# Bitterroot Resources Ltd.

# Windy Exploration Project Nunavut, Canada

Nunavut Impact Review Board
Screening Part 2 Form
Project Specified Information Requirements (PSIR)
And Mineral Exploration Sections B1 to B4

# Part 2. General Project Information Requirements

#### 1-4. Project Coordinates and Maps

The regional context of the project area is illustrated in Figure 1(Appendix 1). Existing claims and the area to be explored for additional mineral resources is illustrated in Figure 2 (Appendix 1). More specifically the project area can be defined with the following lat/long coordinates. Initial work will be done out of the existing Treeline Lodge. If project results are positive, a camp may be constructed at the proposed coordinates.

Min (degree/minute/sec)	Lat	60/24/00	Min (degree/minute/sec)	Long	-100/02/00
Max (degree/minute/sec)	Lat	60/39/00	Max (degree/minute/sec)	Long	-100/48/00
NTS Map Sheet No:		65C/07,08,09,10	_		
Treeline Lodge location:					
Lat (degree/minute/sec)		59/42/40			
Long (degree/minute/se	c)	-100/06/58			
NTS Map Sheet No:		64N/09			

Proposed Camp Location: (beside an aircraft-accessible lake within 5 km of the stated location)

Lat (degree/minute/sec)	60/32/00		
Long (degree/minute/sec)	-100/12/00		
NTS Map Sheet No:	65C/09		

#### **Project General Information**

- 5. The project is required to allow the continued viability of mineral exploration investment in the territory of Nunavut
- 6. There are no viable alternatives. With a very short exploration season Bitterroot Resources needs to be able to evaluate the property and make decisions on additional work such as airborne and ground geophysics and the testing of potential mineralization by diamond drilling in a timely manner.
- 7. Exploration activities would ideally start after the snow has predominantly melted, beginning with an airborne geophysical survey. Following that a one to two month program involving soil sampling, lake sediment sampling, hand trenching and rock sampling would be undertaken. Depending on the results of the initial work, drilling would be carried out. It is likely the initial program would take place between May and September 2012.
- 8. The acts, regulations and guidelines that would apply to the project activities include:

- Article 13 Nunavut Land Claims Agreement
- NWB Water Licensing in Nunavut Interim Procedures and Information Guide for Applicants
- NWTWB Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
- NWTWB Guidelines for Contingency Planning
- DFO Freshwater Intake End of Pipe Fish Screen Guideline
- Fisheries Act s.35
- RWED Environment Protection- Spill Contingency Regulations
- Canadian Drinking Water Quality Guidelines
- Public Health Act Camp Sanitation Regulations
- Public Health Act Water Supply Regulations
- Territorial Land Use Act and Regulations.
- Canada Mining Regulations
- 9. Required permits, approvals and licenses required to conduct the project

Permit/License No.	Regulatory Body	Туре	Expiry
	Nunavut Water Board	Water License Type B	Application Review in Progress
	Nunavut Planning Commission	Conformity analysis	
	NIRB		Application Review in Progress
	AANDC	Land Use Permit	Application Review in Progress

## **DFO Operational Statement (OS) Conformity**

10-11 N/A

## **Transportation**

12. The project area will be accessed by charter air service from Treeline Lodge, Nueltin Lake, Manitoba or from Yellowknife. Fixed wing aircraft will land on the North end of Windy Lake or other nearby large lakes. Fixed wing support will mobilize equipment, personnel and supplies. Work specific travel in the work area will be by helicopter and fixed wing aircraft.

13. N/A

14. N/A

15. Flights will all be under VFR regulations and are expected to be low level. Support flights will typically be once or twice per week from Treeline Lodge, Nueltin Lake, Manitoba or from Yellowknife. Helicopter and fixed wing flights to the work area would normally be twice daily.

