

# Publications on Greenland by the Survey, 1998

Compiled by Birgit Eriksen and Peter R. Dawes

## Maps

### *Standard map sheets*

Geologisk kort over Grønland, 1:100 000, Lindenow Fjord 60 Ø.1 Nord. By A.A. Garde, B. Chadwick, J. Grocott & C.P. Swager.

### *Thematic maps (on CD-Rom)*

GIS compilation of geoscience data: an ArcView GIS version of previously published thematic maps from Inglefield Land, North-West Greenland. By F. Schjøth & L. Thorning. Danmarks og Grønlands Geologiske Undersøgelse Rapport **1998/107**, 59 pp. + CD-Rom.

### *Airborne geophysical maps*

*Disko Bugt – Nuusuaq region, central West Greenland (Aeromag 1997)*

Maps of magnetic field intensity and associated vertical derivative, flight path and digital elevation model derived from radar measurements. Maps in scale 1:50 000, 1:250 000 and 1:500 000. Aeromagnetic survey flown by Sander Geophysics Ltd., Ottawa, Canada.

*Northern part of Jameson Land, central East Greenland (AEM Greenland 1997)*

Maps of electromagnetic anomalies, conductance, magnetic field intensity and associated vertical derivative, flight path and digital elevation model derived from radar measurements. Maps in scale 1:50 000, 1:250 000 and 1:500 000. Combined electromagnetic (GEOTEM) and magnetic survey flown by Geoterrex-Dighem Ltd., Ottawa, Canada.

## Geology of Denmark and Greenland Map Series CD

The first four issues in the series were released in 1997.

### *Geological maps of Greenland, 1:500 000*

**CD 5** Sydgrønland (*Sheet 1*)

**CD 6** Frederikshåb Isblink – Søndre Strømfjord (*Sheet 2*)

**CD 7** Scoresby Sund (*Sheet 12*)

**CD 8** Dove Bugt (*Sheet 10*)

## Geology of Greenland Survey Bulletin

Bulletin 180 is not externally refereed.

**175** Stratigraphy of the Neill Klintner Group; a Lower – lower Middle Jurassic tidal embayment succession, Jameson Land, East Greenland. By G. Dam & F. Surlyk, 80 pp.

