

## **APPENDIX D – ABANDONMENT & RESTORATION PLAN**





Back River Project

Abandonment and Restoration Plan

George Camp and Exploration Project

JANUARY 2013

## Contents

|                                                     |    |
|-----------------------------------------------------|----|
| 1.0 INTRODUCTION .....                              | 1  |
| 1.1 General.....                                    | 1  |
| 1.2 Sabina Social and Environmental Policy .....    | 2  |
| 1.3 Legal Requirement .....                         | 2  |
| 1.4 Site Location and Description .....             | 3  |
| 1.5 Scope of Reporting.....                         | 3  |
| 2.0 RESPONSIBILITIES FOR THE PLAN.....              | 4  |
| 3.0 SCHEDULE FOR ABANDONMENT AND RESTORATION .....  | 4  |
| 3.1 List of Infrastructure at George Camp .....     | 5  |
| 3.2 Progressive Reclamation.....                    | 5  |
| 3.2.1 Contaminated Area Reclamation.....            | 6  |
| 4.0 WINTER RESTORATION PLAN.....                    | 6  |
| 4.1 Buildings and Content .....                     | 6  |
| 4.2 Water Supply System .....                       | 7  |
| 4.3 Sewage System .....                             | 7  |
| 4.4 Waste Incinerator .....                         | 7  |
| 4.5 Electrical System .....                         | 7  |
| 4.6 Camp Heating Systems.....                       | 7  |
| 4.7 Petroleum Products and Storage Facilities ..... | 8  |
| 4.8 Chemicals .....                                 | 9  |
| 4.9 Spill Response Kits.....                        | 9  |
| 4.10 Transportation .....                           | 9  |
| 4.11 Drill Sites .....                              | 9  |
| 4.12 General Camp area .....                        | 9  |
| 4.13 Final Documentation.....                       | 9  |
| 5.0 FINAL ABANDONMENT AND RESTORATION PLAN .....    | 10 |
| 5.1 Administration .....                            | 10 |
| 5.1.1 Buildings Structures .....                    | 10 |
| 5.1.2 Office and Household Furniture .....          | 10 |
| 5.1.3 Water Supply System .....                     | 10 |

|                                                                          |    |
|--------------------------------------------------------------------------|----|
| 5.1.4 Sewage System .....                                                | 10 |
| 5.1.5 Waste Incinerator .....                                            | 10 |
| 5.1.6 Electrical System .....                                            | 11 |
| 5.1.7 Camp Heating Systems.....                                          | 11 |
| 5.1.8 Petroleum Products and Storage Facilities .....                    | 11 |
| 5.1.9 Household Chemicals .....                                          | 12 |
| 5.1.10 Transportation .....                                              | 12 |
| 5.2 Exploration .....                                                    | 13 |
| 5.2.1 Drill Sites Management.....                                        | 13 |
| 5.2.2 Drill holes Management.....                                        | 13 |
| 5.2.3 Chemicals associated with Drilling operations .....                | 13 |
| 5.2.4 Drill Core .....                                                   | 14 |
| 5.2.5 Excavated Trench .....                                             | 14 |
| 5.3 Environmental.....                                                   | 14 |
| 5.3.1 Long-term Monitoring.....                                          | 14 |
| 5.3.2 Documentation and Final Inspection .....                           | 14 |
| 5.3.3 Land Relinquishment .....                                          | 14 |
| 5.4 Abandonment & Restoration Cost Estimates .....                       | 16 |
| 6.0 REVIEW OF THE ABANDONMENT AND RESTORATION PLAN .....                 | 16 |
| APPENDIX A – MAPS, FIGURES AND PHOTOS GOOSE CAMP AND EXPLORATION PROJECT |    |
| APPENDIX B – ABANDONMENT & RECLAMATION COST ESTIMATE                     |    |

## 1.0 INTRODUCTION

### 1.1 General

Sabina Gold & Silver Corp. (Sabina) is actively exploring the Back River property mineral rights (encompassing the primary exploration camp at Goose Lake, as well as a satellite camp at George Lake and unoccupied claim groups at Boot Lake, Boulder Pond, Wishbone and Del Lake). Advanced exploration programs have been carried out in previous years with similar activities anticipated in 2010 and beyond as Sabina continues to advance the project.