#### **Camp Site**

- 16. Initial work will be out of the established Treeline Lodge located at 59°42'40" N 100°06'58" W in Manitoba on Nueltin Lake. If warranted a camp will be constructed at 60°32'00" N 100°12'00" W (or another float plane-accessible lake nearby) on Crown land on the mineral claims in Nunavut. If a camp is constructed a camp layout will be forwarded.
- 17. The camp will be a temporary tent camp.
- 18. The maximum number of people in the camp would be approximately 20. The camp would typically only be in operation from March to October.

# **Equipment**

19.

Helicopter (1)	Hughes 500, Bell 206, A-Star	Transportation of personnel, drill moves, drill support	
Fixed wing aircraft (occasionally)	Twin Otter, Otter, Beaver, 185	Movement of personnel, supplies and equipment, backhaul garbage	
Diamond Drill (1)	Boyles 25A equivalent or smaller	Core rock samples	
Water pump (1)	Standard for Boyles 25A or equivalent	Drill Water	
Coil Stove (1 to 2)	Standard for heating drill water	To keep drill water from freezing	
Water Pump (camp) (1)	General purpose 2" pump	Camp water use	
Diesel generator (1)	10 kw	Camp power	
Gas generator (1)	2 kw	Camp power backup	
Ice Auger (1)	Standard 1 person power auger	Drill holes for water in winter	
Rock Saw Hand Held (1)	Chain saw size	Cutting rock samples	
Rock Saw Table mounted	Standard size	Cutting rock samples	
Snowmobiles (1 to 3)	Ski-doo tundra or equivalent	Transport supplies and personnel	
Inflatable Boat w motor	12 ft Zodiac w 20 hp outboard or equivalent	Crew mobilization in summer	

## 20. N/A at this time

#### **Water Sources**

- 21. Specific drill locations are not yet known but the water for drilling would be drawn from the nearest sizeable lake such that there would not be significant drawdown of water level. If a camp is constructed it would be on a larger lake which would be the camp water source. Specific water source locations will be forwarded to regulatory authorities in yearly reports.
- 22. Camp 5,000 l/d (maximum), Drill 20,000 l/day (maximum)
- 23. Camp waste water will be routed to natural sumps.
- 24. Surface and ground water are not expected to be encountered during the course of the program.

#### Waste (Grey Water, Sewage, Other)

- 25. <u>a) Sewage</u> Sewage will be contained in latrine pits which will be backfilled with earth at the end of each season.
  - <u>b) Camp grey water</u> Greywater will be contained in a sump or natural depression. If a natural depression is used water will be allowed to settle out through the native sand-gravel soil material.
  - c) Combustible solid waste Combustible waste will be burned daily in a burn barrel. The resulting ashes will be bagged and returned to Treeline Lodge on regular service service/supply flights for proper disposal.
  - <u>d) Non-combustible solid waste</u> Non-combustible waste will be backhauled to Treeline Lodge for proper disposal on regular service/supply flights.
  - <u>e) Bulky items/ scrap metal</u> Any bulky or scrap metal items will be backhauled to Treeline Lodge for proper disposal on regular service/supply flights.
  - <u>f)</u> Waste oil/hazardous waste As per the Guidelines for the Disposal of Hazardous Waste in Nunavut no material falling under definition of Hazardous Waste is anticipated to be generated during the course of this project.
  - g) Empty barrels/fuel drums Empty fuel drums will be backhauled to Treeline Lodge for proper disposal on regular service/supply flights. All empty fuel barrels will be removed from the area upon the conclusion of the land use operation.

h) Other - N/A

26. N/A

#### **Fuel**

27.

