Revised Sept 98

BHP Minerals Canada Ltd.
Boston Gold Project, N.T.

ORIGINAL

BULK SAMPLING PROGRAM ABANDONMENT AND RESTORATION PLAN

Prepared for:
Nunavut Water Board
Gjoa Haven, N.T.

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July 1997

BHP

BHP MINERALS CANADA LTD.
BOSTON GOLD PROJECT, N.T.

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1.0 INTRODUCTION

BHP Minerals Canada Ltd. (BHP) is a subsidiary of the Broken Hill Propriety Company Ltd., a global resource company headquartered in Melbourne, Australia. BHP, headquartered in Vancouver B.C., is involved in mining and exploration activities across Canada including Nunavut.

The Boston Gold Project has been organized to explore and evaluate areas of gold mineralization along the Hope Bay Belt, approximately 450 km west southwest of Gjoa Haven (Figure 1-1).

In response to the Nunavut Water Board (NWB) Water Licence #N7L2-1652 Amendment (1), and Inuit Land Use Permit No. I95C058, Article 46 issued to BHP Minerals Canada Limited, an Abandonment and Restoration Plan (ARP) for the Bulk Sampling Program has been prepared. BHP has retained the services of Rescan Environmental Services Ltd. to complete the plan for reclamation of the Boston Gold Project. As part of this plan, it is proposed to outline general commitments to reclaim the disturbed areas described by the current water licence and land use permit issued for the operations at the BHP Boston Gold Property. The plan has been kept general in order to maintain flexibility as the bulk sampling operations progress. New information generated, through site-specific studies and from other similar reclamation research projects will be incorporated into the ARP in future years.

Progressive reclamation and on-going restorative work is designed to minimize surficial disturbances by returning disturbed lands to a productive state where practicable. The ARP is structured in three levels. Each level is designed to deal with the major stages of reclamation. The stages are defined as: initial reclamation, operational reclamation and planned shutdown. Initial reclamation will deal with exploration and bulk sampling disturbances. Details of the initial reclamation program are described in this document. Operational and planned shutdown programs shall be submitted to the NWB as the project develops.