Sabina is also responsible for maintaining all permits and claims required for the project in good standing. The Back River Project is covered by the following land use licenses:

*Table 1. List of licenses and permits applicable to the Back River Project.*

| Permit No.           | Permit Name                                              | Type    | Expiry     | Agency |
|----------------------|----------------------------------------------------------|---------|------------|--------|
| N2011F0029           | winter road Beechy Area                                  | Class A | 2013-12-13 | AANDC  |
| N2010F0017           | Winter road Bathurst Inlet to Back River                 | Class A | 2013-09-16 | AANDC  |
| N2009F0015           | winter road Hackett to George                            | Class A | 2013-03-01 | AANDC  |
| KTL304F049 - Amended | Winter road Bathurst Inlet to Goose Lake and George Lake | Level 3 | 2012-12-13 | KIA    |
| KTL304F012           | winter road Hackett to George                            | Level 3 | 2012-12-13 | KIA    |
| N2010C0016           | Back River Mineral Exploration                           | Class A | 2013-10-31 | AANDC  |
| KTL304C017 -Amended  | Goose Camp                                               | Level 3 | 2012-12-13 | KIA    |
| KTL204C012 - Amended | Boulder                                                  | Level 2 | 2012-12-13 | KIA    |
| KTL304C018 - Amended | George Camp                                              | Level 3 | 2012-12-13 | KIA    |
| KTL204C020 - Amended | Boot                                                     | Level 2 | 2013-12-13 | KIA    |
| 2BE-GEO1015          | George Water                                             | Type B  | 2015-06-15 | NWB    |
| 2BE-GOO1015          | Goose Water                                              | Type B  | 2015-03-31 | NWB    |

Operating and managing an exploration project on tundra requires a lot of effort from all parties involved. The area is environmentally sensitive and all aspects of exploration because of our activities, products and services will be risk assessed with management protocols developed, implemented and communicated to our employees, interested parties and suppliers to eliminate or minimize any negative impacts to the receiving environment.

The 2013 program is planned to start in March and end by September. Crew, equipment and supplies will be flown into Goose camp from Yellowknife via Twin Otter or similar aircraft. Equipment, personnel

and supplies will be moved between Goose camp and George camp by helicopter. At the end of the season the crew will be demobilized back to Yellowknife using float-equipped aircraft or the all-weather airstrip in camp. Drill equipment and supplies may remain at the project area for use during subsequent exploration seasons.

The 2013 Back River project will employ up to 400 people, including contractors. In addition to Sabina's contingent of northern hires (estimated at up to 20% of the staff), the contractors working on site will also be encouraged to hire Inuit employees. Due to staff turnover and schedule rotations, there will typically be 100-120 people on site at any given time.

Sabina will implement this Abandonment and Restoration Plan (ARP) and will continue to look for ways to minimise or eliminate negative impacts to the environment as a result of its activities, products and services at Sabina's Back River properties.

## **1.2 Sabina Social and Environmental Policy**

Sabina Gold & Silver Corp. takes its responsibility to act as a steward of the environment seriously.

To fulfill this responsibility, Sabina strives to:

- Ensure that we design our activities and operate in compliance with all environmental regulations to minimize our impact on the environment.
- Promote responsibility and accountability of managers, employees and contractors to protect the environment and make environmental performance an essential part of the management/contractor review process.
- Provide resources, personnel and training to enable management, employees and contractors to implement programs and policies to protect the environment.
- Communicate openly with employees, contractors, local stakeholders and government on our environmental protection and sustainability programs and performance. We will also address any concerns pertaining to potential hazards and impacts.
- Promote the development and implementation of systems and technologies to reduce environmental risks.
- Establish and maintain appropriate emergency response plans for all activities and facilities.
- Maintain a self-monitoring program at each facility to ensure compliance and to proactively address plans to correct potential deficiencies.
- Work cooperatively with government agencies, local communities and contractors to develop and enhance systems and technologies to improve environmental and sustainability practices.
- Encourage all employees, contractors or stakeholders to report to management any known or suspected departures from this policy or its related procedures

## **1.3 Legal Requirement**

Under the terms of the KIA Land Use Licenses and the NWB Water Use Licenses, Sabina is obligated to rehabilitate the areas used to its previous standard of human utilization and natural productivity.

