Amendment 3 Request 2BEGOO1015 Mar2012

NUNAVUT WATER BOARD APPLICATION FOR WATER LICENCE AMENDMENT

APPENDIX D - NWB SUPPLEMENTARY INFORMATION GUIDE FOR AMENDMENT 3 REQUEST (MAR 2012), AMENDMENT 2 REQUEST (NOV 2010), AMENDMENT 1 REQUEST (JUNE2010) AND WATER LICENCE RENEWAL (Dec 2009)



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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

ppl	licant: Sabina Gold & Silver Corp.	Licence	No:	NWB Use Only)
	License 2BEGOO1015 -	- amendmen	t 3 request (F	ebruary 2012)
	Only those sections of this question are included in the following. All Supplementary Questionnaire Questionnaire licence amendment amendment 2(Nov2010) remain	other comp for licence r t 1 (June 20)	onents and de enewal (Dec 2 (0) and Supple	scriptions as outlined in 009), Supplementary ementary Questionnaire
DN	MINISTRATIVE INFORMATION			
	Environment Manager:	Tel:	Fax:	E-mail:
	Project Manager:	Tel:	Fax:	E-mail:
	Does the applicant hold the necessar Is the applicant an 'operator' for any please provide letter of authorization	other compar		der of the property rights)? If
	Duration of the Project			
	One year or less Multi Year:	Start and co	ompletion date	s:
	If Multi-Year indicate proposed sch Start: Comp	edule of on soletion:	ite activities	
AN	MP CLASSIFICATION			
	Type of Camp Mobile (self-propelled Temporary Seasonally Occupied Permanent Other:)		

7.	What is the design, maximum and expected average population of the camp?
8.	Provide history of the site if it has been used in the past.
CAM	IP LOCATION
9.	Please describe proposed camp location in relation to biogeographical and geomorphological features, and water bodies.
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.
11.	Is the camp or any aspect of the project located on: [] Crown Lands Permit Number (s)/Expiry Date:
	[] Commissioners Lands Permit Number (s)/Expiry Date:N/A
	[] Inuit Owned Lands Permit Number (s)/Expiry Date:
12.	Closest Communities (direction and distance in km):
13.	Has the proponent notified and consulted the nearby communities and potentially interested parties about the proposed work?
discu	na representatives have not contacted the nearby communities regarding this amendment. We have seed with NWB legislation, regulations and policies in order to determine optimal project daries to minimize overlap with adjacent water licenses.
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?
not e plant	amendment to reduce project area and construction operation of an all-weather airstrip and road is appected to have an impact on traditional water use areas by nearby communities during the ned exploration season. This amendment is also expected to have minimal impact on local fish an life habitat. This is principally because of design and mitigation measures to minimize the impact
PUR	POSE OF THE CAMP
15.	 ☐ Mining (includes exploration drilling) ☐ Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.) (Omit questions # 16 to 21) ☐ Other
16.	Activities (check all applicable) Preliminary site visit Prospecting Geological mapping Geophysical survey

	 □ Diamond drilling □ Reverse circulation drilling □ Evaluation Drilling/Bulk Sampling (also complete separate questionnaire) 		
	Other:		
17.	Type of deposit (exploration focus):		
	☐ Lead Zinc ☐ Diamond ☐ Gold ☐ Uranium ☐ Other		
DRI	LLING INFORMATION		
18.	Drilling Activities 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.		
22.	Will any core testing be done on site? Describe.		
SPI	LL 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.		
ATE	vised Comprehensive Spill Comingency Plan (CSCP) is included in Appendix 1		
24. Sec	How many spill kits will be on site and where will they be located?		
25.	Please describe the types, quantities, and method of storage of fuel and chemicals on site, and provide MSDS sheets.		
Sec	CSCP		
WA	TER SUPPLY AND TREATMENT		
26.	Describe the location of water sources.		
27.	Estimated water use (in cubic metres/day): Domestic Use: Water Source:		

	Drilling:	Water Source:
	Other:	Water Source:
28.	Describe water intake for camp operations? Is the water intake equipped with a mesh scre prevent entrapment of fish? (see <i>DFO 1995</i> , <i>Freshwater Intake End-of-Pipe Fish Screen Guideline</i>) Describe:	
29.	Will drinking frequency?	ng water quality be monitored? What parameters will be analyzed and at what
30.	Will drinki	ng water be treated? How?
31.	Will water	be stored on site?
WA	STE TREAT	MENT AND DISPOSAL brehensive Waste Management Plan is included in Appendix 2
32.	Describe th	e characteristics, quantities, treatment and disposal methods for:
	×	Camp Sewage (blackwater)
	×	Camp Greywater
	×	Solid Waste
	×	Bulky Items/Scrap Metal
	×	Waste Oil/Hazardous Waste
	×	Empty Barrels/Fuel Drums
33.	Please desc	cribe incineration system if used on site. What types of wastes will be incinerated?
34.		how will non-combustible waste be disposed of? If in a municipality in Nunavut, zation been granted?
35.		ocation (relative to water bodies and camp facilities) dimensions and volume, and for all sumps (if applicable).
36.	Will leach	ate monitoring be done? What parameters will be sampled and analyzed, and at what

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?

