

Run-of-Mine Ore Laydown Storage

> Caushing (Area 10)

Grinding

Flotation (Area 30)

Product Dewatering Bulk Storage (Area 30) arm Water

Tailings Treatme

Tailings Pond

# REGISTRATION PURSUANT TO PART X of THE ENVIRONMENTAL PROTECTION ACT

FOR **MING COPPER-GOLD MINE** Baie Verte, Newfoundland and Labrador

Rambler Metals and Mining Canada Ltd. Baie Verte, Newfoundland

April 9, 2010







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# 1.0 INTRODUCTION

Rambler Metals and Mining Canada Ltd. ("Rambler"), a company formed in April 2004, which is currently listed on London's AIM and Toronto's TSX-V, owns the rights to a copper-gold project, known as the Ming Property, near Baie Verte in Newfoundland and Labrador. Rambler has completed a detailed exploration program (from surface and underground from former mine workings) on the Ming Property to evaluate the feasibility of re-establishing a mining operation at the former Ming Mine on the Ming property. Historically, 2.1 million tonnes of ore at 3.5 percent copper and 0.07 oz/tonnes gold were extracted from the Ming operation that stopped production in 1982.

Rambler commissioned and released a NI43-101 Resource Estimate in 2009 which reported a massive sulphide resource of 2.02 million tonnes of ore, grading 2.04 percent copper and 2.36 grams per tonne gold. This equates to approximately a 7 year life-of-mine at a production rate of 850 tonnes per day. The proposed underground mine will be an extension of existing underground workings using longhole mining and post and pillar room mining methods.

Evaluation of ore milling options, including construction of a new mill at the Ming Mine site, showed that purchase of the Nugget Pond Mill was the preferred milling option and in 2009 Rambler purchased the Nugget Pond Mill from Crew Gold (Canada) Inc. The Mill boasts a fully operational gold hydrometallurgical facility with a fully permitted tailings impoundment and sufficient tailings capacity for Rambler's Ming Mine project. The Nugget Pond site has operated since 1997 and has an impeccable operating record with respect to environmental compliance.

To produce copper concentrate from the Ming Mine ore at the Nugget Pond Mill, Rambler will construct a copper floatation circuit to supplement the existing mill process. The Nugget Pond Mill's existing crushing and grinding circuit will be utilized and the tailings effluent from the process will be discharged to the existing Tailings Management Facility (TMF). Evaluation and testing of process effluent and tailings solids indicates that the existing TMF has sufficient storage capacity to permanently store all tailings materials for the Project and will not require physical or chemical treatment changes to adequately treat the mill effluent prior to release to the environment. However, additional chemical treatment of tailings by lime neutralization is available if required for tailings management.

To ship the copper concentrate to market, Rambler is working towards a lease agreement with the Town of South Brook, NL to lease the existing port facility at Goodyear's Cove, approximately 1 km northwest of the town. The existing wharf will serve to load concentrate storage ships using a mobile conveyor. A concentrate storage building and associated infrastructure will be constructed at the site to store copper concentrate for shipment approximately 4 to 5 times per year. Site development will be contained to existing disturbed areas and access to the site will be via an existing 200 m gravel road which connects directly to the Trans Canada Highway (TCH).

In addition to this Environmental Registration submitted in support of the Project Environmental Assessment, Rambler has commissioned engineering studies to support a Detailed Feasibility Study as well as a Development Plan and Rehabilitation and Closure Plan as required under the





*Mining Act* (1999). These Plans, as well as other permits are currently in progress and will be submitted for approval upon the Project's release from the Environmental Assessment process. Rambler will advance the construction of the Project as early in 2010 as possible, upon receiving all necessary releases, approvals, and permits, with a plan to commission the mill in early 2011.

Public consultation sessions and meetings with local communities have shown great support for this project. Construction at the three sites will employ an average of 90 people (peaking at 220) for up to 8 months. Operation of the three sites will employ 158 people for the seven years of mine life. Preference will be given to local workers and Rambler has established a gender equity hiring policy for all components of the Project.





# 2.0 GENERAL INFORMATION

### 2.1 Proponent Contact Information

#### Name of Undertaking:

Ming Copper-Gold Mine

#### Name of Corporate Body:

Rambler Metals and Mining Canada Ltd. ('Rambler') 309 Highway 410 P.O Box 291 Baie Verte, NL AOK 1BO

#### **Chief Executive Officer:**

Mr. George Ogilvie, P.Eng. President and CEO 309 Highway 410 P.O Box 291 Baie Verte, NL AOK 1BO

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#### Principal Contact Person for the Purpose of Environmental Assessment:

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Phone: (709) 532-4990 Fax: (709) 532-4992 Email: pmercer@ramblermines.com





# 2.2 Nature of the Undertaking

After significant exploration work conducted from surface and historical underground mine workings, Rambler has assessed the viability of mining volcanic massive sulfides (VMS) from the Ming Mine for production of copper concentrate with gold and silver as byproducts. Based on internal scoping and economic assessments completed to date, Rambler has determined that the Ming Copper-Gold Mine is viable and is moving forward with a NI 43-101 compliant Feasibility Study and with detailed design to commence in 2010. Rambler will move forward with the construction and mine development once all necessary approvals and permits are obtained. The seven year life-of-mine is based on mining approximately 2.1 million tonnes of ore from the Ming Mine, processing of the ore to produce copper concentrate with gold and silver byproducts at the Nugget Pond Mill, and shipping of the copper concentrate to market via ships which will be loaded at the Goodyear's Cove Port Facility.

Since 2005 Rambler has carried out exploration activities at the site including: drilling from surface; dewatering of the historical underground mine workings; treatment of dewatering effluent in a newly constructed Waste Water Treatment Plant (WWTP); and underground sampling and drilling. Existing surface infrastructure includes mine dry and mine rescue facilities, a maintenance garage which also houses the WWTP, core storage building, cold storage containers and an electrical substation.

Rambler recently purchased the Nugget Pond Mill located near Snook's Arm, approximately 40 kilometres from the Ming Mine site. The current gold concentrator will be modified to process base metal sulphides from the Ming Mine through the addition of a copper flotation circuit while leaving the existing gold hydrometallurgical facility intact. The modification will diversify the existing facility and allow for a range of processing capabilities.

The Nugget Pond Mill and associated TMF is fully permitted and is currently in "care and maintenance" under lease by Crew Gold (Canada) Ltd. The TMF has sufficient storage volume to contain the tailings that will be produced from the proposed undertaking.

Rambler is currently working towards a lease agreement to lease the Goodyear's Cove Port Facility from the Town of South Brook for shipping of copper concentrate to market. This existing deepwater port, previously used by Crew Gold (Canada) Ltd. to import gold ore from Greenland for processing at Nugget Pond, is accessible through most of the year and is only 200 m from the TCH.

Rambler has strategically planned and advanced all components of this project to maximize the use of existing and available resources while minimizing the environmental impact of the Project. Rambler has considered all reasonable alternatives to each component of this project and the rationale for selection of each option is presented herein.





# 2.3 Rationale for the Undertaking

Extensive exploration drilling (surface and underground) tested the multiple zones of coppergold mineralization of the former Ming Mine and subsequently confirmed that significant mineralized extensions exist. Detailed engineering work on the ore metallurgy and mine development, completed by two independent consultants, has demonstrated an economically viable operation based on mining approximately 2.1 million tonnes of ore over a seven year lifeof-mine.

Bench scale testing from various zones throughout the Ming deposit has shown that through a relatively non-complex reagent scheme a premium copper concentrate can be produced. Testing to date has shown excellent copper recoveries and good rejection of zinc in the concentrate.

The overall project feasibility has been further supported by the purchase of the Nugget Pond Mill, which is an operational and fully permitted gold hydrometallurgical facility with existing tailings capacity for the project. The addition of a copper floatation circuit will be completed within the existing disturbed footprint of the site and no other significant changes or additions to the site are required.

Shipping of the concentrate to market will be conducted via highway haul trucks to the Goodyear's Cove Port Facility located near South Brook, NL. Rambler continues to work towards a lease arrangement for use of this facility and will require a concentrate storage building as the only significant alteration to the site. This building will be constructed on an existing disturbed area and there are no other activities at the site that will require additional environmental alteration.

The use of the existing mill and port facilities, with minor modifications as described in this document makes the best use of existing infrastructure while minimizing and/or eliminating further environmental impacts that would be incurred if new facilities were required to be constructed.

The Project will involve an estimated labour force of 158 employees during operation with up to 38 contracted personnel for security, equipment operation, etc. Due to recent downturn to the economy on the Baie Verte Peninsula, a project such as this one would be of great economic benefit. Currently, the construction and development capital cost are estimated to be \$41 million (CAD) with annual operating expenditures of approximately \$28 million (CAD) over the 7 year life-of-mine.

### 2.4 Scheduling and Timelines

Rambler is currently completing detailed engineering studies in order to commence development of the Project as early in 2010 as the necessary approvals and permits can be obtained. A detailed schedule for the Project is presented below using assumed timelines for approvals and permits where the schedule relies on others.















# **3.0 DESCRIPTION OF THE UNDERTAKING**

Rambler believes that the Project is economically sound and environmentally responsible. Rambler has compiled the necessary project components, mine, mill, and port, using existing sites and facilities which have the following key benefits:

- The mill site is a permitted gold hydrometallurgical mill complete with a TMF that has sufficient capacity to hold all tailings generated during the life of the proposed undertaking without any significant modifications to the existing infrastructure;
- A power grid capable of providing the required amounts of power is within 200 m of the project sites. Both the mine and mill sites are currently connected to the electrical grid;
- Most of the required infrastructure already exists at both the mine and mill sites;
- Only minor land disturbance will be required given the existing infrastructure already in place;
- An existing deepwater port which is generally accessible year round;
- A world class road system provides access to both the mine and mill site; and
- The Baie Verte Peninsula offers a skilled labor force.

The locations of the mine, mill and port sites are within the province of Newfoundland and Labrador as shown on Figure 3-1. The pertinent details regarding the proposed sites are provided below.

### 3.1 Ming Mine Site

The Ming property is a mineral land assembly consisting of one map-staked mineral license 014692M and two mining leases (141L and 188L) (totaling 1,580.4 ha) registered in the name of Rambler Metals and Mining Canada Limited, a wholly owned subsidiary of Rambler Metals and Mining PLC. All of these mineral lands are contiguous and in some cases overlapping and are located in the area of the former Ming and Ming West Mines (Figure 3-2). In early 2008 the mineral license 014692M replaced the original licenses 09997M, 11872M and 11504M by grouping as requested by Rambler. All lands are in good standing with the NL Department of Natural Resources and Rambler is up to date with respect to lease payments (for leases) and required exploration expenditure (for licenses).

The Ming Mine site contains the former producing Ming and Ming West copper-gold deposits. The Ming Mine last operated in 1982 while the Ming West operated for a short period in 1996. Mining of the Ming Mine ceased when the workings reached a neighboring property boundary. Rambler acquired the property in 2004 after it had been successfully consolidated and now owns a 100% interest in the mine.





Figure 3-1 Location of Ming Mine Site, Nugget Pond Mill Site and Goodyear's Cove Port Site





#### 3.1.1 Geographic Location

The Ming Mine site is located on the Baie Verte Peninsula, approximately 17 km by road east of the Town of Baie Verte, geographic co-ordinates:  $49^{\circ}$  54' N latitude and  $56^{\circ}$  05' W longitude (Figure 3-1).



Figure 3-2 Rambler Property: Mineral Tenure and Map Staked Claims





#### 3.1.2 Physical Features

#### 3.1.2.1 Surface Infrastructure

Previous exploration work and mine dewatering operations conducted at the Ming Mine site over the last few years required supporting infrastructure for personnel, equipment, maintenance, and security. This existing infrastructure will be used (as-is or with minor upgrades) to support the proposed mine operations. Figure No. 3-3 outlines the existing infrastructure at the Ming Mine site, which includes:

- Roads;
- Mine Dry facilities that includes a Mine Rescue room;
- A large Maintenance Garage with a Waste Water Treatment Plant (WWTP);
- Core Logging and Core Storage Building;
- Electrical Sub-station;
- Fuel Storage and Dispensing facility;
- Electrical Cold Storage Building;
- Mine Cold Storage Building; and
- Abandoned Boundary Shaft.

The Ming Mine site covers approximately 40 hectares.











Detailed descriptions of the existing infrastructure and their planned use during mine operation are outlined below.

#### Roads

Access to the Baie Verte Peninsula is provided via Route 410 (Dorset Trail) exiting the TCH. The mine site can be accessed via La Scie Highway (Route 414) and Ming's Bight Highway (Route 418).

Only minor upgrading, placement of crushed gravel for driving surface, is anticipated for site roads to support the mine operation.

#### Office Building that includes existing Mine Dry facilities and a Mine Rescue room

The current office, mine rescue and mine dry building consist of prefabricated modular trailers occupying a footprint of approximately 368 m<sup>2</sup>. The trailers are in excellent condition and will continue to be used for the new operation as office and storage space.

#### Maintenance Garage and WWTP

The maintenance garage, which also houses the WWTP, is a stationary steel structure with metal siding, occupying a footprint of approximately 752 m<sup>2</sup>. The building is in excellent condition and capable of accommodating all required activities associated with equipment maintenance and a WWTP. A wooden structure housing the clarifier is attached to the WWTP. This building is also in excellent condition and occupies a footprint of approximately 76 m<sup>2</sup>.

The WWTP, designed by ADI Limited in 2007, was constructed to neutralize and treat effluent derived from dewatering of the Ming Mine. The WWTP was designed to process a continuous influent flow rate of up to 700 USGPM, which includes the two recycle streams from displaced Ming West mine water at 60 USGPM and building sump effluent at 50 USGPM – both intermittent flows. Single-speed submersible mine dewatering pumps are used to pump raw wastewater from the Ming main decline to the surface. The mine water is piped directly to the WWTP as it is pumped from the mine.

The WWTP will continue to be used to treat mine dewatering effluent, storm water, and run-off from surface infrastructure areas.

#### Core Logging and Storage Building

The core logging is a stationary wooden structure with aluminum siding, occupying a footprint of approximately 386 m<sup>2</sup>. The building is in excellent condition and capable of accommodating all required activities associated with core logging and storage. Additional core storage space is maintained outside using stacking (cross-piled) and on core racks.





#### **Electrical Sub-station**

Electrical power for the Ming Mine is provided by Newfoundland Hydro ('Hydro'), via the existing 25 kV transmission line. Power from the 25 kV transmission line is routed to the existing substation where the voltage is transformed from 25 kV to 4,160 V. No upgrading of the existing infrastructure will be required for the new operation.

#### Fuel Storage and Dispensing facility

The fuel depot is a manufactured pump shed housing the fuel pump and dispensing facilities. The building occupies a footprint of approximately  $13 \text{ m}^2$ . A portable, above ground, self-dyked diesel fuel tank with secondary containment at a capacity of 110% and installed as per the Gasoline and Associated Products (GAP) Regulations (2003) will be used for fuel storage at the site.

#### Electrical Cold Storage Building

The electrical cold storage building is a portable 'sea' container occupying a footprint of approximately 29  $m^2$ . The container is in excellent condition and has sufficient space to accommodate all required electrical supply storage.

#### Mine Cold Storage Building

The mine cold storage building is a portable 'sea' container occupying a footprint of approximately 29  $m^2$ . The container is in excellent condition and has sufficient space to accommodate all required storage of mine materials.

#### Boundary/Production Shaft

The existing boundary shaft and head frame, used for ore extraction during historical mining operations has been inspected and found to be in excellent condition. The shaft will be rehabilitated with a new man-way for use as a secondary means of egress, not for ore extraction. The head frame will be demolished and removed.

Figure Nos. 3-4 and 3-5 present the planned, new and upgraded, infrastructure which will supplement existing site infrastructure to support the operations at the Ming Mine includes:

- Ore and Waste Stockpile Areas;
- Office and Mine Dry;
- New Maintenance Garage;
- Security/Scale House;
- Explosive Storage;
- Water Supply for Process, Firewater, and Potable Water; and
- Emergency Power Supply.









(see also large scale Figure in Appendix A)







Figure 3-5 Aerial Photo of the Ming Mine Site

(see also large scale Figure in Appendix A)

**Environmental Registration** 

Detailed descriptions of the planned infrastructure are outlined below.

#### Ore and Waste Stockpile Area

During the pre-production period and early production stages, development waste will be hauled to surface and stored in a temporary Waste Stockpile. Once production begins and stopes are mined out, the development waste will be moved back underground into open stopes as backfill. Table 3-1 below indicates waste movement to and from surface throughout the life of mine. By year 6 all of the stockpiled waste has been moved back into the underground and placed as backfill. In year 7, any additional site waste materials which exist at the surface from historical mining activities will also be moved underground.

#### Table 3-1Waste Rock Surface Stockpile Balance

	Pre Prod	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Total
Waste Produced	121,918	161,974	56,036	118,413	59,347	15,438	0	0	533,126
Backfill Required		26,278	163,013	41,562	75,498	140,707	127,154	148,962	723,174
Waste to Surface	121,918	135,696	-106,977	76,851	-16,151	-125,269	127,154	-148,962	-190,048
Balance	121,918	257,614	150,637	227,488	211,337	86,068	-41,086	-190,048	

Note: A negative number represents waste moved from surface to underground.

Mined ore will be hauled to surface using mine haulage trucks and stored in a temporary transfer Ore Stockpile which will be capable of storing one week's production, or approximately 6,000 tonnes, of ore. Ore will be loaded from the stockpile directly to highway haul trucks and transported to Nugget Pond Mill.

#### Office and Mine Dry

The administration and mine dry building will be constructed of prefabricated modular trailer units erected on wooden foundations.

A conceptual layout of the new facilities is presented in (Figure 3-6).







Figure 3-6 Conceptual layout of office/Dry facilities





#### Security/Scale House

Security will be provided at a main gate to the site. It is proposed that the scale house serve as a security checkpoint and security personnel would be engaged to weigh the ore trucks as they leave the site.

#### **Explosive Storage**

Initially, blasting requirements will be provided by a blasting contractor. Once the mine is operating, appropriately permitted surface explosives storage magazines will be supplied, installed and monitored by explosives vendors/contractors. All transportation of explosives to and from the surface magazines will be done respecting all applicable regulations. The planned location of the surface explosives magazines is indicated in Figure 3-5.

#### Potable Water Supply

Water for showers, toilets, etc. will be pumped to the site from nearby Admiral's Brook (Figure 3-5). This line will supply a storage tank from where potable water will be piped to areas around the site. Drinking water will be imported to the site in large bottle format by local vendors.

#### Fire and Process Water Supply

Water for firefighting and underground requirements will be stored in a steel tank within the WWTP that has a capacity of 38,000 litres. This water will be drawn from the discharge (treated water) from the WWTP.

#### Domestic Sewage

Domestic sewage, including grey water from the mine dry and mill, will be piped to a standard septic disposal system designed to NL Department of Environment and Conservation requirements. No other advanced treatment options are anticipated to be required, for this operation.

#### **Emergency Power Supply**

An emergency generator will be installed to supply power to emergency systems including the fire suppression system and other necessary items (lighting, pumps, air compressors, etc).

The reliability of the electrical power grid is high and the number of occurrences of an unplanned power outage is expected to be low. However, a back-up source of electrical power is required.

During a blackout, the operations of the facility would be shut down. During any prolonged power outage the buildings would require power for heat during the winter. The underground equipment would also require power to allow personnel to exit the mine in a safe manner. It is





estimated that a diesel powered backup generator in the range of 500 KW for the underground mine will be sourced and installed.