## 1.4 Site Location and Description

The Back River exploration project is located in the Kitikmeot, south of Bathurst Inlet within the Slave Structural Province. It is approximately 525 kilometres northeast of Yellowknife and 400 kilometres south of Cambridge Bay, NU. The project area is within the zone of continuous permafrost, and is represented on National Topographic System 1:250,000 scale map sheets 76F, 76G, 76J, and 76K. The primary base of operations is at Goose Lake (Figure 1), supported by a satellite camp at George Lake (Figures 1 and 2) used for resupply, staging, drill support and emergencies. Coordinates for the camps are as follows:

- Goose Camp 65°32' north 106°25' west
- George Camp 65°55' north 107°27' west

The George camp is located on the western shore of George Lake and consists of an approximate 60-person satellite camp. These facilities are located on the eastern side of an esker which has been partially leveled for use as an airstrip.

The lakeshore is approximately 50 m toward the east of the camp buildings. A lined, bermed bulk fuel storage area is located approximately 100 m off the northwest end of the airstrip. Substrate material consists of bedrock and esker material (glacially-derived sand and gravel).

## 1.5 Scope of Reporting

This Abandonment and Restoration Plan has been written to meet the requirements of the Nunavut Water Board (NWB) licences listed in Table 1 and applies to the George camp, operated under NWB Licence 2BE-GEO1015. Subject to annual review and revision, it will remain applicable throughout the duration of the NWB licenses or until a material change in the scope of the project occurs.

The current revision of the ARP has been prepared for on-going exploration activities. The plan also takes into consideration the likelihood of premature camp closure due to:

- Sudden drop in gold prices which could make the project uneconomical;
- Drop in resource grade to a value lower than anticipated;
- Non compliance to legislative requirements;
- Natural disasters;
- Force majeure;
- Change of ownership/operator.

In situations as such mentioned above, this plan provides the base strategy for anticipated tasks of restoring George camp in an event where exploration activity has ceased, either on a short term or a long term basis. The plan will be reviewed annually and updated with current information.

Section 1 of the plan gives a brief account of the ownership of the property, the environmental policy, legal requirements and a brief description of the camp. Section 2 outlines responsibilities for execution of the plan. Section 3 outlines a brief time schedule for restoration activities after completion of each exploration program. A list of infrastructure at Back River is compiled and a short brief on Progressive Restoration program is provided. Sections 4 and 5 of the plan provide details of how each exploration aspect will be addressed, while the final section (Section 6) outlines when the next review of the plan would be conducted.

## 2.0 RESPONSIBILITIES FOR THE PLAN

Senior personnel at the Back River Project site (at the main camp at Goose) are responsible for the implementation of this Plan. However, every employee, contractor or visitor arriving on the Back River project site has a responsibility to ensure that they adhere to the Sabina environmental policy. The policy will be communicated to all employees, contractors and visitors during their stay at Back River in a formal site orientation program given by the Site Superintendent.

Contact information for key personnel is as follows, and will be updated on an as-needed basis.

| Position                   |             | Phone (camp)         |
|----------------------------|-------------|----------------------|
| Operations Superintendent  | Fred Penner | Unknown at this time |
| Exploration Manager        | Dave Smith  |                      |
| Exploration Superintendent | Cheryl Wray |                      |
| Environmental Coordinator  | Merle Keefe |                      |

## 3.0 SCHEDULE FOR ABANDONMENT AND RESTORATION

For each exploration season, the closure of the Back River Project sites should take approximately 14-21 days to complete, allowing for variable weather conditions. As exploration activities vary from year to year and the end of the field season is difficult to predict months in advance, the restoration program will commence as late as September 15 each year, and end no later than October 31. Since Goose is the main camp servicing outlying exploration areas, it would take the longest to shut down. Outlying drill sites will take minimal time as their shut down requirements are much less. Other sites in

the Back River Project area include the George camp and diamond drill sites. These would close down simultaneously with exploration as there is the proper support at this time (personnel, aircraft).

