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## Walk 10: Hill Hole Quarry, Markfield

**Start:** grid reference [SK 4873 1005]

In this disused and well-landscaped quarry there are excellent exposures of the youngest Precambrian igneous rock — the South Charnwood Diorites, formerly known as ‘Markfieldite’ after the village in which the quarry is situated. you can park opposite the Parish Church of St Michael and All Angels, which is just off The Green in Markfield. Note that the church walls contain diorite worked from this quarry.

The rocks are coarsely crystalline, formed by the slow cooling of magma at depth. If you look closely, you can see crystals of grey-green feldspar as well as green to black coloured minerals (pyroxene and amphibole) that contain iron and magnesium. The pinkish-grey, ‘sugary’ areas surrounding these crystals represent granophyre, caused by microscopic intergrowths between quartz and feldspar.

### Figures

(Figure 68) This part of Hill Hole Quarry is flooded.

(Figure 69) Polished slab of Markfieldite.

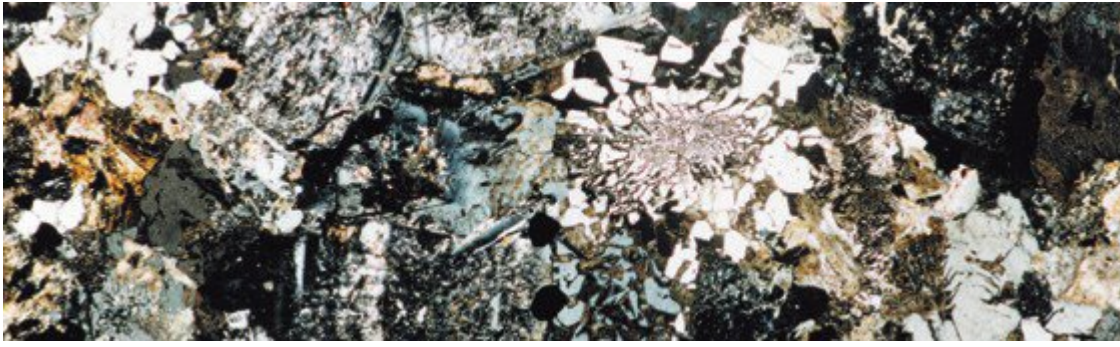
(Figure 70) Microscope photo showing granophyric intergrowth texture.



*This part of Hill Hole Quarry is flooded.*



*Polished slab of Markfieldite.*



*Microscope photo showing granophyric intergrowth texture.*