#### 3.1.2.2 Underground Infrastructure

#### **Main Ventilation System**

The current ventilation circuit has fresh air descending into the mine via the Boundary Shaft and exhausting through the main ramp, old workings, and exhaust breakthrough at surface. It will be necessary to re-establish the main intake ventilation raise used during the historic operations. There is a ventilation fan in place on surface; however, refurbishment of the fan and the support structures is required for new production. Exhaust air will exit through the main ramp and the production shaft. A schematic of the underground air flow can be seen in Figure 3-7.

Table 3-2 shows the ventilation requirements based on the planned underground equipment fleet. A factor of  $2.1 \text{ m}^3$  per minute per horsepower was used to calculate the total air flow required.

Equipment	Units	kW per unit	Total kW	Utilization	Factored kW	m³/min Required
2 Boom Jumbo	4	96.9	388	50%	194	552
LHD 4.1 yd3	2	123	246	80%	197	561
LHD 6.3 yd3	3	199.8	600	80%	480	1,366
20 Tonne Truck	3	204.3	613	80%	490	1,397
30 Tonne Truck	3	304.2	913	80%	730	2,080
Scissor Lift	3	65.6	197	50%	98	280
Boom truck	1	65.6	66	50%	33	93
Grader	1	103.7	104	50%	52	148
Tractor Forklift	2	61.9	124	50%	62	176
TOTAL	22		3,249		2,336	6,653

#### Table 3-2 Estimated Ventilation Requirements

A propane-fired heating system will also be required to heat the air in the winter season to prevent freeze-up of mine services. Active development and production headings will be ventilated through the use of 55,900 watt or 74,600 watt fans and vent tubing when necessary, drawing fresh air from the main ramp and old workings.







Figure 3-7 Underground Air Flow Schematic

#### Explosive Supply and Storage

A cap magazine is currently in place but will need to be refurbished. The existing explosive magazine will either require significant refurbishment or a new magazine will need to be constructed.

#### **Diesel Fuel Supply and Storage**

Two (2) diesel fuel storage areas will be constructed underground in the mine. Diesel fuel will be stored in Satstat storage and dispensing facilities equipped with 1000 US gallon fuel tanks, self-dyked to 110% capacity. Lubes will be stored in Satstat duel tank stations distributed by Rock-Tech. These containers can easily be transported by forklift for refueling and transportation throughout the mine.



#### 3.1.3 Construction and Mine Development

Much of the required infrastructure currently exists at the Ming Mine; however as previously described (see Figure Nos. 3-4 and 3-5), there is a requirement for additional and/or refurbishment of some infrastructure to support the mine operation.

#### **3.1.3.1 Surface Construction and Development**

#### Waste Rock Stockpile

During the pre-production period and early production stages, development waste will be hauled to surface and stored in a temporary Waste Stockpile. The Waste Stockpile pad will be constructed by clearing existing surface organic and waste materials to expose the underlying natural soils (glacial till). As the till material is low permeability, the surface of this material will be prepared and sloped to collect surface runoff from the stockpile and direct it to the collection ditch to the west. Stockpiled waste will be placed directly on the prepared till pad and the waste pile will be constructed to safe slopes using best practice benching, access, and sloping methods. Stormwater drainage from the stockpile will be collected in the former Ming West Pit, via the collection ditch, and will be and treated prior to release to the environment.

#### **Ore Stockpile**

Mined ore will be hauled to surface using mine haulage trucks and stored in a temporary transfer Ore Stockpile. Ore will be loaded from the stockpile directly to highway haul trucks and transported to Nugget Pond Mill. The stockpile area will be constructed by backfilling the existing, (historical) Ming West Open Pit with waste rock materials to an elevation above the flooded water level. The stockpile area will be constructed to ensure that stormwater from the stockpile is collected in the pit, which is then directed to the WWTP prior to release to the environment. The Ore Stockpile will be constructed to store approximately 6,000 tonnes of ore materials.

#### Fresh Water Supply

Water for showers, toilets, etc. will be pumped to the site from nearby Admiral's Brook (England's Steady). A small intake and pump house will be constructed on Admiral's Brook using intake screens and arrangements as recommended by the Department of Fisheries and Oceans to protect fish and fish habitat. The water will be supplied to a storage tank on site via an estimated 100 mm diameter, above ground HDPE supply line. Water will be piped from the storage tank to areas around the site as required. The quantity of water required to supply the mine site is less than 1% of the flow in Admiral's Brook. As previously noted, drinking water will be imported to the site in large bottle format by local vendors.





#### Site Drainage Control

The overall site slopes gradually from east to west. Site ditching and channels will be graded and routed to discharge to a collection ditch which will run south to north along the west side of the site. This ditch will incorporate typical storm drainage control, including check dams, and will discharge to the former Ming West Open Pit. Water within the former Ming West Open Pit is directed to the site WWTP and therefore all site drainage will be treated passively and actively prior to discharge to the environment (South Brook). A schematic showing the water/effluent flow across the site is presented in Appendix A, Figure WB-2.

#### **Office/ Dry Building**

The new office/dry building for the mine site will be constructed of modular type units, occupying a footprint of approximately 1430 m<sup>2</sup>. The units will be constructed off site and assembled upon arrival. Foundations will consist of wooden cribs placed on grade.

The building will be new and has sufficient free space to accommodate the additional employees required for proposed expansion.

#### Maintenance Garage

The new maintenance garage building, located on the main access roadway, shall be a steel framed, single storey building, occupying a footprint of approximately 360 m<sup>2</sup>, with cast-in-place concrete foundations and interior slab on grade. It shall be complete with insulated cladding and roofing, mandoors and overhead door(s) for vehicle/equipment access. Interior block walls shall be provided if required. Access to a fenced storage area behind the building will be provided.

#### **Site Security**

Security at the Ming's Bight Road mine site shall consist of electric sliding gates at the main entrance access road and at the ore truck access road. A portion of the new office facility will be used as a gate house at the main entrance. Access for the ore trucks will be gained by an electronic device. Vehicles may enter the parking lot south of the office building without passing through the main gate. Road and yard areas will be lighted.

#### Septic Treatment

The Ming Mine site shall be provided with a septic treatment system for domestic sewage. It will be sized for the compliment of peak operations staff that may access the facilities. Sewage will flow by gravity in buried pipelines to the buried precast concrete chamber(s) for septic treatment. Treated effluent will flow downslope to a buried disposal field comprised of perforated piping above groundwater level into surrounding granular backfill soil material. The design of the septic treatment system will ensure that leachate rates will meet provincial requirements for environmental protection. Surface access to the septic tank(s) will be provided for periodic solids removal using suction equipment.



#### 3.1.3.2 Underground Construction and Development

Underground access will be through the portal using the main decline. The existing boundary shaft is planned to be used as a secondary egress. The main decline ramp has been fully rehabilitated; however, there are areas in the ramp that may need to be enlarged to accommodate new equipment. The ramp will then be deepened from the current depth of around 800m to a depth of 1,075m. The ramp extension will be driven at a grade of 18% with dimensions of 4.5m by 5m. The ramp extension will provide access to the Ming South Down Plunge zone and Upper Footwall zone. The existing ramp will provide access points to allow development and extraction of the 1806, 1807, and Ming South Up Plunge zones. The orientation of these zones with respect to the existing workings can be seen in Figure 3-8 below.



Figure 3-8 Ming Mine Looking SW

The mine plan is divided into two phases; Pre-production and Production. These phases are described in the following sections.

#### **Pre-Production Phase**

The task that defines the start of the preproduction period is the commencement of development of the accesses to areas of mineralization. In order to allow production to begin as soon as possible the focus of the preproduction period must be too strategically:

- Develop access to ore headings;
- Develop ore headings;
- Drill and muck necessary slashes;





- Drill production long holes; and
- Drill raises.

Completion of other construction projects that are required for mining to advance (e.g., explosive magazines, refuge stations, sump stations and other infrastructure) are required for the mining activities. This period is expected to last six (6) months after which the mine will enter the Production Phase.

#### **Production Phase**

The Production Phase is expected to last seven (7) years at a nominal rate of 850 tonnes per day of ore. Table 3-3 below describes the timing and distribution of the production by zone. Total production will be 2.1 million tonnes of ore. Using the mining methods described in Section 3.1.4.1.

	Tonnes									
Zone	Pre Prod	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	TOTAL	
1806 Zone	2,041	46,148	48,636	0	0	0	0	0	96,826	
1807 Zone	31,946	245,447	65,993	0	0	0	0	0	343,386	
South Ming Zone	0	0	124,267	199,276	167,952	240,984	306,000	236,525	1,275,004	
Upper Footwall Zone	0	0	4,577	106,725	138,046	65,015	0	0	314,363	
South Ming Up-Plunge	0	14,406	62,529	0	0	0	0	0	76,935	
TOTAL	33,987	306,001	306,002	306,000	305,999	305,999	306,000	236,525	2,106,513	

#### Table 3-3 Production Schedule by Zone

#### Mine Dewatering

The current pumping system, as designed for the dewatering of the mine, consists of 13 permanent and temporary sumps. Each sump is equipped with a 43,250 watt Flygt pump, pumping through a 150 mm pipe line with a system capacity of up to 2,450 litres per minute as seen in Figure 3-9. The mine is currently de-watered to the 2400 level, and the remainder of the main ramp will need to be pumped out prior to commencement of pre-production activities. This water will be pumped to surface and treated through the WWTP prior to being released to the environment. An estimated thirty million gallons of water remain to be pumped and treated prior to commencement of pre-production activities.





Figure 3-9 Diagram of Current Pumping System

In order to meet dewatering requirements while in production it is recommend that six larger sumps be used. Sumps number 2, 4, 6, 8, 10, 12 are planned to be used in the new dewatering configuration. In certain cases sumps are temporary structures built in inactive development headings. These sumps will need to be relocated in the area in order to allow access to these development headings for future mining activities. Each sump will consist of a clean water side and a dirty water side. Each sump will be equipped with a Technoprocess 3x2x10 60 hp pump and a Benshaw 60 hp softstart starter.

#### **Mine Electrical Distribution**

The underground mine electrical distribution system is based on high voltage feed (4,160 volt) into the mine with distribution down the ramp. Mine equipment such as face jumbos, production drills, pumps and ventilation fans will operate at 600 volts from "plug ins" equipped with ground fault protection. Step down transformers will be positioned underground where needed, and moved to follow the mining activity.



Table 3-4 shows the estimated electrical power for the underground equipment.

Equipment	Units	Watts	Total Watts	De-rating Factor	Peak Load (Watts)
Jumbo	4	111,855	447,419	70%	313,194
Ventilation Fans	12	55,927	671,129	70%	469,790
Long Hole Drill	3	59,656	178,968	70%	125,277
Diamond Drill	3	44,742	134,226	70%	93,958
Refuge Station	2	7,457	14,914	70%	10,440
Technoprocess Pumps	6	44,742	268,452	70%	187,916
Flygt Pumps	2	9,694	19,388	70%	13,572
Shop/Wash Bay	1	22,371	22,371	70%	15,660
Slushers	6	22,371	134,226	70%	93,958
Surface Fan	1	372,850	372,850	70%	260,995
Mining Camp	1	82,027	82,027	70%	57,419
TOTAL			2,345,969		1,642,178

#### Table 3-4 Estimated Electrical Power Consumption

#### Maintenance

A pre-engineered maintenance shop is planned underground on the 1800 level. Maintenance will be done underground as much as possible with major maintenance taking place on surface when required. The surface maintenance garage will be fully equipped and is located near the portal as shown on Figure 3-3.

#### **Compressed Air and Process Water Supply**

Compressed air is required for many aspects of underground work. There are two existing air compressors on surface, each supplying compressed air at 930 kilopascals at a capacity of 0.47 cubic meters per second. They will be supplemented by the addition of a third identically rated compressor. The air and water services consist of 100 mm and 50 mm diameter steel piping systems respectively and are currently installed in the main ramp down to the 2300 level. As development proceeds, these systems will be extended. Estimated consumptions are shown in Tables 3-5 and 3-6, below.

#### Table 3-5 Mine Compressed Air Consumption

<u> </u>	Requirement		Total Requirements		
Equipment	(m³/min)	Units	(m³/min)		
Jackleg	5	4	20		
Jumbo	8	4	30		
Weilden Pump	2	4	9		
LH Drill	2	4	8		
LH Blasting	2	1	2		
Development Crew	2	4	8		
TOTAL			77		



#### Table 3-6Mine Water Consumption

Faulamont	Requirement	l l mito	Total Requirements		
Equipment	(l/day)	Units	(l/day)		
LH Drills	29,069	4	116,276		
Jumbos	29,069	4	116,276		
LH Blasting	3,600	1	3,600		
Development	14.400	2	28.800		
Crew	1,100	L	20,000		
Refuge	1,920	1	1,920		
TOTAL			266,872		

#### Communications

Underground communications will be through a leaky feeder radio system via an update to date radio system. The system will be installed throughout the mine with repeaters on surface to extend communications to the entire site. Personnel will be equipped with two-way radios allowing instantaneous communication.

#### Diesel Fuel Supply and Storage

As previously described the existing diesel fuel storage areas will be constructed underground. Diesel fuel will be stored in Satstat storage and dispensing facilities equipped with 1000 US gallon fuel tanks, self-dyked to 110% capacity. Lubes will be stored in a Satstat duel tank station distributed by Rock-Tech. These containers can easily be transported by forklift for refilling and transportation throughout the mine.

#### Explosives Supply and Storage

There will be separate magazine for caps and explosives. The cap magazine is in place and will only need to be refurbished. The existing explosive magazine will need significant refurbishment or a new magazine will need to be constructed. All transportation of explosives to and from the underground magazines will be done in conformance with all applicable regulations.

#### **Consumables Supply and Storage**

Underground consumables (rockbolts, pipe and fittings, ventilation supplies, drill steel and bits, tools) will be delivered to the surface warehouse by suppliers. Underground storage areas will be set up in appropriate areas near to active workings. Transport of consumables to the underground will be by Rambler personnel.





#### 3.1.4 Mine Operation

#### 3.1.4.1 Selected Mining Method

The overall mineralization of the 1807, 1806 and upper footwall zones are very similar. The dip of the ore averages approximately 30° and the true thickness varies from 3 m up to 25 m at the widest place. Strike lengths range from 40 m up to 100 m.

The principal criteria used to select the mining method are the following:

- Minimize development waste;
- Minimize waste dilution;
- Optimize hauling;
- Maximize recovery;
- Ground stability; and
- Minimize capital investment.

#### Longhole Mining Method

Longhole mining (Figure 3-10) has been selected as the principal mining method for the mine deposit. With the ore dipping at approximately 30° drill/blast patterns will be designed to prevent hang up in the stopes. A slusher may also be utilized where applicable for final clean down purposes in the stopes.



Figure 3-10 Longhole Mining Method





The Longhole retreat method was selected to minimize exposure of underground personnel to previously mined areas and limit the need for secondary rehabilitation. Development in waste will be dependent on the attitude of the ore on individual levels and the need to promote the rilling of the ore down the footwall into a draw point configuration.

The longhole method uses two sublevels spaced between 10 to 15 vertical metres, the upper sublevel is used as a drill drift and the bottom sublevel is used as an extraction drift. These drifts may be positioned on the footwall or the hanging wall dependent on drilling and waste backfilling requirements. As the drifts are driven, primary ground support will be installed in both the drill drift and the extraction drift.

Due to the width of the ore zones it will be necessary to develop slot drives or utilize longwall slashing to mine full widths. The extraction drift may require slashing on the hanging wall and the footwall to facilitate mucking. The drill drift will only require a slash on the hanging wall with the footwall slash being taken when the stope above is mined and the drill drift becomes the extraction drift. The slashes will be drilled with a jumbo, mucked and then primary and secondary ground support will be installed. All jumbo slashing will be taken and re-supported prior to installation of secondary ground support that may be required for stoping.

As part of the longhole mining method a drop raise is required to begin a stope. Typically a drop raise of less than 50° runs the risk of having the muck hang up. A slot drift may also be driven as the ore drift is established where ore widths dictate. The stope strike lengths will be determined by using geotechnical techniques and geology data with the intension of utilizing rib pillars between stoping blocks.

Production holes will be designed using up or downhole configurations depending on the orientation of the ore. As discussed the stopes will be sequenced in a retreating manner and where possible holes will be drill parallel to the hanging wall to maintain stable ground condition. Hanging wall dilution will be controlled by utilizing strategically placed ground support and smooth wall blasting techniques.

When the production holes are drilled, blasting of the stope can begin. The drop raise is blasted in slices of 3 m to 4 m until completely blasted in order to create void space for subsequent ring blasting. A slusher is then installed to ensure that the proper flow of muck is achieved from the production holes. The production rings nearest to the drop raise are then blasted into the void space. The muck that is produced is then mucked creating a larger void space allowing for larger longhole blasts.

The stopes will be filled with waste rock to provide access to the stopes immediately up-dip and to improve hanging wall stability.





#### Post Room & Pillar Mining Method

Post room-and-pillar mining method (Figure 3-11) is commonly used in inclined ore bodies with dip angles from 20° to 55°. The room & pillar mining method has been planned in certain sections of the 1807 and 1806 ore zones. Where the ore is flat or shallow a dipping room and pillar method will be utilized with pillars geotechnically designed to provide safe access.



Figure 3-11 Post Room & Pillar Mining Method

As part of the mining method, drifts are driven in the ore at the planned elevation. The first access drift for the level is planned to be on the hanging wall whenever possible. Parallel drifts are driven initially with primary ground support installed. Secondary ground support is then designed and installed using all available structural geology data prior to mining recoverable pillars. The secondary ground support can be installed as development proceeds or once the ore development has been completed. It is typically recommended that the secondary ground support be installed once development is completed all in an uninterrupted period due to the resources required for super swellex installation.

Once the secondary ground support is installed, slashes in the pillars can be taken. The slashes are to be 2.25 m on each side of the pillars. Once the slashes have been drilled, blasted and mucked primary ground support is then installed in the remaining pillar. It is then possible to mine the lower cut. The lower cut takes the full 8 m in one blast. There are two possibilities on how to drill the lower cut. It is possible to drill into the face of the lower cut with a jumbo or to drill from the top with a longhole drill. Either method is acceptable and produces the same results.





With this method there is no planned backfill, however, to avoid hauling backfill to surface, backfill can be placed in the drifts if there are no other available places underground. Typically, this mining method will allow pillar recovery in the range of 50% or more by using remote scooptram.

#### 3.1.4.2 Production Capacity

Table 3-7 shows the Ming Mine production schedule in tonnes, base on mining approximately 850 metric tonnes per day (mtpd) for 360 days a year for seven years.

		Pre Prod	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	TOTAL
Ore Production	(mt)	33,987	306,001	306,002	306,000	305,999	305,999	306,000	236,525	2,106,513
Cu %	(%)	2.86	2.99	1.57	1.54	1.34	1.83	1.39	1.43	1.75
Au g/t	(g/t)	1.17	2.08	1.76	2.15	2.20	1.66	2.72	2.85	2.16
Ag g/t	(g/t)	5.43	10.34	8.34	7.12	7.26	7.89	10.34	12.88	8.99
Zn %	(%)	0.26	0.70	0.45	0.78	0.25	0.36	0.46	0.56	0.50

#### Table 3-7Mining Production Schedule

The planned mine operating schedule is based on two 11 hour shifts per day on a continuous basis. Four crews will work on a 7 days on, 7 days off schedule. Certain positions within functions such as mine services, technical services and mine and maintenance supervision will be scheduled for day shift coverage only.

#### 3.1.5 Environmental Control

Given that the Ming Mine site contains mine waste material that is potentially acid generating (PAG), it is important to design and operate the site in a manner that minimizes the impact on the surrounding environment. Impacts from past operations are quite evident as vegetation has been destroyed and water quality has been impaired in areas in and around the site.

