



GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES

LEGEND

SEDIMENTARY AND VOLCANIC ROCKS

CRETACEOUS

UPPER CRETACEOUS
KANGUK GROUP

Kk1 KANGUK FORMATION: dark coloured shale; minor sandstone, siltstone and mudstone
STRAND FIORD FORMATION: basalt flows, agglomerate
BASTION RIDGE FORMATION: dark coloured shale; minor siltstone

Kh HASSEL FORMATION: sandstone; minor siltstone and shale

LOWER CRETACEOUS

Kc CHRISTOPHER FORMATION: dark coloured shale; minor siltstone, sandstone, mudstone and pyroclastic rocks

Ki ISACHSEN FORMATION: sandstone; minor shale, siltstone and conglomerate

JURASSIC AND CRETACEOUS

JKd DEER BAY FORMATION: dark coloured shale; minor siltstone, sandstone and mudstone

JURASSIC

Ja AWINGAK FORMATION: sandstone and siltstone; minor shale

LOWER, MIDDLE AND UPPER JURASSIC

Js SAVIK FORMATION: dark coloured shale; minor siltstone and sandstone

TRIASSIC

Rh HEIBERG FORMATION: sandstone and siltstone; minor shale

INTRUSIVE ROCKS

TERTIARY

Co1 OTTO FIORD FORMATION: anhydrite and gypsum; minor limestone and shale (see note 1)

CRETACEOUS

/// Gabbro, diabase and basalt dykes (solid circle indicates downthrow side of fault intruded by dyke) see note 2

- Geological boundary (defined, approximate, assumed)
- Bedding, tops known (inclined)
- Bedding (from air photographs or observed from aircraft)
- Fault (defined, approximate; solid circle indicates downthrow side)
- Anticline (defined, approximate; arrow indicates direction of plunge)
- Syncline (defined, approximate; arrow indicates direction of plunge)
- Geological boundary, fold axis or fault, inferred beneath water, glacier or Quaternary sediments

Geology by R. Thorsteinsson 1963, and E.T. Tozer 1961, 1962

Compilation by R. Thorsteinsson 1970

NOTES

1. The Otto Fiord Formation crops out in normal stratigraphic successions in northwestern Ellesmere Island where the formation has been dated as Late Carboniferous. Intrusive bodies of the Otto Fiord Formation are common especially on Axel Heiberg Island where they cut various formations including, in some instances, the Tertiary Eureka Sound Formation. The intrusions are generally related to faults and folds formed by Tertiary earth movements and are dated accordingly as Tertiary.

2. Basic dykes and sills intrude upper Paleozoic and Mesozoic sediments of the Sverdrup Basin throughout much of Axel Heiberg Island and western Ellesmere Island. They intrude all formations older than, and including the Strand Fiord Formation. They have not been observed to intrude the Kanguk and Eureka Sound Formations. They are common especially in Mesozoic rocks that predate the Kanguk Formation and whereas it is possible that more than one episode of intrusion is represented, it is probable that the vast majority of dykes and sills are Cretaceous in age.

The larger and more conspicuous dykes are shown on the map, but sills have not been mapped. In this map-area sills are common in the Heiberg, Savik, Awingak and Isachsen Formations where they are generally thin (up to about 50 feet). Sills are generally rare and thin in the Deer Bay, Christopher and Hassel Formations.

Geological cartography by the Institute of Sedimentary and Petroleum Geology, Geological Survey of Canada, 1971

- Horizontal control point
- Intermittent stream
- Contours (interval 200 feet)
- Icefield, glacier
- Dry river bed with channel
- Height in feet above mean sea-level

Topographic base-map at the same scale published by the Surveys and Mapping Branch in 1966, with revisions by the Institute of Sedimentary and Petroleum Geology, 1971

The daily change of the North Magnetic Pole causes the magnetic compass to be very erratic in this area

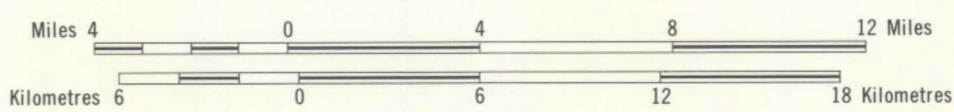


Published, 1971
Copies of this map may be obtained from the Geological Survey of Canada, Ottawa

Printed by the Surveys and Mapping Branch

MAP 1303A
GEOLOGY
HAIG-THOMAS ISLAND
DISTRICT OF FRANKLIN

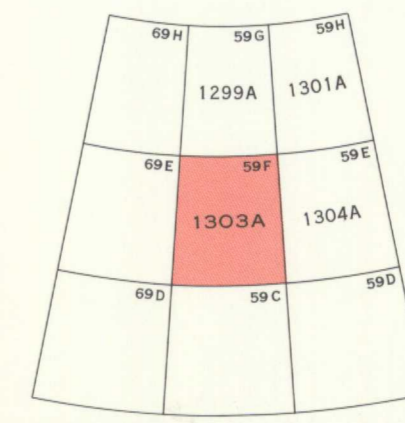
Scale 1:250,000



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INDEX MAP



NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJOINING GEOLOGICAL SURVEY OF CANADA MAPS

1303A
MAP 1303A
HAIG-THOMAS ISLAND
DISTRICT OF FRANKLIN

N.W.T. HAIG-THOMAS ISLAND
1:250,000
MAP 1303A
1971