

SAMPLE NUMBER: 562452

SUMMARY:

This is an excellent weakly vesicular augite+plagioclase +olivine-phyric basaltic lava typical of the Hellyer basalt.

HAND SPECIMEN:

This sample is a massive vesicular finely porphyritic basaltic lava, with calcite-filled vesicles.

THIN SECTION:

This is a beautifully preserved augite+plagioclase+olivine-phyric basaltic lava. It consists of approximately 20-25 modal% of augite phenocrysts, about 5-8 modal% of albitized plagioclase phenocrysts, and about 1-2 modal% of former olivine phenocrysts. The augite phenocrysts often occur in multi-crystal clots of subhedral stubby, almost equigranular crystals which are perfectly fresh, and usually less than 1mm long. Albitized plagioclase phenocrysts are mainly elongate single crystals less than 1mm long with a mild sericite flecking. Occasional former olivine crystals are euhedra around 1mm long now totally replaced by calcite, but often containing small chromite inclusions.

The groundmass of this sample is essentially identical to the previous sample, with abundant laths of albite, grading continuously from microphenocryst to microlite sized, and small granular augite and leucoxenized FeTi oxides set in a modally subordinate amount of chloritized glassy mesostasis. The rounded to oval vesicles make up about 2-5 modal% of this sample and are filled by chlorite and calcite. A few diffuse veinlets of calcite transect this basalt. This is a typical Hellyer basalt, and well preserved enough for a useful wholerock analysis (I'll see you in Burnie to try to get a 10 cm bit of core from this section if that is OK).