



Phyllis Beaulieu  
Nunavut Water Board  
PO box 119  
Gjoa Haven, NU X0B 1J0

March 22, 2011

***RE: Sabina Gold & Silver Corp. 2010 Annual Reports and Water Use Fees***

Dear Phyllis,

Enclosed please find the 2010 annual reports for 2BEHAK0915, 2BEGOO1015 and 2BEGEO1015.

Payment of the water use fees by money order in the amount of \$90.00 is also included.

Should you have any questions, concerns, or need any further information, please do not hesitate to contact me by email at [jlaitin@sabinagoldsilver.com](mailto:jlaitin@sabinagoldsilver.com) or by telephone at 604-998-4175.

Regards,

A handwritten signature in dark ink, appearing to read "John Laitin", is written over a stylized, light-colored graphic element that resembles a large, open letter 'J' or a stylized signature flourish.

John Laitin  
Manager, Logistics and Technical Services



NWB Annual Report

Year being reported: 2010 ▼

License No: 2BE-GOO1015 Issued Date: March 26, 2010  
Expiry Date: March 31, 2015

Project Name: Back River Project - Goose

Licensee: Sabina Gold & Silver Corp.

Mailing Address: 930 West 1st Street, Suite 202  
North Vancouver, BC V7P 3N4

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):

General Background Information on the Project (\*optional):

The Goose Project is located approximately 160 km south of the hamlet of Bathurst Inlet, with the camp located at 65°32'00" N, 106°25'00" W.

Licence Requirements: the licensee must provide the following information in accordance with

Part B ▼ Item 2 ▼

A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management.

Water Source(s):	Camp Lake for domestic use; lakes proximal to drilling	
Water Quantity:	155 m3/day	Total Quantity Allowable (cu.m)
	4.5 m3/day	Actual Quantity Used Domestic (cu.m)
		Quantity Allowable Drilling (cu.m)
	100.8 m3/day	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- ☒ Solid Waste Disposal  
☒ Sewage  
☒ Drill Waste  
☒ Greywater  
☒ Hazardous  
☐ Other:

Additional Details:

Refer to the water use tracking figure and discussion included in Appendix A

**A list of unauthorized discharges and a summary of follow-up actions taken.**

Spill No.:  (as reported to the Spill Hot-line)

Date of Spill:

Date of Notification to an Inspector:

Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

On April 18, 2010, a spill of approximately 136L of jet fuel occurred at Goose Lake. An excerpt from the report submitted to Stanley Anablak via email (April 21, 2010) is included below:

*At 3:30 PM on April 19, 2010 James Worden, a Sabina Heavy Equipment Operator, was working at the Jet Fuel lay down area noticed that 2 drums of Jet A fuel were punctured. He then informed the Site Supervisor Marc Monami to report the fuel spill. Upon investigation it was noticed that the punctures was made by the All-track vehicle belonging to Major Drilling. The Major Drilling supervisor...was called to the spill area to assist in the investigation. It was apparent that the spill was caused by the All track equipment operator....It was determined that 136 litres of Jet A fuel was spilled (2 drums x 67.65 litres / drum). It was found that the spill occurred at approximately 3:00 am on April 18, 2010....The camp crew came over and contained the fuel spill....The NT – NU Spill Report form was filled out by Assistant Site Supervisor Marc Monami and was faxed in to the Spill Report office. A spill report number 10-112 was issued by the Spill Report office.*

In addition to this incident, sometime at the beginning of the season a small spill of Varsol (<10L) occurred on the ice during demobilization by a drilling contractor. The spill was not immediately reported to camp management; it was noted by Sabina personnel and cleaned up. A subsequent inspection of the area did not reveal any remaining product.

**Revisions to the Spill Contingency Plan**

Other: (see additional details) ▼

Additional Details:

An updated Spill Contingency was submitted with the application for renewal on December 3, 2009.

**Revisions to the Abandonment and Restoration Plan**

Other: (see additional details) ▼

Additional Details:

An updated Abandonment and Restoration Plan was submitted with the application for renewal on December 3, 2009.

**Progressive Reclamation Work Undertaken**

Additional Details (i.e., work completed and future works proposed)

Please see discussion included in Appendix A



**The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;**

Details attached ▼

Additional Details:

See details presented in Appendix B

**The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;**

Details attached ▼

Additional Details:

See details presented in Appendix B

**Results of any additional sampling and/or analysis that was requested by an Inspector**

No additional sampling requested by an Inspector or the Board ▼

Additional Details: (date of request, analysis of results, data attached, etc)

Analytical results obtained prior to drilling through ice are included in Appendix C

**Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.**

No additional sampling requested by an Inspector or the Board ▼

Additional Details: (Attached or provided below)

**Any responses or follow-up actions on inspection/compliance reports**

No inspection and/or compliance report issued by INAC ▼

Additional Details: (Dates of Report, Follow-up by the Licensee)

If a report is issued, it will be appended to this report as an addendum.