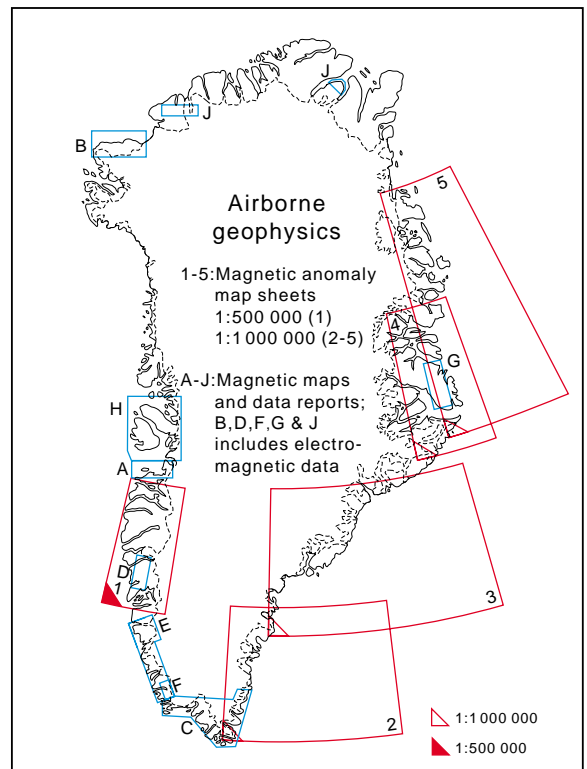
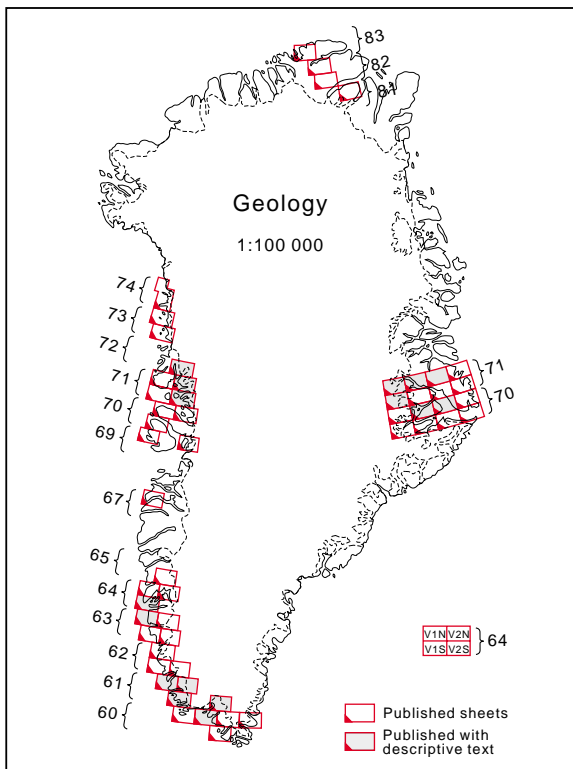
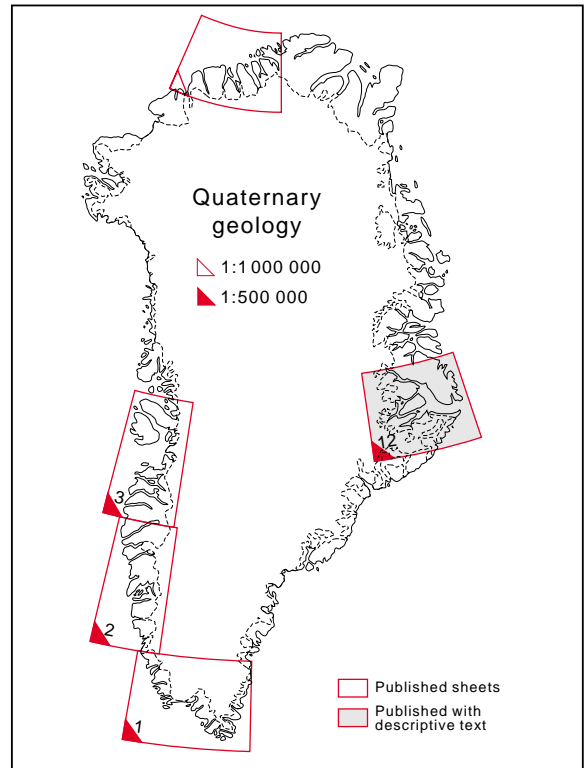
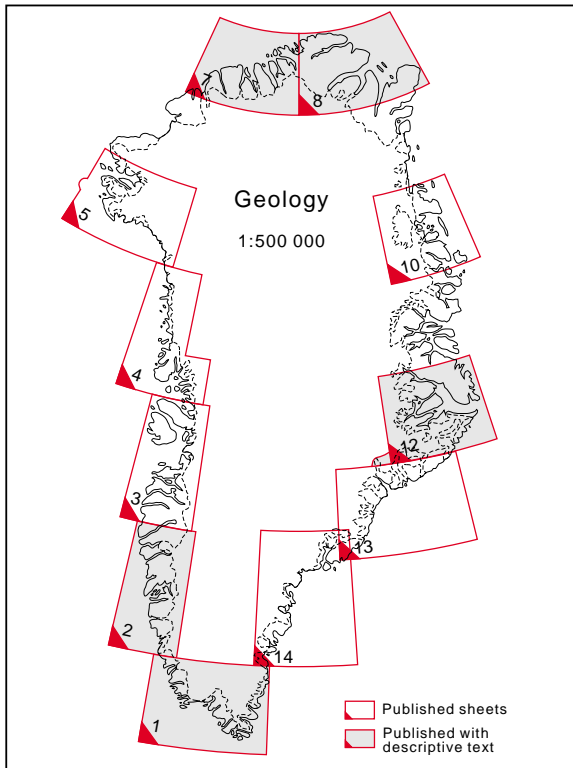
**179** The Citronen Fjord massive sulphide deposit, Peary Land, North Greenland: discovery, stratigraphy, mineralization and structural setting. By F.W. van der Stijl & G.Z. Mosher, 40 pp.

