P.O. BOX 119
GJOA HAVEN, NU X0B 1J0
TEL: (867) 360-6338
FAX: (867) 360-6369

ᓄᓇᕗᑦ ᐃᒪᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ
NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

Applicant: Sabina Gold & Silver Corp. **Licence No:** ____________________
(For NWB Use Only)

ADMINISTRATIVE INFORMATION

1. Environment Manager: Elizabeth Sherlock Tel: 604-998-4175 Fax: 604-998-1051
E-mail: esherlock@sabinagoldsilver.com

2. Project Manager: Peter Manojlovic Tel: 604-998-4175 Fax: 604-998-1051
E-mail: pmanojlovic@sabinagoldsilver.com

3. Does the applicant hold the necessary property rights?

Yes, Sabina Gold & Silver Corp. acquired a 100% interest in the Hackett River Property from Teck Cominco Limited in 2005 and 100% interest in the Back River Properties from Dundee Precious Metals in 2009.
Currently operate under water license NWBGOO1015 and NWBGEO0210 for the Goose Lake and George Lake Projects respectively.

4. Is the applicant an 'operator' for another company (i.e., the holder of the property rights)? If so, please provide letter of authorization.

N/A

5. Duration of the Project

☐ One year or less Start and completion dates: ____________________
✗ Multi Year:

If Multi-Year indicate proposed schedule of on site activities
Start: April 1, 2010 Completion: December 31, 2015

CAMP CLASSIFICATION

6. Type of Camp

☐ Mobile (self-propelled)
✗ Temporary
✗ Seasonally Occupied: February 1 – Oct 31

☐ Permanent
☐ Other:_____

7. What is the design, maximum and expected average population of the camp?

These temporary camps will accommodate up to 15 people with an average capacity of 10 people.

8. Provide history of the site if it has been used in the past.

Exploration for precious metals has occurred in this area of the Kitikmeot Region since the 1980's under various operators, including Back River Joint Venture, Homestake, Araurco, Kit Resources, Kinross, Miramar, and Dundee Precious Metals. Sabina acquired the Hackett River Property in 2004 and the Back River Properties in 2009.

The exact locations of the temporary camps is unknown at this time as their location will be determined by identified exploration targets, economic considerations and operational needs.

CAMP LOCATION

9. Please describe proposed camp location in relation to biogeographical and geomorphological features, and water bodies.

Currently, Sabina holds water licenses for three camps in the Kitikmeot Region – Hackett River, Goose Lake and George Lake. These licenses include the exploration activities such as drilling, geophysical surveys and field programs and the operation of camps to support these activities. The purpose of this application is to permit water use and waste disposal in small, temporary locations to support exploration activities that are some distance (approx 20km or more) from these main camps. Possible locations identified at the moment include Bathurst Inlet, Del Lake, Lake on Boot Property and Split Lake areas. Other locations may be identified through on-going exploration activities and operational needs.

The climate, soils and vegetation of the camp area are arctic in character. Plant cover is characteristic of the Arctic Tundra community. Shrubs are found sparsely distributed on the mesic sites near the rivers and lakes. On the interfluves are found low-growing perennials; grasses and sedges and some flowering species. The eskers support very little actual plant cover.

In general, lakes in the area contain extremely clear, low nutrient, low metal water, indicative of pristine high Arctic lakes. Most lakes have near-neutral waters, with very low hardness and alkalinity. However, naturally high metal concentrations are present in some lakes, indicating their proximity to surface mineralized areas.

The area is in a zone of continuous permafrost. The active layer through the Project area ranges from approximately 1 to 2 m, but may be greater in areas where there is loose, sandy soil at the edges of lakes or ponds. Talik features are potentially present in the area under larger lakes. The depth of permafrost in the region is on the order of 500 metres. Permafrost greatly increases ground stability at depth but at surface it can increase the rates of soil erosion through the formation of ice wedges, pingos, palsas, ice lenses, and thermokarst. Esker systems are noted in the area.

