

Sample: S 436; TSC34432

Location:

LS 8 at 223.6 m

and Specimen:

A pale grey and slightly pinkish-grey, fine-grained rock containing moderately abundant, disseminated yellow sulphide probably pyrite. It is cut by very numerous intersecting, small fractures or veins which give the rock a brecciated appearance.

Staining with cobaltinitrite shows no potash feldspar.

in Section:

A visual estimate of the minerals is as follows:

	<u>%</u>
Quartz	40-45
Muscovite/sericite	40-45
Sulphide probably pyrite	10-15
Sphalerite	trace
Chlorite	trace
Leucoxene	trace
Apatite	trace
Carbonate	trace
Zircon	minute trace

In the least-altered and least-recrystallized zones in this rock between the numerous veins, fractures and shearing planes, it is composed mainly of very fine-grained quartz with a grain size varying from 0.02 to 0.05 mm intergrown with sericite and/or very fine-grained muscovite. Most of the mica is orientated subparallel to a definite foliation but in some zones these flakes and streaks of fine-grained mica are slightly wavy giving the rock a very small-scale lenticular texture. There are areas where the quartz is slightly coarser-grained with a few grains up to 0.1 mm in size and some of the larger quartz grains have patches of pale brown turbidity but no relict textures could be recognized. The relative proportions of quartz and sericite vary in a rather patchy manner in which no definite pattern could be recognized and certainly no evidence of banding could be found. Some of the sericite appears to be concentrated along numerous small shearing planes which cut the rock in two different directions. There are very small aggregates of extremely fine-grained leucoxene and there are very few, tiny grains of zircon. In one area, however, there are two larger patches of leucoxene one of them about 0.3 mm in size and this shows some evidence of former crystal boundaries suggesting that, in this area, there was at least one moderately large crystal of iron-titanium oxide. The leucoxene is now intergrown with, and surrounded by, fine-grained quartz. Minor chlorite is distributed unevenly through parts of the rock and most, if not all, of this is present in small veins or fractures where it is associated mainly with quartz.

Crystals and crystalline aggregates of pyrite varying in grain size between 0.1 and 0.8 mm are scattered unevenly through the rock and although many are concentrated along small fractures or veins, there are at least a few crystals of pyrite in portions of schist away from the veins. The distribution of pyrite does not suggest banding or layering in the rock and appears to be controlled mainly by the presence of fractures and shearing planes or zones of brecciation. Some of the larger crystals of pyrite have been fractured and the portions displaced and many of the larger pyrite crystals have fringes