**180** Review of Greenland activities 1997. Edited by A.K. Higgins & W.S. Watt, 176 pp.

### *Review of Greenland activities 1997: Bulletin 180*

A review of Greenland activities, 1997. By M. Ghisler, 7–9.

Petroleum geological activities onshore West Greenland in 1997. By F.G. Christiansen, A. Boesen, J.A. Bojesen-Koefoed, F. Dalhoff, G. Dam, P.S. Neuhoff, A.K. Pedersen, G.K. Pedersen, L.S. Stannius & K. Zinck-Jørgensen, 10–17.



Map sheets published by the Survey (**red frames**). The **blue frames** A-J are areas covered by recent airborne geophysical surveys (1992–1998).

- New structure maps over the Nuussuaq Basin, central West Greenland. *By* J.A. Chalmers, T.C.R. Pulvertaft, C. Marcussen & A.K. Pedersen, 18–27.
- A possible new hydrocarbon play, offshore central West Greenland. *By* N. Skaarup & J.A. Chalmers, 28–30.
- Diagenesis and reservoir properties of Campanian–Paleocene sandstones in the GANT#1 well, western Nuussuaq, central West Greenland. *By* T. Kierkegaard, 31–34.
- Petroleum geological activities in East Greenland in 1997. *By* M. Larsen, S. Piasecki, T. Preuss, L. Seidler, L. Stemmerik, J. Therkelsen & H. Vosgerau, 35–42.
- Sequence stratigraphy of source and reservoir rocks in the Upper Permian and Jurassic of Jameson Land, East Greenland. *By* L. Stemmerik, G. Dam, N. Noe-Nygaard, S. Piasecki & F. Surlyk, 43–54.
- Wandel Sea Basin, eastern North Greenland. *By* L. Stemmerik, F. Dalhoff, B.D. Larsen, J. Lyck, A. Mathiesen & I. Nilsson, 55–62.
- Airborne geophysical surveys in central West Greenland and central East Greenland in 1997. *By* L. Thorning & R.W. Stemp, 63–66.
- Carbonate-hosted Zn-Pb-Ag mineralisation in Washington Land, western North Greenland. *By* S.M. Jensen, 67–72.
- Karrat 97: reconnaissance mineral exploration in central West Greenland. *By* A. Steenfelt, B. Thomassen, M. Lind & J. Kyed, 73–80.
- Hydrothermal activity in the Upper Permian Ravnefjeld Formation of central East Greenland – a study of sulphide morphotypes. *By* J.K. Nielsen & M. Pedersen, 81–87.
- A reassessment of the timing of early Archaean crustal evolution in West Greenland. *By* S. Moorbath & B.S. Kamber, 88–93.
- Early Archaean Isua supracrustal belt, West Greenland: pilot study of the Isua Multidisciplinary Research Project. *By* P.W.U. Appel, C.M. Fedo, S. Moorbath & J.S. Myers, 94–99.
- Archaean and Palaeoproterozoic orogenic processes: Danish Lithosphere Centre studies of the Nagsugtoqidian orogen, West Greenland. *By* F. Mengel, J.A.M. van Gool, E. Krogstad & the 1997 field crew, 100–110.
- Reassessment of the north-western border zone of the Palaeoproterozoic Ketilidian orogen, South Greenland. *By* A.A. Garde, B. Chadwick, K. McCaffrey & M. Curtis, 111–118.
- North-East Greenland 1997–1998: a new 1:500 000 mapping project in the Caledonian fold belt (72°–75°N). *By* N. Henriksen, 119–127.
- The oldest marine Cretaceous sediments in West Greenland (Umiivik-1 borehole) – record of the Cenomanian–Turonian Anoxic Event? *By* G. Dam, H. Nøhr-Hansen, F.G. Christiansen, J.A. Bojesen-Koefoed & T. Laier, 128–137.
- The northernmost marine Cretaceous–Tertiary boundary section: Nuussuaq, West Greenland. *By* G. Dam, H. Nøhr-Hansen & W.J. Kennedy, 138–144.
- Seismic investigations offshore South-East Greenland. *By* J.R. Hopper, D. Lizarralde & H.C. Larsen, 145–151.
- Mantle xenoliths from Tertiary lavas and dykes on Ubekendt Ejland, West Greenland. *By* S. Bernstein & C.K. Brooks, 152–154.
- Late Cenozoic wood from Washington Land, North Greenland. *By* O. Bennike, 155–158.
- Pingos at Nioghalvfjerdingsfjorden, eastern North Greenland. *By* O. Bennike, 159–162.
- Late Quaternary palaeo-oceanography of the Denmark Strait overflow pathway, South-East Greenland margin. *By* A. Kuijpers, J.B. Jensen, S.R. Troelstra and ship-board scientific party of RV *Professor Logachev* & RV *Dana*, 163–167.
- Labrador Sea circulation and climate variability over decade to millennial time scales. *By* J.T. Overpeck, O. Bennike & A. Robertson, 168–171.
- Publications on Greenland by the Survey, 1997, 172–176.

