

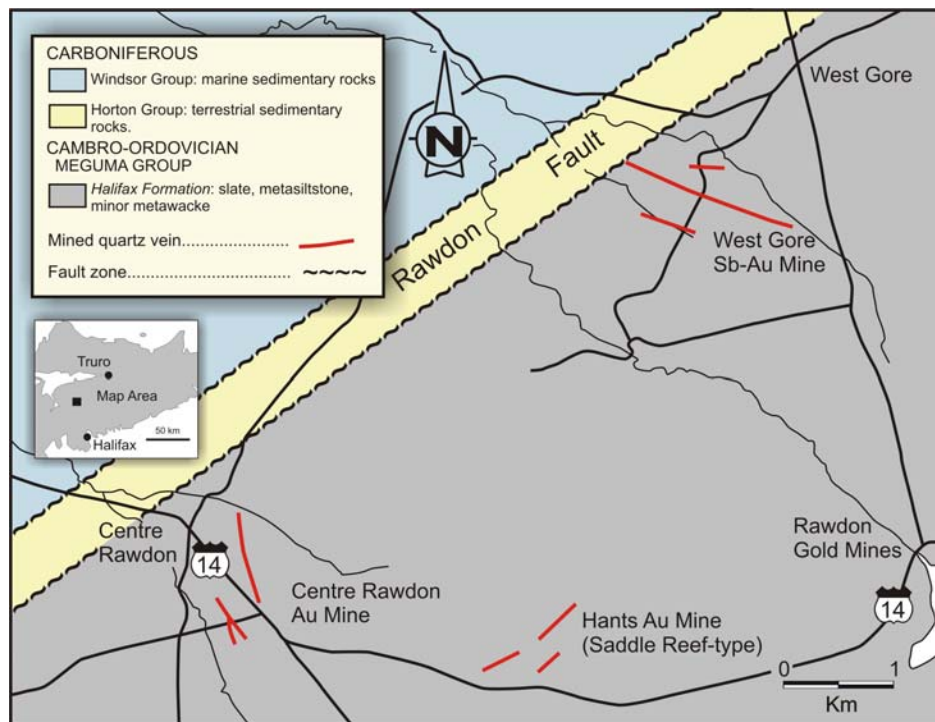
# From the Mineral Inventory Files

## Antimony and Gold at West Gore

I have always been interested in the province's gold deposits that have a different style of mineralization than the typical saddle reef, lode-gold deposits that occupy most of Nova Scotia's gold districts. The deposit at West Gore, Hants County (Fig. 1), is the largest, most lucrative and perhaps the most curious of these atypical examples as: (1) it was a mine of moderate size; (2) antimony (Sb) was the main commodity of interest (the only Sb mine in the province); and (3) gold (Au) was an added-value commodity of lesser content.

Stibnite-rich quartz drift was found by John McDougall on his farm at West Gore in 1880. Prospectors searched in vain for the source of this rich drift for three years until 1883 when a bedding-discordant fissure vein, heavily mineralized with stibnite, was found. Two shafts were sunk and mining began on what was to become known as the Main Zone Vein, a quartz-carbonate vein and breccia zone following a northwest-trending fault zone in Cambro-Ordovician Halifax Formation slate and metasiltstone (Fig. 1). In 1887 a second vein, the Brook or Northup Vein, was found to the southwest of the Main Zone and in 1899 the Flowers Vein was found to the northeast.

Limited mining continued on and off until 1904, with the Sb concentrates shipped to Swansea, Wales. At that time the very important observation was made that there was Au in the Sb ore. This, of course, added value to the ore and production increased over the next three or four years, after which it tailed off somewhat until 1917 when mining stopped more or less for good. It is said, but I have not been able to verify this, that in 1917 a ship carrying concentrate from the mine to Swansea was torpedoed and sunk by a German submarine and this proved to be a fatal economic blow to the mine. Total production from the mine, most from the Main Zone Vein, is estimated to be 4,959 tons of Sb concentrate (3,000 tons of metallic Sb) and 6,995 troy ounces of Au. Between 70 and 80 thousand tons of ore were milled that



**Figure 1.** Geology map of the Rawdon Fault in the Centre Rawdon Hills area, showing its position relative to the West Gore Sb-Au and Centre Rawdon Au mines.

averaged 4.1% Sb and about 0.1 oz. Au/ton.

Antimony at West Gore occurs in quartz-carbonate veins, mostly as lenses of stibnite that follow shoots in the fault zones that dip toward the southeast. Native Sb is also present throughout the mine and appeared to be more prevalent with depth, but still remained a minor component of the ore. The Au occurs as native Au but also as aurostibnite, Au-Sb alloys and Au-Sb oxides. Pyrite, arsenopyrite, galena and sphalerite occur in minor amounts. It's generally agreed that the northwest-trending fault structures, which were invaded by metamorphic-derived mineralizing fluids that formed the veins, are conjugate shear structures related to compressional forces along the regional, northeast-trending Rawdon Fault during the waning stages of the Devonian Acadian orogeny. The Rawdon Fault is a major splay that forms the contact of the Meguma Group with Carboniferous sedimentary

rocks immediately north of the mine (Fig. 1).

Why is there only one of these Sb deposits? Perhaps there are more. I think it's not coincidental that another, so-called, atypical Meguma Zone gold deposit is found a few kilometres southwest of the West Gore mine at Centre Rawdon (Fig. 1). That mine's total Au production (6,921 oz.), was from northwest-trending, bedding-discordant, quartz fissure veins that occupy similar structures to those at West Gore. Both mines have a similar spatial association with the Rawdon Fault. Even though no Sb is present at Centre Rawdon, the similar structural setting is hard to ignore and seems more than coincidental. Given the high industry interest in Sb these days, it may be worthwhile to not only have another look at the West Gore property, but also to pay some attention to the potential for Sb-Au deposits associated with the Rawdon Fault in this region of Hants County.

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