### 3.1 List of Infrastructure at George Camp

*Table 2. George Camp Infrastructure and Equipment (as of September, 2012)*

|                      | Qty | Item                                                                                                    |
|----------------------|-----|---------------------------------------------------------------------------------------------------------|
| Buildings            | 12  | 14x16' Weatherhaven structures, including sleeping quarters and office                                  |
|                      | 9   | Structures linked together by enclosed corridor and includes sleeping quarters, kitchen, dry and office |
|                      | 2   | Core cutting and core logging shack (also connected by enclosed corridor)                               |
|                      | 1   | Quonset garage                                                                                          |
|                      | 3   | ATCO trailers (converted to dry)                                                                        |
|                      |     |                                                                                                         |
| Other Infrastructure | 2   | 70,000L double walled ULC approved envirotanks                                                          |
|                      | 1   | Lined, bermed area for fuel supplies                                                                    |
|                      | 1   | Esker airstrip                                                                                          |
|                      | 1   | Solid waste laydown area                                                                                |
|                      | 2   | Incinerator (1 building + incinerator) and generator (1 building + generator)                           |
| Equipment            | 1   | IT28G Loader + accessories                                                                              |
|                      | 2   | Primary generator and back up generator                                                                 |
|                      | 2   | 277 Caterpillar Skidsteer                                                                               |
|                      | 1   | Drum crusher                                                                                            |
|                      | 4-5 | 10,000-12,000 L fuel sleighs (some tanks separated from sleighs)                                        |
|                      | 2   | ATVs                                                                                                    |
|                      | 2   | Snowmobiles                                                                                             |
|                      | 1   | D6 Caterpillar Dozer                                                                                    |

The final inventory of fuel and drilling supplies remaining in the camp at closure (October 2012) includes:

- Diesel – 237 full drums in secondary containment and 1,704 litres of bulk diesel contained in the Envirotanks.
- Jet A/B – 444 drums in secondary containment
- Gasoline – 6 drums in secondary containment
- Av Gas – 0 drums in secondary containment
- Propane – 0 x 100lb cylinders and 24 x 250 lb cylinders.
- CaCl drilling salt – 1,714 bags
- Core trays – 3,960 NQ trays

### 3.2 Progressive Reclamation

Sabina has embarked on a program of progressive reclamation over the entire Back River project area. Progressive restoration will be ongoing during the height of its exploration program thereby reducing the need for a full-scale restoration program at the closure of each exploration phase. Ongoing significant restoration activities are described below.

### **3.2.1 Contaminated Area Reclamation**

#### ***3.2.1.1 Recycle of Water Contaminated Fuel***

Contaminated fuels are recycled primarily as fuel for the garbage incinerator or as fuel for the water heaters used in the drilling program. If present in sufficient quantities, contaminated fuel may be recycled for camp heating purposes. As a last resort, it may be transported off the property for disposal at an appropriate facility. For water with minor amounts of hydrocarbons, depending on quantities, consideration is also being given to activated charcoal filters which remove the hydrocarbons.

#### ***3.2.1.2 Contaminated Top Soil***

Spills are handled as per the Comprehensive Spill Contingency Plan. Enviromat is immediately applied to absorb spills of hydrocarbons, minimizing the amount of soil required to be removed. Remaining contaminated soils are removed and stored in barrels for transportation to permitted disposal sites.

#### ***3.2.2 Non-combustible Solid Waste***

Solid waste including metal scraps, drill rods, household items, &c. are stored in an appropriate marshalling area for backhaul. The material is arranged in such a way that it can be easily removed from the property during winter months, and disposal will be appropriate to the material being removed, either to an approved disposal facility, metal recycler, or an approved designated landfill.

Ash from the incinerator is stored in empty 205-L drums for backhaul and disposal.

## **4.0 WINTER RESTORATION PLAN**

The winter restoration plan is intended to cover short-term (seasonal) closure of the Back River Project. The tasks involved are important to the success of future exploration programs but requires less effort.