## Open file type reports

### *Danmarks og Grønlands Geologiske Undersøgelse Rapport*

Unedited reports. Only those numbers written in English that deal with Greenland geological topics are included.

**1998/3** A new carbonate-hosted Zn-Pb-Ag occurrence in Washington Land, western North Greenland. *By* S.M. Jensen & H.K. Schönwandt, 31 pp.

**1998/5** Reservoir modelling of western Nuussuaq, central West Greenland. EFT-96 project 1313/96-0010 final report. 3 vols., 14 appendices. *By* G. Dam, M. Sønderholm, T. Kierkegaard, L. Kristensen, H. Nøhr-Hansen, J.A. Chalmers, C. Marcussen, J.A. Bojesen-Koefoed, F.G. Christiansen, Å. Nielsen, P.R. Andersen & G. Andersen.

**1998/6** Reservoir characterisation of western Nuussuaq, central West Greenland. *Compiled by* M. Sønderholm & G. Dam, 36 pp.

**1998/7** Diagenesis and reservoir properties of Cretaceous – Lower Tertiary sandstones: the GANT#1

- well, western Nuussuaq, central West Greenland. *By* T. Kierkegaard, 53 pp.
- 1998/18** Airborne electromagnetic and magnetic survey of the northern Jameson Land area, central East Greenland. Results from project AEM Greenland 1997. *By* R.W. Stemp, 42 pp.
- 1998/21** Gravity models in the Disko–Nuussuaq area of central West Greenland. *By* J.A. Chalmers, 32 pp.
- 1998/27** Conventional core analysis on GANE#1 and GANE#1A cores: Plug lithology descriptions. Eqaullik, Nuussuaq, West Greenland. *By* M.K. Jensen, 13 pp.
- 1998/28** Caledonian geology of East Greenland 72°–74°N: preliminary reports from the 1997 expedition. *Edited by* A.K. Higgins & K.S. Frederiksen, 145 pp.
- 1998/29** Fifty years of ore exploration in Greenland by Kryolitselskabet Øresund A/S; a memoir. *By* L. Keto, 33 pp.
- 1998/40** Geochemical mapping of the Uummanaq region (70°30' to 72°30'N, 50° to 56°W), central West Greenland. *By* A. Steinfelt, E. Dam & J. Kyed, 25 pp.
- 1998/46** Symposium on Caledonian geology in East Greenland. Abstract volume. *Edited by* K.S. Frederiksen & K. Thrane, 55 pp.
- 1998/54** Dinoflagellate cyst stratigraphy of the Upper Cretaceous to Paleogene strata from the Hellefisk-1, Ikermiut-1, Kangâmiut-1 and Nukik-1 wells, offshore central West Greenland. *By* H. Nøhr-Hansen, 58 pp.
- 1998/62** Karrat 97: Mineral exploration in the Uummanaq area, central West Greenland. *By* B. Thomsen & M. Lind, 19 pp.
- 1998/72** Ujarassiorit 1997. Public mineral hunt programme in Greenland. *By* M. Roos, 9 pp.
- 1998/87** Modelling of uplift history from maturity and fission track data, Nuussuaq, West Greenland. EFT-95 Project: Final report ENS Journal No: 1313/95-0004. *By* A. Mathiesen, 90 pp.
- 1998/89** LECO and Rock Eval data from the Nuussuaq Basin, onshore West Greenland. *By* J. Boserup & F.G. Christiansen, 5 pp.
- 1998/107** See under *Thematic maps* p. 75.
- 1998/128** Conversion of existing geological maps of Greenland to digital format. *By* J.B. Sørensen, 24 pp.

