Paper 33

009490

Sample No. M7 690

All photomicrographs at 13x magnification; in pairs, showing same area under crossed polarizers (A) and plane-polarized light (B).

1. Quartz (qtz) veinlets cutting through sample. The K-feldspar in this portion of the slide has been stained yellow with sodium cobaltinitrite, making the distinction between the finely intergrown quartz and feldspar in the groundmass very apparent. The plagioclase phenocrysts (P) have been strongly altered; some biotite (B) is also present as phenocrysts. The sulfides (opaque in plane-light photomicrograph) are apparently all of pyrite, which occurs scattered through the groundmass.

2. The groundmass is composed of finely intergrown quartz and K-feldspar, but the lack of staining makes their differentiation much more difficult in the plane-light photomicrograph (although the texture is again very apparent in the crossed-polarizer photomicrograph). Somewhat more sulfides are apparent in the plane-light photomicrograph, and the plagioclase phenocrysts have been generally even more altered than in the previously described area. Quartz veinlets are again present. (Some K-feldspar staining is present in the lower right-hand area.)

3. These photomicrographs show an area of the sample unstained by the sodium cobaltinitrite. Again, quartz and K-feldspar form the fine-grained groundmass, while highly altered phenocrysts of plagioclase are present, algon with small, scattered grains of pyrite.