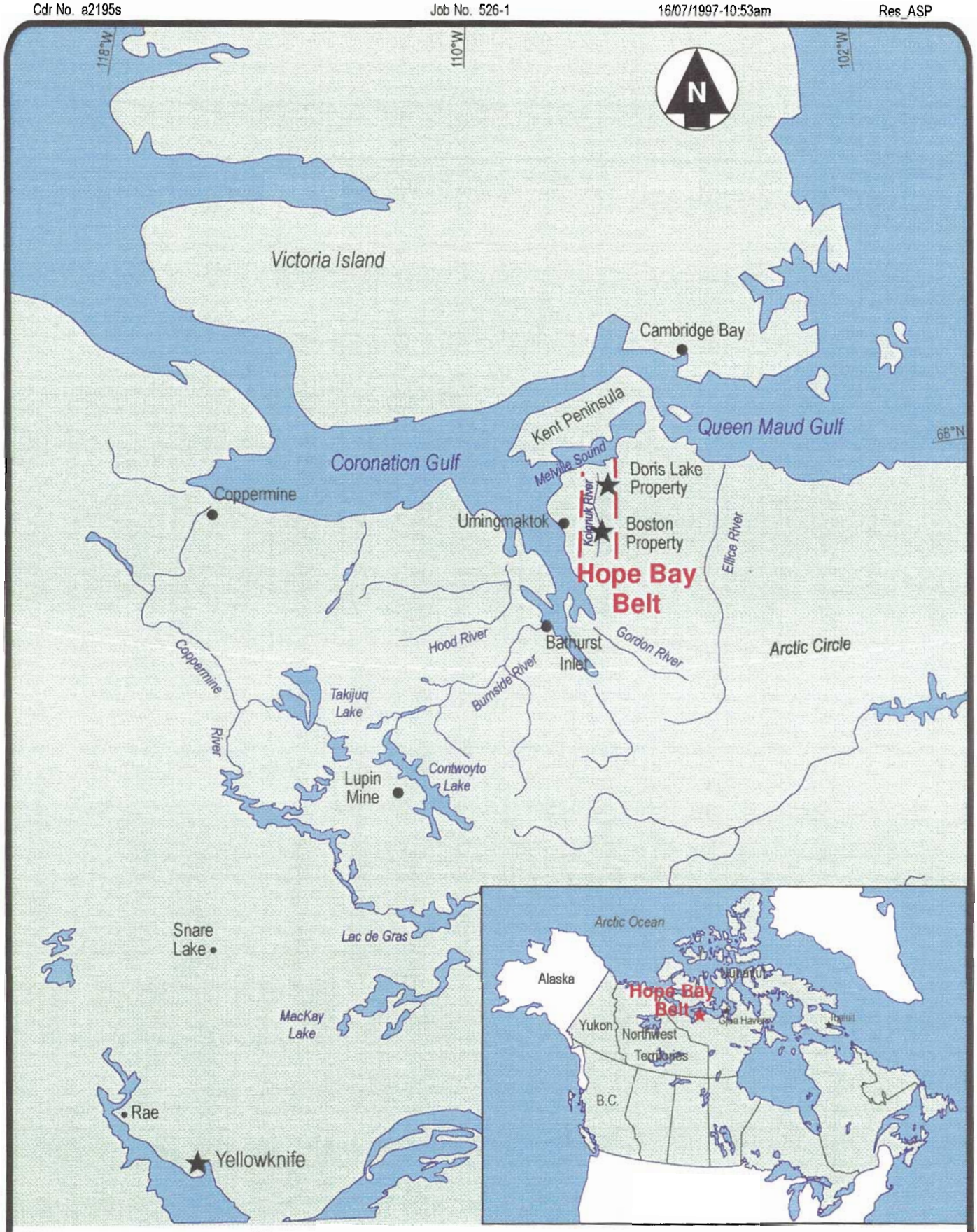

FIGURE 1-1

Project Location Map

1.1 Reclamation Objectives

To fulfill the conditions for reclamation of disturbed areas in Section 18 of the Territorial Land Use Regulations, the following objectives have been developed for the reclamation program:

1. Protection of the environment through sound reclamation practices;
2. Restoration of the productive use of the land to its original condition or to an acceptable alternative through the growth of vegetation;
3. Restoration of the primary land use (wildlife) by creating habitat and/or promoting habitat recovery;
4. Minimization of water quality impacts by designing and implementing landscape features and proper drainage control measures; and
5. Ensuring that the abandoned areas do not pose safety problems or health risks to the surrounding environment.

BHP has been aggressive in its reclamation efforts as demonstrated by their mining operations at other projects. Much has been learned at each site through site-specific studies, discussion with regulatory and environmental agencies, practical experience and the application of innovative technologies. The cumulative experience of BHP, combined with the expertise of the government agencies in the N.T., should provide a suitable foundation for the development of an effective reclamation strategy.

1.2 Overview of Potential Revegetation Challenges

Challenges will be faced in reclaiming disturbed tundra. The harsh environmental conditions are not conducive to immediate vegetation regrowth. These conditions include low soil and air temperatures, poorly developed soils, low soil nutrient levels, low moisture levels and limited microbial processes. The most significant influences are permafrost and the short growing season. Permafrost affects landscape stability and drainage patterns while the short growing season limits revegetation efforts. As a result, vegetation growth is slow and the recovery of disturbed areas is generally prolonged. Revegetation assistance will be required to establish vegetation cover in erosion prone areas.

Other potential problems may affect revegetation. These include: lack of suitable topdressing material (root growth medium); lack of native plant material (seed or rhizome sources); surface compaction; slope stability; and drainage control. It is for these reasons that BHP attempts, at all times, to minimize surface disturbance to the fullest extent possible.

Lack of Suitable Topdressing Material

Soil development is poor due to the relative unavailability of suitable root growth medium to be used as topdressing. Due to this relative unavailability, it is anticipated that esker sands or an alternate will be the predominant topdressing material used for revegetation.

Lack of Native Plant Material

The use of native plant species for revegetation is limited as these are not commercially available and their establishment rate is very slow. However, native plants would be ideal because of their ability to adapt naturally to the environment as compared to new species. Native species have been used for other revegetation projects in the Nunavut Region and evaluated in various revegetation trials. However, the plants selected in the trials were either hand collected rhizome clippings or natural regeneration was employed.

Due to the limited availability of commercial native plant material, introduced species may also be used for preliminary revegetation. The introduction of these species will be used to establish an early vegetation cover to stabilize erosion prone areas. The vegetal litter which is produced by the death of the new plant species will provide surface protection and organic matter for the longer term establishment of native plants.

Surface Compaction

Compaction of roadway surfaces may pose problems if the surfaces are not scarified. Compaction reduces root penetration and water infiltration. Reduction of water infiltration may, in turn, increase surface runoff and overall reduction in vegetation establishment. Scarification loosens the soil surface and provides a more favorable seedbed for plant establishment. Recontouring and stabilizing of the roadways servicing the bulk sampling program will be performed.

