

CHARACTERISTICS OF THE PRIMARY TIN MINERALIZATION OF THE MENGLEMBU AREA, PERAK DARUL RIDZUAN

CHEONG KHAI WING and YEAP EE BENG

Jabatan Geologi
Universiti Malaya
59100 Kuala Lumpur

Primary tin mineralization in the eastern flank of the Kledang Range Granite located about 1 km SW of Menglembu comprises of NE-SW trending veins and vein swarms. The granitic host consists of biotite rich coarse-grained porphyritic adamellite which shows alignment of the feldspar phenocrysts in the flow direction. The vein type mineralization recognized includes the 'streaky bacon' ore, cassiterite-quartz, cassiterite-tourmaline, fluorite veins and others. The richer parts of these veins and vein swarms have formerly been mined by the Menglembu Lode Mining Company.

Field observation and microscopic studies indicate that the mineralization is structurally controlled along shear zones and multiple closely spaced shear planes. Two stages of mineralization can be recognized. The first stage of mineralization brought about the deposition of several generations of cassiterite, fluorite, quartz and other minerals in several well-defined shear fracture planes which is followed by the deposition of the 'streaky bacon' ore in very closely spaced shear fractures. The streaky bacon ore substage is characterized by the deposition of quartz, cassiterite, pyrite, chlorite and minor amounts of chalcopyrite, sphalerite and tourmaline. The second stage of mineralization cross-cuts the first stage veins and consists essentially of quartz, chlorite and fluorite.

Fluid inclusions study on the quartz and fluorite indicates that the mineralizing fluids are of low salinity type and the minimum temperature of formation range from 230°C to 160°C.