SAMPLE NUMBER: 563718, MAC-27, 841.35m

SUMMARY:

This sample is a weakly plagioclase-phyric dacitic lava breccia.

HAND SPECIMEN:

This is a mid-grey-green weakly autobrecciated felsic lava in which altered plagioclase phenocrysts are quite common.

THIN SECTION:

This is a plagioclase-porphyritic dacitic lava in which albitized plagioclase phenocrysts make up about 5 modal% of the rock, and are partially altered to sericite. Most albite phenocrysts are 0.5-1mm long, and vary from euhedral to subhedral. No mafic phenocrysts were present in this sample.

The groundmass of this sample was not entirely glassy, like most Hellyer dacites that I have seen. It is composed of a matrix of interlocking tiny laths and microlites of albite and subordinate anhedral chlorite in which are set abundant almost perfectly round albite blebs to about 0.2mm across. These presumably crystallized from interstitial glass, and are not spherulites. In inter-fragment areas, the matrix is much cleaner-looking, more silica-rich and chlorite-free. Dispersed wave-fronts of small opaque grains (magnetite?) form trails through the rock, but are not abundant. This is clearly a lava breccia of probable dacitic composition; the texture (relatively 'glass-poor') suggests that it comes from within, rather than from the margins of, a dacitic cooling unit.