**Any additional comments or information for the Board to consider**

Date Submitted:

Submitted/Prepared by:

Contact Information:

March 25, 2011

John Laitin

Tel: 604-998-4175

Fax: 604-998-1051

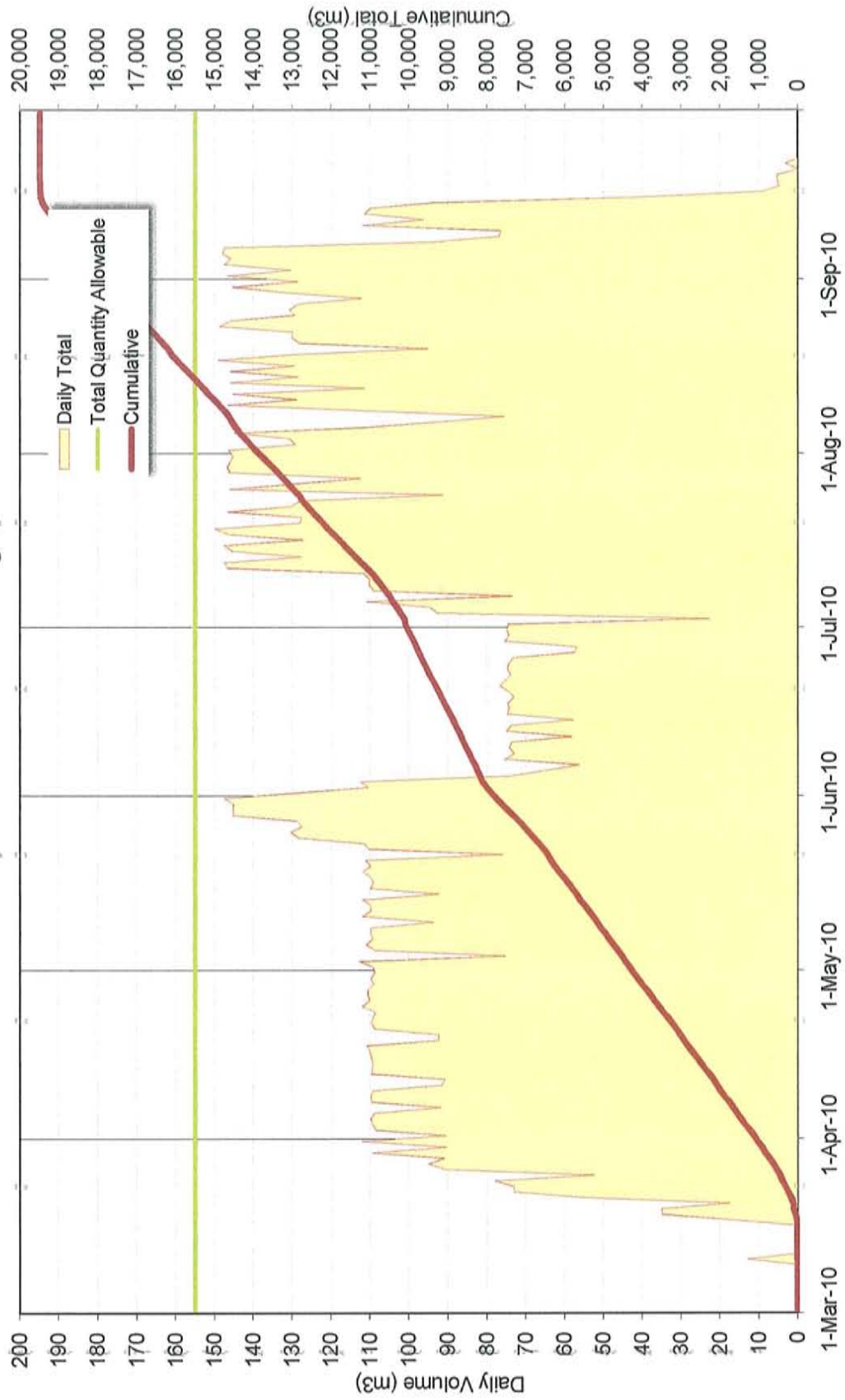
email: [jlaitin@sabinagoldsilver.com](mailto:jlaitin@sabinagoldsilver.com)



## **APPENDIX A**

### **Water Tracking and Discussion**

2BE-G001015 - Total Water Usage 2010





### **Camp Water Use**

Water used in the camp is taken from Goose Lake with the water source adjacent to the dock, approximately 30 feet offshore in 6-8 feet of water. The intake hose is equipped with a screen to prevent entrapment of fish. Drinking water is pumped into a holding pool located in a heated shed adjacent to the kitchen and dry facility. Any larger particles will settle to the bottom of the pool. Filtration is then used to remove smaller suspended material. Final treatment consists of UV and chlorination.

