References

Andrews, J.R. (1968) The structural chronology in the Nigerdlikasik area, Frederikshåb district. Rapp. Grønlands geol. Unders., Nr. 15, 45-48.

Dawes, P.R. (1968) Geological investigations on Dalagers Nunatakker, with special reference to metamorphosed basic dykes. Rapp. Grønlands geol. Unders., Nr. 15, 35-40.

Jensen, S.B. (1966) Field work in the Frederikshåb area. Rapp. Grønlands geol. Unders., Nr. 11, 32-35.

Jensen, S.B. (1968) Field work in the Frederikshåb area. Rapp. Grønlands geol. Unders., Nr. 15, 40-44.

Kornerup, A. (1879) Geologiske Iagttagelser fra Vestkysten af Grønland (62^{o} 15' - 64^{o} 15'N.B.). Meddr Grønland, Bd. 1, 77-139.

Windley, B.F. (1968) New field relations from the early Precambrian of West Greenland. Rapp. Grønlands geol. Unders., Nr. 15, 27-31.

Windley, B.F., Henriksen, H., Higgins, A.K., Bondesen, E. and Jensen, S.B. (1966) Some border relations between supracrustal and infracrustal rocks in South-West Greenland. Rapp. Grønlands geol. Unders., Nr. 9.

FIELD WORK IN THE FREDERIKSHÅB DISTRICT

Stig Bak Jensen

In 1968 the field work in the Frederikshåb area was carried out by 14 geologists each helped by an assistant. 10 geologists were involved in the geological mapping, each mapping his own area; one geologist made a detailed study and collected specimens of ultrabasic rocks from gneisses and amphibolitic horizons; one geologist investigated Ketilidian supracrustal rocks east of Ivigtut and two geologists worked in Quaternary geology south of Frederikshåb Isblink.

Organisation of the field groups and all services were carried out from the base Mellembygd as in previous years. Transport was supplied by one GGU cutter and two Bell 47 J helicopters. One helicopter was chartered from Heliswiss, Switzerland, the same firm supplying the helicopter crew of two pilots and two technicians.

All field groups were supplied with small radios (receiver and transmitter), which were as efficient as during the previous summer.

The field work up to Frederikshåb Isblink was completed in 1968 as planned, and the base camp Mellembygd is now to be shifted in 1969 to the area north of Frederikshåb Isblink, where detailed geological mapping will be carried out in the coming years.

Geology of the Frederikshåb area

The general view of the geology of the area is described in Report of Activities for 1966 and 1967 (Jensen, 1966 and 1968). Since the field work carried out in 1968 was a continuation of the work from the previous years, only minor information is added here.

There has been a discussion among the field geologists about the distinction between the hornblende schist layers and the amphibolite layers and lenses found in the gneiss. It has been decided that the hornblende schists are better described as "schistose amphibolites". The term "amphibolite" can be used for all type of basic layers and lenses found within the gneisses in the area regardless of the degree of development of foliation. When these amphibolites are more strongly transformed by the gneissification the term "migmatitic amphibolite" is used. In 1968 it was demonstrated that the schistose amphibolite horizons can alter to migmatitic amphibolites along the strike.

Supracrustal metavolcanic rocks are found in two widely separated parts of the area; the Tartoq Group supracrustals (Higgins and Bondesen, 1966, Jensen, 1968) are found round Sermiligârssuk fjord in the southern part of the area, and the other supracrustal rocks are found 125 km north of that, south and north of Frederikshåbs Isblink and including the Ravns Storø belt (Windley et al., 1966, P.R. Dawes, this report). The field work has not given any clue to the relations between the supracrustals from the

two areas, nor to their chronological position in relation to the amphibolites in the gneisses. The supracrustals might belong to the same unit as the amphibolites, or they might be younger.

The chronology for the basic dyke generations given in the previous reports has not been altered. It is of interest to mention that the Gardar dolerites (BDs) become fewer in the area north of Frederikshåb.

References

Higgins, A. K. and Bondesen, E. (1966) Supracrustals of pre-Ketilidian age (the Tartoq Group) and their relationships with Ketilidian supracrustals in the Ivigtut region, South-West Greenland. Rapp. Grønlands geol. Unders., Nr. 8.

Jensen, S. B. (1966) Field work in the Frederikshåb area. Rapp. Grønlands geol. Unders., Nr. 11, 32-35.

Jensen, S. B. (1968) Field work in the Frederikshåb area. Rapp. Grønlands geol. Unders., Nr. 15, 40-44.

Windley, B. F., Henriksen, N., Higgins, A. K., Bondesen, E. and Jensen, S. B. (1966) Some border relations between supracrustal and infracrustal rocks in South-West Greenland. Rapp. Grønlands geol. Unders., Nr. 9.

A KIMBERLITE DYKE IN THE NIGERDLIKASIK AREA, FREDERIKSHÅB DISTRICT

J. R. Andrews

During recent geological mapping of the Nigerdlikasik area, 45 km due east of Frederikshåb, an intrusive diatreme was discovered. This takes the form of a 50 cm wide vertical dyke, tracable for at least 500 metres. It can be demonstrated that the petrographic features of this and several other bodies occurring in the vicinity, e. g. in the Tigssaluk granite (Emeleus,