## Publications catalogue and reports

Catalogue of Greenland publications and data. *Edited by* E.W. Glendal & P.R. Dawes, 51 pp. Copenhagen: Geological Survey of Denmark and Greenland (March 1998).

A standard bibliographic style for GEUS' publications: a guide for authors and editors. *By* M. Sønderholm, P.R. Dawes & E.W. Glendal. Danmarks og Grønlands Geologiske Undersøgelse Rapport **1998/53**, 2nd edition, 52 pp.

Publishing in the scientific series of the Geological Survey of Denmark and Greenland: a handbook for authors and editors. *By* P.R. Dawes & E.W. Glendal. Danmarks og Grønlands Geologiske Undersøgelse Rapport **1998/71**, 78 pp.

## Newsletters to industry

### *Greenland MINEX News*

Issue No. 14, March 1998, 13 pp.

*Leading article:* The Canada–Greenland geological link in focus again, new carbonate-hosted Zn-Pb-Ag occurrence.

Issue No. 15, November 1998, 8 pp.

*Leading article:* Bureau of Minerals and Petroleum (BMP). New Greenland governmental office.

### *Ghexis Newsletter*

Issue No. 13, May 1998, 6 pp.

*Leading article:* Mineral Resources Administration to be transferred to the Greenland Home Rule Government from July 1, 1998.

Issue No. 14, December 1998, 8 pp.

*Leading article:* New exploration opportunities – West Greenland.

## Scientific articles in external publications

The list contains three types of article: (1) from peer review international journals, (2) from proceedings volumes, and (3) from unedited reports. Articles written by non-survey staff, where the basic work was initiated under the Survey's auspices, are also included, as well as those attached to the Danish Lithosphere Centre (DLC).

Andersen, J.C.Ø., Rasmussen, H., Nielsen, T.F.D. & Rønsbo, J.G. 1998: The Triple group and the Platinova gold and palladium reefs in the Skaergaard intrusion: stratigraphic and petrographic relations. *Economic Geology* **93**(4), 488–509.