The holding pool for camp water will store up to 11 m<sup>3</sup> of water. The pool is normally filled on a daily basis (sometimes every other day), though the entire tank is not normally drawn down.

Up to 5 m<sup>3</sup> is stored in a plastic tank in the core processing facility at Goose Lake camp for on-demand use with the core splitting saws. Refilling of this tank is anticipated to occur 2-3 times per week when the saws are in use.

Pacto type toilets were used to collect sewage and incinerated daily.

Greywater from the kitchen and dry facilities is plumbed to a common line which discharges behind the camp, well away from Goose Lake. The area is mostly bedrock and shallow soil, precluding the digging of a suitable sump. The discharge area is lined with stones to disrupt the flow of water and allow larger particles to come out of suspension, as well as to disperse the flow of water and help alleviate erosion of the topsoil. The greywater percolates into the ground after leaving the discharge point.

### **Camp Associated Solid Waste Disposal Activities**

Solid waste in camp is separated at source. Burnable solid waste consisting mainly of paper, food scraps, small wood pieces and plastic packaging was incinerated in a diesel fuel, dual stage forced air commercial incinerator.

Much of the final solid waste generated in camp consists of ashes containing unburnable metallic residue that accumulates in the incinerator. The ash from the incinerator was placed in empty metal fuel drums, sealed and flown out to Yellowknife for subsequent disposal at a hazardous waste facility near Onaway, Alberta, operated by E.I.L. Environmental Services.

Tin cans, aerosol cans, glass containers and other non-burnable trash produced by camp operations were flown out to Yellowknife for disposal in the Yellowknife dump. Aluminum cans, plastic water bottles and Gatorade bottles were separated and sent back to Yellowknife for recycling.

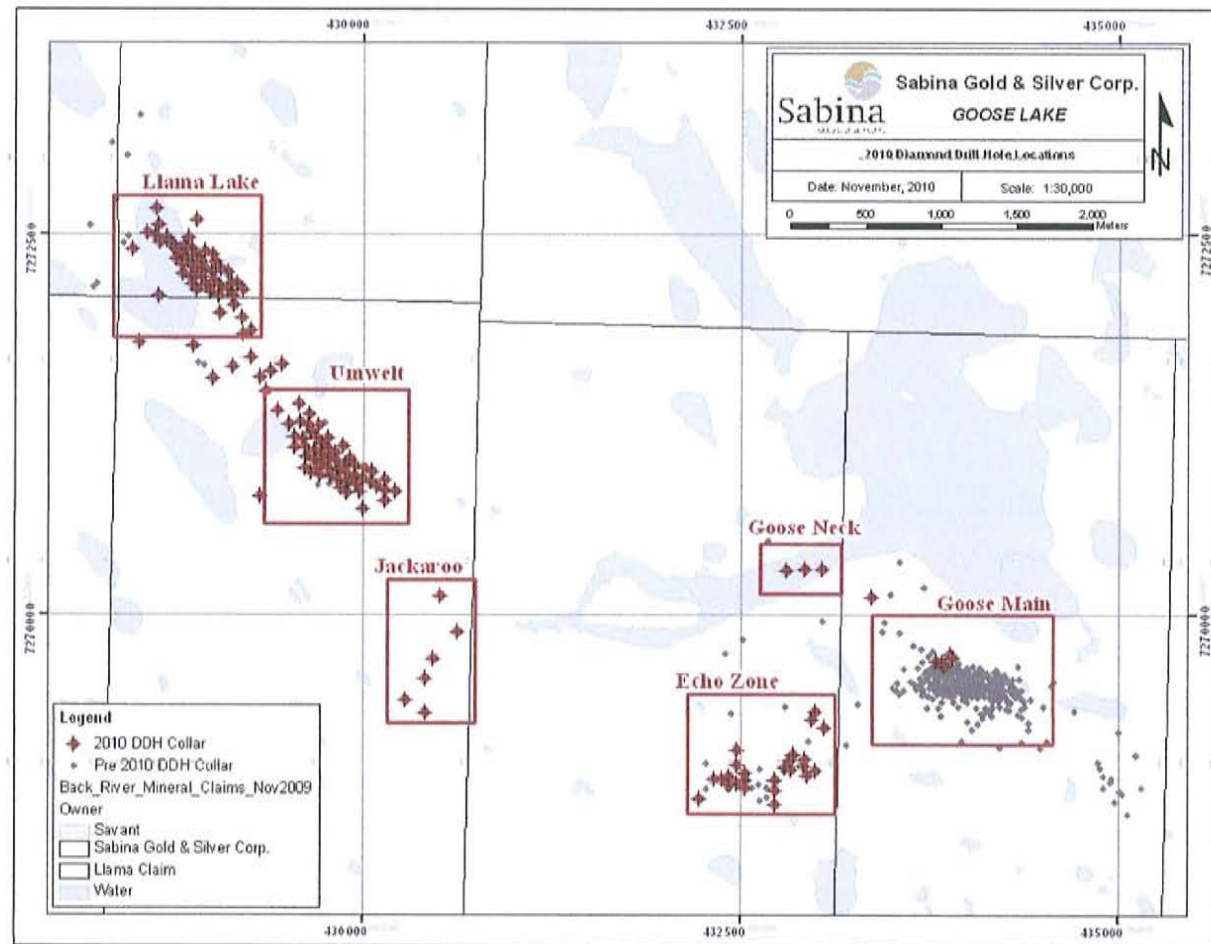
Sabina contracted transport company (KBL Environmental Ltd.) to ship the drums of solid waste to the E.I.L. Environmental facility for disposal, including empty fuel drums, which are crushed on site at Goose Lake.

