GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES

LEGEND

CENOZOIC

QUATERNARY

Q — *Stream, deltaic, glacial and marine beach sediments (mapped only where underlying bedrock geology cannot be inferred with reasonable certainty)*

MESOZOIC

TRIASSIC

UPPER TRIASSIC

Trh — *HEIBERG FORMATION: sandstone, siltstone; minor shale*

MIDDLE AND UPPER TRIASSIC

Trs — *SCHEI POINT FORMATION: calcareous siltstone, sandstone and shale (see note 1)*

LOWER TRIASSIC

Trb — *BJORNE FORMATION: sandstone (mainly red); minor siltstone, shale and conglomerate*

PALEOZOIC

PERMIAN

UPPER PERMIAN

Ptf — *TROLD FIORD FORMATION: green sandstone; minor bioclastic limestone, conglomerate and chert*

LOWER PERMIAN

Pt — *TANQUARY FORMATION: limestone, siltstone; minor sandstone*

Pmb — *MOUNT BAYLEY FORMATION: anhydrite, gypsum; minor limestone, siltstone, shale, and limestone*

CARBONIFEROUS AND PERMIAN

UPPER CARBONIFEROUS AND LOWER PERMIAN

CPan — *ANTOINETTE FORMATION: limestone; minor siltstone and shale*

UPPER CARBONIFEROUS

Cc — *CANYON FIORD FORMATION: red sandstone, siltstone, limestone, and conglomerate*

ORDOVICIAN TO DEVONIAN

IP — *Clastic and carbonate strata unconformably underlying rocks of the Sverdrup Basin (these rocks have not been studied critically)*

UPPER CARBONIFEROUS AND LOWER PERMIAN

CPbc — *BELCHER CHANNEL FORMATION: limestone; minor siltstone and sandstone*

LOWER AND UPPER CARBONIFEROUS AND LOWER PERMIAN

CPn — *NANSEN FORMATION: limestone; minor sandstone, siltstone and shale*

ORDOVICIAN, SILURIAN AND DEVONIAN

OSi | SDi — *IMINA FORMATION: calcareous sandstone, siltstone, and shale*

ORDOVICIAN AND SILURIAN

UPPER ORDOVICIAN TO MIDDLE SILURIAN

OScp — *CAPE PHILLIPS FORMATION: dark grey chert, shale, shaly limestone*

ORDOVICIAN

MIDDLE AND UPPER ORDOVICIAN

CORNWALLIS GROUP

Oc — *Limestone, shaly limestone*

ORDOVICIAN AND SILURIAN

UPPER ORDOVICIAN TO MIDDLE SILURIAN

OSa — *ALLEN BAY FORMATION: dolomite*

LOWER TO UPPER ORDOVICIAN

Oe-c — *ELEANOR RIVER FORMATION: limestone*
CORNWALLIS GROUP: limestone, greenish limy shale and siltstone, gypsum and anhydrite

LOWER ORDOVICIAN

Ob — *BAUMANN FIORD FORMATION: anhydrite, gypsum; minor limestone (recessive)*

Oco — *COPES BAY FORMATION: limestone; minor flat-pebbled conglomerate, anhydrite and dolomite*

CAMBRIAN

MIDDLE CAMBRIAN

Cpg — *PARRISH GLACIER FORMATION: sandstone, limestone; minor flat-pebble conglomerate (contains units of red and green sandstone)*

LOWER CAMBRIAN

Csb — *SCORESBY BAY FORMATION: dolomite*

PROTEROZOIC

PROTEROZOIC AND CAMBRIAN

PROTEROZOIC AND LOWER CAMBRIAN

ELLESMERE GROUP

PCu — *KANE BASIN FORMATION: sandstone, siltstone*
RAWLINGS BAY FORMATION: sandstone, conglomerate
RITTER BAY FORMATION: shale
ARCHER FIORD FORMATION: conglomerate, sandstone
ELLA BAY FORMATION: (Proterozoic): dolomite
KENNEDY CHANNEL FORMATION: shale, sandstone, dolomite, limestone

Geological boundary (defined, approximate, assumed)
Bedding tops known (inclined, vertical)
Bedding from air photographs or observed from aircraft (inclined, overturned)
Fault (defined, approximate; solid circle indicates downthrow side)
Thrust fault (defined, approximate; teeth indicate upthrust side)
Anticline (defined, approximate; arrow indicates plunge of axis)
Syncline (defined, approximate; arrow indicates plunge of axis)
Fossil locality
Measured section showing approximate line of traverse
Boundary of Quaternary sediments
Geological boundary, fold axis, or fault, inferred beneath water, glacier or Quaternary sediments
Type section (see note 3)

Geology of Carboniferous and younger rocks by R. Thorsteinsson 1962, 1963, and E.T. Tozer 1962

Geology of Devonian and older rocks by J. Wm. Kerr 1962

Compilation by R. Thorsteinsson and J. Wm. Kerr 1972

Geological cartography by the Institute of Sedimentary and Petroleum Geology, Geological Survey of Canada, 1972

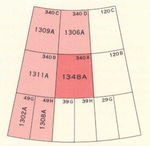
Horizontal control point
Intermittent stream
Lake, indefinite
Icefield, glacier
Dry river bed with channel
Sand
Contours (interval 500 feet)
Height in feet above mean sea-level

Topographic base-map at the same scale published by the Surveys and Mapping Branch, 1966 with revisions by the Institute of Sedimentary and Petroleum Geology, 1972

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

NOTES

1. Outcrops of the Schei Point Formation at locality 109 comprise about 100 feet of calcareous sandstone that represent the Gryphaea bed, uppermost unit of the formation. The Gryphaea bed is Late Triassic in age; Middle Triassic strata that are generally represented in the Schei Point are apparently absent at this locality. Somewhat thicker sections characterize the Schei Point in other parts of the map-area and it is probable that these sections include both Middle and Upper Triassic strata.
2. About eight miles north of the type section, the anhydrite of the Mount Bayley Formation grades laterally to strata composed of limestone with minor amounts of siltstone and sandstone that are indistinguishable from strata of the underlying Antoinette Formation and overlying Tanquary Formation. As the facies change takes place largely in the subsurface the line of separation between the correlative formations has been arbitrarily placed along a fault.
3. The map-area contains the type sections of the Antoinette Formation, Mount Bayley Formation, and Tanquary Formation.



Published, 1972
Copies of this map may be obtained from the Geological Survey of Canada, Ottawa

Printed by the Surveys and Mapping Branch

MAP 1348A

GEOLOGY

GREELY FIORD EAST

DISTRICT OF FRANKLIN

Scale 1:250,000

Miles 4 0 4 8 12 Miles

Kilometres 6 0 6 12 18 Kilometres

MAP 1348A
GREELY FIORD EAST
DISTRICT OF FRANKLIN