

Sample: S 437; TSC34433

Location:

LS 8 at 230.3 m

Hand Specimen:

A fine-grained, dark greenish-grey schist containing small grains and patches of white quartz. Fine-grained sulphide is disseminated through the rock and there are some relatively high concentrations of coarser-grained pyrite along bands or veins parallel to the foliation which is at a moderate angle to the direction of the drill hole.

Staining with cobaltinitrite shows no potash feldspar.

In Section:

A visual estimate of the minerals is as follows:

	<u>%</u>
Chlorite	35-40
Sericite	15-20
Quartz	15-20
Pyrite	15-20 (varies)
Leucoxene	trace
Calcite	minute trace
Apatite	minute trace

Much of this rock is a fine-grained chloritic schist composed of orientated small flakes of chlorite and generally lesser sericite intergrown with varying amounts of fine-grained quartz and most of the areas of chloritic schist also contain tiny grains and crystals of pyrite but there are a few areas in which there is little or no pyrite. The quartz is not uniformly distributed and although some of it occurs as separate, small grains intergrown with chlorite most of it occurs as small aggregates generally between 0.1 mm and 1 mm in size. In some zones, however, there are a few larger, more angular aggregates of fine-grained quartz up to 2 mm long which contain 10% of scattered tiny grains of pyrite but only very minor amounts of chlorite and sericite. These are separated by zones composed mainly of chlorite and sericite with varying amounts of pyrite and some of the structures suggest that they could be fragments of fractured layers which were composed mainly of fine-grained quartz (?recrystallized chert). If these were layers of fine-grained quartz they were disrupted and pulled apart during one of the episodes of deformation and the spaces between the fragments filled by orientated chlorite and sericite. It must be emphasized, however, that this suggestion is very tentative and the rock now shows no definite evidence of layering. In one area there is also a portion of a quartz vein which has clearly been disrupted and some of the fragments distributed through the schist.

Most of the pyrite which is distributed unevenly through the chloritic schist and through most of the aggregates of quartz is very fine-grained, generally varying in grain size from a few microns up to about 20 microns with some crystals up to 50 microns and rarely to 100 microns and cubic crystals are common. There are, however, some bands in the rock which contain much coarser-grained pyrite (visible in the hand specimen) including crystals and crystalline aggregates up to at least 1 mm in size. Many of these crystalline aggregates of pyrite have been fractured and the fragments pulled apart during an episode of deformation and at least in one area they are associated with some relatively coarse-grained quartz which also shows evidence of deformation and partial recrystallization. Spaces between