Rambler plans to implement environmental controls to ensure operations are conducted in a manner minimizing the impact to the environment as much as possible. In general, the environmental controls are as follows:

- Since some of the waste rock generated from underground development will be PAG, as much of this material as possible will be kept underground to minimize the environmental impact. Any waste rock that must be brought to surface will be stored within the proposed engineered waste stockpile area near the Ming West Pit. All site runoff will be directed toward to the Ming West catchment and processed through the WWTP. To avoid any longterm environmental liability all PAG brought to surface will eventually be stored back underground to inhibit generation of acid;
- All waste rock used to upgrade or construct site roads will be non-PAG material;




- An acid drainage (ARD) test program will be carried out to ensure proper identification and separation of PAG and non-PAG materials. To be conservative all waste and ore materials are currently considered PAG for the purpose of planning, handling and storage requirements;
- Any PAG waste rock that is excavated to make way for building foundations will be transported to the waste stockpile area and eventually will be placed underground;
- All Mine water will be transferred to the Ming West catchment through a series of sumps throughout the mine and treated and sampled prior to discharge; and
- Continuous environmental monitoring and sampling of the effluent discharge water as well as surface water locations on and around the site.

### 3.1.5.1 Environmental Monitoring

### Mine Dewatering

As part of the mine dewatering for exploration, Rambler constructed an on-site WWTP to treat and neutralize the effluent associated with the dewatering process. In June of 2007, under Certificate of Approval (C of A) No. AA07-055494, Rambler was permitted to operate the WWTP and discharge all effluent to South Brook. As a condition of the C of A, Rambler was required to demonstrate the effluent discharged into South Brook complied with all discharge criteria including Acute Lethality Testing (ALT). During mine dewatering operations an influent and effluent monitoring program was implemented as per the requirements outlined within Rambler's C of A. Acute Lethal Testing (ALT) of the WWTP discharge water is another condition in the C of A.

As part of the monitoring program the accumulated sludge within the WWTP was to be tested, on a monthly basis, for parameters outlined in the C of A. Should the sludge exceed the Canadian Soil Quality Guidelines (CSQG) for commercial land use, a Toxicity Characteristic Leaching Procedure (TCLP) would be required to determine if the material is considered hazardous. Subsequent testing of the sludge determined it was not hazardous and therefore could be stored underground as per the C of A.

To date a total of approximately 1.55 billion litres of treated waste water has been discharged from the WWTP into South Brook. The discharge water quality has been very good, with some minor exceedences, to the C of A limits, and all results have been reported to the NL Department of Environment and Conservation, Pollution Prevention Division, as required in the C of A. When the minor exceedences occurred, generally due to significant precipitation events, the WWTP process was immediately adjusted to address the issue.

During the dewatering, numerous TCLP tests were completed on the accumulated sludge, within the WWTP, as per the C of A. To date all sludge has been classified as non-hazardous; therefore, disposed of in the Ming West Mine underground workings as outlined in the C of A.

A total of nine ALT's were completed from the inception of the dewatering program to present and all were positive with a 0% mortatility rate. The results of the ALT test conducted during the





week of January 18, 2009 were inconclusive, as fish both died in the sample as well as the control. This test is inconclusive and has been removed from the statistics.

Since dewatering commenced in June 2007 to present, as a requirement of their operating C of A's, Rambler submitted monthly reports to the Department of Environment and Conservation, Pollution Prevention Division outlining the results of the monitoring and sampling program. To date there has been no significant environmental issues reported.

### **Baseline Sampling**

Rambler has implemented a quarterly baseline study and environmental effects monitoring at the Ming Mine site and surround area since September 2006 to present. No samples were collected during 2007 as the main focus was mine dewatering. As part of this study, Rambler tested 19 surface water sampling sites at locations both upstream and downstream of the WWTP discharge point into South Brook. Through these studies Rambler has determined that the water quality both upstream and downstream revealed pre-existing concentrations of aluminum, cadmium, copper, iron, lead, zinc and pH all exceeding the Canadian Council of Ministers of the Environment (CCME) Canadian Water Quality Guidelines for the Protection of Aquatic Life (FWAL 2007, Update 7.1) and/or the Metal Mining Effluent Regulations (MMER) Authorized Limits of Deleterious Substances on a continuous basis. Refer Appendix A for a site plan outlining sampling locations. As previously noted, Rambler will work with the appropriate regulatory agencies to determine what environmental effects monitoring will be required for the Project.

# 3.1.6 Potential Sources of Pollution

The following are potential sources of pollution identified during the construction, development, and operation of the Ming Mine.

### 3.1.6.1 Surface Stormwater Drainage and Mine Effluent

As surface water drainage will come in contact with site infrastructure and mine ore and waste, this water may contain suspended solids and metal concentrations. All site runoff will be directed toward the Ming West catchment and collected in the underground sump. Once water levels reach a maximum level all water will be batched treated in the existing WWTP then tested to ensure compliance prior to being released to the South Brook discharge point.

Mine dewatering effluent will be transferred to the Ming West catchment through a series of sumps throughout the mine and treated and sampled prior to discharge to the environment (see Figure WB-1, Appendix A).





### 3.1.6.2 Waste Rock

Given the site already contains fill materials from previous operations that are PAG, any PAG material that is excavated to make way for building foundations or new roads will be transported to the waste rock stockpile area and await to be placed underground.

All waste rock used to upgrade or construct site roads will be non-PAG.

The majority of the development waste rock generated underground will be non acid generating (NAG); however, some is likely to be PAG. As much of this material as possible will be kept underground to minimize the environmental impact. Any waste rock that must be brought to surface will be stored within the proposed engineered lay down area near the Ming West Pit. All runoff will be directed toward to the Ming West catchment and processed through the WWTP. To avoid any long-term environmental liability all PAG materials will eventually be stored underground to prevent any further generation of acid.

#### 3.1.6.3 Domestic Sewage

Domestic sewage including grey water will be piped to an engineered septic disposal system. No other advanced treatment options are anticipated for this operation.

#### 3.1.6.4 Domestic Waste

Rambler anticipates that domestic waste will be generated in small quantities. Rambler currently has access to both the Ming's Bight and Baie Verte Municipal dumps for normal garbage disposal. Proper on-site storage and transportation will be provided. Any non-hazardous process waste will be similarly handled.

#### 3.1.6.5 Other Waste

Other waste materials including non-hazardous industrial waste (tires, containers, pallets, etc.) and technology-related wastes (batteries, computers, etc) will be identified and Waste Management Plan (WMP) will be implemented to ensure these materials are reused or recycled where possible and practical.

#### **3.1.6.6 Hazardous Waste**

Any hazardous waste generated on-site will be stored in accordance with the appropriate regulations and moved off-site by a licensed contractor to an approved facility. Currently there are no approved hazardous waste facilities in Newfoundland; therefore any such waste will have to be moved outside the Province. The Transportation of Dangerous Goods Regulations will apply the movement of such waste.





### 3.1.6.7 Petroleum, Oil and Lubricants

Construction and mining activity poses a risk for the release of petroleum, oil and lubricants from construction and operating equipment. Rambler will ensure that all contractors and company equipment are inspected on a regular basis to ensure compliance.

During the construction and operations stage authorized self-dyked fuel storage tanks along with emergency spill kits will be located both underground and above ground. Used oils and lubricants will be contained in proper bins and disposed of by a licensed waste oil handler.

### 3.1.7 Noise

As the mine site is remote from any dwellings, noise will not affect local residents. Noise will also be decreased by the topography and the site is situated within a heavily forest area. All blasting will be conducted underground; therefore blasting noise effects on wildlife will be minimal.

### 3.1.8 Air Emissions

The only air emissions will result from vehicles on the site. All company and contractor vehicles are required to be in good and safe working conditions.

### 3.1.8.1 Dust

The only potential source of dust will be from the on-site roads and the ore trucks. The ore trucks will be covered and dust will be controlled through the application of water, if required.

# **3.1.9** Potential Resource Conflicts

### 3.1.9.1 Wildlife

As the area has undergone mining operations in the past and there is no additional cutting or clearing required, there are no wildlife conflicts anticipated for the current proposed undertaking.

Some moose, rabbit, fox, squirrel and small game birds have been observed in the area. A no hunting, fishing, and trapping policy will be implemented within the surface lease area surrounding the mine site.

### 3.1.9.2 Water Resources

No water resource conflicts are anticipated, as there are currently no other users in the project area. Water required for showers, toilet's etc. will be pumped from Admirals Brook directly to the surface storage tanks for distribution, as required and the volume of water required is estimated to be less than 1% of the actual flow. Water for fire fighting and underground work requirements will be stored in a tank within the WWTP. This water will be treated water, from





the WWTP, and will be maintained at a constant volume of water within the system to ensure sufficient water is available at all times. Drinking water will be imported to the site in large bottle format by local vendors.

The discharge to South Brook will be monitored and sampled to ensure compliance with applicable provincial and federal water quality criteria.

### 3.1.9.3 Land Use

The mine site and general vicinity has been previously cleared of timber; therefore no land use conflicts are anticipated.

There is some woodcutting that takes place in the general area of the site by local residents for domestic use only; however, there is no commercial woodcutting in the area. There may be some hunting and sport fishing in the general area; however, the proposed undertaking will not have any significant effect on such activities.

### 3.1.9.4 Vegetation

The site was previously cleared of vegetation to accommodate previous mining activities and no additional clearing is necessary.

### 3.1.9.5 Fish and Fish Habitat

Fish and fish habitat will not be altered, disturbed nor destroyed by the proposed undertaking. All waste water and run-off generated from the site will be directed through the WWTP prior to being discharged into South Brook. The amount of water required to be drawn from Admiral's Brook for fresh water supply to the mine will not have any adverse impact on fish or fish habitat as the flow required for the supply is less than 1% of the actual flow. Fish screens will be installed on the water intake to protect fish in the brook.

No new stream crossings are proposed.

### **3.1.9.6** Socio-economic

Rambler has conducted community and public consultations in Baie Verte and surrounding area to present the details of this Project with favourable response. In general, this Project will create direct employment, economic activity in the area, and indirect business and economic growth in the Baie Verte area. Additional socio-economic information is included in Section 4 and 5.

# 3.1.9.7 Alternatives to the Project

Much of the infrastructure required for the new operation is existing there are no alternatives to the location of the Ming Mine ore body. Also, the re-development and use of the Ming Mine site requires virtually no new clearing, road, land use, or other environmental impacts. As the environmental impacts of this project are minimized by use of the existing site and



# 3.2 Nugget Pond Mill Site

# 3.2.1 Geographic Location

The Nugget Pond Mill is located on the Baie Verte, Peninsula, approximately 6 km west of the community of Snook's Arm and approximately 40 km from the Ming Mine, geographic co-ordinates: 49°50'N Latitude and 55°45'W longitude (Figure 3-1).

# 3.2.2 Physical Features

Nugget Pond mill is a licensed mill that operated as recently as December of 2009. Much of the required infrastructure currently exists; however, there is a requirement for additional and/or refurbishment of some buildings. Refer to Figure 3-12, Figure 3-13 and Figure 3-14 for existing and planned infrastructure layout respectively. The Nugget Pond property covers approximately 10 hectares.

Existing infrastructure at the Mill Site includes:

- Road and Yard area;
- Office Building;
- Assay Lab;
- Sewage Treatment Plant;
- A Large Maintenance Garage;
- Cold Storage Buildings;
- Mill Building including Crusher, Ore Bin, Thickener and Leach Tanks;
- Ore Stockpile Area;
- Fuel Storage and Dispensing Facilities;
- Security House;
- Reclaim and Fire Pump House;
- Emergency Generator; and
- Tailings Pond, Polishing Pond and associated infrastructure (TMF).

A detailed description of the existing infrastructure is outlined below.

# 3.2.2.1 Road and Yard Area

The site has an existing access road from Route 416, La Scie Highway, directly to the mill site along with several secondary site roads. All roads have been well maintained and are ready for use. Some minor adjustments to on-site roads and access may be required to accommodate new infrastructure.



















# Figure 3-14 Aerial Photo of the Nugget Pond Mill Site

(see also large scale Figure in Appendix A)

### 3.2.2.2 Office Building

The office building is a stationary wooden structure, with a crawl space, occupying a footprint of approximately 380 m<sup>2</sup>. The building is in excellent condition and has sufficient free space to accommodate the additional employees required for proposed operation.

### 3.2.2.3 Assay Lab

The assay lab occupies a footprint of approximately  $122 \text{ m}^2$ . The building itself is a stationary wooden structure with a crawl space and is in excellent condition. The building has sufficient space to accommodate the laboratory testing required by the proposed operation.

### **3.2.2.4** Sewage Treatment Plant

The sewage treatment plant is situated within a stationary wooden structure housing an inground sewage treatment unit. The building is in excellent condition occupying a footprint of approximately  $27 \text{ m}^2$ .

#### 3.2.2.5 Maintenance Garage

The maintenance shop/garage is a steel structure with a concrete foundation, occupying a footprint of approximately 200 m<sup>2</sup>. The building is in excellent condition and capable of accommodating all required activities associated with the proposed operation.

### 3.2.2.6 Cold Storage Buildings

There are three cold storage buildings on-site that can be utilized for a variety of purposes. Two of the buildings are stationary wooden structures with an exposed gravel floor, each occupying a footprint of approximately 200 m<sup>2</sup>. The third cold storage building is currently used for chemical storage. This building is a stationary wooded structure with a concrete, spill- contained (dyked) foundation, with a footprint of approximately 200 m<sup>2</sup>.

All cold storage buildings are in excellent condition and occupy a footprint totaling approximately  $600 \text{ m}^2$ .

### 3.2.2.7 Mill Building including Crusher, Ore bin, Thickener and Leach Tanks

The current gold hydromet plant is housed within the mill building. The building is a stationary metal structure with a concrete foundation occupying a footprint of approximately 835 m<sup>2</sup> and is in excellent condition.

### 3.2.2.8 Ore Stockpile Area

The ore stockpile is located between the Mill Building and the Tailing Pond. It is understood to be founded on a till pad that drains directly to the Tailings Pond.



### **3.2.2.9** Fuel Storage and Dispensing Facilities

There are several self-dyked fuel storage tanks and dispensing facilities located on-site. All storage tanks are equipped with secondary containment at a capacity of 110% of the tank storage volume and installed as per the Gasoline and Associated Products (GAP) Regulations (2003).

### **3.2.2.10** Security and Access Gate

There is a security checkpoint and gate located along the access road to the mill site. The gate is operated remotely from the site.

### 3.2.2.11 Reclaim and Fire Pump House

The reclaim pump house is a portable metal building with a concrete foundation housing a reclaim water pump and fire pump and is located at the Tailing Pond, adjacent to the Mill building. The building occupies a footprint of approximately 7  $m^2$  and is in excellent condition.

### 3.2.2.12 Emergency Generator

The emergency generator is housed in a steel structure. The structure is portable and occupies a footprint of approximately  $35 \text{ m}^2$ .

### 3.2.2.13 Potable Water Supply

An existing artesian well system supplies Potable Water to the site. This well is routinely tested to ensure it meets or exceeds Canadian Drinking Water Guidelines.

### 3.2.2.14 Power Supply and Electrical Configuration

The power supply for the copper flotation circuit will be connected to the existing transformer system without the need for additional transformer capacity. A main power feed will be routed from the existing motor control room to the supply power for the copper. The new concentrator will have an independent grounding grid.

### 3.2.2.15 Emergency Power Supply

The operation of the existing gold hydroemtallurgical facility has a back-up diesel power generator. The back-up power requirements for the copper flotation will be utilized from the existing emergency power generator.

### 3.2.2.16 Tailings Pond, Polishing Pond and Associated Infrastructure

### Existing

The Nugget Pond TMF was constructed in 1996 and came into operation in 1997. The facility has been used to store tailings from several deposits including potentially acid generating





materials. Tailings deposition has been conducted subaqueous via flexible, floating slurry pipelines extending from the partially buried 300 m primary tailings pipeline. The discharge pipe is placed near the bottom of the pond (average 7-8 m depth) ensuring that wave action and surface (thermal) water currents do not disrupt the settlement of tailings solids and allows sufficient effluent retention time to achieve the required suspended solids concentrations for discharge.

The proposed TMF operation, to Mill the Ming Mine ore, will be essentially the same as it has operated in the past. Some change to discharge frequency may be required. The TMF components are depicted in the original TMF site plan included in Appendix A, and may be summarized as follows:

- Tailings Pond: Tailings are deposited subaqueously in the Tailings Pond to provide water cover to inhibit oxidation of the potentially-acid-generating tailings materials deposited during past projects. Effluent is discharged to the Polishing Pond via a decant structure located at Dam 1. Effluent release to the Polishing Pond has typically occurred as batch release or as required (by pond level) and each release from the Tailings Pond reduces the water level in the pond by approximately 0.2 m in depth.
- Tailings Pond Outlet Structure: Effluent is discharged from the Tailings Pond via a box culvert. Effluent discharge is controlled via a steel/wood gate which can be raised and lowered manually to adjust discharge flow.
- Polishing Pond: Effluent discharged from the Tailings Pond enters and is held within the Polishing Pond prior to release to the environment. The procedure previously used to discharge from the Polishing Pond occurred as follows:
  - The Polishing Pond's water level is typically allowed to increase to a depth of 0.5 m below the dam crest;
  - At that time, the control structure's stop-log gate is opened for approximately 3 days, reducing the water level in the pond by approximately 1.2 m; then the Polishing Pond dam is closed and allowed to refill and the cycle is repeated.
  - Releases from the Polishing Pond averaged 10 times per year depending on the weather and water levels. During historical operation the discharge frequency varied at times due to variances in annual precipitation and the water chemistry within the TMF. For Rambler's proposed operation the discharge frequency may be adjusted.
- Polishing Pond Outflow Structure: Effluent is discharged from the Tailings Pond via a box culvert. Effluent discharge is controlled via a steel/wood gate which can be raised and lowered manually to adjust discharge flow. A small heated wooden structure, constructed on the downstream outlet of the culvert, allows sampling of the discharge.
- Dams: The three (3) containment dams are zoned earthfill dams incorporating a low permeability glacial till core wrapped in a non-woven geotextile fabric, and are founded on bedrock. The upstream/downstream shells (slopes and driving surface) are constructed of a 600 mm layer of 125 mm minus free-draining crushed rock material. The dams are designed to be overtopped and thus do not have or require spillways. Rare high water events are controlled using a siphoning system.





• Monitoring Wells: Four (4) monitoring wells have been installed at key locations around the TMF facility. These wells enable the collection and testing of groundwater levels and water quality surrounding the TMF.

### Future

The TMF will be operated by Rambler in the same manner as it has been operated historically. Rambler's process and environmental engineering consultants have reviewed all aspects of the Tailings Management Facility design and operation and the following items (section 3.2.2.16 to 3.2.2.19) have been addressed.

# 3.2.2.17 Tailings Storage Capacity

The storage capacity of the TMF has been reviewed and determined to be sufficient for the proposed Project. A bathymetric survey of the Tailings Pond, process mass and water balance, and tailings gradations have been assessed and used to calculate the capacity of the impound:

- The bathymetric survey, conducted in 2009, on a 50 m by 50 m grid, indicates that the Tailings Pond has approximately 1.90 million cubic metres of storage capacity;
- In order to maintain a minimum of 1 metre of water cover to inhibit tailings oxidation and sufficient 'free water volume' to provide sufficient retention for settling of tailings solids the total available volume in the impoundment is adjusted to approximately 1.65 million cubic metres. Note this storage capacity has also been adjusted for the tailings deposited in the impoundment during the toll milling contract with Anaconda Mining Inc. in 2009;
- Based on the tailings gradation for Rambler's process and the geological parameters of the deposit material (ore), 2.10 million tonnes of tailings will require approximately 1.35 to 1.45 million cubic metres of storage capacity; and
- This storage capacity requirement has been calculated using assumed, conservative values for the settled density of the tailings materials (1.4 to 1.5) compared to typical, published values for settled densities for similar mineral deposits (1.6 to 1.8). Rambler will conduct controlled area tailings deposition with bathymetric surveys to confirm the actual settled densities and storage capacity during operations.

