

THE ISLAND OF NEWFOUNDLAND: AN EMERGING GOLD DISTRICT ON CANADA'S EAST COAST



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Open pit at former Hope Brook mine. Photo by Coastal Gold Corp.

Although iron ore and nickel continue to dominate news from the mining sector in Labrador, exploration and development for gold is gaining momentum on the Island of Newfoundland. Much of the recent and current production of the precious metal is linked to the beginning of modern gold exploration, led by Noranda and a host of juniors. This exploration which peaked in the 1980s, quickly resulted in significant gold discoveries, many of which are associated with major crustal structures across central Newfoundland's greenstone terranes. Richmond Mines' Nugget Pond and Hammerdown Mines and BP-Selco's Hope Brook Mine were the direct result of these early finds.

Since that time, exploration has been sporadic, carried out by local junior miners and prospectors, supported by government surveys. Nevertheless, key gold dis-



Mineralized quartz-tourmaline-pyrite veins at Valentine Lake. Photo by Marathon Gold Corporation

coveries have been made in a wide range of environments prospective for world-class deposit types. These occurrences include well-documented examples of high- and low-sulphidation epithermal deposits, bulk tonnage intrusion and sediment-hosted deposits, and gold-rich vol-

canogenic massive sulphide deposits.

These highly prospective yet underexplored environments represent opportunities for significant new discoveries, in what is becoming an emerging gold district. The following projects reflect some recent success stories in this region.

Exploration and Development Highlights

Rambler Metals & Mining plc is producing from newly defined high-grade copper and gold lenses from a historic Au-rich VMS deposit in the Baie Verte mining district of northeastern Newfoundland.

The company completed its first full 12 months in commercial production at the Ming Mine, as of October 31, 2013.

The company milled 193,056 dry metric tonnes and produced 20,393 tonnes of copper concentrate with 5,909 tonnes of copper metal, 4,792 ounces of gold and 35,828 ounces of silver. Recent drilling has succeeded in extending the high-grade copper and gold zones, indicating potential to increase reserves in both areas.

Rambler has aggressively reduced its debt, and also expanded its exploration portfolio through property acquisition and other investments (for example, a joint venture with Thundermin Resources Inc. on the Little Deer Project).

Elsewhere in the Baie Verte district, Anaconda Mining Inc. is operating the open-pit Pine Cove mine, a mesothermal (orogenic) gold deposit associated with a major structural feature, the Baie Verte Line. The company processed 287,747 dry tonnes of ore, and sold 14,879 ounces of gold in the fiscal year ending May 31, 2013.

Anaconda is working to expand its resource base through an aggressive exploration program around the mine site and with new property acquisitions in the area. Anaconda completed bulk sampling of auriferous quartz veins at the Romeo and Juliet prospect and diamond drilling on other targets around the mine site, with encouraging results, including the discovery of a new gold-bearing zone termed the Balcony Zone. More recently,



Artist's impression of Vale's Long Harbour plant. Courtesy of Vale.

A CLOSER LOOK AT WHAT'S HAPPENING AROUND THE PROVINCE

- Vale announced a decision to proceed with underground development at the Voisey's Bay Ni-Cu-Co mine
- Vale announced they had achieved "Phase 1 mechanical completion" of their Long Harbor hydromet nickel facility.
- IOC production (Q1,2) for 2013 increase about 20% over the comparable 2012 quarters. Nameplate capacity at IOC is now 22 million tonnes annually.
- Tata Steel Minerals Canada has advanced its Direct Shipping Ore Project to the production stage; commercial sales will soon follow.
- Alderon's Kami Project in final environmental assessment stage: company ordering long-lead items for mine development
- Century Iron completes consolidation of its Attikamagen Project and announced PEA on the Joyce Lake deposit
- Major new infrastructure developments, including hydro power and port expansion, will support future growth in the Labrador iron district
- Atlantic Minerals limestone-dolomite quarry produced about 3 million tonnes in 2013 with plans to expand to 4 million in 2014. Entered European markets and initiated year-round shipping
- Minco plc and Canadian Zinc consolidating ownership of significant base metal resources in central Newfoundland
- New resource estimates reported on several advanced gold projects in central and southern Newfoundland; Preliminary Economic Assessments are in progress
- New mineral resource announced by Canada Fluorspar Inc. at the former St. Lawrence fluorspar mine
- Altius announces new joint venture with Anglo American to explore Ni-Cu-PGE discovery in southern Labrador



Portal at Ming Mine operations. Photo by Rambler Metals & Mining.



Aerial view of Pine Cove operations. Photo by Anaconda Mining Inc.



