

Relatively minor pyrrhotite is associated and is of intergranular habit. Chalcopyrite occurs sporadically, partly as intergranular patches (to 150 $\mu$ ) and as micro-inclusions in pyrite and arsenopyrite, but more typically in microscopic films (with a little pyrrhotite) healing the microfractures. Rare galena blebs (mean 15 $\mu$ ) are included in pyrite. In one small area (500 $\mu$  diameter) several blebs of bismuth were observed as inclusions (mean 20 $\mu$ ) in arsenopyrite and pyrite with occasional coarser patches (to 100 $\mu$ ) in adjacent gangue. Bismuth is extensively corroded and replaced by bismuthinite.

There is no detectable cassiterite. Overall, the assemblage is of mesothermal character with analogies to, for instance, the minor veins at Renison and Cleveland.

T 29800

(T.S., P.S. 31967) K-stain negative.

STP 217

This is a thoroughly chloritised, quartz-veined and mineralised intermediate (andesitic) volcanic with a lithic fragmental fabric that is rather poorly resolved in thin-section, but is reminiscent of a tuff lava rather than a strictly pyroclastic phase.

104.25

Chloritisation is both relatively marked and pervasive, such that much of the area sectioned is a rather featurless, fine-grained chlorite phyllite. The faint lithic clasts are outlined by variations in more or less pervasive leucoxene-staining, with flattened, angular to subangular shapes up to several millimetres diameter. These features, and the chloritised matrix phase, include sparsely disseminated quartz pseudomorphs after feldspar phenocrysts (mean 250-300 $\mu$ ), disseminated leucoxenised accessory Ti-magnetite and flaky ilmenite and occasional silicified-chloritised relics of felsitic-textured (devitrified) groundmass. That is, the matrix phase appears to have been compositionally and texturally similar to the clasts (hence tuff lava).

Ankeritic carbonate is an accessory alteration phase, and chlorite aggregates include rare, fine-grained clots of green tourmaline. Weakly stressed, concordant to irregular quartz veins occur sporadically. These include accessory patches of chlorite, fluorite, carbonate, minor hydromuscovite, rare green schorl, disseminated to semi-massive sulphide aggregates, and range up to 2 cm in width. The paragenesis is similar to the veins in T 36706. These veins predate at least some shearing and their relatively unstressed nature probably reflects the relatively incompetent chloritised host rock.