# 3.2.2.18 Effluent Treatment and Control

The primary tailings effluent treatment will take place within the mill, prior to release to the TMF. Bench testing for the new copper circuit and the resulting process effluent has shown that very minor levels of thiosalts will be produced (0.1 tonnes per day). Evaluation of these thiosalt levels, process mass and water balance, and the capacity of the TMF indicates that the thiosalt levels indicated will be easily manageable without additional treatment or timed release of effluent from the TMF even with the reduced "free water" volume over time. Lime addition at the tailings sump box will be possible to manage thiosalt concentrations if required. Additional characterization of the effluent from the bench scale copper flotation lock cycle test metallurgical test work with reclaim of water for each cycle) is provided in Appendix B.





As tailings are deposited in the impoundment over the course of the project, the free water volume available for effluent retention in the Tailings Pond will be reduced. Rambler will constantly evaluate and plan tailings deposition during operations within the impoundment to optimize effluent retention. Based on the current estimated tailings effluent quality, tailings storage requirements, and the general operating parameters of the TMF, there will be a sufficient free water volume maintained for effluent treatment over the life of the Project. A schematic of the water/effluent flow for the site is provided on Figure WB-2 located in Appendix B.

# 3.2.2.19 Mill Reclaim Water

Currently, mill reclaim water is extracted from the Tailings Pond in an area close to the Mill. For the future operation of the mill, reclaim water will be drawn from the Tailing Pond and/or the Polishing Pond.

Planned infrastructure to support the new Mill operations includes (Figure Nos. 3-13 and 3-14):

- Scale;
- Reclaim water system (moved or new); and
- Mill building addition to house copper floatation circuit.

### 3.2.2.20 Truck Scale

A new truck scale will be built to weigh the concentrate trucks prior to leaving site.

### 3.2.2.21 Reclaim Water System

The new copper flotation circuit is sensitive to residual chemistry levels in the water reclaimed for the process. If the water reclaimed from the Tailings Pond (current configuration) is not suitable for use in the copper flotation circuit. The reclaim water pump will be moved (or a new one installed) at the Polishing Pond. This would not be expected to significantly alter the water balance with respect to the TMF.

# 3.2.2.22 Addition to Mill Building

The existing gold concentrator will be modified to process base metals sulphides from the Ming Mine through the addition of a copper flotation circuit. The copper flotation circuit and associated equipment will be housed in a stand-alone building (approximately 28m x 44m) that will be adjacent to the existing mill building via piping, conduits and a man-way.

### Process Water Supply

The process water make-up for the copper flotation concentrator will be based on reclaim of water from the tailings pond and/ or polishing pond. The reclaim of water from the Tailings Pond will utilize the existing pumping system. In the event that water will be reclaimed from the





Polishing Pond, a new pumping system will be installed to provide additional water make-up for metallurgical processing.

#### Fire Protection Water

The mill building is protected by smoke detection system as well as fire suppression. Multiple fire extinguishers are placed in strategic areas as well as hose boxes and stand pipes on floors 1 & 2. Around the site there are 4 fire hydrants and hose boxes complete with hoses, nozzles, and wrenches. A Fire pump and jockey pump are located at the reclaim pump house which maintains pressure within the system. All emergency response equipment is inspected and kept up to date on a regular basis. The fire suppression requirements for the mill building extension are currently being evaluated with the final building design to ensure compliance with all applicable codes.

#### Water Management

The site water management plan is based on the reclaim / reuse of water from the TMF for the concentrator. The amount of make-up water, reclaim from the Tailings Pond and the discharge to the environment will be dependent on precipitation. The overall site water management system includes:

- Use of raw water for emergency fire system;
- Reclaim water from the Tailings Pond and/or Polishing Pond for use by the concentrator;
- Treatment of tailings from the concentrator prior to discharge to the TMF;
- Use of tailing disposal area residence time for degradation of the residual reagents; and
- Balance of water not reclaimed from Tailings Pond controlled discharge as final effluent.

The ability to reclaim water from the Tailings Pond for operations is dependent on the build-up of water hardness and reagents. Therefore, the quality of water will be monitored to control the volume of reclaim, estimated in the range of 70 percent to 100 percent of the Tailings Pond effluent. In the event that reclaim water from the Tailings Pond has an impact on the performance of the flotation circuit, water will be recycled from the Polishing Pond. Figure WB-2, located in Appendix A, provides a schematic of water/effluent flow for the site.

### **Domestic Sewage**

This site is currently operating a Cromaglass sewage treatment system that returns treated sewage to the reactor and then discharges to the Polishing Pond.

# 3.2.3 Construction and Development

Much of the required infrastructure currently exists at Nugget Pond to support the proposed undertaking. The control room, shop, washrooms and locker rooms in the existing facility will be used to support the concentrator operations.





The existing crushing and grinding circuit within the gold hydrometallurgical facility will be used to supply ground ore to the copper flotation. Therefore construction of the concentrator facility will be used to house all unit operations associated with the copper flotation circuit. The building extension will consist of spread and strip concrete foundation, concrete slab, and fabricated metal siding. The building will contain tanks, piping, and electrical systems related to the process equipment required for copper flotation.

The existing Tailings Pond and Polishing Pond system will be used for disposal of tailings from the concentrator and upgrades to the existing infrastructure (dams, flow conveyance structures etc.) are not required.

An existing area on site will be used as a lay-down for outside storage of equipment delivered to site. Upgrades to lay-down area are not required.

Equipment procurement and delivery to site will be scheduled for the second and third quarter of 2010. Construction of the concentrator is to begin as early in 2010 as possible, pending project release and approvals, for completion of construction for the first quarter of 2011.

# 3.2.4 Operation

Operation of the copper flotation circuit is based on a 24 hour- 7 day a week operation. The onstream availability for annual operating hours which includes down time for maintenance is expected to be about 90% - equivalent to 7,884 operating hours annually.

Production of copper concentrate is based on an average grade of 3% copper and 1,000 tonne per day name-plate capacity (at ~92% recovery of copper as copper concentrate averaging a 29% copper grade) is 16,000 wet metric tonnes of copper concentrate annually. Copper concentrate will be dewatered to achieve a maximum of 8% moisture for bulk shipment. The concentrate will not be shipped dry.

Reagents used for copper flotation will be delivered to site in bulk bags or drum containers and/or tote tanks which are stored in the existing chemical storage facilities. The reagents will be moved from storage to the concentrator on an as-required basis. Reagents will be mixed within the concentrator building and contained in mix tanks installed within a containment berm area.

Copper concentrate will be dewatered and housed within a storage cell located within the concentrator. The storage cell with perimeter wall containment will have front-end loader access to enable bulk loading of the concentrate transfer trucks.

Tailings produced from the flotation process may contain a nominal amount of free gold that may prove to be economically extractable. Testing to date however has not confirmed that this process is viable therefore the floatation expansion at Nugget Pond will not include any secondary gravity separation processes.





Tailings from copper flotation may be routed directly to tailings or to the existing tailings treatment system within the gold hydrometallurgical facilities prior to discharge to the tailings pond.

# 3.2.5 Process Description

The concentrator process was designed for the production of copper concentrate from the run of mine ore and optional gravity processing of the flotation tailings for additional gold recovery. The flowsheet configuration and selection of unit operations is considered an industrial standard for comminution, chalcopyrite flotation and tailings treatment.

The conceptual process is illustrated by Figure 3-15. The existing Nugget Pond facility is equipped with ore storage, crushing, a grinding circuit and tailings treatment. The copper flotation, concentrate dewatering/handling will be part of an add-on facility. Transfer of reclaim water for process water within the copper flotation - will be done by existing remote pumping stations.



Figure 3-15 Concentrator Concept Process Flowsheet





### 3.2.5.1 Ore Storage and Crushing (Existing)

Run of mine ore will be delivered by trucks from the Ming Mine site to the existing ore storage area at the Nugget Pond site. The ore storage area will provide a buffer to allow for limited downtime of mining operations.

The existing primary jaw crusher will be used to reduce the run of mine ore size to produce an acceptable feed to the grinding circuit. Crushed ore will be stored in the existing crushed ore storage silo. Crushing operations are expected to operate for two shifts per day.

# 3.2.5.2 Grinding (Existing)

The existing Nugget Pond facility includes a conventional two-stage wet grinding circuit using a semi-autogenous grinding (SAG) mill followed by a ball mill which will provide typical grind fineness for copper flotation. The crushed ore will be fed continuously 24 hours per day from the storage silo to the SAG mill.

### 3.2.5.3 Flotation (New)

The fine ore slurry produced in the grinding circuit will be fed to a new flotation circuit to recover copper concentrate using rougher, cleaner, and scavenger as staged recovery operations. Gold and silver will be recovered as byproduct of the copper flotation. The reagent scheme selected based on locked cycle flotation tests is as follows:

- Collector for Copper and Gold: Cytec Aerophine 3418A
- Zinc Depressants: Zinc sulphate (ZnSO4) and sodium cyanide (NaCN)
- Frother: Methyl isobutyl carbinol (MIBC)
- Alkalinity Control (pH): Lime

The flotation system is based on multi-stage flotation cells making up each flotation bank. A lowgrade copper-gold concentrate will be produced in the rougher flotation bank to maximize copper and gold recovery. The scavenger flotation circuit will process the rougher circuit tails to recover more of the contained copper and gold and the scavenger concentrate will be recycled to the rougher circuit. The final flotation tails will be pumped from the scavenger tails pump box to the existing tailings treatment area of the plant.

A cleaner flotation circuit will be used to produce a final copper-gold concentrate from the low grade rougher concentrate. The cleaner flotation circuit will be a three stage with counter-current recycling of tailings from each cleaner stage to the previous stage.

An Acute Lethality Test (ALT) has been conducted on the effluent resulting from the bench scale copper flotation lock cycle test (metallurgical test work with reclaim of water for each cycle). The results of the test reported zero (0) percent mortality.





### **3.2.5.4** Concentrate Dewatering and Storage (New)

The final copper-gold concentrate collected from the third cleaner stage will be thickened in a concentrate thickener located inside the new flotation building. A recessed plate filter press will be used to dewater the copper-gold concentrate to final moisture content specifications. Water removed from the concentrate thickener and filter press will be sent to the flotation tailings pump box.

The dewatered concentrate filter cake will be dumped in batches into a storage bunker under the filter press, within the flotation building. Concentrate will be loaded from this intermediate storage area using a front end loader on to trucks which will transport the concentrate to the Goodyear's Cove port storage facility.

# 3.2.5.5 Tailings Treatment (Existing)

The combined total tailings including flotation tailings, water from concentrate dewatering, floor washdown, and the optional gold cyanide leach will be collected and processed in the existing tailings treatment system. The tailings stream will then be pumped to the existing Tailings Pond using the existing final tailings pump box and pumps.

### 3.2.5.6 Tailings Pond and Wastewater Reclaim (Existing)

Treated tailings will be pumped to the existing Tailings Pond, which also receives precipitation and any site run-off that is not diverted. The Tailings Pond is intended to assist in the oxidation/breakdown of flotation reagents and thiosalts. Once tailings solids settle in the pond, the water will be reclaimed and pumped back to the concentrator for process water. The excess water not required for the process will discharge from the Tailings Pond to the Polishing Pond for release to the environment. A preliminary water balance for the mill with the copper flotation circuit is presented in Appendix B.

# 3.2.6 Environmental Control

The Nugget Pond Facility was first constructed in June 1997 by Richmont Mines to process ore from its own underground gold mine. Since its initial closure in 2002 the facility has processed ore from three separate deposits all reporting full environmental compliance. Tailings disposal and wastewater control are the major environmental issues at the Nugget Pond Site and are fully managed during operations.

Rambler plans to operate the existing tailings treatment system located inside the main mill building, on a continuous basis. Treated tailings will be pumped to the tailings pond as described in the previous section. All tailings will be submerged in the tailings pond; therefore acid generation from the reactive tailings will not be an issue. The existing impound facility has more than 7 years of tailing capacity without any modification to the existing infrastructure.





### 3.2.7 Environmental Monitoring

As part of the operational C of A, AA08-045502, the Nugget Pond Facility is required to perform a *Water Quality and Effluent Monitoring Program*. This program lists the sample site locations, the required sampling frequency, and the testing parameters necessary.

### 3.2.7.1 Water Quality and Effluent Monitoring Program

Under the *Water Quality* portion of this program, quarterly grab samples from specific surface water locations within the property are sampled. In addition, bi-yearly monitoring wells are also purged and analyzed externally.

The surface water locations were determined from the baseline water quality program initiated by Noveder in 1994. At that time and during the project registration phase, seven (7) surface water locations and six (6) monitoring well sites were active. Over the years, Department of Environment (DOE) has reduced this requirement down to four surface water locations and four monitoring well sites. Refer to Figure 3-14 for sampling locations.

The bi-yearly monitoring wells are each equipped with various lengths of dedicated ½"plastic tubing, with a foot valve attached to the end of the tubing to allow for well purging. Before sampling commences, the well is first pumped dry and left for a 24-hour period to fill again. This allows for a more representative sample. Once 24 hours passes, the wells are sampled and sent to the external laboratory for analysis.

The *Effluent Monitoring* portion of the program requires mill effluent to meet the criteria outlined in the C of A. The Nugget Pond Facility has historically employed a batch system for effluent release between the Tailings Pond and Polishing Pond. Water is retained and closely monitored in the Tailings Pond until it has reached a selected height. The dam is then opened and effluent is directed downstream to the Polishing Pond.

The Polishing Pond is equipped with a dam and a spillway containing a sump pump to allow for total containment of liquid effluent. Upon release, a 24-hour composite sampler is activated to collect 24-hour composite samples for the duration of the release. In addition, Acute Lethality Test (ALT) on fish and daphnia must be performed during each release. Once all samples are collected and the pond is drawn down, the dam is closed and a new batch of effluent is released from the tailings pond. Effluent discharges occur over approximately 1-3 days and on an average of 10-12 times annually.

Over the past 10 operating years, the Nugget Pond Facility has maintained a perfect record of operation with no bioassay failures and only a small number of occasions where a test result for ammonia slightly exceeded the allowable limit. When the minor exceedences occurred, immediate action was taken to correct the issue. All test results were reported to the Department of Environment and Conservation.





### 3.2.7.2 Effluent Monitoring and Effluent and Water Quality Program (MMER)

The Nugget Pond Facility began Environmental Effects Monitoring (EEM) under the new MMER in June 2003. This monitoring is similar to the provincial *Water Quality and Effluent Monitoring Program*. On a quarterly basis, surface water samples are collected from three locations on and around the property: Polishing Pond (Final Discharge Point), Scote Pond (Reference Pond), and Horseshoe Pond (Exposure Pond). Refer to Figure 3-14 for sampling locations. These areas were identified and accepted as valid sample locations prior to the beginning of the EEM program. Also, a sub-lethal toxicity sample must be collected at the same time. This was required twice a year initially but has been since reduced to once a year.

Considering the similarity of both programs, especially the frequency, it has been possible to collect one set of required samples to satisfy both Environment Canada (EC) and DOE. All results from MMER testing must be reported quarterly. Annual summary reports from the programs are also required.

Under MMER, there is a requirement for biological monitoring studies to be performed on a schedule determined by the results of the previous study. With the submission of available historical data from the Nugget Pond Facility, this program was deferred until 2005. Since that time, two biological monitoring studies have been performed and interpretative reports have been submitted to EC for review. In all, both studies have concluded that the discharge effluent from the Nugget Pond Facility have no adverse effects on downstream fish populations.

# 3.2.8 Potential Sources of Pollution

The following are potential sources of pollution identified during the construction and operation of the Mill site:

# 3.2.8.1 Water

All run-off water and process water is directed to the TMF and discharged and or pumped back to the mill for re-use. Therefore all process and stormwater is held and treated prior to release to the environment (see Figure WB-2, Appendix A).

### 3.2.8.2 Ore

Very little acid generation is anticipated for the short time that ore will be stockpiled at the mill site. All run-off from the stockpile is directed to the Tailings Pond and therefore any minor amounts of low pH water will therefore be captured and treated prior to release to the environment.

Approximately one week or 6,000 metric tonnes of ore will be stock pile on surface to allow for continuous processing.



### 3.2.8.3 Tailings

All tailings solids will be submerged at a minimum of one (1) meter in the tailings pond; therefore acid-generation will be curtailed. Effluent will be neutralized in the mill prior to release to the environment.

#### 3.2.8.4 Process Effluent

Process effluent discharged to the environment will be treated via the TMF prior to discharge and will be in compliance with applicable guidelines and/or regulations.

#### 3.2.8.5 Domestic Sewage

The mill site is currently operating a Cromaglass sewage treatment system that returns treated sewage to the reactor and then discharges to the Polishing Pond.

#### 3.2.8.6 Domestic Waste

Rambler anticipates that domestic waste will be generated in small quantities. Garbage and litter from the Nugget Pond Facility is currently disposed of at the Snook's Arm municipal dumpsite. Rambler anticipates that this will continue. Proper on-site storage and transportation will be provided. Any non-hazardous process waste will be similarly handled.

#### 3.2.8.7 Other Waste

Other waste materials including non-hazardous industrial waste (tires, containers, pallets, etc.) and technology-related wastes (batteries, computers, etc) will be identified and WMP will be implemented to ensure these materials are reused or recycled where possible and practical.

#### 3.2.8.8 Hazardous Waste

All hazardous waste generated on-site will be stored in accordance with the appropriate regulations and moved off-site by a licensed contractor to an approved facility. Currently there are no approved hazardous waste facilities in Newfoundland; therefore any such waste will have to be moved outside the Province. The Transportation of Dangerous Goods (TDG) Regulations will apply to the movement of such waste.

### 3.2.8.9 Petroleum, Oil and Lubricants

Construction and milling activity poses a risk for the release of petroleum, oil and lubricants from construction and operating equipment. Rambler will ensure that all contractors and company equipment are inspected on a regular basis to ensure compliance.

During the construction and operations stage, authorized self-dyked fuel storage tanks along with emergency spill kits will be located throughout the site. Used oils and lubricants will be contained in proper bins and disposed of by a licensed waste oil handler.



#### 3.2.8.10 Noise

As the mill site is remote from any dwellings, noise will not affect local residents. Also, noise levels created during the milling process are not expected to have any adverse impacts on wildlife.

### **3.2.8.11** Air Emissions

Air emissions will result from the operation of vehicles on the site. All company and contractor vehicles are required to be in good and safe working conditions.

#### 3.2.8.12 Dust

The potential sources of dust is from the on-site roads and the ore trucks entering leaving the site as well as the loading of concentrate trucks to be transported to the port, the conveyor system as well as crushing operations. The ore/concentrate trucks will be covered, while traveling, and dust will be controlled while loading etc through the application of water, if required. Then conveyor system will be covered and water application will be used, if required to keep the dust at a minimum during crushing operations.

### 3.2.9 Potential Resource Conflicts

### 3.2.9.1 Wildlife

The Nugget Pond Facility has been operational for a number of years and no wildlife conflicts are anticipated.

Some moose, rabbit, fox, squirrel and small game birds have been observed in the area. A no hunting, fishing, and trapping policy will be implemented within the surface lease area surrounding the mill site.

