

SAMPLE NUMBER: 562685

SUMMARY: This rock is a very immature massive volcanoclastic sandstone derived very largely from plagioclase-phyric dacitic volcanics.

HAND SPECIMEN:

This is a buff-coloured volcanoclastic sediment with fragments of felsic volcanics up to several cm across, although most are sand-sized grains.

THIN SECTION:

The largest clast in this juvenile volcanoclastic is a plagioclase-phyric dacite lava with a formerly largely glassy groundmass that has devitrified to a very fine-grained quartz-albite-chlorite intergrowth. The remainder of the rock is a very poorly-sorted volcanoclastic sandstone dominated by fragments of dacite and large blocky albitized plagioclase phenocrysts and phenocryst fragments. The great majority of lithic fragments in this sample are of a single rock type, namely a holocrystalline dacite or acid andesite with common albitized plagioclase phenocrysts mainly less than 0.5mm long set in a flow-textured groundmass composed almost entirely of small albite laths. Most of these lava fragments have slightly rounded margins suggestive of water transport and abrasion.

The matrix of this sandstone is a mixture of comminuted fragments of albite, devitrified felsic volcanic clasts and probably quite a large component of glassy ash that has devitrified to quartz, albite and chlorite. Relatively fine-grained yellow epidote and minor hematite are not uncommon alteration minerals in the matrix, but chlorite is quite sparse.

This is an immature volcanogenic sandstone derived largely from dacitic volcanics.