ABANDONMENT AND RESTORATION

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

An updated A&R Plan is included with the NWB application (Appendix 1)

BASELINE DATA

39.	Has or will any baseline information be collected as part of this project? Provide bibliography.
	Physical Environment (Landscape and Terrain, Air, Water, etc.)
	☐ 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:
Base	line studies completed by Researt Environmental Services in the area of the airstrip, road and roa
quiir	ies include
	Fish and Fish Habitat Memo, July 2011
	Back River Airstrip ML/ARD Memo, Sept 2011
	Goose Thermistor Summary, Oct 2010
	Back River Leosystem Overview at Proposed Airstrip and Quarries (Dec 2011)
	2011 Archaeology of the Back River Project (in prep for submission to GN-CLEY)

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



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EXPLORATION/ REMOTE CAMP SUPPLEMENTARY QUESTIONNAIRE

P.P.	licant: Sabina Gold & Silver Corp. Licence No: (For NWB Use Only)
	License 2BEGOO1015 - amendment 2 request (November 2010)
	Only those sections of this questionnaire that are affected by the amendment request are included in the following. All other components and descriptions as outlined in Supplementary Questionnaire for licence renewal (Dec 2009) and Supplementary Questionnaire licence amendment 1 (June 2010) remain the same. These Questionnaires are attached.
DN	MINISTRATIVE INFORMATION
,	Environment Manager: Elizabeth Sherlock Tel: 604-998-4175 Fax: 604-998-105 E-mail: esherlock@sabinagoldsilver.com
	Project Manager: <u>Peter Manojlovic</u> Tel: <u>604-998-4175</u> Fax: 604-998-1051 E-mail: pmanojlovic@sabinagoldsilver.com
	Does the applicant hold the necessary property rights?
	Is the applicant an 'operator' for another company (i.e., the holder of the property rights)? If so please provide letter of authorization.
	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: Completion:
CAI	MP CLASSIFICATION

- 136

Type of Camp

6.

	Temporary Seasonally Occupied Permanent Other:
i. The c	What is the design, maximum and expected average population of the camp? amp currently accommodates up to 80 people, with an average daily population of 65. It is anticipated that increased drilling and other exploration activities would result in increasing personnel needs up to 120 people, with an average of ~95.
3.	Provide history of the site if it has been used in the past.
CAM	IP LOCATION
).	Please describe proposed camp location in relation to biogeographical and geomorphological features, and water bodies.
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.
11.	Is the camp or any aspect of the project located on: [] Crown Lands Permit Number (s)/Expiry Date:
	[] Commissioners Lands Permit Number (s)/Expiry Date:N/A
	[] Inuit Owned Lands Permit Number (s)/Expiry Date:
12.	Closest Communities (direction and distance in km):
13.	Has the proponent notified and consulted the nearby communities and potentially interested parties about the proposed work?
discu	na representatives have not contacted the nearby communities regarding this amendment. We have used with KIA and INAC inspectors and reviewed GNDoE policies in order to determine best agement practices and implementation of open burning at remote camps.

Mobile (self-propelled)

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 amendment to increase water usage, include open burning in waste management and include water use, storage, collection/diversion and discharge are not expected to have an impact on traditional water use areas by nearby communities during the planned exploration season.

These amendments are also expected to have minimal impact on local fish and wildlife habitat. This is principally because of design and mitigation measures to be implemented to minimize the impact.

PURI	POSE OF THE CAMP
15.	 Mining (includes exploration drilling) Tourism (hunting, fishing, wildlife observation, adventure/expedition, etc.) (Omit questions # 16 to 21) Other
16.	Activities (check all applicable) Preliminary site visit Prospecting Geological mapping Geophysical survey Diamond drilling Reverse circulation drilling Evaluation Drilling/Bulk Sampling (also complete separate questionnaire) Other:
17.	Type of deposit (exploration focus): Lead Zinc Diamond Gold Uranium Other
DRII	LLING INFORMATION
18.	Drilling Activities 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.
22.	Will any core testing be done on site? Describe.

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.

