

Sample: S405; TSC33705

Hand Specimen:

A medium-grained rock which shows a patchy pinkish and greenish mottling and has been partly leached along some small fractures.

Staining with cobaltinitrite shows a moderate amount of potash feldspar.

Thin Section:

A visual estimate of the minerals is as follows:

	<u>%</u>
Quartz	40-45
Potash feldspar	25-30
Chlorite	15-20
Sericite	10-15
Leucoxene	trace-1
Zircon	minute trace
Goethite (including some oxidized pyrite)	trace

The rock has been extensively fractured and altered but least-altered zones show that it once contained some coarse-grained quartz with crystals at least up to 6 mm in size intergrown with coarse-grained potash feldspar and there were very probably some crystals or flakes of biotite up to at least 1 mm in size. Accessory minerals include a few grains which are now composed of leucoxene, very few grains of zircon and there are also a few small voids from which a mineral such as apatite could have been leached.

The rock has been extensively fractured, sheared and crushed and now contains only strained remnants of coarse-grained quartz and fractured portions of coarse-grained feldspar scattered through, or separated by, zones of crushed material mixed with chlorite and sericite. Chlorite and sericite have filled many of the numerous fractures cutting the remnants of coarser-grained quartz and feldspar and chlorite also apparently fills some interstices in brecciated zones.

The rock once had a few small crystals of pyrite which have been replaced by reddish-brown goethite and partly leached and adjacent to one of these altered pyrite crystals there is a very small patch of pressure-shadow quartz. Some of the fractures in the rock now have films of reddish-brown, secondary iron oxides.

Conclusion:

A cataclastic rock which was once composed mainly of coarse-grained quartz and potash feldspar probably with some biotite. It may have been a granite.