

Rhyolitic lithic pyroclastics

The nomenclature used in this report for the classification of lithic pyroclastics is based largely on the size of the contained fragments and follows that terminology described by Joplin (1971) in 'A Petrography of Australian Igneous Rocks'. Fragments over 32mm in diameter are called bombs and when compacted and cemented they give use to a coarse grained rock called agglomerate. Fragments measuring from 4mm to 32mm are called lapilli and smaller ash fragments form tuffs.

Within the southern portion of E.L. 27/76, as shown on Sheets KT 27/76 5A-8A, numerous zones of rhyolitic lithic pyroclastics have been mapped, it is considered that several of these zones may however be stratigraphic equivalents.

Characteristically the lithic tuff pyroclastics vary from pale to dark green in colour and are composed of a tightly packed semi-fused and roughly bedded aggregate of volcanic rock fragments of common composition averaging about 2mm in diameter. These fragments consist of a patchy diffuse microcrystalline to cryptocrystalline mosaic of potash feldspar, subordinate quartz and extremely fine sericite and biotite, minor scattered volcanic quartz crystals are also identified. Occasional fresh samples exhibit patchy, streaky textures in the ground-mass of the fragments indicative of a turbulent flow.

KR 3412 is an example of an extensively tectonised lithic quartz crystal tuff from the Voyager 1 area.

Rhyolitic crystal pyroclastics

The nomenclature used in this section of the report is identical to that described for the lithic pyroclastics, however in this case the fragments are mainly shattered crystalline material.