Several observations of caribou have been noted in the area during previous exploration programs. These are typically single or small groups of transitory animals; calving areas for the Bathurst herd are

known to exist several hundred kilometers to the north of the area (west of Bathurst Inlet) and the Ahiak herd are known to calve east of Bathurst Inlet in the Queen Maud Gulf area. Other wildlife noted in the area include muskox, wolves and grizzly bears.

The current scope of work for these temporary camps is relatively low impact and easily mitigated. Any potentially harmful impacts can be mitigated with best management practices such as the use of drip trays, secondary containment, avoiding groups of animals, keeping an appropriate distance from water bodies, general good housekeeping and ensuring safe work conditions and practices.

10. How was the location of the camp selected? Was the site previously used? Was assistance from the Regional Inuit Association Land Manager sought? Include maps and/or aerial photographs.

Possible locations identified at the moment include Bathurst Inlet, Del Lake, Lake on Boot Property and Split Lake areas. Other locations may be identified through on-going exploration activities and operational needs. These locations are tentatively made because of their location to potential exploration targets and the lakes are large enough that they may accommodate ice airstrip construction. Bathurst Inlet is a strategic resupply point for barge transport of fuel and drilling supplies and backhaul loading point for back haul of waste associated with reclamation and cleanup.

11. Is the camp or any aspect of the project located on:

Sabina anticipates that the satellite camps will be located on either Crown Lands or IOL and these permits are under application for amendment to include smaller support camps as needed.

[X] Crown Lands Permit Number (s)/Expiry Date:
Land Use Permit N2006C0008 (Back River/Wishbone)

[ ] Commissioners Lands
Permit Number (s)/Expiry Date: _____N/A_____

[X] Inuit Owned Lands Permit Number (s)/Expiry Date:
License No. KTL304C017 (Goose Lake camp) KTL304C018 (George Lake camp),
KTL204C012 (Boulder Lake) KTL204C020 (Boot Lake)

12. Closest Communities (direction and distance in km):

The Goose Lake camp is located approximately 520 km northeast of the city of Yellowknife and 160 km south of the hamlet of Bathurst Inlet. The camp is situated on the southern shore of Goose Lake, approximately 25 km northeast of Beechy Lake (a part of the Back River).

13. Has the proponent notified and consulted the nearby communities and potentially interested parties about the proposed work?

Sabina representatives participate in the annual Kitikmeot Trade Show and Nunavut Mining Symposium to discuss Sabina exploration projects with regulators, territorial leaders, community leaders and the general public.
Sabina representatives visit local communities each year, and Elders from Bathurst Inlet have visited the area in 2007. Visits to Bathurst Inlet, Umingmaktok and Cambridge Bay are made as the programs

close for the year to distribute unused food supplies from camp; this also provides informal opportunities to discuss exploration activities.

14. Will the project have impacts on traditional water use areas used by the nearby communities? Will the project have impacts on local fish and wildlife habitats?

The project is expected to have no impact on traditional water use areas by nearby communities during the planned exploration season.

The project is expected to have no or minimal impact on local fish and wildlife habitat. Encounters with wildlife will be kept to a minimum through a policy of camp and work site cleanliness, no hunting or fishing from camp except with a valid permit from the Government of Nunavut, and no feeding of the animals. Hand-held air horns will be available to warn off bears and, if necessary, pepper spray will be used for self protection rather than firearms. Camp personnel will be encouraged to report wildlife encounters and record the location any critical wildlife habitat that may be discovered, such as dens or nesting or spawning sites so as to avoid them in the future.

PURPOSE OF THE CAMP

15.
- ☐ Mining (includes exploration drilling)
- ☐ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.) (Omit questions # 16 to 21)
- × Other __temporary camps to support for exploration activities _____

The description of the camp facilities are a general model that would be used at each location with operational needs and environmental conditions determining the actual camp layout to be used. The following Table provides a general list of camp structures and quantity of potential contaminants in or adjacent to the structures together with the location and size of the various Spill Response Kits located in camp.