### **4.1 Buildings and Content**

All tents and building complexes will be secured for the winter. All the office equipment; household furniture; kitchen equipment; recreational equipment and other mobile heavy equipment will be

winterised and left secured on site. Any equipment not capable of withstanding the harsh winter conditions will be removed and stored in either Yellowknife or Vancouver.

## **4.2 Water Supply System**

Water pumps, filtering systems, water lines and any other equipment associated with the water supply system will be drained and winterised. The water pump shed will be secured.

## **4.3 Sewage System**

The sewage system will be drained with no graywater remaining in the discharge pipe. Solid waste will be moved to Goose Lake for incineration.

## **4.4 Waste Incinerator**

The fuel supply for the incinerator is shut off using a series of valves. The fuel remains in an artificial berm in the double-walled tank adjacent to the incinerator throughout the winter. The area will be inspected for petroleum spills or contamination. If such is the case, the area will be dealt with as outlined in Section 3.2.1.2.

## **4.5 Electrical System**

The generator and surrounding area will be inspected for signs of spills and remaining wastes such as oil and grease. If topsoil is contaminated, an attempt will be made to remove as much as possible with enviromat; remaining contaminated soil will be stored in empty drums for disposal at a hazardous waste facility. The generator will be drained of its fuel. Remaining waste fuel, oil and grease will be stored in approved storage containers which are labelled for that usage and reused during summer operations. The generator will be winterised and the shed will be secured for winter. Electrical wires, plugs and sockets will remain in their installed locations. All electrical cords temporarily connected to a building or machinery during summer work program will be unplugged, rolled and stored in the workshop.

## **4.6 Camp Heating Systems**

Each 205-L fuel barrel attached to respective tent or building will be secured within the secondary containment container. The remaining fuel in the line will be allowed to burn out. The lid of the containment container will be secured to prevent snow from filling up the designated containment area. All empty propane cylinders will be transported to Yellowknife for recycling.

## 4.7 Petroleum Products and Storage Facilities

An on-site fuel cache is of great importance during camp start-up in the late winter. Diesel fuel will be stored in the 2 double-walled envirotanks within the lined, bermed tank farm. Minimal quantities of diesel in barrels, and any unused barrels of jet fuel will be stored within self-supporting artificial berms or the tank farm berm, and clearly marked as to the location to facilitate snow clearing activities during camp opening the following spring. The Site Superintendent will be responsible for determining the possible access to these fuel resources prior to the start of the next exploration program.

Empty drums at remote drill sites will be transported to the Goose Lake camp, crushed, and transported to Yellowknife for disposal/recycling. This work is typically done progressively as fuel caches are no longer required or as drill setups are dismantled.

Fuel farm secondary containment area will be cleared of any debris. In the springtime, meltwater within the containment area will be tested for F1 (C6-C10) and F2 (C10-C16) hydrocarbons and benzene, toluene, ethyl benzene, and xylene (BTEX). If the analytical data confirms that the water meets regulatory criteria (Table 4), it is then released onto the tundra in such a manner as to avoid direct entry to a surface water body. Residual water after pumping and collected rainwater are allowed to evaporate over the summer and are unlikely to present a problem during camp shutdown in the fall.

*Table 4. Regulatory guidelines for hydrocarbons in soils.*

| Parameter    | CCME (2004)       |                 | CWS               |                 |
|--------------|-------------------|-----------------|-------------------|-----------------|
|              | Coarse soil (ppm) | Fine soil (ppm) | Coarse soil (ppm) | Fine soil (ppm) |
| Benzene      | 0.03              | 0.0068          | -                 | -               |
| Toluene      | 0.37              | 0.08            | -                 | -               |
| Ethylbenzene | 0.082             | 0.018           | -                 | -               |
| Xylene       | 11                | 2.4             | -                 | -               |
| F1           | -                 | -               | 310               | 660             |
| F2           | -                 | -               | 760               | 1500            |
| F3           | -                 | -               | 1700              | 2500            |
| F4           | -                 | -               | 3300              | 6600            |

The spill response team and camp management must be notified immediately of any spill based on actions outlined in the Spill Contingency Plan. The Environmental Coordinator/Site Superintendent or designate will ensure spills are reported as required and that the relevant form is filled out as completely as possible. It is the intention of Sabina to report all spills over 25 litres and to maintain an inventory of all spills less than 25 litres, which can be viewed by any inspector or agency representative.