### **Drilling Associated Water Use**

The drills in service during 2010 were supplied by helicopter and equipped with portable water pumps, equipped with secondary containment drip pans. The intake hose for each of the pumps was equipped with a screen. A pressure hose leading from the pump to the drill supplied water.

The pumps for the drills would operate continuously as long as the drills were drilling, but were shut down for drill moves. Drill moves typically took about 12 – 24 hours depending on weather and the time of day that the drill was shut down. During drilling, the water was stored in a 500-gallon, trough-type surge tank at the drill where it was then pressurized by a second pump and pumped down the drill hole to cool the drill bit and remove cuttings. Drill water was re-circulated through the hole and new water was added on an as-needed basis to replace any lost through the sludge separation process and to fill the drill hole. Most of the water diverted from the lake and pumped to the drill was not used at the drill site and was allowed to return to the lake; or for land based drilling, the water was allowed to percolate into the soil.

Sludge from the drills was pumped into fibre mega bags, which allowed the water to percolate out while retaining the cuttings. The bags were then flown to the trench adjacent to camp which has been used as a cuttings sump for several years.



2010 diamond drill locations, Goose Lake area.

### Drilling Associated Solid Waste Disposal Activities

Drilling-associated solid waste produced in 2010 consisted of broken or damaged drill steel, various broken, used or worn out pieces of equipment, plastic lubricant containers, plastic bags, wood scraps, greasy burlap and absorbent material. The burnable waste was incinerated in camp and the metal items were flown out to Yellowknife for disposal or recycling. Metal waste and trash encountered at historic drill sites was gathered up and moved back to camp where it was subsequently flown out to Yellowknife for disposal or recycling.

### Hazardous Waste Management

The primary hazardous wastes generated and managed at Goose Camp are petroleum-based fuel products; diesel, Jet-B, gasoline, engine oil and propane. Other hazardous wastes consist of used aerosol paint cans and expired dry-cell batteries.

Much of the hydrocarbon waste generated on site was retained for use in the waste oil furnace installed to heat the Quonset, which cuts down on the volume to be shipped offsite and sent to a hazardous waste facility. Additional waste hydrocarbon products were stored in empty 205 L drums, with the tops sealed with plastic, in secondary containment berms pending backhaul.

Empty propane tanks were returned to Yellowknife for recycling and re-use as they became available through consumption.



Used alkaline batteries and empty paint and aerosol spray cans were placed with the unburnable kitchen waste and double-bagged in plastic garbage bags and flown back to Yellowknife for disposal.

The secondary containment berms used with primary fuel and salt supplies or waste material have generally proven to be an effective measure to safeguard impacts to freshwater sources as they are quickly and easily set up where needed. Snowmelt and rainwater collection can be easily managed with periodic inspections and appropriate use of the rain drains and a water transfer pump, should pooling of snowmelt or rainwater occur.

