

The styles of mineralisation observed in the Dundas Group are as follows:

- (i) Fissure filled veins: The Ring River-Fahlore Mine and the Bonnie Dundee Mine on the Ring River are apparently of this type. Pyrite-chalcopyrite-tetrahedrite-arsenopyrite veins occur in black shales, striped siltstones and arkosic lithicwackes associated with a quartz-siderite gangue. Geological mapping on the Ring River indicates that the host rocks to these mineral occurrences are in the same sequence (Sequence iii of the Black Shale-Tuff Sequence), folded in the axial zone of the Huskisson Anticline.

The adit at 1870N/5700E on the old Ringville-Colebrook Hill tramway is in black shales, underlying a sericitised acid lithic flow textured rhyolitic tuff. Pyrite and chalcopyrite occur in the shales and in quartz veins along the contact. Further north at 2200N/5880E a quartz-pyrite gossan occurs in black shales; this may be a fissure filled type of occurrence.

- (ii) Stratiform volcanogenic-sedimentary type sulphide mineralisation: Syngenetic pyrite occurs throughout the black shale sequence of the Dundas Group, but appears to be of particular concentration in certain lithological sequences. The shales, interbedded with the acid tuffs in Sequence (ii), are very carbonaceous with bedded and disseminated pyrite. The well bedded shale/siltstone lithology of Sequence (iii) is also pyritised. The pyrite observed is considered to be volcanogenic in origin. It is possible that the fissure vein type of mineralisation observed in rocks of these sequences is remobilised and concentrated syngenetic sulphides, along with the introduction of Devonian mineralisation along structural conduits. Both at Bonnie Dundee and Fahlore, the rock sequence is faulted and folded with the mineralisation more extensive in fold axial zones. The host rock sequence to these mineral occurrences may be mapped through the south-east sector of GAP, where it is characterised to some extent by Crone EM and self potential anomalies.