## **4.8 Chemicals**

Chemicals stored on site will consist of drill additives, oil, grease, drill salt and household biodegradable cleaners. Chlorine is necessary and is used to treat our drinking water system. All drill additives are stored in poly-lined "sea cans" and the remaining salt will be stored in designated areas of the property. Drill salt is in impermeable bags and stored on pallets. Empty bags will be disposed with combustible garbage. Sabina will inspect the storage area for possible spills and contamination.

## **4.9 Spill Response Kits**

Sabina will carry out an inventory of the Spill kits located on the property. All kits will be relocated into a secured building, except for kits designated for the remaining petroleum areas over the winter months.

## **4.10 Transportation**

All transport areas will be inspected for contamination. Areas will be remediated using enviromat and removal of contaminated soil should any contamination be found.

## **4.11 Drill Sites**

The diamond drills will be dismantled into the main components as per the drilling contractor procedure and secured along with ancillary equipment and rods. The drills will be moved by helicopter over the tundra and left on designated storage areas on the property until the next drilling season. All drill sites will be inspected for contamination. Any remaining waste will be taken back to the camp and disposed of accordingly. Diamond drill site restoration will commence as soon as practical after completion of the hole. Site clean-up of litter, debris and drill fluids will commence immediately. Drill core and core boxes will be properly secured and stored at the designated core storage area. Photographs will be taken before and after the drilling has been completed.

## **4.12 General Camp area**

A general inspection of the camp area will be carried out. Waste items will be picked up, and areas contaminated by petroleum products and unnoticed from the previous year will be reclaimed.

## **4.13 Final Documentation**

A year-end inventory of all equipment and buildings left on site will be carried out prior to leaving site. Photos of the camp and drill lay down storage area will be taken. Site inspections and monitoring will be done during occupancy and photos taken. Once the site is secured for winter, it will be documented with photos.

## **5.0 FINAL ABANDONMENT AND RESTORATION PLAN**

### **5.1 Administration**

#### **5.1.1 Buildings Structures**

All the reusable tents, frames, tarpaulins, and wooden structures will be dismantled and where possible be recycled for use at another exploration site.

Other combustible, non-recyclable building structures will be incinerated onsite. Non-combustible structures or materials such as nails, screws, bent metal frames will be recovered, packed and transported out to an approved landfill, likely in Yellowknife or Alberta.

#### **5.1.2 Office and Household Furniture**

All reusable office, household, kitchen and recreational equipment will be packed and transported for use at other exploration camps. Some equipment, depending on what level of liability is accepted by Sabina may be donated to the local community or schools. That equipment which is not reusable will be recycled or disposed of at an approved disposal facility, appropriate to the type of material.

#### **5.1.3 Water Supply System**

Water pumps, filtering systems, water lines and any other equipment associated with the water supply system will be disassembled, lines drained, packed and transported out of Back River for use at other exploration camps.

Water lines that are not usable will be disposed off at an approved facility.

#### **5.1.4 Sewage System**

The Pactos will be dismantled and relocated to another exploration camp or transported to Yellowknife for disposal. All lines from showers, washing machines and sinks will be drained, disconnected, securely packed and transported off property to an approved landfill site.

#### **5.1.5 Waste Incinerator**

Once the camp is entirely dismantled to the satisfaction of the supervisor in-charge, all remaining combustible waste will be burned. The incinerator will be dismantled and shipped to another exploration camp or to Yellowknife for sale or disposal in an approved facility.

### **5.1.6 Electrical System**

All electrical wires will be removed from the buildings and any other installation on property. Extensions cords and other fittings will be reused at other camps in the District. Used electrical wires will be packed and transported to Yellowknife for recycling. Unused bulbs and fluorescent tubes will be packed and relocated to other camps.

