

migmatization and, where the latter had been strong and the rocks were probably still plastic, rather "wild" flow folding occurred.

In the later phase of deformation broad folds with NNE-trending axes were formed. In many places an intense flattening accompanied the later folding and rotated all the earlier structures, including the basic dykes, into parallelism and concordance so that the geology appears superficially to be very regular and simple. Elsewhere there is usually a strong lineation plunging at moderate angles to SSW which appears to have been produced by movement parallel to the fold axes. Sheets of foliated granitic rocks were emplaced during the deformation. Granite-forming processes continued after deformation had ceased with the formation of the anatectic Qorqut granite and the emplacement of a swarm of gently-dipping sheets of pegmatite, layered aplite-pegmatite and fine-grained granite. The Qorqut granite is composed mainly of fine-grained adamellite, but is rather complex and includes foliated syntectonic granitic rocks. Many relicts of the basic dykes can be recognized among the very abundant inclusions of gneiss and amphibolite in the granite.

#### Reference

- Berthelsen, A. (1955) Structural studies in the pre-Cambrian of western Greenland. I. A small body of diorite, Godthaab district. Medd. Grønland, Bd.135, Nr. 6.

## THE CHROMITE DEPOSITS AT FISKENÆSSET

Martin Ghisler

Since the discovery of chromite associated with the anorthosites at Fiskenæsset in 1964 a programme of detailed mapping and sample collecting has been undertaken in the region. During the summer of 1966 mapping of the anorthosite horizons was completed in the eastern part of the region, and a

geological map at 1:5 000 was made of a small area 10 km east of Fiskenæsset. In addition the best chromite horizons from an economic point of view were mapped at a scale of 1:1 000 and extensive sampling was continued throughout the region where chromite is known to occur.

The chromite occurs in the anorthosite in horizons 0.5 - 3 m wide which can be traced continuously for distances up to 4 km. The chromite-bearing rock occurs as two types:

- 1) A layered type in which individual chromitite layers are generally 0.5 - 2 cm wide, occasionally 7 - 10 cm and, in a few places, up to 1 m.
- 2) An augen type characterized by plagioclase porphyroblasts in a matrix of chromitite.

The augen type is the more common in the region as a whole and in general forms horizons a little wider than the layered type. These augen-type horizons reach a maximum width of about 20 m.

Chromitite layers 0.5 - 1 cm wide occur also in inclusions of ultra-basic rocks within the anorthosites.

The chromite is often associated with magnetite, and rarely with ilmenite and sulphide minerals.

There are chromite horizons in nearly all the anorthosite horizons. The chromite-bearing horizons can be followed for several tens of kilometres. They are not continuous as two periods of folding have boudinaged the original layers and have produced a complicated outcrop pattern.

## FIELD WORK IN THE FREDERIKSHÅB AREA

Stig Bak Jensen

The systematic geological mapping of the area in West Greenland between 60°30' and 62°00'N, i. e. between the fjord Sermiligârssuk and the town Frederikshåb, was begun by GGU in 1963. The aim is to publish two geological maps in a scale of 1:100 000. The area is the northern continuation of the Ivigtut area which was mapped by GGU in the years 1954-1960. Recon-