

0515

SAMPLE NUMBER: 563720 MAC-27, 882.2m

SUMMARY:

This sample is an olivine+augite-phyric quite primitive basaltic lava quite similar petrographically to sample 563717.

HAND SPECIMEN:

This is a vesicular porphyritic mafic lava cut by calcite veinlets; the vesicles are also calcite veined.

THIN SECTION:

This is a texturally well-preserved augite+olivine-phyric vesicular basaltic lava. The augite and olivine phenocrysts are approximately equally modally abundant, around 10-15 modal%, and mainly less than 1.5mm long. Whereas augite is entirely fresh, all olivine is altered to fine-grained polygonal intergrowths of quartz. Small euhedral red chromite inclusions are present in many altered olivines. Augite phenocrysts are euhedral to subhedral and frequently occur in multi-crystal clots; they are unzoned.

The groundmass of this sample is murky brown and charged with tiny acicular albite microlites. It was probably quite glassy, and contains small angular patches of green chlorite. Vesicles reach almost 1cm in diameter, and make up around 10 modal% of the sample. They are filled by radiating to polygonal intergrowths of secondary quartz; calcite veinlets are not uncommon.