Slope Stability

The recontouring of steep slopes poses special challenges. A potential problem may arise with the topdressing material. The little topdressing that exists will likely be sandy. In addition, the permafrost will present stability problems, particularly with regard to erosion and settlement. Locations that may be impacted are the development rock disposal areas and settling ponds. In all cases, attempts will be made to recontour the slopes to blend in with the existing natural landscape. In areas where high erosion potential may exist, revegetation will be provided for immediate surface protection and insulation for the permafrost. Filter cloth or tackifiers may need to be employed to temporarily stabilize erosion prone slopes prior to the re-establishment of natural vegetation.

Drainage Control

Surface disturbances alter natural drainage patterns, and may cause erosion problems. After project completion, altered watercourses will be restored to their natural drainage patterns with the approval of the authorities. In addition, proper drainage control measures will be implemented where necessary to minimize downstream sedimentation.

2.0 GENERAL ABANDONMENT AND RESTORATION APPROACH

Restorative measures prevent progressive degradation and the natural recovery of areas affected by mining. Returning affected areas to a state compatible with the original undisturbed condition and the prevention of acid rock drainage is a priority for BHP.

The following section outlines the general steps to be undertaken for abandonment of facilities, roadways, stockpiles and on-land impoundments and the restoration of pre-mining conditions. Figure 2-1 illustrates the current overall site plan and gives an idea of the extent of dismantling and work which will be involved.

2.1 Buildings and Other Surface Infrastructure

All buildings and surface structures including fences and gates will be dismantled and removed from the site. The materials will either be recycled, sold as scrap or disposed of at an authorized waste disposal site. Other options may include incineration and burial. Soil found contaminated, if any, will be removed and treated prior to final disposal at an authorized facility. Areas where contaminated soil has been removed will be backfilled with replacement material or reclaimed contaminated soil. A topdressing cover will then be placed and the disturbed areas will be recontoured. Compacted areas will be scarified to provide suitable revegetation conditions. Erosion prone areas will be identified and revegetated, if necessary.

2.2 Water Supply Facilities

Both potable and mine water is supplied from Spyder Lake via separate pipelines. All existing structures will be dismantled and removed. Restoration of the pipeline corridor will take place as necessary.

2.3 Fuel and Chemical Storage Area

Remaining fuel products will be removed from the site. All tank fueling facilities, storage bins, and other support facilities will also be removed. All materials will be sold, recycled or disposed of at an approved disposal site depending on the