Material	Storage	Maximum	Storage Location and
	Container	on-site	Uses
Diesel fuel	205 litre	80 (16,400	Two drums to be located at
	drums	litres)	each tent for heating, two
			at the generator, 4 to 6
			drums at active drilling
			sites, remainder at camp
			fuel cache
Jet B fuel	205 litre	60 (12,300	Two drums at active
	drums	litres)	drilling site, remainder at
			camp fuel cache
Aviation gasoline	205 litre	10 (2,050	Two drums at active
	drums	litres)	drilling or exploration
			sites, remainder at camp
			fuel cache
Propane	45 kg	20 (900 kg)	Two cylinders each to be
	cylinders		located at kitchen

			(heating/cooking) and dry
			(water heating), two
			cylinders at drill site:
			remainder at camp fuel
			cache
Gasoline	205 litre	4 (820	Camp fuel cache
	drums	litres)	
Engine/Lubricating	1 litre	A few	Generator shed, active
oil	container	cases (24	drilling sites
		litres/case)	
Antifreeze	20 litre pail	1 (20 litre)	Camp or drill site

- 28. Due to the small maximum size of the fuel caches and the relatively short time that storage will be required, no secondary containment measures will be used. Drums will be stored on flat stable terrain during the summer to reduce chances of a leak with bungs in a horizontal position. If available a natural depression situated well away from water bodies will be utilized for storage. With the exception of the container in use, all fuel container outlets will be kept sealed to prevent leakage.
- 29. Fuel transfer will be by hand wobble pump or grounded hand electric pump directly from fuel drums to helicopter, etc. Absorbent pads/mats and drip trays will be used where required. Spill kits will be on-site. No smoking will be permitted during fuel transfer. Please see attached Spill Contingency Plan for further information regarding all fuel handling and storage for the Windy Project.

#### **Chemicals and Hazardous Materials**

- 30. Approximately 400 litres of drill and mud/ polymer and 40 x 25 kg bags of calcium chloride will be required for drill support over the course of the program. Material Safety Data Sheets for these materials are included as an appendix to the Spill Contingency Plan for this project.
- 31. Drill additives will be kept in a dry location at both the camp location and drill sites.
- 32. Drill additives will be handled and stored as per manufacturer's instructions and the operating procedures of the drill contractor.

# Workforce and Human Resources/Socio-Economic Impacts

- 33. The opportunities for training and employment of local Aboriginal as well as Inuit beneficiaries are limited at this time. The project is grass roots and requires initial technical work to evaluate the projects potential and merit. If initial results are positive and the scope of the project increases, Bitterroot Resources will endeavor to hire local beneficiaries whenever possible.
- 34. N/A
- 35. N/A at this time.

#### Public Involvement/Traditional Knowledge

- 36. Due to the remote location of the land use area and the early stage of exploration no communities are directly affected by the proposed exploration project at Bitterroot Resources Ltd.
- 37. Affected communities will be contacted and best efforts will be made to meet. Meetings will be planned to discuss the proposed exploration activities, discuss possible employment and business opportunities and also to learn of local concerns.

- 38. N/A
- 39. N/A
- 40. Initial consultation will discuss early and limited local business and employment opportunities. Annual consultation will provide communities with information on the previous year's exploration, and also to learn of likely increased local business and employment opportunities.

