

Sample: S290; TSC33694

**Hand Specimen:**

A predominantly greenish-grey rock with numerous angular patches containing dull pink feldspar. Many of these appear to be clasts but they are also cut by small fractures.

Staining with cobaltinitrite shows moderately abundant potash feldspar.

**Thin Section:**

A visual estimate of the minerals is as follows:

	<u>Z</u>
Potash feldspar	40-45
Quartz	25-30
Chlorite	10-15
Sericite	10-15
Opaque iron oxide	2-3
Apatite	trace
Sulphide probably pyrite	trace

This rock has been extensively fractured and now has the appearance of a breccia. There are a few angular clasts of moderately coarse-grained quartz up to about 4 mm in size and these have been deformed and locally granulated and also extensively fractured and sheared. There are also many areas and clasts composed mainly of intergrown potash feldspar and quartz varying in grain size from less than 0.05 mm to about 0.2 mm but in these clasts there are a few larger patches of quartz which are possibly remnants of fractured and deformed quartz veins. Many of the areas or clasts of potash feldspar and quartz contain a few scattered aggregates of small iron oxide crystals, some of which are concentrated along lines which could have been small veins and in a few places they are concentrated around the boundaries of what may have once been rounded grains up to about 1 mm in size. Throughout the areas and clasts composed of moderately fine-grained potash feldspar, quartz and iron oxide there are no definite relict textures from which to determine the earlier history of this rock and no textures were found to definitely suggest or confirm a volcanic rock.

In some areas there are concentrations of fine-grained muscovite or sericite intergrown with potash feldspar and some quartz. In other areas there are concentrations of green chlorite occurring mainly along numerous intersecting fractures. Lines with concentrations of opaque iron oxide also suggests that at least some of this once crystallized in fractures but these appear to have been earlier than, and not related to, the fractures which now contain chlorite.

**Conclusion:**

A cataclastic rock composed of potash feldspar, quartz, chlorite, sericite and iron oxide. The rock had recrystallized and there is no conclusive evidence of origin but a metasomatically-altered sediment is a possibility.