

## Thin sections from drill core from Beaconsfield

*by G. B. Everard*

The following descriptions are of thin sections taken from diamond-drill core from Beaconsfield hole B4.

### **Sample 65-189A — 933'**

In thin section the specimen is a dark grey banded rock, the bands being 1 to 4 mm thick. The darker bands consist of equi-dimensional angular quartz grains, averaging about 0.02 mm across, and black opaque carbonaceous material, cemented together in a matrix of very fine grained carbonate. The paler coloured bands consist mainly of carbonate with subsidiary quartz and carbonaceous matter. The latter tends to be in small flakes which have an average preferred orientation in the plane of the banding. A little pyrite and some hematite are also present in small scattered aggregates of minute crystals.

### **Sample 65-189B — 986'**

This rock in thin section is somewhat finer grained than A, the average size of the quartz grains being about 0.01 mm. The banding is finer due to a more complete segregation of the graphitic material, and there are no bands of carbonate, carbonate and quartz being more intimately and uniformly mingled. A little disseminated pyrite accompanies the shaly bands and there is a faint trace of hematite.

### **Sample 65-1890 — 1010'**

The specimen in thin section is a mosaic of angular quartz grains, comprising about 75% of the rock, together with carbonate, white mica and black opaque carbonaceous matter. There is a confused banding due to local concentrations of carbonate and carbonaceous matter.

### **Sample 65-189D — 1020'**

In thin section the specimen is a mass of fragments of quartzite and carbonate ranging up to 0.2 mm in length. The fragments are cemented together with hematite which forms a heavy selvage to most of the grains, and in places forms much of the rock. Many of the quartzite fragments also contain a very fine-grained greenish mineral which appears to be nontronite. The grains show a strongly preferred orientation parallel to the bedding. Some of the carbonate fragments appear to be segments of circular shapes, indicating organic origin. Some carbonaceous material is also present.

### **Sample 65-189E — 1036'**

The section consists almost entirely of calcite and hematite. The fragments have rounded organic shapes outlined in hematite and the cell structure is frequently outlined in hematite. Calcite between the organic outlines may have been inorganically precipitated.

The rock is a limestone.

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