# Appendix 1

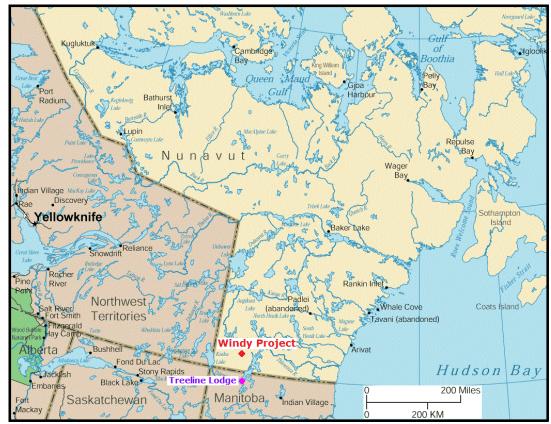


Figure 1

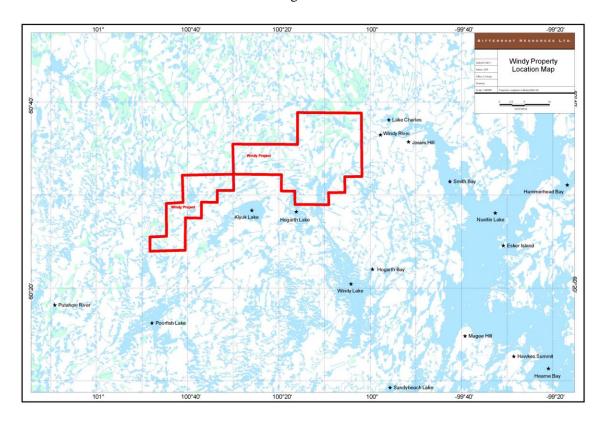


Figure 2

# Part 3. Project Specific Information Mineral Exploration Sections B1 to B4

#### **Project Information (Mineral Resource Type)**

B-1-1. The proposed area is to be explored for Gold (Au) found in the native state often associated with sulphide minerals containing the elements Silver (Ag), Arsenic (As), Cobalt(Co) and Iron (Fe).

# **Exploration Activity**

- B-2-2. The work carried out will consist of prospecting, rock sampling, geologic mapping, airborne as well as ground geophysical surveys and exploration drilling.
- B-2-3. Prospecting will consist of walking the ground to visually inspect for rock outcroppings containing sulphide minerals or magnetite / hematite that may contain associated gold mineralization. The gold grains are typically very small or intergrown with the sulphide minerals so are not often visible to the native eye. If potentially mineralized zones are located then rock samples will be taken and sent to a lab for assay. Geologic mapping will involve mapping of exposed rock types and alteration assemblages in areas of potential mineralization. Since magnetite may be associated with mineralized areas and therefore may be more magnetic than surrounding rocks, ground total field magnetic surveys may be carried out over selected areas to possibly outline mineralized zones, particularly in areas of overburden cover. The location of geophysical surveys cannot be decided until the property is prospected. Once prospecting, sampling, mapping and possibly geophysical information is compiled then drill targets might be identified. It is expected that initial drill targets would be land based. Targets would be tested using a helicopter portable diamond drill (equivalent to a Boyle's 25 or smaller).

#### Geosciences

- B-3-4. Geophysical surveys may include (a)magnetic, (b)electromagnetic and (c)gamma ray spectroscopy.
- B-3-5. Geological operations will include (a) geological mapping, (b) rock sampling, (c) trenching.
- B-3-6. See Part 2. General Project Information Requirements (appended figures, Figure 2).
- B-3-7. Flight altitudes will only be below 610 m during airborne geophysical surveying and movement of field crews and drill equipment. Drill hole locations will be forwarded after initial assessment of the property.

# **Drilling**

- B-4-8. The number of holes and depth is entirely dependant upon the initial exploration activities. Typically though, initial positive exploration results could result in a 15 hole program with holes in the 150 m to 200 m depth range.
- B-4-9. Drill mud/ polymer and calcium (or sodium) chloride may be required for permafrost and in sections of very broken or porous rock.

- B-4-10. All land based drill cuttings will be deposited into a natural sump that will be located a minimum of 31 meters from the normal high water mark of any water body.
- B-4-11. The drill will be accompanied by a "Poly-Drill" solids removal system or similar filtration system to treat return water where applicable.
- B-4-12. The drill rig will be transported via helicopter.
- B-4-13. Each drill hole will be restored to previous conditions after completion of the hole (on average less than one week). Upon completion of each drill hole, casings will be removed or cut-off at ground level and all materials removed from the drill site. If ground water is emanating from the hole it will be permanently plugged. All fuel drums and drilling equipment will be removed from the site immediately upon completion of each hole. Each drill site will be inspected to ensure that all garbage (combustible and non-combustible) has been collected and removed from the area.

#### B-4-14. Not applicable