- How many spill kits will be on site and where will they be located? 24.
- Please describe the types, quantities, and method of storage of fuel and chemicals on site, and 25. provide MSDS sheets.

WAT	TER SUPPI	Y AND TREATMENT	
26.	Goose La	ne location of water sources. e and local lakes in area of temporary camps and drill sites water use (in cubic metres/day):	
27.	Domestic U	se: 45m3/day (at Goose and temporary camps) Water Source: Goose local lakes to temporar	Lake and y camps
	Drilling:	Water Source: Goose Lake and local lakes	
	Other:associated	12m3/day Water Source: Goose Lake, local lakes, exploration, can frastructure and disturbed areas.	mp and
28.	prevent er	vater intake for camp operations? Is the water intake equipped with a me trapment of fish? (see <i>DFO 1995</i> , <i>Freshwater Intake End-of-Pipe Fish S</i> Describe : unchanged; as per current water license terms and conditions	Gcreen
29.		ing water quality be monitored? What parameters will be analyzed and a unchanged; as per current water license terms and conditions	t what
30.	Will drin	ing water be treated? How? unchanged; as per current water license term	is and
31.	Will water	be stored on site? unchanged; as per current water license terms and con	nditions
WAS	STE TREA	MENT AND DISPOSAL	
32.	Describe	ne characteristics, quantities, treatment and disposal methods for:	
Was	te managem	nt on-site will be revised to reflect the inclusion of controlled open burn	conditions.
Uncl	nanged	Camp Sewage (blackwater)	
Unc	× changed	Camp Greywater	
-			

Solid Waste

×

The disposal method of burnable solid waste such as paper, cardboard, plastic, wood, burlap cloth, fuel or oil-soaked absorbent material, semi-solid waste from Pacto toilets and food preparation waste would principally be by burning in the dual stage, forced air incinerator. It is estimated that on average up to approximately 20 garbage bags (121L capacity) of burnable waste would be generated each day.

On occasion, the volume of the untreated wood products (e.g. paper, cardboard, and wood) is very large because of resupply, construction and reclamation activities. At these times, the waste management would include open controlled, open burning conditions. It is challenging to estimate this volume since it would vary with resupply, camp population, camp maintenance and progressive reclamation. It is assumed that approximately half of the combustible material (1m3/day) may be generated and open burn completed on a regular period approximately every 2-3 days depending on weather conditions.

Any remaining ash and unburned residue from the incinerator or open burn would be collected in cleaned 205L drums, sealed for transport and flown out for disposal at a suitable, approved Hazardous waste management facility.

× 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 burned under controlled conditions, or cut up and burned in the Goose 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

Unchanged

★ Empty Barrels/Fuel Drums

33. Please describe incineration system if used on site. What types of wastes will be incinerated? A forced air – dual stage, diesel fueled incinerator system is used on site. Burnable solid waste such as paper, cardboard, plastic, wood, burlap cloth, fuel or oil soaked absorbent material, semi-solid waste from Pacto toilets and food preparation waste would is disposed of by burning in the incinerator.

At times, the volume and/or size of some of this material cannot be accommodated by the incinerator capacity. Under controlled conditions untreated wood products such as paper, wood and cardboard would be burned in an area located 30m above the local waterways and downwind of camp facilities.

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

Unchanged

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

Unchanged

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

The open burn area would be located such that water would not accumulate in the area, however, if there is any ponded water, it will be sampled for parameters as identified in current water licence.

Diversion and collection systems will be included as needed in the final design of the airstrip and roadway. Water monitoring program as outlined in the current water license will be expanded to include these areas as needed.

OPERATION AND MAINTENANCE

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?

The waste treatment of controlled open burning is a proven disposal method in Nunavut used by the communities and other proponents as part of their waste management.

ABANDONMENT AND RESTORATION

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

The A&R Plan remains unchanged with the amendments of increased water volume use and inclusion of open burning.

BASELINE DATA

39. Has or will any baseline information be collected as part of this project? Provide bibliography. Preliminary environmental baseline data was collected during the 2010 exploration program to support compliance requirements and on-going feasibility studies associated with advanced development. This included weather data (e.g. wind speed, wind direction and temperature), archaeology surveys, preliminary fish species and fish habitat assessment, and ARD/ML characterization. These programs will continue in 2011, to focus and improve data collection in the area.

	Physical Environment (Landscape and Terrain, Air, Water, etc.)
	Biological Environment (Vegetation, Wildlife, Birds, Fish and Other Aquati-
=	Organisms, etc.)
	Socio-Economic Environment (Archaeology, Land and Resources Use,
	Demographics, Social and Culture Patterns, etc.)
	Other: ARD/ML

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
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