GGU bistod endvidere Grønlands Hjemmestyre i feltundersøgelser vedrørende muligheden for at anvende grønlandske bjergarter til en mulig produktion af facade- og gravsten, samt i en vurdering af anvendelsen af specielle industrimineraler.

Glaciologiske undersøgelser er blevet videreført henholdsvis nord for Ilulissat/Jakobshavn og syd for Nuuk/Godthåb. Undersøgelserne er dels et led i de igangværende vurderinger af vandkraftpotentialet, dels et dansk bidrag til den internationale klimaforskning, især omkring drivhuseffektens indflydelse på globale havstigninger.

Med finansiel støtte fra Råstofforvaltningen for Grønland blev der ved hjælp af inspektionsskibet *Thetis* med Nunaoil A/S som operatør indsamlet supplerende seismiske data (337 km) mellem 63° og 66°N ud for Vestgrønland.

I Østgrønland igangsatte GGU i samarbejde med Danmarks Geologiske Undersøgelse og med finansiel støtte fra råstofforvaltningen et bassinmodellerings studie i Jameson Land. I forbindelse hermed foretoges supplerende geokemisk prøveindsamling. Der er i årets løb udarbejdet en 'Exploration Report' om Jameson Land bassinets oliepotentiale; i denne gives en samlet oversigt over alle for olieindustrien relevante geologiske og geofysiske informationer.

I Kangerlussuaq-området i Østgrønland indsamledes supplerende prøvemateriale for nærmere at undersøge nogle af dannelsesprocesserne ved de ædelmetalforekomster, som mineindustrien har interesse i.

I Nordgrønland blev der i det østlige Peary Land påbegyndt fornyede oliegeologiske undersøgelser i et fælles feltprojekt med geologer fra Københavns Universitet. Studiet skal dels tilvejebringe et grundlag for en vurdering af oliepotentialet i området, dels støtte tolkningen af seismiske data indsamlet af KANUMAS-projektet i den nordlige del af den østgrønlandske sokkel.

I det vestlige Peary Land er indsamlet prøver af sjældent fossilmateriale fra jordens oldtid, i samarbejde med internationale specialister, og med støtte fra Carlsbergfondet.

I 1991 har GGU udgivet to geologiske kortblade i henholdsvis 1:500 000-serien (Thule) og 1:100 000-serien (Svartenhuk). Der er udkommet to bulletiner, fire rapporter og 10 bidrag i Open File-serien. Som resultat af GGU's aktiviteter er der desuden publiceret 24 artikler i internationale fagtidsskrifter.

Review of the Survey's activities in 1991

Martin Ghisler

Director

The new Mining Law for Greenland, approved in 1991 by the Danish and Greenlandic governments, was designed to encourage interest in exploration and utilisation of mineral resources in Greenland by creating more favourable operating conditions for the oil and mining industry. The activities of the Geological Survey of Greenland (Grønlands Geologiske Undersøgelse, GGU) in 1991 have reflected this new strategy. In the hydrocarbon field a new information prospectus has been prepared for the forthcoming licensing round for selected areas offshore West Greenland, while initiatives to attract interests of mining companies have been intensified.

GGU has continued to facilitate ready access by industry to relevant geological, geophysical and geochemical data held by the Survey. In 1991 this has included:

- enhancement of GGU's geological databases, in particular with inclusion of important mineralisation records from East and North Greenland;
- expansion of the drill core facility in Copenhagen, which incorporates drill cores and hand samples from earlier mining and exploration activities;
- preparation of a series of reports on known mineral occurrences, and compilations of geochemical and other data on specific areas as an aid to mineral prospecting;
- preparation of a seismic-geological database with special relevance to hydrocarbon prospecting;
- a review of all available geological data for Greenland for publication in the Home Rule Authority series 'Trade and Industry in Greenland';
- contributions of basic geological information for

GREENLAND: A Handbook for Investors in the Mining and Petroleum Industries, prepared by Mining Journal Research Services on behalf of the Mineral Resources Administration for Greenland;

- continuation of the information service to the petroleum industry with distribution of two issues of the GHEXIS Newsletter.

Field projects in 1991 were carried out with a total of 58 participants. The largest group worked in the Disko Bugt area of West Greenland, with a base at the abandoned settlement of Atâ. Basic geological, geochemical and economic geology studies begun in 1988–89 were brought to a conclusion. Hydrocarbon studies on Nûgssuaq and Svartenhuk Halvø, which have particular relevance for the adjoining shelf areas, will be continued in the summer of 1992. A hitherto unknown gold mineralisation located by GGU in southern Nûgssuaq will be the subject of commercial investigations in 1992 under a new prospecting licence.

Elsewhere in West Greenland supracrustal rocks between Qeqertarsuatsiaat/Fiskenæsset and Ravn Storø were studied, with particular reference to possible mineralisations of gold, platinum group minerals, copper and zinc; sand and water samples and heavy-mineral concentrates were collected. South of Qasigiannguit/Christianshåb, sampling of stream silt and water for geochemical studies was undertaken over a 6000 km^2 area.

Offshore West Greenland supplementary seismic data (337 km) were collected between latitudes 63° and 66°N by the inspection ship *Thetis*, financially supported by the Mineral Resources Administration and with Nunaoil A/S as operator. *Thetis* later operated in the area offshore North-East Greenland where, as part of the KANUMAS project, 3000 km of reflection seismic data were acquired.

Onshore North Greenland hydrocarbon studies were commenced in sediments of the Wandel Sea Basin in eastern Peary Land, part of a combined project with geologists of Copenhagen University. In western Peary Land further collections were made of the remarkable soft-bodied Cambrian fauna by an international group supported by the Carlsberg Foundation.

A basin-modelling study of the Jameson Land basin of East Greenland was started, in cooperation with the Geological Survey of Denmark and financially supported by the Mineral Resources Administration. Supplementary geochemical sampling was undertaken in 1991. An exploration report on the Jameson Land basin has been prepared by GGU. Further south in East Greenland, in the Kangerlussuaq area, sampling was undertaken in the Tertiary intrusive complexes as part of a study to better understand the precipitation of precious metal deposits.

Glaciological studies were carried out north of Ilulissat/Jakobshavn and south of Nuuk/Godthåb. These represent a continuation of hydropower development studies, as well as contributions to studies of the greenhouse-effect and climatic change.

GGU has continued to assist the Mineral Resources Administration with inspection and evaluation of activities by concessionaires. Inspection visits in 1991 included mining company activities in the Kangerlussuaq area of East Greenland and around Narsaq in South Greenland.

GGU has assisted the Home Rule Authorities with field studies concerning the possibility of using selected rock types from Greenland for a production of grave stones and ornamental building stones, and also with an evaluation of the use of certain industrial minerals.

Government imposed budget reductions, which affect all Danish publicly financed institutions, have severely limited Survey field activities and staff levels in recent years; in 1991 a total of nine staff left the Survey, and were not replaced.

During the year the 1:500 000 geological map sheet 'Thule' and the 1:100 000 sheet 'Svartenhuk' were printed. Two bulletins, four reports and 10 issues of the Open File Series were published. As a result of GGU's activities, 24 articles were published in international journals; these are listed together with GGU's own publications at the end of the Report of Activities section.