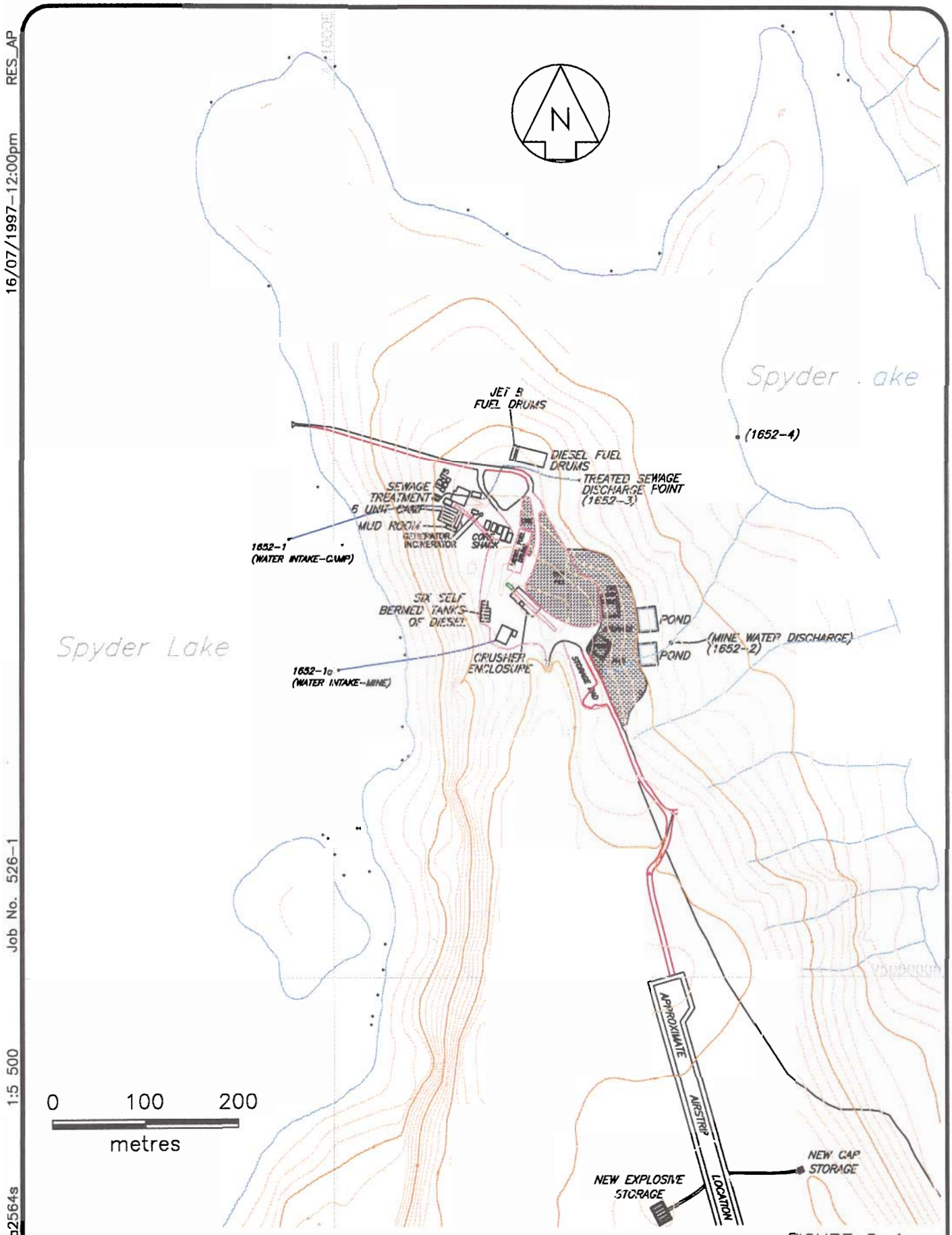

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FIGURE 2-1

Land Use Plan

product. Contaminated soils, if any, will be identified and removed or remediated. The pad berms around the ores stockpiles will be graded, if necessary, to prevent ponding. Berm material will be graded or contoured as necessary. Any chemicals, hazardous materials or contaminated soils will be removed or disposed of according to regulatory requirements.

2.4 Solid Waste, Sewage and Waste Storage Facilities

The practice of incineration for combustible wastes will be continued until bulk sampling ceases. Upon abandonment, the incinerator will be salvaged or sold. All steel, scrap metal, used equipment parts, buildings and building parts will be removed from the site and recycled, sold, and/or disposed of in authorized facilities. Combustible material generated during abandonment will be burned. The burning area will be covered with at least one metre of natural cover. The area will then be recontoured and revegetated if deemed necessary.

Sewage facilities (building, pumps, equipment, pipelines, *etc.*) will be dismantled and removed from the site. The material will either be sold, recycled, or disposed of according to accepted practices.

2.5 Roadways and Transportation Routes

Ground surfaces affected by transportation will be recontoured and scarified to encourage vegetative growth. Excavated material from the underground mine, to be used for road construction, will be tested for its acid generating potential. Material shown to exhibit unacceptable acid generating potential will not be used for road building. Nearby esker material was considered for surfacing on top of the roadway; however, it was deemed undesirable to use this resource since more terrain would be disturbed (roadway plus esker removal).

Side slopes will be recontoured and stabilized with due consideration to proper drainage control. If necessary, the slope areas will be revegetated to establish plant cover to minimize erosion. In addition, any contaminated soil will be remediated if feasible and/or properly disposed.

2.6 Underground Openings

The portal created in the process of exploration will be secured with a development rock plug designed to prevent human and wildlife entry into the

decline. The rock plug will be constructed from development rock produced during the exploration program. The portal entrance and adjacent areas will be contoured to approximate the original ground slope.

2.7 Development Rock Stockpiles

Development rock excavated from the exploratory decline will be utilized for minewater impoundment structures and roadbeds. The stockpiles will be contoured so as not to inhibit wildlife use. The contoured rock stockpiles may provide relief to the terrain, in addition to providing habitat for wildlife.

2.8 Minewater Settling Ponds

Minewater in the settling ponds will be treated with a flocculant if water quality discharge exceeds the criteria for total suspended solids. Alternatively, mine water can be pumped into the abandoned mine workings before the entrance is closed.

2.9 Monitoring

Environmental monitoring in compliance with Licence #N7L2-1652 will continue throughout the bulk sampling project to minimize and mitigate potential or progressive impacts. The monitoring program will proceed until all objectives of the bulk sampling closure plan have been satisfied.

2.10 Closing Comments

The comments contained herewith are provided as a framework for closure activities following the bulk sampling program. BHP recognizes that design for closure is an iterative process which will reflect changes in the scope of work, extent of land disturbance, severity of impact and as technologies evolve.