#### 3.2.9.2 Water Resources

No water resource conflicts are anticipated, as there are currently no other users in the project work area. All process water, fire water etc will be either recycled/reclaimed water from the existing TMF or from the existing artesian well. All water will be treated prior to use.

A drilled artesian well supplies potable water for the site.

The access road passes though Snook's Arm protected water supply. Appropriate protection of the water supply has been implemented since 1995 and will continue through new operations.

#### 3.2.9.3 Land Use

The site has been in operation for a number of years; therefore, no land use conflicts are anticipated.





There is some woodcutting that takes place in the general area of the site by local residents for domestic use only; however there is no commercial woodcutting in the area. There may be some hunting and sport fishing in the general area; however the mill's operation has not had any negative effect on such activities.

### 3.2.9.4 Vegetation

The site was previously cleared of vegetation to accommodate previous mining activities and no additional clearing is necessary; therefore, no vegetation conflicts are anticipated.

### 3.2.9.5 Fish and Fish Habitat

No new fish and fish habitat will not be altered, disturbed or destroyed by the proposed undertaking. Any waste water discharged to the environment will undergo treatment and will be in compliance with the applicable discharge regulations.

### **3.2.9.6** Socio-economic

Rambler has conducted community and public consultations in Snook's Arm and surrounding area to present the details of this Project with favourable response. In general, this Project will create direct employment, economic activity in the area, and indirect business and economic growth in the Snook's Arm area. Additional socio-economic information is included in Section 4 and 5.

# 3.2.9.7 Alternatives to the Project

Rambler has purchased the Nugget Pond Mill as part of their Project. Use of the Nugget Pond Mill is considered to be the most economic solution with the least environmental impact. Alternatives to the use of the Nugget Pond Mill and Tailings Management Facility considered may be summarized as follows:

- 1. Mill use of the existing mill for this Project, which may otherwise be mothballed, means that a new mill is not required. A new mill would require significant construction (land disturbance), water use, tailings treatment (impound construction) and discharge to a receiving environment in general, significant environmental alteration. In electing to purchase this mill for the Project, Rambler considered the alternatives of using or purchasing a mill at another location, however no other mill operations were identified that could be accessed or modified to meet the Project needs. In addition, the environmental impact of using another existing mill would be essentially the same as for Nugget Pond.
- 2. In terms of tailings management, Nugget Pond's existing TMF provides the best practical solution for treatment and permanent disposal of PAG tailings. The natural, deep water body requiring only very small dams for effluent control purposes. Permanent closure will require maintenance of these dams. Alternatives to the disposal of tailings at this location would include:





- (a) Construction of a new facility which would require environmental impact of new land and water resources;
- (b) Dry-stacking of tailings on land near the mill area and installation of a dry cover system to control acid generation. This method is not considered feasible in this area; and
- (c) Underground storage of tailings in the old Nugget Pond mine.

# 3.3 Goodyear's Cove

# 3.3.1 Geographic Location

Rambler's operating port will be located at Goodyear's Cove situated in at the head of Halls Bay, NL, approximately 150 km from the Mill Site (Figure 3-1). Physical Features

Crew Gold (Canada) Ltd. Recently used this port over the past several years to supply or to the Nugget Pond Facility from Crew's Greenland mine site; therefore, the site already contains a deep-water wharf with a lay down area.

Rambler proposes to build a new copper concentrate storage building. Refer to Figures 3-16, 3-17 & 3-18 for existing and planned infrastructure at the Goodyear's port facility. The concentrate storage building at Goodyear's Cove will be approximately 25 m wide by 50 m long and consist of a clear span pre-engineered steel structure supported on reinforced concrete foundations. The interior floor will be a reinforced concrete slab on grade. Reinforced concrete perimeter push walls will extend 2.4 m above the finished floor slab elevation. Architectural features will include metal siding and roofing, steel main doors and overhead doors, aluminum wall louvers and roof exhaust fans.







Figure 3-16 Existing Infrastructure at the Goodyear's Cove Port Site (see also large scale Figure in Appendix A)











(see also large scale Figure in Appendix A)







 Figure 3-18
 Aerial Photo of the Goodyear's Cove Port Site`

 (see also large scale Figure in Appendix A)





# 3.3.2 Environmental Control

Environmental control at this site will be minimal. Water used on-site for waste water and dust suppression will be trucked in, contained and recycled on the site and removed via pump trucks when too dirty for continual use. No freshwater courses exist at the site.

### 3.3.3 Environmental Monitoring

No environmental monitoring has been conducted at this site historically, and it's not anticipated that monitoring will be required for Rambler's operations.

### 3.3.4 Construction and Development

Procurement of process equipment for the concentrate storage and handling systems is planned for second and third quarter of 2010. Construction of building and installation of mechanical / electrical systems is planned for fourth quarter 2010 for operations as of first quarter of 2011.

### 3.3.5 Operation

The operation of the copper concentrate storage and ocean-going vessel loading facilities is based on a bulk shipment of approximately 5,000 tonnes of concentrate (dry weight basis) per shipment. The total live storage capacity of concentrate at the storage building as received from the concentrator is 6,500 tonnes.

Concentrate will be transferred from Nugget Pond in bulk truck loads and dumped into a hopper system which is isolated to minimize direct contact with the truck tires. The concentrate is stacked using a front-end loader within the concentrate storage building. The front-end loader will remain within the building and concentrate will be stored in a weather tight - fully enclosed building. Ventilation systems will be used to control exhaust fumes within the building and a dust control system will be installed to control fugitive dust at conveyor transfer points.

Loading of an ocean going vessel will be done using a portable conveyor system. The conveyor system will be mobile and will roll-out onto the dock to accommodate vessel loading operations. On completion of the vessel loading the conveyor system will be stored adjacent to the storage building to enable access to the dock facilities.

During the vessel loading operations two loaders will be used for loading a hopper - conveyor system such that the loading of the hopper is within the storage building. The loading of the vessel is at a 600 to 850 tonnes per hour rate to achieve a loading time in the range 6 to 10 hours. The conveyor system leaving the storage building will be covered to avoid dust emission release.

Process water as required for wash down of system will be trucked to the Port site. Wash water will be reused as much as possible using a grey-water collection system. Once the grey-water is





non-reusable it will be trucked to the Nugget Pond site for recovery of concentrate and treatment within the tailings treatment system.

### 3.3.6 Potential Sources of Pollution

### 3.3.6.1 Water

Water use on-site will be limited. All water will be trucked to the site for use and removed via pump truck for disposal at the Nugget Pond site.

#### 3.3.6.2 Domestic Sewage

Grey-water from lavatories and toilets will be collected via pump truck and disposed of at a licensed facility.

#### 3.3.6.3 Domestic Waste

Rambler anticipates that domestic waste will be in small quantities and will seek approval from a municipal authority in the area to deposit this material at their waste disposal site. Proper onsite storage and transportation will be utilized.

#### **3.3.6.4 Hazardous Waste**

No hazardous was will be used or generated at the site.

### 3.3.6.5 Petroleum, Oil and Lubricants

Construction activity poses a risk for the release of petroleum, oil and lubricants from construction and operating equipment. Rambler will ensure that all contractors and company equipment are inspected on a regular basis to ensure compliance.

During the construction and operations stage authorized, self-dyked fuel storage tanks along with emergency spill kits will be located at the site. Used oils and lubricants will be contained in proper bins and disposed of by a licensed waste oil handler.

### 3.3.6.6 Noise

As the port facility is remote from any dwellings, noise will not affect local residents. The amount of noise generated from the on-site activities (off-loading concentrate trucks, loading vessels, etc.) is not anticipated to have any adverse effect of wildlife.

### 3.3.6.7 Air Emissions

The only air emissions will result from vehicles on the site. All company and contractor vehicles are required to be in good and safe working conditions.







### 3.3.6.8 Dust

The potential source of dust is from the on-site roads and the ore trucks as well as conveyors loading the vessels. The ore trucks will be covered and dust will be controlled through the application of water, if required. The conveyor system will also be covered.

### 3.3.7 Potential Resource Conflicts

### 3.3.7.1 Wildlife

The Port site is small and is located within the boundaries of the Town of South Brook. No wildlife conflicts are anticipated.

#### 3.3.7.2 Water Resources

There are no water resource conflicts. Marine water users in the local area may be impacted minimally when ships are travelling into and away from the dock area.

#### 3.3.7.3 Land Use

The land is currently owned by the Town of South Brook and is used for commercial/marine. No land use conflicts are anticipated.

#### 3.3.7.4 Fish and Fish Habitat

There is no freshwater fish or fish habitat at this site. No new construction or water use will impact the marine fish or fish habitat at the site.

#### **3.3.7.5** Socio-economic

Rambler has conducted community and public consultations in South Brook and surrounding area to present the details of this Project with favorable response. In general, this Project will create direct employment, economic activity in the area, and indirect business and economic growth in the South Brook area. Additional socio-economic information is included in Section 4 and 5.

### 3.3.7.6 Alternatives to the Project

Rambler evaluated various alternatives for shipment of ore to market. Shipment of bulk ore via ocean going vessels is required from the island of Newfoundland. Therefore, the only options considered were construction of a new port facility capable of handling the concentrate ships or use of an existing port facility. New construction would require significant cost and environmental impacts; therefore an existing, suitable, facility was selected.





# 3.4 General

The plans outlined below will be established prior to commencing any ground work. The plans will implemented to ensure that all tasks associated with the project are carried in such a manner that the likelihood of an incident (spill, accident etc) occurring is decreased; however, if one should occur the proper procedures, necessary tools and equipment along with adequate resources will be in place to deal with task at hand. Utilizing such plans will provide additional environmental control throughout the proposed undertaking.

# 3.4.1 Emergency Response Plan

An Emergency Response Plan (ERP) is currently in place for existing operations; however, Rambler will update the plan to reflect the addition of new site services and the transport of concentrate to the port facility. A generic Table of Contents (TOC) for such a plan has been developed and is contained in Appendix C.

For each site, on site firefighting and emergency response equipment will be maintained on site to compliance with all codes and regulations. Arrangements will also be made with the local emergency response departments (fire, police, ambulatory) to ensure that these resources are available as the primary response (as appropriate) or as backup to on site equipment and personnel.

# 3.4.2 Environmental Protection Plan

Rambler is currently in the process of developing an Environmental Protection Plan (EPP) to include all construction and operation for the entire project. A generic TOC for such a plan has been developed and is contained in Appendix D.

# 3.4.3 Waste Management Plan

A WMP is currently in place for existing operations; however, Rambler will update the plan, as required, to incorporate any new operations.

# 3.4.4 Environmental Effects Monitoring

An EEM Program is currently in place for the Nugget Pond operation. Rambler will consult with the appropriate regulatory agencies to determine the go-forward requirements for implementation.





# 4.0 EMPLOYMENT, BUSINESS, AND ECONOMIC BENEFITS

It is estimated that a total workforce of approximately 158 full time employees will be required for the operations phase of this project. While the Baie Verte peninsula and the immediate area has had a long history of mining activity, out-migration and the presence of several other operating mines in the general area (Pine Cove and Duck Pond), may, lead to a shortage of skilled workers for the project.

A skills inventory on the Baie Verte Peninsula has been compiled to determine the availability of workers to meet the project's needs. Rambler does not feel there will be shortage of skilled labor for the operation.

Local residents will be given preference for any available opportunities. Should the expertise required not be available locally, Rambler will advertise provincially first and go outside of the province, if necessary. The direct to indirect ratio for employment is anticipated to be 1:3.

Rambler currently owns a fully equipped staff house that can accommodate approximately 15 persons should outside workers be required for extended periods.

# 4.1 Rambler Ming Mine

Construction of the proposed above-ground improvements at the Mine Site is expected to be completed over an 8 month construction timetable, including a portion in winter conditions. Work will include road and site development areas (excavation, gravels, drainage, buried services, septic, lighting, fencing, gates, etc), maintenance shop, office facility and miscellaneous items(fuel tank, generator, storage tank, barriers, etc). It is estimated that construction at the Mine Site would create about 40,000 manhours of employment with an average of 25 (peaking at 70) people working on project construction at the Mine Site, injecting approximately \$2.0 M of labour compensation into the provincial economy . In general, the work force is expected to be drawn from construction labour in the immediate vicinity, although there may be some specialty trades required for items such as tanks, depending on the final design and materials of construction.

As indicated in Table 4-1, below Rambler estimates that there will be approximately 111 employees required underground at full production. In addition, some work at the mine will be contracted out including security, exploration drillers, underground equipment operators, and ore truck operators. It is currently estimated that there will be a contracted labour force of 24 to 26 at the Ming Mine operation.



FUNCTION	POSITION	# of PERSONNEL	NOC CODE
Supervision	Mine Superintendant	1	8221
	Shifter	4	8221
	Safety & Trainer	1	2263
Development	Jumbo Operator	8	8231
	Rock Truck Operator	8	8231
	Scoop Operator	4	8231
	Ground Support	16	8614
Production	Super Swellex & Construction	4	8231
	Longhole Blaster	4	8231
	Scoop Operator (production)	8	8231
	Scoop Operator (Rock Filling)	4	8231
	Rock Truck Operator	16	8231
Services	Grader Operator	1	7421
	Yardman	1	7611
	Service Man & Labor	8	8614
	Dryman/Lampman	1	8411
Maintenance	Foreman Mechanic / Electrician	1	7312/7242
	Mechanic	12	7312
	Helper Mechanic	4	7312
	Electrician	4	7242
	Helper Electrician	1	7242
Total		111	

### Table 4-1Mine Labour at Full Production

### 4.2 Nugget Pond Mill

The Mill Site construction is primarily for the proposed 1230 m<sup>2</sup>, 16 m high, concentrator building although some roadway or yard improvements may be included throughout the site. The building is proposed with concrete footing and mass foundations, concrete slabs and trenches, structural steel framing, metal cladding, flat roof, insulated, partial mezzanine floor, and various tank and equipment foundations. It is estimated that construction at the Mill Site would create about 60,000 manhours of employment with an average of 40 (peaking at 100) people working over an 8 month period on project construction at the Mill Site, injecting approximately \$3.0 M of labour compensation into the provincial economy ... The bulk of the work is for standard construction trades that should be available in this part of the province.

The existing gold hydrometallurgical facility requires 22 employees during operation, however under care and maintenance (current condition), 5 employees are working at the site. To retrofit and operate the facility as base metals concentrator an additional 6 employees will be required, in addition to the 22 previously required (Table 4-2).

In addition, security for the site will be contracted out. It is currently estimated that there will be a contracted labour force or 4 at the Nugget Pond operation.





FUNCTION	POSITION	# of PERSONNEL	NOC CODE
Management	Mill Superintendent	1	8221
	Administrative/ Mill Clerk	1	1414
	Metallurgist	1	2142
	Senior Analytical Chemist	1	2112
	Analytical Technician	2	2211
Total		6	
	Senior Control Room Operator	4	9231
	Crushing Operator	2	9411
Operations	Grinding Operator	4	9411
	Floatation Operator	4	9411
	Product Dewatering Operator	4	9411
Total		18	
Maintonanco	Pipe fitter and Millwright	2	7213/7311
wantenance	Electricians	2	7242
Total		4	
Grand Total		28	

### Table 4-2Labour required at the Nugget Pond Mill

# 4.3 Goodyear's Cove

A 6 month construction period is proposed at the Port Site where a 1250 sq m building is proposed to receive, store and load concentrate to bulk carrier ships. The building is erected on raised concrete walls for the storage area and trucks offload the material from an elevated platform. It is estimated that construction at the Port Site would create about 30,000 manhours of employment with an average of 25 (peaking at 50) people working on project construction at the Port Site, injecting approximately \$1.5 M of labour compensation into the provincial economy. Most of the work would involve standard construction trades available in the area but the type of structure may also require a small compliment of specialized workers, depending on the final design.

There will be no Rambler employees stationed at Goodyear's Cove. Work at the port will be contracted out including haulage truck operators and ship-loading equipment operators. It is currently estimated that there will be a contracted labour force of 6 at the Goodyear's Cove facility.

# 4.4 **Overall Project**

As detailed in Table 4-3, Rambler anticipates that approximately 19 general and administrative employees will be required to successfully operate the project.





FUNCTION	POSITION	# of PERSONNEL	NOC CODE
	General Manager	1	0811
	Administrative Clerk	1	1414
Administration	Safety, Health and Environment	1	2263
	Financial Controller	1	0111
	Accounting Clerk	1	1431
	Buyer	1	1225
Environment	Environment Technician	1	2231
Warehouse	Warehouse Person	1	7452
Production	HR Person	1	0112
Total Administration		9	
	Chief Exploration Geologist	1	2113
	Senior Project Geologist	1	2113
Geology Department	Mine Geologist	1	2113
	Junior Geologist	1	2113
	Geo Technician	2	2212
Total Geology		6	
	Chief Engineer	1	2143
	Engineer	1	2143
Engineering Department	Junior Engineer	1	2143
	Surveyor	1	2154
Total Engineering		4	
Grand Total		19	

### Table 4-3 General and Administration Manpower

# 4.5 Gender Equity

Under the provincial environmental assessment process, one of the socio-economic issues to normally emerge is that of gender equity. The provincial Women's Policy Office, the NL Departments of Natural Resources and the Environment and Conservation, are very active in pursuing this issue, particularly for major projects in the province. Rambler has established a gender equity policy which promotes Rambler's hiring process, and relates to renumeration, retention, training, and promotion policies.

# 4.6 Economic Impact

Given that the project is located in the heart of the Baie Verte peninsula there will be local economic impacts. In addition, there will be regional and provincial needs for the provision of goods and services hence creating economic impacts throughout the Province. The impacts can be broken down for construction, operations and post-closure. The requirements for goods and services will change over time, depending on the phase of the project. Currently the construction and development capital cost are estimated to be \$41 million (CAD) with annual operating expenditures of approximately \$28 million over the 7 year life-of-mine.




# 4.7 Purchasing Policies

Rambler will purchase goods and services on a local, regional and provincial level to the extent that it is economically viable. Rambler will develop a purchasing policy that can be promoted in the provincial Environmental Assessment (EA) process and to potential suppliers separate from that process. As the project advances and the need for goods and services increases, Rambler will develop a regular supplier form and an electronic means to advertise requirements for same. A supplier database should will be developed that would match the suppliers against project needs. These initiatives will be developed with local capacity to respond in mind and will, if properly implemented, advance Rambler's image as a good corporate citizen and also demonstrate efforts to maximize economic benefits to the province. Rambler will monitor the success in using Newfoundland suppliers and make adjustments in policies as appropriate to maximize use of local suppliers.





# 5.0 PUBLIC CONSULTATION

Rambler has been conducting public consultation throughout the project on an on-going basis, focusing on physical, environmental and socio-economic aspects of the project.

Presentations have been delivered to such groups as:

- Municipal Councils;
- Community and Stakeholder Groups; and
- Chamber of Commerce and other business associations.

Public consultation will continue as the project progresses. Upon submission of the Environmental Registration document additional consultation will be conducted by Rambler.

## 5.1 Public Meetings

Rambler conducted public meetings in Baie Verte, Ming's Bight and South Brook on February 4, February, 8 and February 23, 2010, respectively. The purpose of the meeting was to describe the proposed project and activities associated with it, and to provide an opportunity for all interested persons to request information or state their concerns. The outcome of the meetings was favourable. Advertising information, a copy of the meeting components, and minutes are contained within Appendix E.





# 6.0 REHABILITATION & CLOSURE

Rambler is committed to full rehabilitation and closure of the Project. The requirements and planning of rehabilitation and closure activities is different for each of the three sites, and the general goals and activities are described below. A fully integrated Rehabilitation and Closure Plan will be developed for this Project in accordance with the requirements of the *Mining Act* (1999).