Function	Tents	Potential Contaminant	Quantity
Kitchen	1 large tent	Diesel (for stove) Propane (for range)	Less than 200 litres Two 45 Kg tanks
Drillers dry	1 large tent	Diesel (for stove) Propane (for water heater)	Less than 200 litres Two 45 Kg tanks
Tool shed / work shop	1 small tent	Diesel (for stove) Paints, Engine Oil Lubricants, etc	Less than 200 litres
Pacto shed	1 small tent	Organic waste	Up to 5 garbage bags full or approximately 25 litres
Project office (contains a 20 litre spill response kit)	1 large tent	Diesel (for stove)	Less than 800 litres (in enviro tank)
Generator (contains a 205 litre spill response kit)	1 large tent	Diesel (for generator)	Less than 600 litres (in double walled enviro tank)
Drill Supplies	Outside	Motor oil	Up to 4 cases

	storage in containers as needed	Linseed Soap Matek DD 2000 Poly-Drill 1300	Up to 4 tubs Up to 15 tubs Up to 15 tubs
sleeping quarters	4 tents	Diesel (for stoves)	Less than 200 litres at each tent.

Detailed description of camp location, facilities, and time period used will be provided in the annual report.

16. Activities (check all applicable)

These activities are already included in the water license and are not affected by this amendment request.

- ☐ Preliminary site visit
- ☒ Prospecting
- ☒ Geological mapping
- ☒ Geophysical survey
- ☒ Diamond drilling
- ☒ Reverse circulation drilling (under consideration)
- ☐ Evaluation Drilling/Bulk Sampling (also complete separate questionnaire)
- ☒ Other: thermistor installation and data collection

17. Type of deposit (exploration focus):

- ☒ Lead Zinc
- ☐ Diamond
- ☒ Gold
- ☐ Uranium
- ☒ Other: Silver, Copper

DRILLING INFORMATION

18. Drilling Activities

Drilling is already included in the water license and is not part of the amendment request

- ☐ Land Based drilling
- ☐ Drilling on ice

19. Describe what will be done with drill cuttings?

20. Describe what will be done with drill water?

21. List the brand names and constituents of the drill additives to be used? Includes MSDS sheets and provide confirmation that the additives are non-toxic and biodegradable.

A list of the possible drill additives that may be required, and possibly stored at the temporary camp, are:

Brand Name	**Constituent**
PureVis	Liquid Polymer
Poly-Drill O.B.X.	Liquid Polymer
Poly-Drill 133-X	Liquid Anionic Polymer

Poly-Drill 1330-W	Liquid Anionic Polymer
Westcoast Drilling Supplies	Linseed Soap
Peladow	Calcium Chloride salt

22. Will any core testing be done on site? Describe.

No. Drill core from the diamond drilling will be taken to Hackett River camp or Goose Lake camp for sampling and logging.

SPILL CONTINGENCY PLANNING

23. The proponent is required to have a site specific Spill Contingency Plan prepared and submitted with the application This Plan should be prepared in accordance with the *NWT Environmental Protection Act, Spill Contingency Planning and Reporting Regulations, July 22, 1998* and *A Guide to the Spill Contingency Planning and Reporting Regulations, June 2002.* Please include for review.

An addendum to Sabina Gold & Silver Corp's spill contingency plan is included in Appendix A.

24. How many spill kits will be on site and where will they be located?

A minimum total of two spill kits will be at each temporary camp.

Spill Response Kit Contents

20 litre All Purpose Spill Response Kit	*205 litre H.O.W. Spill Response Kit*
1 - 20 litre poly containment pail	150 - 17" X 19" oil absorbent pads
12 - 16" X 20" oil absorbent pads	8 - 3" X 48" oil absorbent socks
2 - 3" X 48" oil absorbent socks	2 - 5" X 120" oil absorbent booms
1 - heavy duty disposal bag (8 mil)	4 - temporary disposal bags 42x48-XS
1 - pair Chemi-Pro gloves	1 - pair nitrile gauntlet gloves
3 - lbs of all purpose absorbent	1 - pair disposable coverall
	1 - pair clear safety goggles
	1 - 4 oz temporary Gapseal stick
	1 - 205 litre containment drum (metal/poly) with quick release lever lock system

Miscellaneous equipment in camp would be made available for spill response and clean up. This equipment would include spades, pick axes and snow shovels, a gas powered water pump, hand crank fuel pump, hand and power tools and any suitable absorbent or containment materials found in the supplies tent or core shack.

