

SAMPLE NUMBER: 431573

SUMMARY:

This is a coarse volcanoclastic sandstone composed of detritus from altered felsic volcanics, and Animal Ck-type greywacke, cut by common quartz-chlorite veinlets.

HAND SPECIMEN:

This is a polymict, probably silicified lava breccia including rather elongate (sheared?) clasts of both fine-grained felsic lava and darker chloritized lava to at least 2cm long.

THIN SECTION:

Thin section examination shows that this sample is a weakly sheared coarse-grained epiclastic sediment. The largest clast in the section is an aphyric silica-sericite-altered formerly glassy felsic lava very similar to many of the altered fragments in 431570. Several other highly altered clasts have elongate sericite blotches that strongly resemble altered, flattened pumice fragments in a recrystallized and silicified felsic vitric tuff matrix.

A single large distinctive clast is petrographically clearly identical to the Animal Ck Greywacke, being a poorly-sorted quartz-rich arenite with abundant detrital muscovite and three or four large chromite grains derived from the ophiolite (I've checked this on similar samples), in a chloritic matrix.

The sample is cut by several quartz-chlorite veins, and contains disseminated idiomorphic pyrite to about 0.3mm across.

This is clearly a volcanogenic coarse, sandstone derived from a mixed felsic volcanic - Animal Ck greywacke source. I think it is important to note that the Animal Ck Greywacke was being eroded and redeposited at this stage, reflecting the local instability of the basin in which all this was going on.