## 6.1 Ming Mine Site

Once mining is completed and all reserves depleted, all surface and underground infrastructure will be removed, all mine wastes will be returned underground, all underground openings will be properly sealed, and the ground surface will be reclaimed and re-vegetated. The rehabilitation and closure work at this site will address historical liabilities, including mine waste at surface, unprotected mine openings, and deteriorated surface infrastructure.

# 6.2 Nugget Pond Mill

A Rehabilitation and Closure Plan has been completed for the existing Nugget Pond Mill and associated facilities; however, this will have to be updated to include the proposed addition to the mill, which will house the copper flotation circuit. In general, all buildings and infrastructure will be removed, dams will be re-contoured to re-establish natural flow patterns, underground openings (related to historical mining) will be permanently capped, and all disturbed areas will be reclaimed and re-vegetated.

## 6.3 Goodyear's Cove

This site is currently owned by the Town of South Brook, and once the facility is no longer needed by Rambler, the lease agreement will be terminated. As part of the termination of the lease, any infrastructure installed or moved to the site will be offered for sale to the owner. Any infrastructure not purchased by the owner will be removed from the site and the site will be returned to the condition at the time of commencement of the lease.





# 7.0 APPROVAL FOR THE UNDERTAKING

The major permits and authorizations that are currently in place for the Mine site, Mill site, and Goodyear's Cove are listed in Table 7-1, below. The Nugget Pond mill is fully permitted operation, however the current C of A permits, "care and maintenance" activities only. Minor permits (culverts, septic, etc.) currently in place for the Ming Mine and Nugget Pond Mill have not been listed below for existing operations. At Goodyear's Cove, Rambler understands that an Instrument of Grant has been issued to the Town of South Brook by Public Works and Government Services Canada for the use of this facility.

Additional permits that may be required for development and operation of the Project are provided in Table 7-2, below.

GOVERNMENT AGENCY	PERMIT, AUTHORIZATION, APPROVAL		
PROVINCIAL AUTHORIZATIONS			
Department of Natural Resources			
Mines and Energy Branch	Underground Magazine License - Mine		
Mines and Energy Branch	Explosive Transportation Permit - Mine		
Mines and Energy Branch	Application for Exploration Approval & Notice for		
Mines Branch			
Denartment of Government Services			
Government Services	Certificate of Approval – Storage and Handling of Associated Products – Mine and Mill		
Government Services	Permit of Flammable and Combustible Liquid Storage and Dispensing (above or below ground) and for bulk storage (above ground only) – Mine and Mill		
Government Services	Storage Tank System Application – Mine and Mill		
Government Services	Statutory Declaration for Registration of Boiler and Pressure Vessel Fitting Fabricated in Newfoundland and Labrador – Mine and Mill		
Department of Environment and Conservation			
Pollution Prevention Division	Certificate of Approval – Mine (WWTP) and Mill operation		
FEDERAL	AUTHORIZATIONS		
Industry Canada	Communication License – Mine and Mill		
Industry Canada	Radio License – Mine and Mill		

### Table 7-1 Permits and Authorizations Currently in Place



GOVERNMENT		ACTIVITY REQUIRING			
AGENCY	PERMIT, AUTHORIZATION, APPROVAL	COMPLIANCE			
PROVINCIAL & MUNICIPAL AUTHORIZATIONS					
Department of Environment and Conservation					
Environmental	Release from Environmental	General			
Assessment Division					
Pollution Prevention	Certificate of Approval	To operate the concentrator			
Division					
Water Resource	Schedule A – Environmental Approval of	New Road Construction			
Division	Culverts				
Water Resource	Schedule E – Environmental Approval of	Taking/pumping water from			
Division	Pipe Crossing – Water Intake	Admiral's Brook			
Water Resource	Certificate of Approval for Site Drainage	Water run-off for Project Site			
Division					
Water Resource	Water Use Authorization				
Division					
Water Resource	Certificate of Approval	Water & Sewer Distribution			
Division		System			
Water Resource	Certificate of Approval	Temporary AGM (ARD) Storage			
Division					
Pollution Prevention	Certificate of Approval	Industrial Facilities or Processing			
Division		Work			
Pollution Prevention	Environmental Protection Plan -	General			
Division	Construction				
Pollution Prevention	Emergency Response Plan	General			
Division					
Pollution Prevention	Environmental Effects Monitoring Plan	Effluent Discharge			
Division					
Department of Natural	Resources				
Mines Branch	Reclamation Plan (including financial	General			
	assistance)				
Department of Governr	nent Services				
Government Services	License to Occupy Crown Land	Occupy Land			
Government Services	Certificate of Approval	Sewage Treatment Plant			
Government Services	Certificate of Approval	Water Supply > 4,500 L/day			
Government Services	Building Accessibility Exemption	General			
Government Services	Certificate of Plant Registration for	General			
	Power, Heat, Refrigeration, Compressed				
	Gas or Combined Plant				
Government Services	Contractor's License	Pressure Piping System			
Government Services	Examination and Certification of Welders	General			
	and Blazers				
Government Services	Waste Management Plan	General			

# Table 7-2 Additional Permits & Authorizations Required for the Project



GOVERNMENT AGENCY	PERMIT, AUTHORIZATION, APPROVAL	ACTIVITY REQUIRING COMPLIANCE				
Department of Transpor	Department of Transportation and Works					
Transportation and	Compliance Standard – Storing Handling	General				
Works	and Transportation Dangerous Goods					
Municipal Approvals						
Town of Baie Verte,	Development Permit for Activities within	General				
Snook's Arm and South	Town Boundary / Approval to use					
Brook	Disposal Site					
	FEDERAL AUTHORIZATIONS					
Transport Canada						
Transport Canada	Permit to Store, Handle and Transport	General				
	Dangerous Goods					
Department of Fisheries	and Oceans					
Marine Environment	Authorization for Harmful Alteration,	Any work that could impact fish				
and Habitat	Disruption or Destruction (HADD) of	habitat				
Management Division	Aquatic Habitat or letter of advice stating					
	that an authorization is not required					
Canadian Coast Guard	Navigable Waters Protect Act (referral)	General				
Environment Canada						
Environment Canada	Compliance Standard – Fisheries Act,	Any Project Related Run-off				
	Section 36 (3), Deleterious Substances					





# 8.0 PROJECT RELATED DOCUMENTS

The following is a list of all project related documents generated by or for the proponent, pertinent to the Registration.

Rambler Metals and Mining Geotechnical Investigation. January 2010. ADI Limited.

Design of the Rambler Copper Concentrator, Preliminary Assessment of Concentrator CAPEX and OPEX at 1,000 tonnes per day, Revision 03. May 2009. Thibault and associates Inc.

Life of the Mine Plan at 850 metric tonnes per day on the Rambler Copper-Gold Project, Newfoundland. May 2009. CSI Mining and Engineering.

Concentrator Process Development Phase IV Flotation Bench Scale Lock Cycle Test Program, Revision 02. December 2008. Thibault & Associates Inc.

Assessment of Industrial Practices for AMD Sludge Disposal 51190 Newfoundland and Labrador Inc. December 2006. ADI Limited.

Baseline Water and Sediment Assessment Program. July 2006. Golder Associates Ltd.



# 9.0 FUNDING

Since acquiring the Ming Mine property in 2004 Rambler Metals and Mining plc, the parent company to Rambler Metals and Mining Canada Limited has raised C\$48.9M in private equity. To date Rambler has invested C\$ 39.5M in the Ming Mine Property to bring it to the Environmental Application stage of the project.

The current estimate to bring the Ming Mine into production, assuming a summer construction start up, is C\$41M which includes working capital requirements.

As of the 31<sup>st</sup> of March 2010 Rambler has C\$13.11M in its treasury available for allocation to the Ming Mine project. Rambler also recently entered in a gold sale agreement with a third party which provides Rambler with US\$20 million in upfront capital. The first tranche of US\$5 million has been received by Rambler and is included in the current treasury position above. The remaining US\$15 million in funding is available to Rambler upon meeting certain criteria, namely delivery of a NI43-101 compliant feasibility study (US\$2 million) and environmental release of the project (US\$13M).

Rambler is also in negotiations with a number of leadings banks for a US\$5 million to US\$10 million debt / line of credit facility that will help service any working capital requirements. In addition, opportunities exist at the Nugget Pond mill for a potential toll milling arrangement and also the processing of the crown pillar at the old Nugget Pond mine where total net cash flows are estimated at C\$2.5M. Further, based on Rambler's successful track record of raising monies utilizing equity the company sees no reason to believe that additional future monies, if need be, could be raised in this manner.

Rambler has not entered into any off take agreement to sell its concentrates at this stage. However, once there is a clear path and timeline to production, following environmental release, the company would then be in a position to negotiate an off take agreement. An off take agreement could be another valuable source of future working capital.

As can be seen, Rambler currently has access to significant funds and many opportunities for additions sources of funding that will cover the current estimated cost of bringing the Ming Mine into production.

Rambler has made no request for any Federal or provincial funding for this property nor will there be.



# Appendix A

Site Plans



GEND
PROPERTY LINE AERIAL POWER LINES ROADWAY CENTERLINE CULVERT WATER SANITARY DRAINAGE PIPE TOP OF SLOPE BOTTOM OF SLOPE / DRAINAGE SWALE DITCH BOTTOM OF SLOPE / DITCH BOTTOM OF SLOPE / DITCH /
Ckd. By Date
Drawn By: DJG Dwg. Standards Ckd. By:
Designed By: GRF Dwg. Design Ckd. By:
redericton, NB, Canada ngineering, Consulting, Procureme nd Project Management
ffices located in: dmundston, Fredericton, Moncton, Oromoc
aint John (NB); Halifax, Sydney, Truro (NS harlottetown (PE); Marystown, St.John's (N nd Edmonton (AB)
Alint John (NB); Halifax, Sydney, Truro (NS) harlottetown (PE); Marystown, St. John's (N nd Edmonton (AB)
BIGHT ROAD JE SITE STING N OVERVIEW JRE 3-2)



	LEGE	IND
	PROPOSED EXISTING	
		PROPERTY LINE AERIAL POWER LINES
		ROADWAY CENTERLINE CULVERT
		WATER SANITARY
	——————————————————————————————————————	DRAINAGE PIPE TOP OF SLOPE
	····>	BOTTOM OF SLOPE / DRAINAGE SWALE
	•••	DITCH BOTTOM OF SLOPE
	×	FENCE FLOW DIRECTION OF
	x 25.43	SURFACE DRAINAGE PROPOSED FINISH GRADE
	20000000000000000000000000000000000000	EROSION CONTROL RIP RAP
	LO Oup	LIGHT POLE UTILITY POLE
	← ●	GUY WIRE GATE
	•	GATE POST
	▲ <sup>BM</sup> -#	BENCHMARK
	2.0	MAJOR CONTOUR
	+102.34	MINOR CONTOUR SPOT ELEVATION
	⊢ GV LFH	GATE VALVE HYDRANT, VALVE AND
	Ч 	VALVE BOX
	No. Revision	Ckd. By Date
		Const. North
<b>a</b>		Drawn By:
		Drawn By: DJG Dwg. Standards
		Drawn By: DJG Dwg. Standards Ckd. By: Designed By:
	Date Printed	Drawn By: DJG Dwg. Standards Ckd. By: Designed By: GRF Dwg. Design Ckd. By:
	Date Printed	Drawn By: DJG Dwg. Standards Ckd. By: Designed By: GRF Dwg. Design Ckd. By: icton, NB, Canada ering, Consulting, Procurement
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+140.92

¥140.79 FUEL TANK

# **GENERAL NOTES:**

- 1. TOPOGRAPHICAL SURVEY PREFORMED DURING THE PERIOD OF DECEMBER 4, 2009.
- 2. ALL ELEVATIONS EXPRESSED IN METRES.
- COORDINATES REFERENCED TO SITE BENCHMARK No. 4, N:5521879.64, E:588303.15, Z:140.65 AND SITE BENCHMARK No. 5, N:5521997.18, E:588269.54, Z:154.17.
- 4. COORDINATES ARE REFERENCED TO NEWFOUNDLAND, UTM ZONE 21, NAD83 (CSRS). 5. CONTOUR INTERVALS (0.5m) AND MAIN CONTOUR INTERVAL (2m).



This drawing is not to be scaled





This drawing is not to be scaled







	LEGEND
NOTE: 1. ASSUME HIGH WATER LEVEL OF 1.75m	PROPOSED       EXISTING          PROPERTY LINE          AERIAL POWER LINES          ROADWAY CENTERLINE          CULVERT          WATER          DRAINAGE PIPE          TOP OF SLOPE          BOTTOM OF SLOPE / DRAINAGE SWALE
	DITCH DITCH BOTTOM OF SLOPE FENCE FLOW DIRECTION OF SURFACE DRAINAGE X 25.43 PROPOSED FINISH GRADE EROSION CONTROL RIP RAP LO LIGHT POLE GUY WIRE GATE CATE DOST
	GATE POST
	No. Revision Ckd. By Date
5.50 5.20	Const. North         Drawn By:         DJG/PD         Dwg. Standards         Ckd. By:         Designed By:         GRF         Date Printed
	Ckd. By:         Image: Strength Strengt Strength Strength Strength Strength Stre
	GOODYEAR'S COVE PORT SITE
	PROPOSED SITE PLAN OVERVIEW (FIGURE 3-16)
	Dwg. No. <b>2-6</b> Rev. No. <b>0</b> Scale 1:400 This drawing is not to be scaled









# Figure WB-2: Nugget Pond Mill– Water/Effluent Flow Chart



# **Appendix B**

Copper Flotation Effluent Characterization



April 5, 2010

Mrs. Stephanie Scott Thibault & Associates Inc. 330 Alison Blvd Fredericton, N.B. E3C 0A9

Dear Mrs. Scott:

Enclosed are the bioassay test results for the research sample collected on March 1, 2010 (6412-02-012).

With regards to the rainbow trout single concentration test (#R6028), by the end of the 96 hour test period, there were no mortalities in the 100 percent sample material or in the control test. These results indicate that this sample was non-lethal to rainbow trout over a 96 hour test period.

If you have any questions or comments concerning these test results, please do not hesitate to contact us.

Yours very truly,

Wart as per

R.D. Buchanan Head, Aquatic Toxicology

encl.

Lab sample Reference #: R6028

Buchanan Environmental Ltd. 138 Gibson Street, Fredericton, N.B. E3A 4E2

# **Rainbow Trout Bioassay Report**

#### Thibault & Associates Inc. **Facility Submitting Sample** 330 Alison Blvd, Fredericton, NB E3C 0A9 Research sample; Flotation Tailings Water **Sample Material** : Batch Sampling method Sample Collection: Sample Collected by : S. Scott Sampling Point Description : Research sample from Bench Scale Test Program Time & Date Collected: Time not provided, 01 March, 2010 **Dilution Water Characterization** Sample Characterization (unadjusted, undiluted) Source: Lower St. Mary's Well, N. B. Time & date received : 11:30 am, 30 March, 2010 : 8.11 : 2\*25L (homogenized) pH Volume received Conductivity : 236 µmhos/cm : 14.8° C on arrival Temperature : 104 mg/L as $CaCO_3$ Hardness : 8.13 pH : 10.0 mg/L D.O. : 10.0 mg/L Dissolved oxygen : 361 µmhos/cm Conductivity : Clear Colour Odour : None : 28.5 hours at $4 \pm 2^{\circ}$ C Storage Temperature adjusted overnight in lab: Yes **Test Conditions**

Test conditionsType of test : Single concentrationVolume/Vessel: 25LPre-aeration period : 30 minutesFinal Measurements

Initial M		asurements		I mai measurements		ciito
Concentration (% Sample)	Dissolved Oxygen (mg/L)*	pH*	Conductivity (µmhos/cm)*	Dissolved Oxygen (mg/L)	рН	Conductivity (µmhos/cm)
Control	10.0	8.14	229	9.8	7.99	234
100	10.0	7.97	363	9.6	7.65	371

\* Values measured upon test initiation

Test Temperature

:  $15 \pm 1^{\circ}$  C Duration: <u>96 hours</u>

Test Started (date & time) Test Ended (date & time) : <u>10:00 am, 1 April, 2010</u> : <u>10:00 am, 5 April, 2010</u>

ID. # RT 2.8 Rev. 13 Oct., 2008 1 of 2

Autoritation []][[.[0]]

Buchanan Environmental Ltd. 138 Gibson Street, Fredericton, N.B. E3A 4E2

Lab sample Reference #: R6028

### **TEST ORGANISM**

Species: Oncorhynchus mykiss

Source: Aquamerik, Quebec

Average length:  $47.3 \pm 2.5$  mm

Average weight:  $1.13 \pm 0.19$  g

Number/Vessel (25L): 10

Stocking Density: 0.45 g/L

% Culture Mortality (7 days prior to testing): 0.0 %

# # Control showing atypical/stressed behaviour: 0/10

96 hour Lethality (static, acute)

Percent Mortality (100% Sample)

### **Observed Mortality**

Concentration Tested	100%	Control (0%)
Number killed (x/10)	0/10	0/10
Percent Mortality	0%	0%

### Comments:

Reference Toxicity Test Data		
Test Organism	: Oncorhynchus mykiss	
Most Recent Reference Toxicant Test	: 9:50 am, 22 March 2010	
Toxicant tested	: Phenol (LS191)	
96 hr LC50	: 8.12 mg Phenol/I (Spearman Karbo	(210
95% Confidence Limits	: (6.82, 9.68) mg Phenol/L	()
Historic Mean ± Warning Limits (2SD)	$:9.47 \pm 3.14$ mg Phenol/L	

\* All bioassays were conducted following Environment Canada protocol (EPS 1/RM/13, May 2007).

Testing performed by B. Wark and A. Richard of Buchanan Environmental Ltd.

Authorization DDA R.D. Buchanan

Head, Aquatic Toxicology

2 of 2

firm 13

: Non-Lethal sample material

: 0%

Conditions

ype of rest

: Clear

June (

#### Thibault & Associates Inc Applied Process Chemical Eng. 330 Alison Blvd. Fredericton, NB E3C 0A9

Attention: Stephanie Scott

921 College Hill Rd Fredericton NB Canada E3B 6Z9

Tel: 506.452.1212 Fax: 506.452.0594 www.rpc.ca

Project #: 6412-02					
Location: Rambler Flotation Lock Cycle WWT program					
Analysis of Water					
RPC Sample ID:	102589-1				
Client Sample ID:			6527-02-006		
			Process Water		
			Lock Cycle #6		
Date Sampled:	9-Mar-10				
Analytes	Units	RL			
Sodium	mg/L	0.05	20.7		
Potassium	mg/L	0.02	8.52		
Calcium	mg/L	0.05	55.9		
Magnesium	mg/L	0.01	1.89		
Iron	mg/L	0.02	0.04		
Manganese	mg/L	0.001	0.005		
Copper	mg/L	0.001	0.013		
Zinc	mg/L	0.001	0.008		
Ammonia (as N)	mg/L	0.05	< 0.05		
рН	units	-	8.0		
Alkalinity (as CaCO <sub>3</sub> )	mg/L	2	49		
Chloride	mg/L	0.5	51.7		
Sulfate	mg/L	1	93		
Nitrate + Nitrite (as N)	mg/L	0.05	< 0.05		
o-Phosphate (as P)	mg/L	0.01	< 0.01		
r-Silica (as SiO <sub>2</sub> )	mg/L	0.1	4.7		
Carbon - Total Organic	mg/L	0.5	6.2		
Turbidity	NTU	0.1	1.9		
Conductivity	μS/cm	0.1	434		
Calculated Parameters					
Bicarbonate (as CaCO <sub>3</sub> )	mg/L	-	48.5		
Carbonate (as $CaCO_3$ )	mg/L	-	0.456		
Hydroxide (as CaCO <sub>3</sub> )	mg/L	-	0.050		
Cation Sum	meq/L	-	4.07		
Anion Sum	meq/L	-	4.37		
Percent Difference	%	-	-3.65		
Theoretical Conductivity	μS/cm	-	460		
Hardness (as CaCO <sub>3</sub> )	mg/L	0.2	147		
Ion Sum	mg/L	-	262		
Saturation pH (5°C)	8.2				
Langelier Index (5°C)		-	-0.21		

This report relates only to the sample(s) and information provided to the laboratory.