25. Please describe the types, quantities, and method of storage of fuel and chemicals on site, and provide MSDS sheets.

The fuel caches at each temporary camp may consist of up to:

Potential Contaminant	Container Size	Maximum Quantity	Comments
Diesel	205 litre drums	500	Stored in up to 5 caches, each within an arctic-grade impermeable secondary containment berm
Aviation fuel	205 litre drums	300	Stored in up to 2 caches, within an arctic-grade impermeable secondary containment berm

Gasoline	205 litre drums	5	Stored separately in an upright position separate from the other fuel caches within an arctic grade mini-berm.
Propane	45 Kg cylinders	1	Stored on a wooden deck and secured in an upright position.

Drums of diesel, aviation fuel and gasoline fuels will be stored outside in separate fuel caches enclosed within impermeable, geomembrane berms to prevent any leaks from entering the soil. The fuel caches would be stored well back from any lake or stream. The intent would be to have any fuel in the temporary camp used over the course of the seasonal exploration program in the area.

As the fuel is used the empty fuel drums will be stored near the temporary camp until they can be flown out to Yellowknife on backhaul flights. All the fuel caches would be monitored on a regular basis to check for leaks. Propane tanks would be secured in an upright position. The acetylene tank for welding purposes would also be secured in an upright position.

Other chemicals that would be used in small quantities during the drill program would include kitchen soaps and cleaning agents, bleach, soaps and shampoo, waterless hand cleaners, hand sanitizer, mosquito repellant and other similar household items. Kitchen cleaners would be kept in the kitchen tent; bleach, soaps and shampoo would be stored in the shower / laundry tent and driller's dry. Mosquito repellant would be stored with office field supplies in the office tent.

WATER SUPPLY AND TREATMENT

26. Describe the location of water sources.

Water for each temporary camp would be supplied from the closest body of water to minimize pumping distance. Camps will likely be located on lakes large enough to accommodate an ice airstrip for access. If environmental conditions do not develop an appropriate ice thickness for safe operation of an airstrip, water will be used to build-up the required amount from the same lake.

27. Estimated water use (in cubic metres/day):

☒ Domestic Use: 10 m^3 / day Water Source: _local lake to temporary camp
Assuming 2-3 temporary camps are operating at the same time
☐ Drilling (up to 5 Drills): _____ Water Source:
☒ Other: ice airstrip 65m3/day* Water Source: local lake to temporary camp
*For the airstrip, this water would only be used if local environmental conditions do not create safe ice conditions.

28. Describe water intake for camp operations? Is the water intake equipped with a mesh screen to prevent entrapment of fish? (see *DFO 1995, Freshwater Intake End-of-Pipe Fish Screen Guideline*) Describe:

Water used in the kitchen and the dry buildings, for cleaning and washing purposes, will pumped from the local lake on average once a day. Water pumped from the lake will be stored in 1 250 gallon (1137 litre) plastic tanks located inside a water room adjacent to the kitchen and the driller's dry to keep the water from freezing. A portable water pump is used to draw water into the tanks.

29. Will drinking water quality be monitored? What parameters will be analyzed and at what frequency?

In general, the temporary camp will be supplied with bottled water, for drinking and cooking purposes. If the local water is needed, water quality testing will be conducted and analyzed once or twice during the camp operation for parameters to allow comparison to CCME Drinking Water Quality Guidelines (2003).