The generator and surrounding area will be inspected for signs of spills and remaining wastes such as oil and grease. The area will be cleaned as necessary.

The generator will be drained of its fuel. Remaining waste fuel, oil and grease will be stored in approved storage containers, labelled and transported offsite. The generator will be dismantled and transported offsite to another exploration camp or to Yellowknife for sale.

### **5.1.7 Camp Heating Systems**

Each 205-L fuel barrel attached to tents or buildings will be disconnected with the remaining fuel in the line allowed to burn out. The drums will be appropriately labelled and stored with other petroleum products. The secondary containment container will be closed, secured and stored ready for transportation offsite. The fuel burner will be dismantled and remaining fuel will be allowed to drain off into waste oil collecting system. All fuel lines will be drained, disconnected and packed for use in other camps or transported to an approved disposal facility. The area around each installation will be inspected for contamination and reclaimed as per the Spill Contingency Plan. All empty propane cylinders will be transported to Yellowknife for recycling.

### **5.1.8 Petroleum Products and Storage Facilities**

#### ***5.1.8.1 205-Litre drums***

The fuel storage area will consist of segregated groups of drums with empties stored separately from the full drums. An inventory of remaining fuel will be made and full drums inspected. WHMIS labels will be attached to the drums before transportation offsite. Remaining waste fuel will be labelled with WHMIS labels and transported to other camps for heating purposes or transported to Yellowknife for disposal in an approved facility.

In 2006 a drum crusher was purchased and installed at the Goose Lake camp. Empty drums will be crushed and palletted for backhaul and disposal. Some drums will be retained for waste containment and subsequent backhaul.

All unused jet fuel will be relocated to other exploration camps for use in further exploration programs, or returned to Yellowknife. The areas around the drums will be inspected for contamination.

#### ***5.1.8.2 Tidy Tanks***

All Tidy tanks will be disconnected from any tents or buildings. All installations will be disconnected and drained. An inventory of the remaining fuel in each tank will be recorded. The tanks will be secured and transported to other camps or to Yellowknife for sale or disposal. The area around the tanks will be inspected for contamination.

#### ***5.1.8.3 AST Tanks***

All installations on respective tanks will be disconnected and various hatches inspected and locked. An inventory of the remaining fuel in each tank will be recorded. The AST tanks will only be moved during winter months to either another camp or using winter road to a designated area on the coast and loaded onto a barge for transportation to Hay River or to Yellowknife during summer months.

#### ***5.1.8.4 Lined Fuel Farm***

Once AST tanks have been removed, the area will be inspected for contamination. If contamination is evident, then procedures outlined in the Spill Contingency Plan will be applied to reclaim the area.

Otherwise, the high-density polyethylene (HDPE) liner will be removed, rolled and packed for transportation offsite to either another exploration camp or an approved landfill. The berms will be pushed in with a front loader and levelled to cover exposed area.

### **5.1.9 Household Chemicals**

Household cleaners will mainly be stored in the kitchen and dry. Upon camp closure, any unused products will either be transported to other camps or disposed of at an appropriate facility. Half-empty containers will be taken off site to be properly disposed in an approved discharge facility. Empty containers will either be recycled or disposed of with regular garbage.

### **5.1.10 Transportation**

#### ***5.1.10.1 Airstrip***

A 750 metre long prepared air strip exists at the George property. The strip is located on a natural esker and no additional gravel materials were used for construction purposes. Inspection for potential top soil contamination due to refuelling of aircrafts will continue until no more flights will use the strip at the close of the program.

#### ***5.1.10.2 Helipad***

Helipads were installed at George camp adjacent to the west side of the airstrip. Inspection for potential top soil contamination due to refuelling of aircrafts will continue until no more flights will use the pads at the close of the program.

## **5.2 Exploration**

### **5.2.1 Drill Sites Management**

The diamond drills will be dismantled into its main components as per the drilling contractor procedure, packaged and secured along with its ancillary equipment and rods. The drills will be moved by helicopter over the tundra and left at designated storage areas on the property before transporting offsite.

