

argillite and basalt conglomerate. Quartz-tourmaline-pyrite-? cassiterite was observed in the 10cm vein filled fault zone. In the Costean 1200N area, linear magnetic zones probably reflect pyrrhotite mineralisation in faulted fold axes. Chalcopyrite-pyrite-pyrrhotite mineralisation has been mapped in actinolite veins along anticlinal axes in the costean. In Costean 3600N an inferred fault zone, along which a gabbro has been intruded, may have acted as a mineralising conduit because a conglomerate within the zone has been hydrothermally altered and quartz-tourmaline-pyrite-pyrrhotite-arsenopyrite-? cassiterite mineralisation introduced.

Shear zones and faults associated with the emplacement of the Colebrook Hill Serpentinite are mineralised in sections. The X Proprietary Syndicate Mine in Grid 5 appears to be a vein filled fissure or fault zone. The mineralisation occurs as quartz-tourmaline-arsenopyrite-pyrite-chalcopyrite-cassiterite. Other old mines in the area, such as the Athenic, Olympic and Colebrook, appear to be of this type.

The Serpentine Hill Fault structure would appear to form an ideal conduit system for hydrothermal ore solutions. It seems apparent that metasomatic solutions have come up the structure, but there is no evidence of vein filling within it.

- (iii) Veinlet and disseminated mineralisation: Veins of quartz-arsenopyrite-pyrite have been mapped in the Grid 4 area, particularly within the gabbro and granophyre of the Basaltic Complex and in the serpentinite in the same area, as indicated by induced polarisation anomalies. Quartz-tourmaline-pyrrhotite veins have been mapped in Costean 1200N, cross cutting beds in metasomatised silty argillite. Actinolite-chalcopyrite-axinite veins occur in the Basaltic Complex exposed in Costean 1000N. In general the veins are scattered and of no economic potential.

Disseminated pyrite has been observed in the microgranodiorite body exposed in Wilbur Creek. This unit gives rise to an induced polarisation anomaly, and may contain more sulphides along strike, at depth, or introduced into the country rocks.