30. Will drinking water be treated? How?

Drinking water supplied from bottled water will not be treated. If the bottled water supply runs out then water from local waterways or snow will be melted and the water boiled to ensure safety. Water used for general camp use (showers, laundry, washing dishes) is filtered through a 100 micron filter, which is changed monthly.

31. Will water be stored on site?

Water would be stored at the camp in plastic tanks up to a capacity of approximately 1200L.

WASTE TREATMENT AND DISPOSAL

32. Describe the characteristics, quantities, treatment and disposal methods for:

- ✕ Camp Sewage (blackwater)

Blackwater would be contained in plastic Pacto toilet bags and would be incinerated at Hackett River or Goose Lake camps, or backhauled to Yellowknife for disposal in approved facility. Sumps located more than 31m from high water level may also be used in conjunction with Pacto units depending on site conditions and operational needs. It is estimated that up to one Pacto toilet bag (~5 kg) would be produced each day.

- ✕ Camp Greywater

Management of greywater from the camp kitchen will depend on the local terrain and could be either discharged directly or, collected by drainage pipes and gathered in a 500-gallon (1893 litre) container and then, overflow discharged to a greywater disposal pit located further back (about 110m) from the local lake. It is estimated that up to approximately 5 m^3 per day of grey-water would be generated by the camp.

- ✕ Solid Waste

Solid waste will be taken to Goose Lake camp for inclusion in the approved waste management plan.

- ✕ Bulky Items/Scrap Metal

All large metal waste items such as used drill steel, broken or worn out mechanical parts and 205 litre (45 gallon) drums used for fuel transport would be flown back to Yellowknife for recycling or for disposal in an approved waste disposal site. Any bulky waste items would be cut up and burned in the Goose Lake camp incinerator or would be flown out for disposal at the Yellowknife landfill site. The

quantity produced is estimated to be approximately 1-2 Twin Otter plane load every week, most of which would be empty fuel drums.

✕ Waste Oil/Hazardous Waste

Any waste motor oil, transmission fluid and other petroleum fluids would be transferred to plastic tubs or other sealable containers and either flown back to Yellowknife for recycling or disposal at an approved facility, or incinerated (waste diesel only) at Goose Lake camp in the waste oil furnace.

No hazardous materials other than the fuels are expected to be stored or used on the property.

✕ Empty Barrels/Fuel Drums

As mentioned in the "Bulky Items/Scrap Metal" section, empty fuel drums would be returned to Goose Lake camp, and flown to Yellowknife on backhaul flights. The barrels are emptied, and any remaining fuel is collected and used as primary burn fuel at the incinerator. Care would be taken to ensure that the bungs are replaced and snugly tightened so as to prevent any fuel leakage. The empty drums are stored in a large secondary containment, arctic grade berm.

---

33. Please describe incineration system if used on site. What types of wastes will be incinerated?

Not applicable

34. Where and how will non-combustible waste be disposed of? If in a municipality in Nunavut, has authorization been granted?

Non combustible waste will be included in Goose Lake camp waste management.

35. Describe location (relative to water bodies and camp facilities) dimensions and volume, and freeboard for all sumps (if applicable).

Sumps for use or at the camp will be located at least 31 m back from any body of water and in a location chosen to enhance infiltration and filtering of the camp grey water. Sumps would be chosen or constructed to have dimensions of approximately 0.38 x 2 x 2 m and would have approximately 1.5 m^3 capacity. The amount of freeboard would be monitored during use and if the sump was filling up a larger sump would be constructed to contain the excess or the excess is shoveled into a megabag and moved to a more suitable location with the helicopter.
Geo-textile cloth fences would be constructed below the camp sump and dry.

36. Will leachate monitoring be done? What parameters will be sampled and analyzed, and at what frequency?

No leachate is expected to be developed at the site.

OPERATION AND MAINTENANCE

37. Have the water supply and waste treatment and disposal methods been used and proven in cold climate? What known O&M problems may occur? What contingency plans are in place?