- Appel, P.W.U., Fedo, C.M., Moorbath, S. & Myers, J.S. 1998: Recognizable primary volcanic and sedimentary features in a low-strain domain of the highly deformed, oldest known (~3.7–3.8 Gyr) Greenstone Belt, Isua, West Greenland. *Terra Nova* **10**(2), 57–62.
- Bennike, O. 1998: Fossil egg sacs of *Diaptomus* (Crustacea: Copepoda) in Late Quaternary lake sediments. *Journal of Paleolimnology* **19**(1), 77–79.
- Bernstein, S., Kelemen, P.B. & Brooks, C.K. 1998: Depleted spinel harzburgite xenoliths in Tertiary dykes from East Greenland: restites from high degree melting. *Earth and Planetary Science Letters* **154**(1/4), 221–235.
- Bernstein, S., Kelemen, P.B., Tegner, C., Kurz, M.D., Blusztajn, J. & Brooks, C.K. 1998: Post-breakup basaltic magmatism along the East Greenland Tertiary rifted margin. *Earth and Planetary Science Letters* **160**(3/4), 845–862.
- Braithwaite, R.J., Konzelmann, T., Marty, C. & Olesen, O.B. 1998: Reconnaissance study of glacier energy balance in North Greenland 1993–1994. *Journal of Glaciology* **44**(147), 239–247.
- Braithwaite, R.J., Konzelmann, T., Marty, C. & Olesen, O.B. 1998: Errors in daily ablation measurements in northern Greenland 1993–1994, and their implications for glacier climate studies. *Journal of Glaciology* **44**(148), 583–588.
- Brueckner, H.K., Gilotti, J.A. & Nutman, A.P. 1998: Caledonian eclogite-facies metamorphism of Early Proterozoic protoliths from the North-East Greenland Eclogite Province. *Contributions to Mineralogy and Petrology* **130**(2), 103–120.
- Dahl-Jensen, T., Thybo, H., Hopper, J. & Rosing, M. 1998: Crustal structure at the SE Greenland margin from wide-angle and normal incidence seismic data. *Tectonophysics* **288**(1/2), 191–198.
- Dam, G. & Sønderholm, M. 1998: Sedimentological evolution of a fault-controlled Early Paleocene incised-valley system, Nuussuaq Basin, West Greenland. In: Shanley, K.W. & McCabe, P.J. (eds): *Relative role of eustasy, climate, and tectonism in continental rocks*. SEPM Special Publication **59**, 109–121. Tulsa: Society for Sedimentary Geology.
- Dam, G., Larsen, M. & Sønderholm, M. 1998: Sedimentary response to mantle plumes: implications from Paleocene onshore successions, West and East Greenland. *Geology* **26**(3), 207–210.
- Fitton, J.G., Saunders, A.D., Larsen, L.M., Hardarson, B.S. & Norry, M.J. 1998: Volcanic rocks of the southeast Greenland margin at 63°N: composition, petrogenesis, and mantle sources. In: Saunders, A.D., Larsen, H.C. & Wise, S.W., Jr. (eds): *Proceedings of the Ocean Drilling Program, Scientific Results* **152**, 331–350.
- Funder, S., Hjort, C., Landvik, J.Y., Nam, S.-I., Reeh, N. & Stein, R. 1998: History of a stable ice margin – East Greenland during the middle and upper Pleistocene. *Quaternary Science Reviews* **17**(1/3), 77–123.
- Garde, A.A., Chadwick, B., Grocott, J., Hamilton, M.[A.], McCaffrey, K.[J.W.] & Swager, C.P. 1998: An overview of the Palaeoproterozoic Ketilidian orogen, South Greenland. In: Wardle, R.J. & Hall, J. (compilers): *Eastern Canadian Shield Onshore–Offshore Transect (ECSOOT), Report of 1998 Transect Meeting*. University of British Columbia, Lithoprobe Report **68**, 50–66.
- Gilotti, J.A. & Elvevold, S. 1998: Partial eclogitization of the Ambolten gabbro-norite, North-East Greenland Caledonides. *Schweizerische Mineralogische und Petrographische Mitteilungen* **78**(2), 273–292.
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- Kalsbeek, F., Pulvertaft, T.C.R. & Nutman, A.P. 1998: Geochemistry, age and origin of metagreywackes from the Palaeoproterozoic Karrat Group, Rinkian Belt, West Greenland. *Precambrian Research* **91**(3/4), 383–399.
- Kelemen, P.B., Hart, S.R. & Bernstein, S. 1998: Silica enrichment in the continental upper mantle via melt/rock reaction. *Earth and Planetary Science Letters* **164**(1/2), 387–406.
- Larsen, H.C. & Saunders, A.D. 1998: Tectonism and volcanism at the southeast Greenland rifted margin: a record of plume impact and later continental rupture. In: Saunders, A.D., Larsen, H.C. & Wise, S.W., Jr. (eds): *Proceedings of the Ocean Drilling Program, Scientific Results* **152**, 503–533.
- Larsen, H.C., Dahl-Jensen, T. & Hopper, J.R. 1998: Crustal structure along the Leg 152 drilling transect. In: Saunders, A.D., Larsen, H.C. & Wise, S.W., Jr. (eds): *Proceedings of the Ocean Drilling Program, Scientific Results* **152**, 463–475.
- Larsen, L.M., Fitton, J.G., Bailey, J.C. & Kystol, J. 1998: XRF analyses of volcanic rocks from Leg 152 by laboratories in Edinburgh and Copenhagen: implica-