RL = Reporting Limit

Ross Kean

A. Ross Kean, M.Sc. Department Head Inorganic Analytical Chemistry

Peter Crowhurst, B.Sc., C.Chem Analytical Chemist Inorganic Analytical Chemistry

WATER CHEMISTRY Page 1 of 3

Thibault & Associates Inc Applied Process Chemical Eng. 330 Alison Blvd. Fredericton, NB E3C 0A9

921 College Hill Rd Fredericton NB Canada E3B 6Z9 Tel: 506.452.1212 Fax: 506.452.0594

www.rpc.ca

Attention: Stephanie Scott

Project #: 6412-02	7		
Location: Rambler Flotation Loc	k Cycle WWT progra	m	
Analysis of Water			
RPC Sample ID:			102589-1
Client Sample ID:			6527-02-006
			Process Water
			Lock Cycle #6
Date Sampled:			9-Mar-10
Analytes	Units	RL	
Fluoride	mg/L	0.05	0.23
Sulfide	mg/L	0.05	< 0.05
Cyanide - Total	mg/L	0.002	0.011
Phosphorus - Total	mg/L	0.002	0.035
BOD <sub>5</sub>	mg/L	6	< 6
Phenols	mg/L	0.001	0.001
Solids - Total Dissolved	mg/L	5	180

#### Thibault & Associates Inc Applied Process Chemical Eng. 330 Alison Blvd. Fredericton, NB E3C 0A9

921 College Hill Rd Fredericton NB Canada E3B 6Z9 Tel: 506.452.1212 Fax: 506.452.0594

I www.rpc.ca

Attention: Stephanie Scott

Project #: 6412-02			
Location: Rambler Flotation I	Lock Cycle WWT progra	am	
Analysis of Metals in Wat	ter		
RPC Sample ID:	102589-1		
Client Sample ID:			6527-02-006
			Process Water
			Lock Cycle #6
Date Sampled:	9-Mar-10		
Analytes	Units	RL	
Aluminum	μg/L	1	286
Antimony	µg/L	0.1	10.4
Arsenic	μg/L	1	11
Barium	μg/L	1	13
Beryllium	µg/L	0.1	< 0.1
Bismuth	μg/L	1	< 1
Boron	μg/L	1	13
Cadmium	μg/L	0.01	0.07
Calcium	µg/L	50	55900
Chromium	µg/L	1	< 1
Cobalt	μg/L	0.1	0.4
Copper	µg/L	1	13
Iron	μg/L	20	40
Lead	µg/L	0.1	4.1
Lithium	μg/L	0.1	1.0
Magnesium	µg/L	10	1890
Manganese	µg/L	1	5
Mercury	µg/L	0.025	< 0.025
Molybdenum	µg/L	0.1	16.5
Nickel	µg/L	1	23
Potassium	μg/L	20	8520
Rubidium	µg/L	0.1	4.0
Selenium	μg/L	1	271
Silver	μg/L	0.1	< 0.1
Sodium	µg/L	50	20700
Strontium	µg/L	1	182
Tellurium	μg/L	0.1	1.7
Thallium	μg/L	0.1	< 0.1
Tin	μg/L	0.1	< 0.1
Uranium	μg/L	0.1	0.1
Vanadium	μg/L	1	< 1
Zinc	µg/L	1	8



**SGS Canada Inc.** P.O. Box 4300 - 185 Concession St. Lakefield - Ontario - KOL 2HO Phone: 705-652-2000 FAX: 705-652-6365

# Thibault & Associates Inc.

Attn : Stephanie Scott

330 Alison Blvd. Fredericton, New Brunswick E3C 0A9, Canada

Phone: (506) 454-2359 Fax:(506) 454-2355 Project : 6412-02

March 31, 2010

Date Rec. :11 March 2010LR Report:CA10244-MAR10Reference:Transmittal Number:<br/>RAMBLER-02-005

**Copy:** #1

# CERTIFICATE OF ANALYSIS Final Report

Sample ID	Sample <sup>-</sup>	Temperature	Thiosalts	Ra226	Sr90	Gross	Gross
	Date & Upon Receipt		as S2O3	Bq/L	Bq/L	Beta	Alpha
	Time	°C	mg/L			Bq/L	Bq/L
1: Analysis Start Date			15-Mar-10				
2: Analysis Start Time			08:47				
3: Analysis Approval Date			16-Mar-10	30-Mar-10	30-Mar-10	30-Mar-10	30-Mar-10
4: Analysis Approval Time			08:58				
5: 6527-02-007 Process Water Lock Cycle #1	09-Mar-10	17.0	16				
6: 6527-02-008 Process Water Lock Cycle #2	09-Mar-10	17.0	36				
7: 6527-02-009 Process Water Lock Cycle #3	09-Mar-10	17.0	39				
8: 6527-02-010 Process Water Lock Cycle #4	09-Mar-10	17.0	32				
9: 6527-02-011 Process Water Lock Cycle #5	09-Mar-10	17.0	36				
10: 6527-02-012 Process Water Lock Cycle #6	09-Mar-10	17.0	35				
11: 6527-02-013 Process Water Lock Cycle #6 Bulk Samples	09-Mar-10	17.0		< 0.01	< 0.1	< 0.1	< 0.1

Radiological analysis subcontracted to Becquerel Laboratories.

Chris Sullivan, B.Sc., C.Chem Project Specialist Environmental Services, Analytical

Data reported represents the sample submitted to SGS. Reproduction of this analytical report in full or in part is prohibited without prior written approval. Please refer to SGS General Conditions of Services located at http://www.sgs.com/terms\_and\_conditions\_service.htm. (Printed copies are available upon request.) Test method information available upon request. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples. Report ID:102881-IASReport Date:23-Mar-10Date Received:17-Mar-10

Thibault & Associates Inc Applied Process Chemical Eng. 330 Alison Blvd. Fredericton, NB E3C 0A9



921 College Hill Rd Fredericton NB Canada E3B 6Z9 Tel: 506.452.1212 Fax: 506.452.0594 www.rpc.ca

Attention: Stephanie Scott

Project #: 6412-02

#### Analysis of Water

RPC Sample ID:			102881-1	102881-2	102881-3
Client Sample ID:			6412-02-002	6412-02-003	6412-02-004
		CND-01 Filtrate	CND-02 Filtrate	CND-03 Filtrate	
Date Sampled:					
Analytes	Units	RL			
Cyanide - WAD	mg/L	0.0005	< 0.0005	< 0.0005	< 0.0005

This report relates only to the sample(s) and information provided to the laboratory.

RL = Reporting Limit

Ross Kean

A. Ross Kean, M.Sc. Department Head Inorganic Analytical Chemistry

Peter Crowhurst, B.Sc., C.Chem Analytical Chemist Inorganic Analytical Chemistry

WATER CHEMISTRY Page 1 of 3 Report ID:102881-IASReport Date:23-Mar-10Date Received:17-Mar-10

Thibault & Associates Inc Applied Process Chemical Eng. 330 Alison Blvd. Fredericton, NB E3C 0A9



921 College Hill Rd Fredericton NB Canada E3B 6Z9 Tel: 506.452.1212 Fax: 506.452.0594 www.rpc.ca

Attention: Stephanie Scott

Project #: 6412-02

### Analysis of Metals in Water

RPC Sample ID:			102881-4	102881-5	102881-6
Client Sample ID:		6412-02-005	6412-02-006	6412-02-007	
		SER-01A Filtrate	SER-02A Filtrate	SER-03A Filtrate	
Date Sampled:					
Analytes	Units	RL			
Selenium	μg/L	1	310	190	100

Report ID:102881-IASReport Date:23-Mar-10Date Received:17-Mar-10

Thibault & Associates Inc Applied Process Chemical Eng. 330 Alison Blvd. Fredericton, NB E3C 0A9

# rpc

921 College Hill Rd Fredericton NB Canada E3B 6Z9 Tel: 506.452.1212 Fax: 506.452.0594 www.rpc.ca

**General Report Comments** 

Cyanide - WAD: Weak Acid Dissociable Cyanide

Comments Page 3 of 3 Report ID:102917-IASReport Date:22-Mar-10Date Received:18-Mar-10

#### Thibault & Associates Inc Applied Process Chemical Eng. 330 Alison Blvd. Fredericton, NB E3C 0A9



921 College Hill Rd Fredericton NB Canada E3B 6Z9 Tel: 506.452.1212 Fax: 506.452.0594 www.rpc.ca

Attention: Stephanie Scott

Project #: 6412-02 Location: Rambler Nugget Pond Project

#### Analysis of Metals in Water

RPC Sample ID:			102917-1	102917-2	102917-3	
Client Sample ID:			6412-02-008	6412-02-009	6412-02-010	
		SER-01B	SER-02B	SER-03B		
Date Sampled:			18-Mar-10	18-Mar-10	18-Mar-10	
Analytes	Units	RL				
Selenium	µg/L	1	270	170	90	

This report relates only to the sample(s) and information provided to the laboratory.

RL = Reporting Limit

Ross Kean

A. Ross Kean, M.Sc. Department Head Inorganic Analytical Chemistry

Peter Crowhurst, B.Sc., C.Chem Analytical Chemist Inorganic Analytical Chemistry

WATER METALS Page 1 of 1

### Preliminary Overall Plant Water Balance

Design Basis:

- 1. Concentrator operating with copper concentrate flotation and gravity gold concentrate recovery from tailings.
- 2. Run of Mine Ore: 1000 dry tonne/day at 4% copper head grade and 4% moisture.
- 3. 90% annual plant availability. Concentrator operates at the hourly flowrates for 90% of the time in a year.

Stream	Plant Stream Description	Solids Content	Mass Flowrate (tonne/hour)		
Number		(wt%)	Water	Solids	Total
1	Flotation Tailings	20.0%	141.5	35.4	176.9
2	Water from Concentrate Dewatering	0.0%	28.1	0.0	28.1
3	Plant Washdown	0.0%	5.0	0.0	5.0
4	Total Tailings Discharge to Tailings Pond (1+2+3)	16.8%	174.6	35.4	210.0
5	Copper Concentrate Leaving Plant	92.0%	0.5	6.3	6.8
6	Total Water Leaving Plant (4+5)	0.0%	175.2	0.0	175.2
7	Water Entering With Ore	0.0%	1.7	0.0	1.7
8	Plant Make-up Water Required (6-7)	0.0%	173.5	0.0	173.5

# Appendix C

Emergency Response Plan – Generic Table of Contents

# EMERGENCY RESPONSE PLAN

# **GENERIC TABLE OF CONTENTS**

# **1.0 INTRODUCTION**

# **2.0 PROPONENT**

# **3.0 PURPOSE OF THE PLAN**

# 4.0 GEOGRAPHIC LOCATION OF THE PROJECT

# **5.0 FACILITIES DESCRIPTIONS**

# 5.1 Fuel Storage

- Type(s) of fuel stored
- Type and number of tanks
- Site characteristics
- Fuel transfer details
- Security features

## 5.2 Hazardous Materials

- Type(s) of materials stored
- Type(s) of storage facilities
- Site characteristics
- Materials handling
- Security features

## 6.0 ORGANIZATIONAL RESPONSIBILITIES

- 6.1 Emergency Response/Environmental Manager
- 6.2 Incident Response Team Leader
- 6.3 On-Scene Commander
- 6.4 Contractors

## 7.0 NOTIFICATION AND ALERTING PROCEDURES

- 5.1 Internal Procedures
- 5.2 External Procedures

# 8.0 SPILL CONTROL AND CLEAN UP PROCEDURES AND REPORTING

- 8.1 Product
- 8.2 Description of spill site
- 8.3 Status of contamination
- 8.4 Potential health and environmental hazards
- 8.5 Restoration of spill site

8.6 Disposal of contaminants and contaminated material

# 9.0 RESOUCE INVENTORY

# Appendix D

Environmental Protection Plan – Generic Table of Contents
#### ENVIRONMENTAL PROTECTION PLAN

#### **GENERIC TERMS OF REFERENCE**

#### **1.0 INTRODUCTION**

1.1 Purpose of the Environmental Protection Plan1.2 Organization of the Environmental Protection Plan

#### 2.0 ENVIRONMENTAL POLICY

2.1 Statement

2.2 Application

#### **3.0 DOCUMENT MANAGEMENT**

3.1 Distribution

3.2 EPP Maintenance

**3.3 Revisions** 

#### 4.0 DESCRIPTION OF THE UNDERTAKING

4.1 Project Overview

4.2 Purpose of the project

#### **5.0 PERMITS AND APPROVALS**

5.1 Federal approvals

5.2 Provincial approvals

5.3 Municipal approvals

#### 6.0 ENVIRONMENTAL PROTECTION MEASURES

6.1 Working in and around water

6.2 Blasting

6.3 Storage, handling and transfer of Fuel and other Hazardous Materials

6.4 Equipment operation, use and maintenance

6.5 Dust control

6.6 Dewatering and site drainage

6.7 Waste disposal

6.8 Clearing vegetation

6.9 Grubbing and disposal of related material

6.10 Waste rock

6.11 Sediment and erosion protection

6.12 Shipping

6.13 Stream crossings

6.14 Groundwater development and use

#### 7.0 CONTINGENCY PLANS

7.1Fuel and hazardous materials spills

7.2 Forest fires

7.3 Wildlife encounters

7.4 Discovery of historic resources

#### **8.0 CONTACT LIST**

### **Appendix E**

Public Meeting Components and Results



### Annual General Meeting Tuesday, November 17<sup>th</sup>, 2009 Baie Verte Kinsmen Club @ 7:00 p.m.

### Guest Speaker: Jason McKenzie Mines General Manager Rambler Metals & Mining Canada Limited

Menu: Roast Beef Dinner, Dessert, Tea or Coffee

Call the Chamber Office to Reserve your tickets today! 532 - 4204



# **PUBLIC NOTICE**

# Public Information Session on the proposed

### **Rambler Metals and Mining Canada Limited**

Shall be held at

Baie Verte Kin Centre

On Thursday, February 4<sup>th</sup> 2010 at 7 p.m.

### This session will be conducted by the Proponent,

### **Rambler Metals and Mining Canada Limited**

Contact 532-4990 for general inquiries

The purpose of this meeting is to describe all aspects of the proposed Project, to describe the activities associated with it, and to provide an opportunity for all interested persons to request information or state their concerns.

### ALL ARE WELCOME



# **PUBLIC NOTICE**

# Public Information Session on the proposed

### **Rambler Metals and Mining Canada Limited**

Shall be held at

Ming's Bight Town Hall

On Monday, February 8<sup>th</sup> 2010

at 7 p.m.

### This session will be conducted by the Proponent,

### **Rambler Metals and Mining Canada Limited**

Contact 532-4990 for general inquiries

The purpose of this meeting is to describe all aspects of the proposed Project, to describe the activities associated with it, and to provide an opportunity for all interested persons to request information or state their concerns.

# ALL ARE WELCOME



#### **Recent Events**

- October 2009 Rambler announced the finalized sale and purchase of the Nugget Pond gold processing facility from Crew Gold Corporation for \$3.5 M CAD.
- October 2009 the company completed an equity fund raising for \$9.35 M CAD.
- February 2009 the company released its updated resource estimate for the Ming property, adding two new zones to the previous resource.
- December 2008 the company completed a detailed metallurgical test program proving that Rambler's ore could produce a premium copper concentrate grading +29%.

#### **Project Summary**

- Significant Achievements
  - SH&E, Mine Dewatered, Services, NI43-101
- Significant Investment to Date
  - People, Assets, Exploration and Engineering
- Production
  - Phase I 7 year LOM
    - 41,289 t Cu, 153,423 oz Au and 799,264 oz Ag
  - Employment, 158 at full production
- Massive Upside
  - All zones open in multiple directions
  - Phase II LFZ, exploration, other properties, economic

#### **Key Dates**

- Project Financing Q1 2010
- Submit Applications Q1 2010
- Construction Q2 2010
- Mine Pre-Production Q3 2010
- Mine Production Q1 2011

#### Investor Contact Information t (709) 532-4990 / f (709) 532-4992

info@ramblermines.com www.ramblermines.com

### An Emerging Base Metals... ...and Gold Mining Company

# **Ming Mine Project**



February 2010



### Forward Looking Statement

### ETALS AND MINING

- The information contained in this confidential document ("Presentation") has been prepared by Rambler Metals and Mining plc (the "Company"). It has not been fully verified and is subject to material updating, revision and further amendment. This Presentation has not been approved by an authorised person in accordance with Section 21 of the FSMA and therefore it is being delivered for information purposes only to a very limited number of persons who are persons who have professional experience in matters relating to investments and who fall within the category of person set out in Article 19 (investment professionals) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2001 or are otherwise permitted to receive it. Any other person who receives this Presentation should not rely or act upon it. By accepting this Presentation, the recipient represents and warrants that they are a person who falls within the above description of persons entitled to receive the Presentation. This Presentation is not to be disclosed to any other person or used for any other purpose.
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  reserved to terminate any discussions or negotiations with any prospective investors. In no circumstances will the Company be responsible for any costs, losses or expenses incurred in
  connection with any appraisal or investigation of the Company. In furnishing this Presentation, the Company does not undertake or agree to any obligation to provide the recipient
  with access to any additional information or to update this Presentation or to correct any inaccuracies in, or omissions from, this Presentation which may become apparent.
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### **Board of Directors**

### Harry Dobson – Chairman

> Chairman of Kirkland Lake and Belvedere, 35 Years Mine Financing

### George Ogilvie, B.Sc., P.Eng. - President & CEO

> 20 Years International Operational and Project Development Experience

### John Thomson, C.A. – CFO

> 25 Years International Financial Experience

### John Baker, Q.C. - Director

Chairman Altius Minerals and Senior Partner in Leading St. John's Law Firm

#### **Brian Dalton – Non Executive Director**

President Altius Minerals and Mining Entrepreneur

#### Brian Hinchcliff, B.A. – Non Executive Director

President Kirkland Lake Gold, 30 Years Mine Financing



# Management and Staff



#### Jason McKenzie, C.E.T.

General Manager >> 35 Years International Experience in Mine and Project Management

#### Norman Williams, C.A.

Financial Controller > 10 Years Financial Experience including 8 years with Deloitte

#### Larry Pilgrim, P.Geo.

**Chief Geologist** 

25 Years Mine and Exploration Geology Experience

#### **Milton Noel**

Project Superintendent >>→ 40 years Mining Experience



### Site Location



- Mine 17km from Baie Verte
  - Baie Verte Population 1,300
  - 65km from TCH
- 40km to Nugget Pond Mill
- 145km to Goodyear's Cove Port
- 159km to Deer Lake Airport
- Paved Road System
- Main Hydro Grid
- Skilled Local Labor Force
- All Existing Sites



CANADA LIMITED



### Local Community

- Former Mining Community
- Hospital & Health Center
- RCMP Detachment
- Recreation Facilities
- New School (2011)
- Mining Friendly



#### **Road System**

- Paved Roads
- No Tolls
- •Year Round Access
- Maintained by Public Works

### Infrastructure



### Hydro System

- 25 Kv Main Line
- 200 m from Mine Site
- 4160 Mine Distribution

# 

# **Project Achievements**

### ETALS AND MINING

Safety - 4.5 years – No Lost Time Accidents
 - 387 days without a medical aid incident

