

From the Mineral Inventory Files

The Faribault Brook Area: Where There's Smoke There's Fire!

Why does the mineral exploration industry keep coming back to the Faribault Brook area in the Cape Breton Highlands near Cheticamp? The adage "where there's smoke there's fire" is used by explorationists to describe an area with high potential for mineral deposits. A large mineral deposit is usually surrounded by a halo of similar, smaller mineral occurrences. Hence, the presence of numerous mineral occurrences in an area is the smoke and the deposit is the fire. If you want to find a fire, you look where there's smoke. The Faribault Brook area, like several others in the province, has experienced several concentrated efforts at finding the fire. The smoke keeps bringing 'em back.

The map below illustrates Cu-Pb-Zn-Ag-Au occurrences in the Faribault Brook

area. Most are found along the slopes of river valleys where outcrop exposure is greatest. Several of these occurrences are of significant size, for example the **Core Shack Prospect** and former **Galena Mine** on the east slope of Faribault Brook, and the **Silver Cliff Prospect** on adjacent Dauphinee Brook. Minerals and host rocks at these prospects are essentially the same: sphalerite (Zn), argentiferous galena (Pb, Ag) and chalcopyrite (Cu) in highly contorted, schistose, metasedimentary and metavolcanic rocks. Collectively, they have been the focus of several periods of exploration over the last century. The Core Shack Prospect consists of two stratiform zones totaling 4.6 m thick with a delineated strike length of at least 100 m. Mineralized zones at the Silver Cliff Prospect are more sporadic but occur over an area

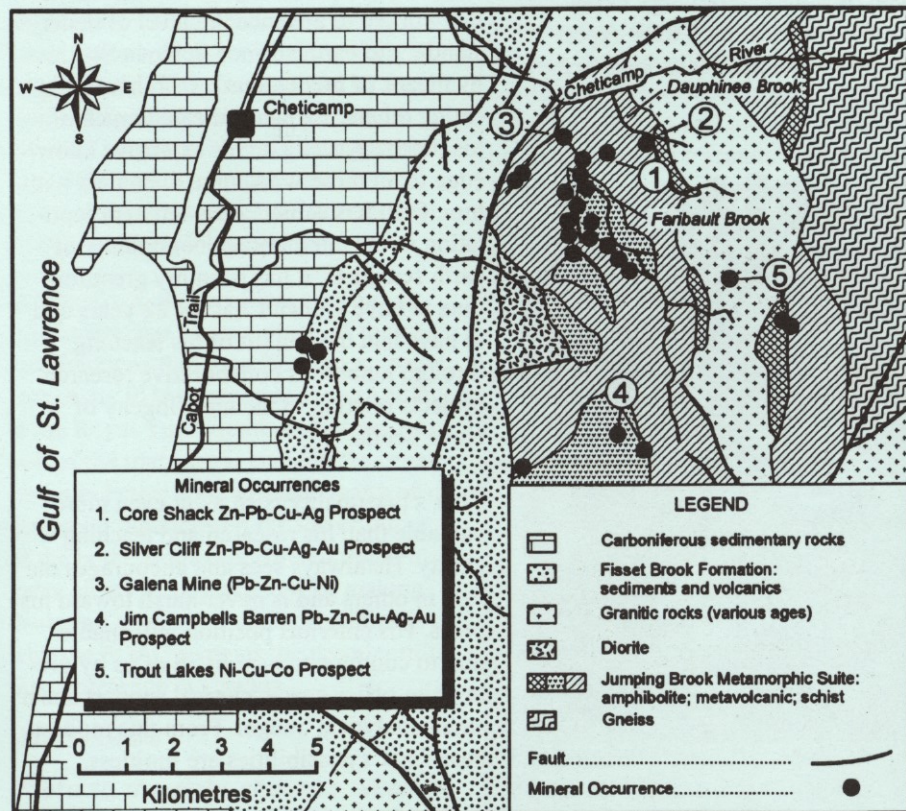
30 m wide with a minimum strike length of 150 m. Several short adits at Galena Mine are a testament to the small-scale mining that took place there in the early 1900s.

A short distance south of Faribault Brook is the **Jim Campbells Barren Prospect**. Sulphide-rich zones in a mixed sequence of metasedimentary and metavolcanic rocks were discovered in 1966 during follow-up exploration on geophysical and geochemical anomalies defined during exploration of the Faribault Brook occurrences. Although the Pb, Zn and Cu concentrations are not as rich as at the Faribault Brook prospects, levels of Ag and Au are significantly higher (up to 17 and 1.7 oz./ton, respectively). Furthermore, the presence of several untested exploration targets near Jim Campbells Barren indicates that further exploration is warranted.

In addition to the base- and precious-metal potential of the area, one can add a very high potential for deposits of Ni-Cu-Co. The **Trout Lakes Ni-Cu-Co Prospect** is characterized by disseminated and semi-massive pyrrhotite and pentlandite in an unmapped ultramafic intrusion (see *Minerals Update* v. 8).

Mineral exploration is cyclical, and follows the ebb and flow of exploration dollars. Predicting the location of a mineral deposit involves luck as well as science. Fertile ground for mineral deposits is often explored many times before a large deposit is found. Seemingly unsuccessful exploration efforts from earlier eras do not necessarily indicate an absence of mineable deposits. In most cases they reveal that the exploration budget ran out before a deposit was found. This leaves the area and its mineral deposits for the one drillhole, trench or surface sample that exposes "the big one".

George O'Reilly



Generalized geology of the Faribault Brook area showing the location of mineral occurrences. Occurrences discussed in the text are numbered.