

749154

Sample: S 435; TSC34431

Location:

LS 8 at 223.2 m

Description of Specimen:

A dark green and very pale grey, patchy rock with a streaky appearance and a foliation at a moderate angle to the direction of the drill hole. It contains elongate aggregates and streaks or thin bands in which there are concentrations of pyrite and there are also small grains of pyrite disseminated throughout much of the rock.

Staining with cobaltinitrite shows only a trace of potash feldspar.

Thin Section:

A visual estimate of the minerals is as follows:

	<u>%</u>	
Quartz	35-40	
Chlorite	30-35	
Sericite	15-20	
Pyrite	10-15	(varies)
Opaque oxide and leucoxene	1-2	
Carbonate	trace	
Potash feldspar	trace	(more locally)
?Sphalerite	trace	
Apatite	trace	(more locally)
Epidote	trace	

This is an extensively deformed and sheared rock in which there is very little evidence of original texture and many zones could be classified as cataclastic rock almost grading to mylonite in places. Much of it is now composed of fine-grained quartz, chlorite and sericite in varying proportions with streaks of sericite and some of sericite and chlorite separating zones containing fine-grained quartz intergrown with chlorite and sericite. There are, however, a few areas which contain extensively fractured remnants of relatively large crystals of potash feldspar which were probably at least 2 to 4 mm in size. Most of the fractured and separated remnants of these feldspar crystals have been corroded and partly replaced by chlorite and some have been invaded and partly replaced by a slightly turbid, fine-grained carbonate mineral which is not calcite. There are a few areas containing extensively fractured and granulated quartz and also patches of fine-grained recrystallized quartz but, because of the extensive deformation, there is no clear evidence to show whether or not these were once patches of coarser-grained quartz or whether there were any quartz phenocrysts. There are several areas 1 to 2 mm in size composed almost entirely of chlorite but these also show no recognizable relict textures. There is a contorted quartz vein similar to that in sample S 434 in that it is about 1 mm thick and now contains deformed and partly recrystallized quartz.

There are several elongate aggregates and bands containing concentrations of fine-grained to relatively coarse-grained pyrite and textures show that many of the larger crystals and aggregates of pyrite have also been extensively fractured and deformed. Many of the spaces between the separated fragments of pyrite have been invaded by quartz and chlorite which show pressure shadow textures. In some zones and bands containing concentrations of pyrite there are also local concentrations of apatite with a few fractured crystals up to 0.5 mm long but not all of the apatite