APPENDIX 1 - DESCRIPTIONS OF OLD MINE WORKINGS

Colebrook Mine - Sections 236-93M, 239-93M, 216-93M (ex 3736-87M), 5364-93M; last held as 239-93M and 9127-M.

The Colebrook copper workings were developed on four parallel orebodies 3-18m wide and 170-215m long which strike ENE and dip 85° west (see Fig. 10). Pyrrhotite is the main ore mineral with lesser pyrite, arsenopyrite, marcasite and chalcopyrite, trace galena, sphalerite, tetrahedrite and rare gold (Ward, 1910). The ore occurs in an abundant gangue of axinite and actinolite and lesser calcite and quartz, which is often banded. Datolite and danburite occur rarely as cavity linings. The ore generally assays 0.5 - 3% Cu and 14 - 28 g/t Ag with rare bismuth. Systematic sampling (approx. 56 samples) of the workings on behalf of the Colebrook Prospecting Association in 1908 averaged roughly 0.9% Cu. These assays appear in E.Z. files. Montgomery (1895) records one sample assaying approx. 1% Ni and Co (combined?) and 3.1% Cu. According to Blissett (1962) the country rocks comprise purplish and grey cherty siltstone, mudstone greywacke and greywacke breccia-conglomerate. The mineralisation formed by the metasomatic replacement of calcareous or dolomitic sediments which occur near the orebodies. The walls of the orebodies are vaguely defined and the country rocks between the orebodies are also mineralised.

In a report on the workings for E.Z., Gregory (1958) concluded that the mineralisation occurs near well-developed cross-faults striking 070° and dipping 85° north along which it was introduced. The gangue zones appear to follow bedding except where cross-faulting is strong; cross-faulting truncates the orebodies at their northern end. He also noted strong silicification of the host sediments. Numerous surveyed R.L. plans and cross-sections of the working accompany this report. He found that the only significant sulphide body was 12,000 tons of approx. 1.2% Cu (15m x 15m in plan) intersected by "C-26 adit" and C tunnel. Of the three samples assayed for Sn, one sulphide sample assayed 0.12% Sn and two gossans assayed 0.02 - 0.05% Sn respectively.

Like most small deposits in the district, production was largely confined to the period from the discovery in the early 1890's to about 1910. Most of the tunnels run NE - SW diagonally through the orebodies because the lodes were erroneously thought to strike in this direction. They were later found to strike roughly ENE. The following description is largely taken from Waller (1902b).

No. 1 Orebody was exposed in No. 2 adit, B bench, two trenches and possibly in H tunnel (see Fig. 10). 170m in No. 2 adit a drive was cut northwards on 0.3m of chalcopyrite which pinched out at 10m. The same vein was driven onto the south and after 4m it widened out to 1.4m. The lode at B bench (approx. 10m above No. 2 adit) is 6m (?) wide averaged 5.9% Cu and 50 g/t Ag. Exposure in both trenches was poor in 1902. No. 1 Orebody (?) is at least 6m wide in H tunnel and averaged 1.67% Cu and 24 g/t Ag.

No. 2 Orebody was exposed in E tunnel, D open cut, 150' level east, No. 1 tunnel and D trench. The richest grades in the mine occurred in C tunnel and D open cut; the orebody is considerably wider in the tunnel than on surface. Unbiased sampling of all exposure in C tunnel and D open cut averaged 2.9% Cu and 30 g/t Ag; (this appears to conflict with sampling by Gregory, 1958, who reported a grade of 1.2% Cu for a similar ore block). 150' level east intersected 14m of ore (NB not true thickness) before penetrating 27m of virtually barren country. Part of the lode here assayed 4.8% Cu and 40 g/t Ag. According to Waller (1902b) the lode was intersected 12m into No. 1 tunnel but Smith (1898) states that the