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Sample Number : T 230B

Identification : Sericitic, strongly foliated former (?)dacite  
or (?)felsite lava

Description :

The sample is a lightly weathered hand specimen of strongly foliated, light greenish grey, fine-grained rock with deformed phenocrysts or clasts of feldspathic appearance.

A cobaltinitrite staining test revealed no K-feldspar, but gave some diffuse stain.

In thin section this sample reveals textures which are quite similar to those in T 230A, differing mainly in the development of ill-defined zones a few millimetres wide in which there is a greater development of groundmass sericite at the expense of all or most of the untwinned albite. Throughout the rock there is a sericitic foliation which wraps around groundmass quartz grains. Plagioclase phenocrysts are in some cases rotated and cracked, but free of sericite. Patches of leucoxene suggest ghosts of groundmass and phenocrystal mafic silicates, now overprinted.

There is no chlorite and no sign of sulphide, but some pores of unknown derivation.

Approximate modal variation is :

2-4%	plagioclase phenocrysts
1-2%	leucoxene
30-90%	groundmass quartz and untwinned albite
5-60%	groundmass sericite
1-2%	pores

Comments and Interpretations :

This sample differs from T 230A, primarily in carrying a greater abundance of sericite developed at the expense of groundmass feldspar. It is also free of chlorite and devoid of recognisable sulphide minerals or textures. Its development is probably a result of more intense dynamothermal metamorphism of parts of the same lava represented in the remnant kernels like T 230A. There are no sound textural or mineralogical bases on which to suggest that the strongly foliated, more sericitic regimes are related to zones of pre-existing more intense hydrothermal alteration. Plagioclase phenocrysts reveal no sericitization in either regime. Albitization could have protected them, but it seems more likely that this albitization is diagenetic/metamorphic and would post-date volcanogenic hydrothermal activity.