All drill sites will be inspected for contamination. All wastes will be taken back to the camp by the drillers and disposed of as appropriate. As part of Sabina's progressive reclamation activities, diamond drill sites will be restored as soon as practical after the drill has been moved to the next site and sumps (if present – Sabina currently uses a megabag system for capturing drill cuttings) have drained enough to be levelled. Photos are taken prior to and after the drill work is completed and an inspection sheet is in place for the geologist to verify the site was left in good condition.

### **5.2.2 Drill holes Management**

#### **5.2.2.1 Drill sump**

All drill sumps (if constructed) will be recontoured and allowed to naturally revegetate. Natural sumps (if used) will simply be allowed to revegetate.

#### **5.2.2.2 Iron Casing Management**

Casing protruding above ground will be flush cut off to a level that will not pose a hazard. The cut portion will be disposed of in an approved landfill in Yellowknife or recycled as scrap metal. Drill holes which encounter artesian water flow will be plugged with cement and capped. The collar locations of all holes will be surveyed in and will be recorded in the exploration reports.

## **5.2.3 Chemicals associated with Drilling operations**

### **5.2.3.1 Drill Additives, Cement and Salt Management**

All remaining drill additives and salt will be inventoried, packed and transported to other projects or transported to Yellowknife or Hay River for re-sale or disposal at an appropriate facility. Empty containers and pallets will be incinerated (pallets), recycled if possible or disposed of with regular garbage.

#### **5.2.4 Drill Core**

Drill core will be properly secured and stored at a designated core storage area on the property for long-term storage. A site reference plan will be maintained to catalogue the core.

#### **5.2.5 Excavated Trench**

The excavated trenches will be backfilled with local soil. The area will be recontoured to match the surrounding landscape, and allowed to revegetate.

### **5.3 Environmental**

#### **5.3.1 Long-term Monitoring**

Ongoing monitoring will be conducted during the summer months to ensure the area has been cleared of any hazards that may cause a significant adverse impact to the receiving environment. The monitoring will continue after the final abandonment until the land is relinquished and accepted by the owner. Weather collection data (Goose/George weather stations) and environmental baseline data (e.g. water sampling data) will be turned over to whoever takes over the property.

#### **5.3.2 Documentation and Final Inspection**

A detailed project site reclamation and remediation report will be created by Sabina which will specifically document and catalogue project reclamation activities. This report will be generated for distribution to specific governing agencies. This report will identify all reclamation efforts undertaken at the project site and will be supported with information pertaining to contractors used, methodology, costs and findings. Digital photographs will be taken which will support the reclamation activities. These will be appended to the report.

#### **5.3.3 Land Relinquishment**

Once the reclamation plan is accepted and approved by Sabina, the permit holder will invite and organise a final site inspection visit with community representatives, Land Inspectors, Nunavut Water Board and the KIA. Other government organisations such as Environment Canada and Department of Fisheries and Oceans will be invited to visit the area. A written submission will be sent to the regulatory authorities asking to relinquish the land.



## 5.4 Abandonment & Restoration Cost Estimates

The total cost estimation for A&R plan for Back River is presented in Appendix 2. The approximate costing will be reviewed annually relative to the long-term exploration strategy for the project and may include the following items:

- Infrastructure Demolition Cost
- Transportation – (Labour, equipment, recycle, relocation of waste etc.)
- Labour Cost
  - Offsite Administrative Cost
  - Contractor
- Rehabilitation Cost
  - Site Supervision - (Sabina)
  - Remedial supplies
  - Native species supplies
  - Contractor
- Environmental Monitoring Cost
  - Labour - (Sabina or Contractor)
  - Transportation – (Field sampling)
  - Analytical Cost – (External Lab)
  - Reporting – (Sabina or Contractor)
  - Consultant Costs
- Final Documentation – (Labour Cost – Sabina or Contractor)
- Land Relinquishment – (Travel, Reports, Site Visits, Meetings, etc.)

## 6.0 REVIEW OF THE ABANDONMENT AND RESTORATION PLAN

The Back River Abandonment & Restoration Plan will be reviewed on an annual basis. The next planned internal review is scheduled to take place in 2013.