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						used for transport between field sites and the Canadian High Arctic Research Station in Cambridge Bay. All fuel will be purchased at fuel stations in town. No fuel will be stashed at the field sites. We will only bring the amount of fuel fitting into the tanks of the ATVs. The figure provided is an estimate of fuel consumption based on an average travel distance of 20 km for 15 days of field work, using two ATV vehicles and an estimated fuel consumption rate of 13.5 L per 100 km.
Reagents for DNA extractions (flammable / harmful to environment)	hazardous	1	1	1	Liters	We require a small amount of hazardous substances to extract the genetic code ("DNA") from soil and plant tissue. The extractions will be done in the laboratory at the Canadian High Arctic Research Station in Cambridge Bay. We will use commercial extraction kits. These kits contain a combined amount of 0.7 L of hazardous

						substances classified as "flammable / harmful to environment": 350 ml ethanol solution; and 350 ml solution containing ethanol, isopropanol, and guanidine hydrochloride.
Reagents for DNA extractions (corrosive)	hazardous	1	1	1	Liters	We require a small amount of hazardous substances to extract the genetic code ("DNA") from soil and plant tissue. The extractions will be done in the laboratory at the Canadian High Arctic Research Station in Cambridge Bay. We will use commercial extraction kits. These kits contain a combined amount of 0.47 L of hazardous substances classified as "corrosive": 120 ml solution containing aluminum chloride hexahydrate; and 350 ml solution containing guanidine thiocyanate.

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		<p>thiocyanate. We will bring all required containers, packaging and labels required for the safe disposal of the hazardous waste. We will coordinate disposal of these substances with the laboratory management at CHARs. Where safe disposal is not possible locally, we will arrange for shipment and disposal of the hazardous waste to the south of Canada according to the regulations with the help of a waste disposal company licensed for handling the types of waste listed above.</p>
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The predicted impact on the environment, people and wildlife from our research project is small. Nonetheless, we will take great care to reduce the impacts of our activities as much as possible. Impacts could arise from the selection of the research sites, the collection of soil and plant tissue samples, the marker placement for the study locations, the use of ATVs, the use of drones for mapping, the handling of hazardous substances for the extraction of genetic code (DNA). We will closely work with team at the Canadian High Arctic Research Station to ensure that our planned fieldwork and the choice of field research locations do not pose a threat to the natural and cultural environment, and do not interfere with people's privacy or livelihoods. We will collect only what is necessary to meet the objectives of our study (estimate: 162 soil samples of 50 ml each; five leaves each for 150 plants) to reduce the impact of the sample collection. We will only use temporarily placed markers (pin flags and pegs) to indicate the research sites and plots to mitigate the impact on the landscape. All markers will be removed at the end of our visit. We will limit the use of ATVs as much as possible (emissions, damage to tundra plants) and rely on transport by foot where we can. To mitigate the risk of disturbance of humans or wildlife by the drones, we will only operate small drones (less than 1.6 kg) and we will not fly within 150 m of groups or large individuals of wildlife, as well as people, camps, houses, infrastructure etc. All extractions of DNA and the handling of the hazardous substances will be done in the specifically designed genetics laboratory at CHARs. We will use commercial DNA extraction kits optimized for personal and environmental safety.

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

SECTION D1: Facility

SECTION D2: Facility Construction

SECTION D3: Facility Operation

SECTION D4: Vessel Use

SECTION E1: Offshore Survey

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