Aerial view of Valentine Lake camp. Photo by Marathon Gold Corporation.



Tailing pond at Pine Cove mine. Photo by Anaconda Mining Inc.

the company announced the acquisition of two related orogenic gold prospects in the area, Deer Cove and Stoger Tight deposits, both containing historic (non-43-101 compliant) gold resources.

On another crustal-scale structure, 200

km farther south, Marathon Gold Corporation is rapidly advancing its flagship Valentine Lake Project. Marathon recently reported total measured and indicated resources at the Leprechaun Deposit of 10.5 million tonnes grading

2.28 g/t gold for 775,000 ounces of gold and 1.5 million tonnes at 2.79 g/t for 140,000 ounces of gold. The company also signed a subscription agreement with Rambler Metals and Mining Canada Limited to finance ongoing exploration at the project, and is now working toward a Preliminary Economic Assessment.

The extensive property contains widespread orogenic gold mineralization hosted by quartz-tourmaline-pyrite veins in granite, including the Leprechaun and Victory gold deposits, and the J. Frank Zone as well as many smaller occurrences. Marathon has steadily advanced the project, adding “ounces in the ground” at the main Leprechaun Deposit, while making significant new discoveries, such as the recently reported high-grade Sprite Zone. Importantly, much of the property remains unexplored.

In the southwestern edge of the greenstone belt, Benton Resources Inc. has assembled a large land package covering the highly prospective Cape Ray Fault Zone. Benton now owns six separate deposits having either 43-101 compliant or historic resources totaling more than 448,000 ounces of gold, with silver and base metal credits. Ongoing exploration programs and compilation of previous work has resulted in new targets for future testing.

Benton is currently studying the economics of a shallow open pit mine to exploit the resource and to produce on-site a saleable metal concentrate. The company recently conducted metallurgi-



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Panoramic view of Pine Cove open pit.
Photo by Anaconda Mining Inc.

cal testing on a 150 kg mini-bulk sample and reported encouraging results.

In the historic Springdale mining district, Maritime Resources Corp. is exploring the Hammerdown and Orion orogenic gold deposits, and several other gold zones. An initial Independent NI 43-101 compliant Mineral Resource Estimate released in June 2013 estimates the property to contain more than 400,000 ounces of gold in the measured and indicated category and over 600,000 ounces in the inferred category, both at a 3 g/t cut-off grade.

The Hammerdown gold deposit was successfully mined by Richmond Mines from 2000 to 2004. During its operation a total of 291,400 tonnes of ore were mined and milled, at an average grade of 15.83 g/t Au, recovering a total of 143,000 ounces of gold. All of the ore was processed at the Nugget Pond mill, now owned and operated by Rambler Metals, with an average gold recovery of 97.1%. Mining concluded in 2004 due to low gold prices with considerable gold mineralization remaining.

The Orion gold deposit consists of two main vein systems, both of which are open along strike, up and down plunge. Maritime succeeded in extending the Rumbullion vein system through trenching in 2013, and initiated environmental baseline studies to be used in a future environmental submission for the project. The company also conducted metallurgical testing on core samples from the Orion deposit and achieved 96% gold recovery from pre-concentration test work.

Coastal Gold Corp. is exploring the historic Hope Brook gold mine on the south coast of Newfoundland. Hope Brook represents a well-preserved example of an ancient high-sulphidation epithermal gold deposit. The company is evaluating gold-bearing zones that were not economic under prevailing gold prices during mining in the early 1990's. An updated NI 43-101 Mineral Resource Estimate released December 2013 reports 19.9 million tonnes indicated at 1.93 g/t Au for 1,239,000 ounces of gold and 1.3 million tonnes inferred at 3.22 g/t for 138,000 ounces of gold. A recently completed tailings vibrocore drilling program indicates that the tailings contain widespread gold and copper mineralization significantly above the historic reported tailings grade. Coastal is working on a Preliminary Economic Assessment,

expected for release in early 2014.

Despite the current weakness in financial markets, greenfields gold exploration continues on the Island of Newfoundland, with significant results. Notable amongst these has been the recognition of new areas of widespread epithermal gold mineralization in eastern Newfoundland by Silver Spruce Resources and a private company, Puddle Pond Resources. In addition, bonanza-grade, gold-bearing quartz veins were found by a local prospector in a little-explored silicic volcanic terrane on the Baie Verte Peninsula. These have since been optioned by Bowmore Exploration. These grass roots discoveries, in easily accessible areas which had seen little previous exploration, highlight the potential for new opportunities, close to home, in a mining friendly jurisdiction. **CMJ**

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