Yes. The water supply system has been tested on other Sabina work sites in Nunavut. Potable water is flown to the camp. If the supply of bottled water runs out due to unexpected weather conditions snow can be melted and the water boiled to provide a safe drinkable water supply. Water pumped from the lake to the camp for domestic use (showers, laundry, washing dishes, etc.) is via an insulation-wrapped water hose to prevent freezing during use. A second similar pump will also be available in camp as a back-up. Water pumped from the lake is temporarily stored in tanks enclosed in a heated water storage room to prevent freezing. All water supply pipes in camp are equipped with heat trace and insulation or are located entirely within heated tents to prevent freezing.

A second generator is located in camp as a back-up power supply in the event that the main generator fails. Pacto-type toilets avoid the need for a water-based sewage system.

ABANDONMENT AND RESTORATION

38. Provide a detailed description of progressive and final abandonment and restoration activities at the site.

When the temporary camp and airstrip use is completed, any structures and equipment will be removed from the site. The area will be inspected for any remaining litter and contamination and cleaned up. At break-up the ice strip will melt. The area will be visually inspected once by Sabina in the subsequent year following the area's use and any further reclamation work will be built into progressive reclamation for the exploration program.

BASELINE DATA

39. Has or will any baseline information be collected as part of this project? Provide bibliography.

- [x] Physical Environment (Landscape and Terrain, Air, Water, etc.)
- [x] Biological Environment (Vegetation, Wildlife, Birds, Fish and Other Aquatic Organisms, etc.)
- [ ] Socio-Economic Environment (Archaeology, Land and Resources Use, Demographics, Social and Culture Patterns, etc.)
- [ ] Other: _____

The following water quality baseline studies are available or have been collected for this project.

Gartner Lee Limited, 2008. *Field Report – Back River Project: Back River Freshwater Aquatic Resources 2007.* Prepared for Dundee Precious Metals Inc. Toronto. 46p.

Gartner Lee Limited, 2008. *Field Report – Back River Project: Wildlife and Wildlife Habitat 2007.* Prepared for Dundee Precious Metals Inc. Toronto. 52p.

Golder Associates Ltd., 2007. *Back River Project: Environmental Baseline Studies September 2006.* Prepared for Dundee Precious Metals Inc. Toronto. Report 06-1373-45. 84p.

Golder Associates Ltd., 2006. *Environmental Baseline Studies for the Back River Project 2005.* Prepared for Dundee Precious Metals Inc. Toronto. Report 05-1373-010. 68p.

REGULATORY INFORMATION

40. At a minimum, you should ensure you have a copy of and consult the documents below for compliance with existing regulatory requirements:

- ✓ ARTICLE 13 – *NCLA -Nunavut Land Claims Agreement*
- ✓ NWNSRTA – *The Nunavut Waters and Nunavut Surface Rights Tribunal Act, 2002*
- ✓ *Northwest Territories Waters Regulations, 1993*
- ✓ NWB - Water Licensing in Nunavut - Interim Procedures and Information Guide for Applicants
- ✓ NWB - Interim Rules of Practice and Procedure for Public Hearings
- ✓ RWED – *Environmental Protection Act, R-068-93- Spill Contingency Planning and Reporting Regulations, 1993*
- ✓ RWED A Guide to the Spill Contingency Planning and Reporting Regulations, 2002
- ✓ NWTWB - Guidelines for Contingency Planning
- ✓ *Canadian Environmental Protection Act, 1999 (CEPA)*
- ✓ *Fisheries Act, RS 1985* - s.34, 35, 36 and 37
- ✓ DFO - Freshwater Intake End of Pipe Fish Screen Guideline
- ✓ NWTWB - Guidelines for the Discharge of Treated Municipal Wastewater in the NWT
- ✓ Canadian Council for Ministers of the Environment (CCME); Canadian Drinking Water Quality Guidelines, 1987
- ✓ Public Health Act - Camp Sanitation Regulations
- ✓ Public Health Act - Water Supply Regulations
- ✓ *Territorial Lands Act* and *Territorial Land Use Regulations*; Updated 2000