- tions for the mobility of yttrium and other elements during alteration. In: Saunders, A.D., Larsen, H.C. & Wise, S.W., Jr. (eds): Proceedings of the Ocean Drilling Program, Scientific Results **152**, 425–429.
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- McCaffrey, K.J.W., Chadwick, B., Garde, A.A., Hamilton, M.A. & Curtis, M.L. 1998: New structural and isotopic age data from the north-western border zone of the Ketilidian orogen, South Greenland. In: Wardle, R.J. & Hall, J. (compilers): Eastern Canadian Shield Onshore–Offshore Transect (ECSOOT), Report of 1998 Transect Meeting. University of British Columbia, Lithoprobe Report **68**, 103–114.
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- Petersen, H.I., Bojesen-Koefoed, J.A., Nytoft, H.P., Surlyk, F., Therkelsen, J. & Vosgerau, H. 1998: Relative sea-level changes recorded by paralic liptinite-enriched coal facies cycles, Middle Jurassic Muslingebjerg Formation, Hochstetter Forland, Northeast Greenland. International Journal of Coal Geology **36**(1), 1–30.
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- Saunders, A.D., Larsen, H.C. & Wise, S.W., Jr. (eds) 1998: Proceedings of the Ocean Drilling Program. Scientific results, East Greenland Margin, covering Leg 152 of the cruises of the Drilling Vessel JOIDES Resolution. Proceedings of the Ocean Drilling Program, Scientific Results **152**, 554 pp.
- Scott, D.[J.], Marker, M., Gauthier, G., Stecher, O., Whitehouse, M., Bridgwater, D., van Gool, J. [A.M.] & Mengel, F.C. 1998: Age of deposition, provenance and tectonic setting of metasedimentary rocks in the Paleoproterozoic Nagssugtoqidian orogen, West Greenland. In: Wardle, R.J. & Hall, J. (compilers): Eastern Canadian Shield Onshore–Offshore Transect (ECSOOT), Report of 1998 Transect Meeting. University of British Columbia, Lithoprobe Report **68**, 148–149.
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- Sønderholm, M. & Tirsgaard, H. 1998: Proterozoic fluvial styles: response to changes in accommodation space (Rivieradal sandstones, eastern North Greenland). Sedimentary Geology **120**(1/4), 257–274.
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- Tirsgaard, H. & Oxnevad, I.E.I. 1998: Preservation of pre-vegetational mixed fluvio-aolian deposits in a humid climatic setting: an example from the Middle Proterozoic Eriksfjord Formation, Southwest Greenland. Sedimentary Geology **120**, 295–317.
- Turkov, V.A., Kogarko, L.N., Brooks, C.K. & Nielsen, T.F.D. 1998: Comparison of the picrite evolution from East and West Greenland (melt inclusions data). Mineralogical Magazine **62A**, 1549–1550.

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- Veksler, I.V., Nielsen, T.F.D. & Sokolov, S.V. 1998: Mineralogy of crystallized melt inclusions from Gardiner and Kovdor ultramafic alkaline complexes: Implications for carbonatite genesis. *Journal of Petrology* **39**(11/12), 2015–2031.
- Whitehouse, M.J., Kalsbeek, F. & Nutman, A.P. 1998: Crustal growth and crustal recycling in the Nagssugtoqidian orogen of West Greenland: constraints from radiogenic isotope systematics and U–Pb zircon geochronology. *Precambrian Research* **91**(3/4), 365–381.
- Whittaker, R.C., Hamann, N.E. & Pulvertaft, T.C.R. 1998: A new frontier province offshore northwest Greenland: structure, basin development, and petroleum potential of the Melville Bay area. *American Association of Petroleum Geologists Bulletin* **81**(6) 978–997.

### Range and availability of Survey publications

Survey publications can be obtained by contacting the Survey's headquarters in Copenhagen or the Survey's book agent, Geografforlaget Aps, at the addresses given on the colophon page of this volume. Of the publications listed here some can be sent free of charge, for example the newsletters to the international mining and oil industries, viz. *Greenland MINEX News* and *Gbexis Newsletter*, respectively, as well as the *Catalogue of Greenland publications and data*, see under 'Publications catalogue and reports' (p. 78).

The *Catalogue of Greenland publications and data* contains a complete list of the geoscientific publications issued by the Survey (bulletins, reports, maps, etc.) going back to the first bulletin released in 1948. It also contains a data directory specifying the range of data and services available from the Survey including: data base facilities; map, sample and drill-core archives; bathymetric and topographic maps; satellite data; as well as bibliographic and library facilities including unpublished maps and reports from the Survey's own activities and those of industry.

Information about the present range of publications from the Geological Survey of Denmark and Greenland, both printed and electronic issues, can be found on the Survey's web-site [www.geus.dk](http://www.geus.dk)

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