### **Trench Reclamation**

In August 2009, work was started to reclaim the mechanically excavated trenches located immediately southeast of the camp, which was reported in the 2009 Annual Report. In September 2010, work started on the remaining trench to be reclaimed (one will remain open for use as a cuttings sump). Overburden material from the original excavation was used to fill in the trench to approximately 70%. As there was insufficient time left in the season to complete the operation, the remaining work will be completed in 2011 once ground conditions allow.



*Goose Lake Trenches before Reclamation. August 2009.*





*Goose Trenches post reclamation. September 2009.*



*Aerial view of reclamation of Trench #4, approximately 70% completed. Remaining trench for drill cuttings visible at middle left. View to the north. September, 2010.*

## **APPENDIX B**

### **GPS Locations of water sources and waste disposal areas**



### GPS Coordinates for water sources utilized

Source Description	Latitude			Longitude		
	Deg °	Min '	Sec "	Deg °	Min '	Sec "
Camp water	65	32	42	106	25	29
Drilling water sources	65	33	52	106	32	30
	65	33	4	106	32	9
	65	32	40	106	32	54
	65	32	32	106	26	56

### GPS Locations of areas of waste disposal

[illegible]

## **APPENDIX C**

### **Analytical Results of water samples**

BACK RIVER PROJECT - 2010 Water Quality Results

Analyte	Units	LOR	Lower Limit	Sample ID ALS ID Date Sampled	EN-017 (Llama Lake) L876197-1 4/10/2010 12:23:00 PM	EN-015 (Goose Lake) L872171 25/03/2010 8:45
					Water	Water
Conductivity (EC)	uS/cm	2	-	-	46	49.1
pH	pH units	0.1	6.5	-	6.46	6.43
Total Suspended Solids	mg/L	1	-	-	<1.0	3.6
Aluminum (Al)-Total	mg/L	0.02	-	0.1	<0.020	0.055
Antimony (Sb)-Total	mg/L	0.0004	-	-	<0.00040	<0.00040
Arsenic (As)-Total	mg/L	0.0004	-	0.005	<0.00040	<0.00040
Barium (Ba)-Total	mg/L	0.0002	-	-	0.00706	0.0169
Beryllium (Be)-Total	mg/L	0.0001	-	-	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L	0.0002	-	-	<0.00020	<0.00020
Boron (B)-Total	mg/L	0.02	-	-	<0.020	<0.020
Cadmium (Cd)-Total	mg/L	0.0002	-	0.000017	0.00033	<0.00020
Calcium (Ca)-Total	mg/L	0.5	-	-	3.25	3.09
Chromium (Cr)-Total	mg/L	0.0008	-	0.001	<0.00080	<0.00080
Cobalt (Co)-Total	mg/L	0.0002	-	-	<0.00020	0.0002
Copper (Cu)-Total	mg/L	0.001	-	0.002	0.0021	0.009
Iron (Fe)-Total	mg/L	0.01	-	0.3	0.044	0.068
Lead (Pb)-Total	mg/L	0.0001	-	0.001	<0.00010	0.00124
Magnesium (Mg)-Total	mg/L	0.1	-	-	2.41	1.85
Manganese (Mn)-Total	mg/L	0.002	-	-	<0.0020	<0.0020
Mercury (Hg)-Total	mg/L	0.0001	-	0.000026	<0.00010	<0.00010
Molybdenum (Mo)-Total	mg/L	0.0001	-	0.073	<0.00010	<0.00010
Nickel (Ni)-Total	mg/L	0.0002	-	0.025	0.00222	0.00612
Potassium (K)-Total	mg/L	0.1	-	-	0.68	1.58
Selenium (Se)-Total	mg/L	0.0004	-	0.001	<0.00040	<0.00040
Silver (Ag)-Total	mg/L	0.0004	-	0.0001	<0.00040	<0.00040
Sodium (Na)-Total	mg/L	1	-	-	<1.0	2.5
Strontium (Sr)-Total	mg/L	0.0002	-	-	0.0127	0.0142
Thallium (Tl)-Total	mg/L	0.0001	-	0.0008	<0.00010	<0.00010
Tin (Sn)-Total	mg/L	0.0004	-	-	<0.00040	<0.00040
Titanium (Ti)-Total	mg/L	0.005	-	-	<0.0050	<0.0050
Uranium (U)-Total	mg/L	0.0001	-	-	<0.00010	<0.00010
Vanadium (V)-Total	mg/L	0.0005	-	-	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L	0.004	-	0.03	0.0176	0.0216
Applied Guideline:	Federal CCME Canadian Environmental Quality Guidelines (DEC, 2008) - CCME - Freshwater Aquatic Life					
Colour Key:	Exceeds Lower Threshold	Within Guideline	Exceeds Guideline	LOR exceeds Guideline		