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Both lava fragments are from what are probably compositionally very similar andesitic lavas, although textural differences and phenocryst sizes suggest that they are unlikely to be from the same flow. The calcite vein in the thin section, reaching almost 1cm width, is virtually monomineralic, and shows strained and aligned calcite crystals along its margins, but massive undeformed crystals in the vein centre. Epidote is abundant in the glassy part of the second fragment adjacent to the calcite vein.

**SAMPLE NUMBER: 562244**

**SUMMARY:**

This is a formerly fairly glassy, sparsely augite+plagioclase -phyric andesitic lava which has developed an unusual alteration texture characterized by abundant quartz blebs; it contains notably less chlorite than the previous samples, and is strongly calcite-veined.

**HAND SPECIMEN:**

This sample is an andesitic lava or lava breccia, very similar to the paler fragments in the previous sample, with hairlike chlorite veinlets and wider carbonate veins.

**THIN SECTION:**

The texture of this sample in thin section is deceptively like an epiclastic sediment. However, careful examination shows that the rock has a weakly vesicular volcanic-textured groundmass, and strongly altered phenocrysts are also present, although uncommon. Sparse former augite phenocrysts are replaced by coarse-grained sericite, an alteration mode that I have not seen before in the Mount Reads, but I am sure that this sericite is replacing augite and not plagioclase. A few former albitized plagioclase phenocrysts are replaced by calcite and sericite.

The unusual and distinctive feature of this sample is the abundant small (average around 0.2-0.4mm across) blebs of quartz growing in the groundmass, and giving the appearance of detrital grains of quartz. These make up around 30 modal% of the groundmass of this sample; they show patchy extinction and abundant tiny fluid and solid inclusions, and are so common as to suggest that they may be filling tiny holes in a particularly porous and 'aerated' andesitic lava, with the pores being much smaller than typical vesicles. Alternatively, although less likely in my opinion, the quartz blebs have grown from devitified glassy