

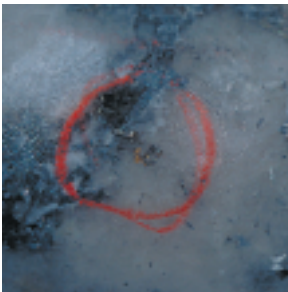
# Precious Metals in New Brunswick



## Gold and Silver

Gold has a mythical quality. It has caused family feuds and led nations to war. It forms the basis of our currency and has filled the dreams of every prospector who ever swung a hammer. We all know of gold's use in jewellery and monetary standards. Yet it also serves a role in such prosaic items as dental fillings, electroplating and scientific instruments.

Silver is another precious metal with many functions. Silver and its compounds can appear in antiseptics, and are painted on glass to make mirrors. These compounds are also used in manufacturing nuclear reactor rods and photographic film. Silver also graces our homes as tableware and jewellery.



## Primary Gold

A primary gold mine is one worked specifically or primarily for gold. The first full-scale primary gold mine in New Brunswick was located at Cape Spencer east of Saint John. There, the gold occurs as tiny grains in zones along the borders of quartz veins, together with the mineral pyrite (fool's gold). Gordex Minerals Ltd. opened the Cape Spencer mine in 1986, but ceased work in 1989 when gold prices faltered. Cape Spencer was one of the first Canadian mines to use the percolation leaching method of gold extraction. The technology costs less than traditional extraction methods and can enable low grade gold ores to be processed more economically.

Another primary gold mine opened in 1989 at Murray Brook in northeast New Brunswick. NovaGold Resources Inc. extracted gold from a thick gossan layer that overlies a base metal deposit formed about 475 million years ago. Between 1989 and the completion of gold mining in 1992, the Murray Brook operation yielded substantial quantities of gold. NovaGold's processing mill was one of the most advanced of its kind in the world. The ore was leached year-round in a fully enclosed facility that allowed airborne and liquid mine effluent to be strictly controlled.

In 1999 Freewest Resources Canada Inc. acquired a 100% interest in a potentially significant new gold deposit in the Rollingdam area of south-western New Brunswick. Initially discovered in 1998 by prospector Reginald Cox, the Clarence Stream property has been demonstrated to contain intrusion-related gold mineralization along the northern margin of the Saint George granite Batholith. Of major significance is the discovery of potentially economic, high-grade gold zones around "Anomaly A" that occurs over 3 kilometres northwest of the initial discovery (Main Zone). Freewest conducted extensive trenching and drilled over 150 holes in the property, which has dramatically expanded the along strike potential of the mineralized zones. As a result of their work over the past few years Freewest Resources Canada Inc. has commissioned a preliminary scoping study aimed at future development of this gold resource.

## By-product Gold and Silver

The famous massive sulphide deposits in northeast New Brunswick are mined primarily for zinc, lead and copper, but also contain minute quantities of gold and substantial amounts of silver. The precious metals can be recovered as by-product gold and silver during smelting. Several base metal mines in the area have successfully extracted by-product gold and/or silver in recent years. These include the Brunswick No. 6 and No. 12 mines, East West Caribou mine, Heath Steele Mine and Captain North Extension deposit.

Brunswick Mining and Smelting Corporation Ltd. in Bathurst began to extract gold and silver from its mines in 1966. The No. 12 mine currently is the only New Brunswick producer of precious metals. The company ships silver-gold doré bars from its lead smelter to the Canadian Copper Refineries Division of Noranda Minerals Inc. in Montréal for further refining.



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