SAMPLE NUMBER: 562456

SUMMARY:

This is a well-preserved sparsely plagioclase-phyric formely glassy dacitic lava probably reasonably considered as a much less altered representative of those chlorite-silica-altered dacites higher in the hole.

HAND SPECIMEN:

This sample is a massive, unbrecciated pale grey dacite lava with tiny spots and veinlets of chlorite.

THIN SECTION:

This is a texturally very well-preserved dacitic lava that contained small phenocrysts of albitized plagioclase and rare augite and FeTi oxide in a formerly glassy groundmass. The plagioclase phenocrysts make up around 12-15 modal% of this rock, and more frequently occur in multi-crystal clots up to 2mm across than as single phenocrysts. The albite phenocrysts are fairly free of sericite or calcite alteration. Occasional small chloritized augite phenocrysts occur intergrown in the albite crystal clots. FeTi oxide microphenocrysts have altered to small euhedral clots of tiny sphene crystals cored by sericite.

The groundmass of this sample was undoubtedly glassy, although perlitic cracking as seen in the dacitic lavas described above is not evident. The glass has devitrified to a uniform intergrowth of mosaic-textured fine-grained quartz and albite with rare chlorite and spotty sericite in which angular voids filled with polycrystalline quartz and relatively coarse-grained sericite are common, and are sometimes cored by calcite. The intense chlorite alteration shown by most of the dacites higher in the hole is missing from this sample, which may therefore be a reasonable example of what those higher lavas were before they were subjected to the intense silica-chlorite alteration. It would thus be a sensible sample to analyze carefully and compare with the more altered dacitic lavas to give some idea of the extents and directions of element mobility accompanying this type of alteration.