

Polished section examination reveals minor traces of bismuth, as microscopic (max. 25 μ) particles and subordinate ultrafine films included in, and intergranular to, the calc-silicates. Bismuth is partly replaced by bismuthinite.

00009

SMD 16

112-50-

(T.S., P.S. 32444) K-stain positive.

This is a thoroughly altered skarn, essentially similar to, for example, 00006. Relict features are consistent with a banded microgranular diopside skarn with relatively abundant, very fine magnetite, accessory fluorite, garnet and vesuvianite. Garnet and vesuvianite persist locally as relics (mean 100 μ).

Sn 480ppm; W 470ppm; Zn 1200ppm; Au 0-50.

The bulk of the rock is more or less completely altered to extremely fine, green-brown biotite with closely intergrown fluorite. There is a semi-pervasive network of apple-green biotite veinlets and fluorite films, and ultrafine talc is a semi-pervasive accessory alteration phase.

Discontinuous veinlets of K-feldspar with conspicuous fluorite and accessory quartz postdate the mica veinlets. These features grade into coarser, continuous veins (3 mm - 1 cm) of crudely comb-structured, Fe-pigmented sanidine with patchy fluorite, disseminated scheelite (to 750 μ , pseudomorphing and including corroded relics of wolframite) and traces of quartz and ankeritic carbonate. These veins locally include discontinuous zones of adularia at the cores and, in common with the feldspathic veins in associated rocks, are mildly stressed and microfractured.

This rock contains extremely rare, ultrafine (< 10 μ) particles of bismuth of similar paragenesis to those in 00008.

Sn 1150ppm; W 1100ppm; Zn 1200ppm; Au 0.46ppm.

00010

SMD 16

155-6m

(T.S., P.S. 32445) K-stain weakly positive.

This is a veined and altered garnet-diopside skarn, similar to the associated examples, but with a slightly different secondary alteration assemblage.

Where relatively unaltered, the rock consists of granular to more or less massive grossular-andradite with accessory intergranular and included diopside defining a sub-tomillimetric scale banding. Occasional discontinuous lenses of granular diopside enhance the banding. Minor traces of ankeritic carbonate and fluorite similarly show a banded distribution.