

From the Mineral Inventory Files

Granite- and Metasediment-hosted W-Sn-Mo-Cu-Zn-Ag-Au at Westfield, Queens County

There is a Westfield Gold District on the books, but in reality this northern Queens County mineral property has little to compare with the bedding-concordant, auriferous quartz vein deposits that typify Meguma Zone gold districts. Around 1868 a very thick quartz “reef” was reported at Westfield, which was subsequently named the Jumbo Vein (Fig. 1). The discovery received interest from industry, but this was more related to the immense dimensions of the vein (8-23 m width) than its modest Au content (approx. 0.25 oz./ton). Also somewhat atypical was the presence of Ag with the Au. Westfield is most notable as probably being the last Au property mapped by eminent GSC geologist E. R. Faribault before his retirement in 1933.

The Jumbo Vein just did not fit into existing geological models for Meguma Au deposits. Faribault’s unpublished 1933 map of the district showed, in addition to the Jumbo Vein, the presence of several prospect pits on mineralized quartz veins in and adjacent to a finger-like protrusion of granite exposed on the Westfield River 500 m north of the Jumbo (Fig. 1).

The late 1970s tin exploration boom spurred a re-examination of Westfield by myself, and others, searching for granite-related tin deposits. I mapped the Westfield area, and it became obvious that the quartz veins and mineralized zones are associated with highly developed hydrothermal alteration in the endo- and exo-contact zone of an albitized and greisenized porphyry. The porphyry and associated veins occur at the contact of the South Mountain Batholith and apparently intrude along a northeast-trending shear/fault zone. The altered granites contain disseminations of wolframite, scheelite, cassiterite, molybdenite, pyrrargyrite, arsenopyrite and pyrite, while the veins and stockworks carry scheelite, cassiterite, molybdenite, pyrrargyrite, Cu-Pb-Zn sulphides, arsenopyrite, pyrite and marcasite. Records indicate that free Au occurs in the veins, as well as disseminated gold in arsenopyrite.

Seabright Resources Incorporated drilled five holes on the Jumbo Vein in 1985. The drilling returned sporadic Au levels, but did prove that the vein is discordant to bedding and consists of a mixed zone of massive

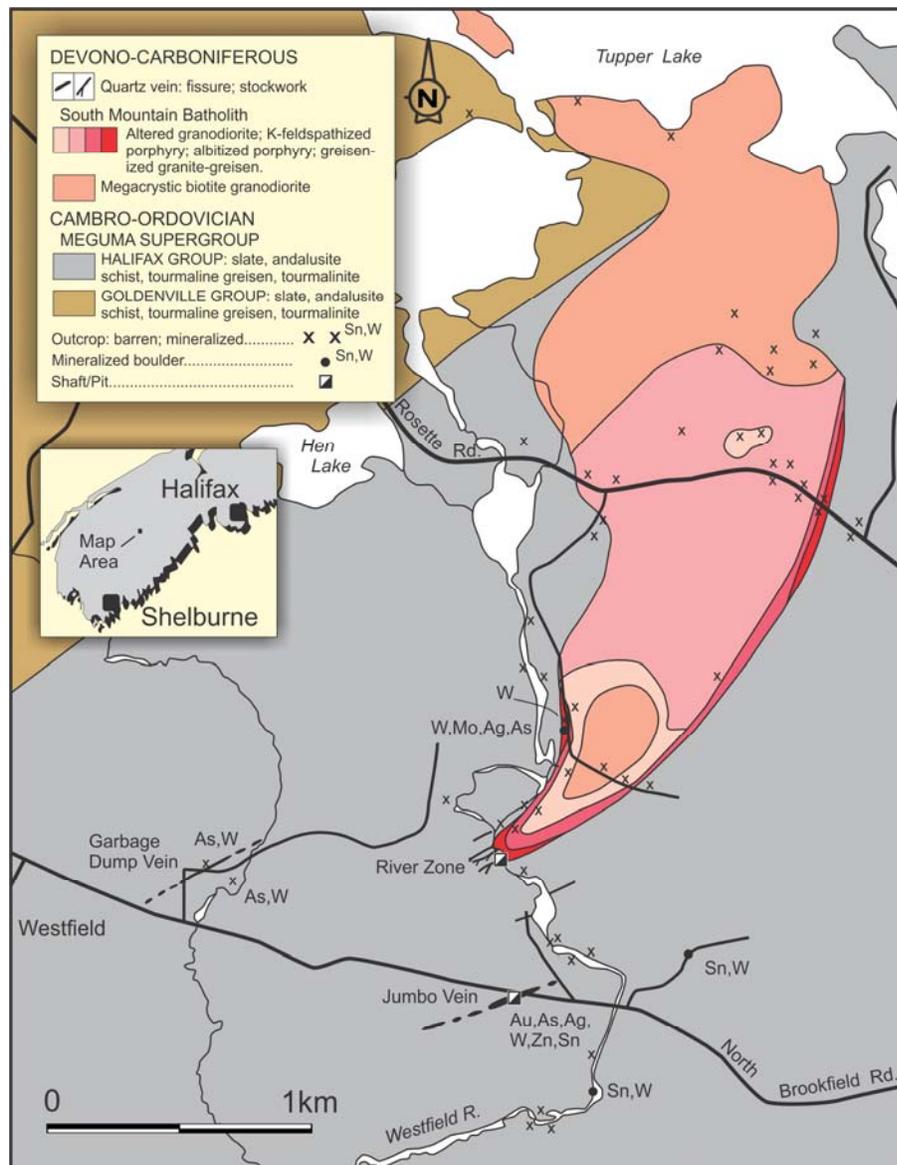


Figure 1. Geology of the Westfield, Queens County, area showing the locations of granite- and metasediment-hosted W-Sn-Mo-Cu-Zn-Ag-Au mineral occurrences.

quartz and intensely silicified slate of the Halifax Group. The zone parallels a northeast-trending shear and extends for at least 300 m along strike and 130 m depth. Figure 1 shows several other quartz veins and stockworks about the property that are similar to the Jumbo but smaller. In addition, there is an abundance of quartz boulders, some containing scheelite and sulphides, in the streams and woods roads of the region. The granite also hosts zones of well developed greisen and albite

alteration, which carry pods of wolframite/scheelite ± cassiterite.

Since the demise of the tin exploration boom in the mid-1980s, the Westfield property has been ignored. Perhaps with the current renewal of industry interest in W-Sn deposits, coupled with the potential for precious metals in the Westfield vein system, the property will receive the round of serious exploration it deserves.

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