- Environmental 100% Compliant
  - Constructed and commissioned Waste Water Treatment Plant (\$2.2M)
  - Baseline Environmental Studies completed

### Exploration – 84,000 meters of Diamond Drilling

- Surface & Underground

### Dewatered Mine Workings

- 245,000,000 gallons of water pumped and treated (completed July 2008)
- New air, electrical and water services installed

### Underground Restoration and Development

- 6,000 meters of tunnels rehabilitated including 431 meters of new access development









METALS AND MINING CANADA





# **Project Achievements**

### Hire Staff and Workforce

- 41 Employees (at peak), 23 Employees (currently)

#### Mine Equipment

- Mobile fleet \$2.27M, Rescue Equipment \$223,000

### NI43-101 Compliant Resource Estimate

- Updated (February 2009)

# Mine Engineering Design - Feasibility Study – Completed (May 2009)

#### Surface Engineering

- Scoping Study – Completed (May 2009)

- Business Model
   Completed (June 2009)
- Purchase of Nugget Pond Hydrometallurgical Plant
  - \$3.5M (October 2009)



# **Project Expenditures to Date**







Tangible Assets \$12,000,000

> Exploration and Evaluation \$32,500,000

### **Total Property Expenditures**





# **Environmentally Conscious**

ETALS AND MINING BANADA

- 100% Environmental Compliance Throughout Operation
- Removal of PCB Contaminated Transformers From Previous Operation
- Constructed Waste Water Treatment Facility for Dewatering Operation
- Ongoing Diamond Drill Road Reclamation Program
- Base Line Water Sampling Program Since 2005
- Completed Fish Habitat Study of Ming Site (August 2008)
- Budget Expenditure of \$0.85 per Tonne Mined

Environmental Registration Application Submission - Anticipated in Q1 2010









#### 

# Mine 3D Model

NETALS AND MINING BANADA LIMITED





# NI43-101 Resource Estimate

						Grades			Conta	ined metal	
	Resource Category		Quantity (000' t)	Copper %	Gold g/t	Silver g/t	Zinc %	Copper tonnes	Gold oz	Silver oz	Zinc tonnes
Phase 1	Massive Sulphides Zones (measured and indicated)		2,023	2.04	2.36	12.29	0.68	41,289	153,423	799,264	13,829
		0.50	39,139	0.97	0.08	1.00	0.02	380,682	98,029	1,257,128	5,895
Phase 2	Footwall Stringer Zone (variable cutoff grade)	0.75	24,497	1.18	0.09	1.19	0.02	290,226	69,111	933,697	3,780
		1.00	14,310	1.41	0.10	1.39	0.02	201,940	44,627	641,227	2,214
		1.25	7,853	1.66	0.11	1.62	0.02	130,008	26,771	410,087	1,208
		1.50	4,379	1.89	0.11	1.84	0.02	82,667	15,996	259,064	684
		1.75	2,402	2.11	0.12	2.04	0.02	50,784	9,177	157,250	380
		2.00	1,262	2.34	0.13	2.25	0.02	29,570	5,310	91,523	202

Grade improving with depth
 <u>All Zones Open at Depth</u>





# NI43-101 Resource Estimate

						Grades			Conta	ined metal	
	Resource Category		Quantity (000' t)	Copper %	Gold g/t	Silver g/t	Zinc %	Copper tonnes	Gold oz	Silver oz	Zinc tonnes
Phase 1	Massive Sulphides Zones (measured and indicated)		2,023	2.04	2.36	12.29	0.68	41,289	153,423	799,264	13,829
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		1.00	14,310	1.41	0.10	1.39	0.02	201,940	44,627	641,227	2,214
		1.25	7,853	1.66	0.11	1.62	0.02	130,008	26,771	410,087	1,208
		1.50	4,379	1.89	0.11	1.84	0.02	82,667	15,996	259,064	684
		1.75	2,402	2.11	0.12	2.04	0.02	50,784	9,177	157,250	380
		2.00	1,262	2.34	0.13	2.25	0.02	29,570	5,310	91,523	202



Sensitive to copper commodity prices

**Great Upside Potential** 



# Phase 1: Production Statistics

2011 - 2017

#### **Daily Production**

850 tonnes per day (1000 mtpd at mill)

**Annual Production** 

306,000 tonnes per year

Annual Underground Development 3.78 kilometers

Average Annual Copper Produced 10,134,300 pounds

Average Gold Produced 17,700 ounces

Average Silver Produced 47,260 ounces





### Average Production Costs (2011 – 2017)

**Average Annual** Cost (CAD\$) \$/Tonne **General & Administration** \$3,727,000 \$12.39 Mining \$12,118,000 \$40.27 Processing \$6,138,400 \$18.22 Ore Trucking to Nugget Pond \$1,836,000 \$6.00 \$1,652,800 Port Operations and Transport \$5.49 **Royalties** \$617,600 \$2.05 **Treatment and Refining** \$2,337,750 \$7.77 Reclamation \$0.85 \$257,150 **Total Site Costs** \$28,684,700 \$93.03

Total Annual Salaries and Wages \$9,752,560 (34% of total)



# **Capital Expenditures 2010**



### **Total Capital Expenditures**

\$34,298,700 Canadian Dollars

### 

### Existing Facilities

- Waste Water Treatment Plant
- Core storage
- Temporary office and dry

### Total Expansion Expenditures

- -Office and dry facilities utilizing modular trailers
- Maintenance garage
- Surface warehouse and lay down area

### Rehabilitate Shaft as Second Means of Egress

### Temporary Lay down Area for Ore and PAG Material

- All leachate collected and treated prior to discharge
- Maximum 25,000 tonne temporary PAG storage area on surface during the first year
- All waste rock (PAG and NAG) will be used as stope backfill
- Lay down areas will be reclaimed once shaft is in full operation

# **Ming Mine Expansion**





# **Nugget Pond Expansion**

- Purchase Price \$3.5 M CAD, Expansion Cost \$ 14.12 M CAD
- Expanding with Base Metal Floatation

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LIMITED

CANADA

- Use of existing crushing and grinding circuit
- New addition approximately 100' by 100'
- Use of Permitted Tailings Impound
  - Currently 1.8 m<sup>3</sup> of tailings capacity (March 19, 2009)
- Rambler is Actively Evaluating Future Toll Milling Options







### **Nugget Pond Site Plan**

**Conceptual Layout** 





### Port Facilities (Goodyear's Cove)



- New Infrastructure
  - Concentrate Storage Shed
  - Loading/ off loading
- 145 km from Nugget Pond
- Active Deep Water Port
- Shipping Approximately 4 Times Per Year.



#### 

# **Production Labor Force**

(2011 to 2017)



### Total Annual Salaries and Wages \$9,752,560



# **Project Schedule**

ETALS AND MINING BANADA LIMITED

Secure Project Financing (Ongoing)

Rambler Project Schedule

- Commence Equipment Procurement for Mill and Mine (January 2010)
- Complete Feasibility Study and Development Plan (March 31, 2010)
  - Mill Expansion Design, Mine Surface Facilities Design, Tailings Impoundment Design, Port
- Submit Environment Assessment Registration (March 31, 2010)





### **Project Schedule**

#### ETALS AND MINING BANADA LIMITED

- Commence Construction Mine and Mill (April 30, 2010)
- Commence Hiring of Mining Labor Force (June 01, 2010)
- Evaluate Potential for Toll Milling Contracts until Ming Ore Production (July 01, 2010)
- Transfer Nugget Pond Mill Employees to Rambler (July 01, 2010)
- Commence Pre-production Development Underground (July 01, 2010)



### Production Startup – Q1 2011

#### ambler Project Schedule



CANADA LIMITED

- All Zones Open in Multiple Directions e.g. 1807 zone
- Inferred Resource
   1,498,000 tonnes @ 1.72 % Cu, 2.05 g/t Au and 9.36 g/t Ag
- Qualification for "EDGE" Status
- Improved Cu Commodity Price
   e.g. \$2.50 / lb and \$1000 / oz (US)
- Exploration TITAN Geophysics Results and/or Property Acquisition
- Indicated Footwall Resource @ 1.00% Cu Cutoff
   14,310,000 tonnes @ 1.41 % Cu, 0.10 g/t Au & 1.39 g/t Ag



# Opportunities

### 

# **Project Summary**

Significant Achievements

SH&E, Mine Dewatered, Services, NI43-101

### Significant Investment to Date

People, Assets, Exploration and Engineering

### Production

- Phase I 7 year LOM, 41,289 tonnes Cu, 153,423 oz Au and 799,264 oz Ag
- Employment, 158 at full production

### Massive Upside

• Phase II – LFZ, exploration, other properties, economic

### Key Dates

- Project Financing 1Q 2010
- Submit Applications 1Q 2010
- Construction 2Q 2010
- Mine Pre-Production 3Q2010
- Mine Production 1Q 2011



# THANK YOU





#### Baie Verte - February 4, 2010

	Name	Address	Phone Number
1	Julia Wells	Wild Cove	329-3171
2	Albert Wells		
3	Larry Pinksen		329-3321
4	Pat Jim	Baie Verte	532-4057
5	Wallace Pinksen	Baie Verte	
6	Clarence Martin	Baie Verte	
7	Eugene Seymour	Baie Verte	
8	Rodney Hoven	Baie Verte	532-4853
9	Ken Ryan	Baie Verte	532-4862
10	Jackie Stuckless	Baie Verte	532-2260
11	Morley Stuckless	Baie Verte	532-2260
12	Panzi Eveleigh	Seal Cove	
13	Stan Banks	Seal Cove	
14	Don Law	Baie Verte	532-2207
15	Jennifer Bounds	Baie Verte	532-4993
16	Walter Breen	Coachmen's Cove	253-6599
17	Barrry Breen	Coachmen's Cove	253-3572
18	Gerald Parsons	Baie Verte	532-4735
19	Jim Bryan	Baie Verte	532-4297
20	Edgar Billard	Brent's Cove	661-7995
21	Bruce Billard	La Scie	675-2604
22	Rose Matthews	Baie Verte	
23	Allan Cramm	Baie Verte	
24	Roger Jacobs		

#### 24 people in attendence

#### Questions

1 It was asked if with the expansion of the Nugget Pond Mill if the company will purchase new or used machinery



#### Ming's Bight - February 8, 2010

Name

1	Laurence Regular	21	Doreen Pardy
2	Vaden Regular	22	Stan Jenkins
3	Kevin Regular	23	Bonnie Jenkins
4	Miles Regular	24	Stephen Regular
5	Leon Foster	25	E. Regular
6	Carl Foote	26	Craig Lane
7	Danny Regular	27	Kevin Foster
8	Paul Rice	28	Sharlene Foster
9	Earl Regular	29	Matthew Jenkins
10	Ralph Foster	30	Alonzo Regular
11	Eldred Regular	31	Roy
12	Wayne Regular	32	Carl Regular
13	Dean Regular	33	Justin Regular
14	Gary Pardy	34	Bert Fudge
15	Frances Regular	35	Darrell Regular
16	Milt Regular	36	Ivan Regular
17	Clayton Saunders	37	Brent Regular
18	Glenda Regular	38	Victor Dyer
19	Gary Regular	39	Boyce Mitchell
20	Angela Pardy	40	Welton Dyer

#### 40 people in attendence

#### Questions

- 1 It was asked if the water treatment plant would be used for Ammonia treatment when the mine is in production.
- 2 It was asked if there were issues with getting miners here would the company build a camp.
- 3 It was asked if the company was going to be hiring trainees.
- 4

It was asked if the trainees might start at the beginning of the project.

5 It was asked if trainees would have to take the Hard Rock Miner Course to be considered for employment.


6 It was asked what kind of equipment would be used "new/old"

- 7 It was asked what kind of mining methods will be used.
- $^{\rm 8}\,$  It was asked if the schedule will remain as is with 7 days on 7 days off.
- 9 It was asked the brand name of the equipment will be.
- 10 Will there be any spin offs for Ming's, maybe for the fire dept.
- 11 It was asked what degree the ore body was.
- 12 It was asked how wide are the veins were and the thickness.

Anaual General Meeting, Chamber of Commerce November 2009.

> AGM ATTENDANCE Shannon Lewis **Eddie Wimbleton Desiree Ricketts** Lloyd Hayden Idella Barker Roy Barker Jason McKenzie - Guest Speaker Baxter & Annie Ropson Wallace & Linda Pinksen Albert & Julia Wells Monty & Denise Way Jennifer Whelan Gerry Burke Deris & Wayne Hollett Roger Martin Connie Clarke Pat Jim Nancy Brown Ada Ford Mel Janes Eugene & Jane Burton Paul & Raquel Thistle Gene Seymour Allan & Jessie Cramm Tom & Darlene Hutchings John Ricketts Ivan & Sharon Bailey Scott & Paula Bailey Rhonda & Peter Goudie Don Loveman Corrina Pollett Peter & Girlfriend Mercer John Winsor 2 others from Rambler Mines Larry Pilgrim



MEETING SIGN IN SHEET	
PROJECT: RAMBLER METALS AND MINING CANADA LTD.	DATE: FEBRUARY 23, 2010
MEETING TIME: 1:30 P.M.	LOCATION: SOUTH BROOK, NL

NAME	ADDRESS	PHONE	EMAIL
Alloria Andrews	South Brook	657-2455	Gloria - NF @ Hotma 1. Com
Michelle Morey	South Brook	657-2966	Michelle-Mored Hotmail. con
Paul Knight	South Brook	657-2518	FWPKNight eHotmail.com
Valerio Foulow	South Brack	657-2542	ValFawlow Ochotmail Com
Olive Mills	Saith Brook	657-2988	
Steven Hopkins	SouthBrook	673-8635	
Paul R. Mills	South Brach	657-2988	paulolive mills@ hotmail.com
WMckay	South Brook	657-2332	
Marlene Burton	South Brook	657-2470	mgburtonca Eyahoo, Ca
Alchelle Morey (Rume)	Shoe Cove	675-2227	minovey @vamblermines.com.
Jou Willing	St. John's	532-4990	nwillhours@paughtermines.com

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## MEETING SIGN-IN SHEET

Project:	Rambler Metals & Mining Canada Ltd.	Meeting Date:	February 4, 2010
Meeting Time:	7 p.m.	Place:	Kin Centre - Baie Verte

Name	Address	Phone	E-Mail
Rodney Hoven	Baie Verte	532-4853	
Ken Ryan	Bace" Verte	532-4862	
Jackie Stucke	ess Baci Verte	532 - 2560	
Morley Stuckless	Bare verte	532 2260	
Panyi Weleigh	Seal Core		
Stanly Banks	Seal Core.		
Don Kaur	Bare Verte	532.2207	
Jennifer Bound	Bare Voite	532.4993	
albert wells	wild Core.	329.3171	

Page 1 of 5

	CANADA WINING		
MEETI	NG SIGN-IN SHEET		
Project:	Rambler Metals & Mining Canada Ltd.	Meeting Date: February 72010	
Meeting Time:	7 p.m.	Place: Kincentre - Bale	Jerte

RAMBLER

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Name	Address	Phone	E-Mail
Walter Breen	Coachmen's Core	253-6599	
Barry Breen	Coachmen's Cove	253-3572	
Gerald Parsons	Bace Verte	532-4735	
Jim Bryan	Baie Verte	532-4297	
Edgar Billard	Breht's Cove	661-7995	
Bruce Billard	ha Scui	695-2604	
Rose Matthews	Bace Vorte		
Allan Cramm	Bai Verte	532-4047	
Roger Jacobs	Bau Verte	532-4028	

Time:

CANADA LIMITED

3-83

## MEETING SIGN-IN SHEET

Project:	Rambler Metals & Mining Canada Ltd.	Meeting Date:	February 4, 2010
Meeting Time:	7 p.m.	Place:	Kin Centre - Baie Verte

Name	Address	Phone	E-Mail
Julia wells	Wild Love	329-3171	
harry Pinksien	wild Core	329.3321	
Part Jim	Basi Vorte	532.4057	
Wallace Pinksin	Bau Vorte		
Clarence Martin	Bace Verte		
Gugene Seymour	Basi Verte		
Roger	Bace Verte		

25 people attended

Page 1 of 5

MEETING SIGN-IN SHEET				
Project:	Rambler Metals & Mining Canada Ltd.	Meeting Date: February <sup>3</sup> 2010		
Meeting Time:	7 p.m.	Place: Mingp Bight Dwn Hall		

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Page 175

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Name	Address	Phone	E-Mail
Lonwrey de la.	Minop Bight		
TADEN Regular	Ninop Bight		
Kegular	Nungo Bight		
Milisegul	Mingo Bight		
Leon fester	Uning Bight		
leare Foot	Uninep Bight		
Varying Reg	/ mings Bight		
Paul frice	mings Bight		
Earl Regula	- Minds Bight	2548490	
Rulphfiste	m.B	250/720	

#### MEETING SIGN-IN SHEET

Project:	Rambler Metals & Mining Canada Ltd.	Meeting February & 2010 Date:
Meeting Time:	7 p.m.	Place: Mingo Bight Town Hall

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Page 2 02 5

Name	Address	Phone	E-Mail
Eldred Re	6 miner	25463	51
Waym' figula	mings Bigh	254-6551	
Dear Puppla	ming Beglt	25474	2
Hay Party	ming Bight	254-614	12
Flancis Seg	Eler ming's	25473	41
Mitt Re	ala nitespl	7	
Clastor Say	- Ming Bity	254-6/5	7
Loom Luso	mings Billy	254 628	6
Henry	207 112	2521 55	3/

		a glanda really	a
Glencla	mungs Beght	254-7316 nF. Sympatice	cw
Is any Regul	Bare verte		
Angela kudy	MB	254-7331	
Robentard	J. M. 13-	254-7421	
Stan Denke	* m. 3	254 6108	-
Bonnu Genu	/ 1	1 1	
Stephen hegular	Mr.B	254-7341	-
& Regular	m.B	254-6427	
aning Same	MB	254-6541	

# **MEETING SIGN-IN SHEET**

Name

Project:	Rambler Metals & Mining Canada Ltd.	Meeting Date:
Meeting Time:	7 p.m.	Place: N

Address

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	1 1 1 2 1		
Place:	plinop Bight	Town	Hall

February 8, 2010

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Phone

Page 3 of 5

### RAMELER METALS AND MINING CANADA

### MEETING SIGN-IN SHEET

Project: Rambler Metals & Mining Canada Ltd.

Meeting February &, 2010

Meeting 7 p.m. Time: Place: Ningo Bight Town Hall

Page 4 of 5

Name	Address	Phone	E-Mail
Kevin + Sharler Foster	" Ming's Bight	254-6-231	Kevinsharlene @ hotmail.com
Matthew Jenkins	Ming's Bight	254-8386	Matthew Jenkins 100 Hotmail, Com
Along	x 2	254-8391	
Roy .	MingsBight	- 257-748	0
Carl Regul	Mines Bight	254-8181	
Justin Pardy	mings Biglit	254 - 8571	
Best Fudg	> Mings Bight	234-616	
Davell R	gut ming B	Sigh 254-855	3
Chan her	Julen Millig's Pie	sht 254-612	2



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### MEETING SIGN-IN SHEET

Project:	Rambler Metals & Mining Canada Ltd.	Meeting Date: February § 2010
Meeting Time:	7 p.m.	Place: Mingo Bight Town Hall

Name	Address	Phone	E-Mail
Brent Besylan	M:1175 B:94+	254 7/31	
Victor Dyer	1 '	234	
Boyce Mitde	2	254 6391	
Welton. Dyer	MiNGS BIGH.	25-4 8471	