

grit is coarse, weakly pyritic and bright pink (colour due to metamorphism of Fe oxides unaffected by chloritisation?). The same bright pink colour and minor hematite veinlets occur in the underlying lavas which are also variably chloritised and contain pyrite and chalcopyrite. The first, and broadest, of the intensely chloritic zones listed above is adjacent to a sericitic zone of shearing which appears to represent a fault. The fault may have controlled the mineralisation, which occurs only on the downhole side of the fault. Uphole there is a minor pyrite occurrence in silicified rock at 107-109m and a breccia with a chloritic matrix at 124-128m.

The "explosion breccias" cited in the INAL drill-log are indeed breccias, but the origin is unclear. In the light of field observations it seems more likely that they represent the basal layer of the Eastern Sequence.

## 7. Order of Events

### Youngest

- Deformation and metamorphism
- Owen Conglomerate
- Jukes Breccia
- (unconformity)
- Jukes Pty. Cu mineralisation + chloritisation of Central Sequence lavas
- Deposition of Eastern Sequence
- (unconformity)
- Deformation of Central Sequence
- Granitic intrusion (+ quartz porphyry sheet); magnetite-pyrite mineralisation
- Eruption of Central Sequence lavas

### Oldest

## 8. Petrographic Descriptions

N.B. In chlorite descriptions, P refers to pleochroism, AIC to anomalous interference colours.

F625 Outcrop: Pink-brown, hornfelsic lava from an area rich in magnetite + pyrite veins.

Primary Features: The forms of feldspar phenocrysts are preserved in an originally-glassy groundmass bearing accessory zircon.

Secondary Features: The phenocrysts now consist of sericite and a little (?) albite. The groundmass consists predominantly of quartz snowflakes, well developed with large, clear quartz nuclei in optical continuity with the snowflakes. The forms of feldspar microlites are preserved, but the feldspar has been completely replaced by sericite. Between snowflakes, there is a fine-grained intergrowth of quartz-feldspar, sericite, chlorite and finely-divided turbid material of apparent high relief. Euhedral grains of magnetite are abundant throughout the section. There is a little fine-grained hematite. The specimen is somewhat weathered, and is stained with limonite.