

0556

SAMPLE NUMBER: 562243

SUMMARY:

This is a strongly carbonate veined probably polymict andesitic lava breccia composed of augite+plagioclase-phyric andesitic lava fragments.

HAND SPECIMEN:

This sample is a brecciated and strongly carbonate-veined and altered andesitic lava or lava breccia. Fragments of lava between veins of calcite are generally bleached and more pinkish than the more chlorite-rich dark green fragments further from veins.

THIN SECTION:

This thin section is composed of two large lava fragments separated by a calcite vein. The two fragments are both andesitic but are texturally quite different, and almost certainly are not from the same flow unit, suggesting that this lava breccia is polymict. The lighter coloured fragment is vesicular and contains relatively common augite and plagioclase phenocrysts in a microcrystalline to vitrophyric groundmass. The vesicles reach almost 3mm long and are calcite-filled; they make up around 5-10 modal% of the fragment. Augite phenocrysts and microphenocrysts are mainly less than 1mm long, and are blocky subhedral and often fractured prisms with minimal chlorite alteration; they make up about 10 modal% of this fragment. Plagioclase phenocrysts are less abundant than the augite, and are rather elongate prisms of albitized calcic plagioclase with occasional messy patches of epidote inclusions. The groundmass of this fragment is composed of abundant tiny albite microlites and laths and small granular augite crystals immersed in an albite-chlorite matrix spotted by distinctive small, rather angular holes filled by quartz growing into green chlorite; this matrix may have been formerly glassy. Patchy brownish calcite overprints about 30 modal% of the groundmass

The other fragment is less porphyritic, and not apparently vesicular. It is finer-grained and has one margin that appears to be quenched glass. The augite phenocrysts are smaller than in the other lava fragment, and are partially chloritized. Plagioclase phenocrysts are less abundant than augite, and albitized, and also contain small granular epidote-clinzoisite inclusions. The matrix of this fragment is much finer grained, with tiny microlites of albite charged through chloritized glass that is heavily overprinted by calcite.