically, CHARS teams will undertake vegetation mapping, bird surveys, wildlife surveys and archeological surveys.

2. Schedule of Activities:

July 3, 2015	Fly field crew and supplies to Elu Inlet lodge, set up basecamp.
July 4-13	Familiarization around Elu Inlet area and development of methodology. Local surveys.
July 14-Aug 14	Crew conducts surveys along transect routes that are established with food cashes through floatplane access. Each transect will be around 100 km long with one food cache at the halfway point.
August 14 – 19	Pack up base camp and crew flies back to Cambridge Bay .

*all dates are +/- 5 days and weather dependent

3. Preliminary Plan:
Please see attached maps of proposed survey area. Exact transect locations will be determined in the field based on float plane access and landscape to traverse on route back to base camp at Elu Inlet Lodge.

Field crews will be trained at a central location (Elu Inlet lodge) in the inventory protocols and the establishment of fly camps. Some surveys will be conducted around the lodge, but the majority of data will come from transects.

Vegetation mapping: Standardized high resolution digital, geo – referenced images will be taken of all homogenous vegetation types along the transect routes and each will be classified into one of 12 vegetation classes. These spot locations will then be uploaded into a GIS system and used to train high resolution satellite imagery to extrapolate the vegetation classification to

the entire mapping area. We will determine the minimal area required to result in accurate maps to determine the required levels of intensity for future inventory work.

Bird surveys: A number of bird inventory methods will be used and compared: Spot checks, Breeding Bird Surveys, PRISM surveys and simple check lists. The method ideally suited to transects and fly camps in the High Arctic will be determined.

Wildlife Surveys: All wildlife species will be counted and locations recorded on flights and along transects.

Archeological Surveys: The locations of any archeological sites observed during transect surveys will be recorded.

4. List of Structures:

- Elu Inlet Lodge - already constructed at 68°32.13'N/105°40.12'W, formerly used for tourism – see attached map (July 3 - Aug19)
- 1-2 canvas wall tents near Elu Lodge for equipment storage (July 3 – August 19)
- 3-4 two-person all-season tents (July 14-Aug 14)

5. Equipment used:

- Float Plane
- Camping stove (Coleman or MSR, with fuel)
- Propane heater (for heating at base camp, as necessary)
- Generator (to charge satellite phones, GPS receivers, etc.)
- Hand held marine radios and satellite phones (for safety)
- Handheld GPS receivers (to mark transect locations and survey observations)

6. Fuel to be used:

- 4x 4L jugs of white gas (fuel for Coleman stove)
- 4x 25L jerry cans of gasoline (for generator)
- 4x 20lb propane tanks (for heater)

7. Please see attached spill contingency plan.

8. Methods of transportation:

- Transportation of crew and personal gear to base camp by float plane (from Cambridge Bay)
- Transportation of crew and gear by float plane (from base camp to survey areas)
- Transportation on land during transect surveys by foot only

9. Local Environmental Components:

The study area is primarily composed of moist tundra, dominated by sedges and dwarf shrubs <40cm tall, with a well-developed moss layer. Smaller areas are represented by dry tundra with

patchy vegetation (shrubs <5cm tall) as well as wetland complexes dominated by sedges, grasses and mosses. These areas provide excellent nesting habitat to a broad suite of arctic breeding waterfowl and shorebirds. Large numbers of waterfowl (>500,000 pairs) including Ross's geese, Lesser Snow geese, Cackling geese, and Brant, breed in the nearby Queen Maud Gulf Migratory Bird Sanctuary. The region is important for nesting, moulting and brood-rearing for these species. Over abundant populations of Snow Geese are known to be causing destruction to lowland tundra habitat, on which many other avian species depend. Goose hunting is a common among local subsistence hunters during the pre-nesting period (May/June) and goose egg collection is infrequent during the early nesting period (June/July). Down collection at nearby goose colonies is also an infrequent practice by local community members.

TMAC resources has active mining claim in the study area (see attached maps) and will be surveying some of these during the 2015 field season.

TMAC Resources has conducted inventories of archeological sites south of the study area and catalogued over 20 000 locations. The study area is considerably less surveyed, but it is anticipated that there are many archeological sites here as well. The locations of any archeological sites observed during surveys will be recorded, but will not be disturbed.

10. Summary of potential environmental, wildlife and resource impacts and mitigation:
We do not expect to have much impact on the environment. We will be travelling and camping in a small group (maximum 8 people). Float planes will be landing on lakes or sheltered marine inlets to deliver crew, equipment and food caches required for base camp set-up and transect surveys. Aircraft will conduct opportunistic aerial surveys for wildlife, but will be flying above 300m (1000 feet) and do not anticipate any disturbance to wildlife. All transportation on land will be by foot, reducing the impact on the local plants and vegetation communities. The most likely threat to the environment is a fuel spill while refueling the generator or camping stoves. We have a spill contingency plan in the event that a fuel spill was to occur.

11. Reclamation costs:
Not applicable to our project.

12. Proposed reclamation plan:
Not applicable to our project, as only light temporary camps are to be established (no permanent structures).

13. Number of Inuit to be employed:
We hope to employ approximately 6 Inuit guides to help with transect surveys, equipment and maintenance. In addition to the salary we will pay to them, we will also contribute to the local economy when we purchase food, fuel, and equipment from the local grocery and hardware stores in Cambridge Bay.