GEOLOGY OF THE PRINCE ALFRED BAY AREA, DEVON ISLAND

DISTRICT OF FRANKLIN

LEGEND

PALEOZOIC, MESOZOIC OR CENOZOIC — CENOZOIC

QUATERNARY

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

DEVONIAN ?
PROBABLY UPPER DEVONIAN

Dx — *UNNAMED FORMATION: sandstone, quartzose, impure, big blocks but no actual outcrop; probably equivalent to the Griper Bay Formation*

DEVONIAN
MIDDLE(?) AND UPPER DEVONIAN

Do — *OKSE BAY FORMATION: quartz sandstone, argillaceous quartz sandstone, siltstone, shale*

MIDDLE DEVONIAN

Dbi — *BIRD FIORD FORMATION: (Upper part) quartz sandstone, salt and pepper textured; (Lower part) quartz sandstone, argillaceous; interbedded with shale and sandy limestone*

LOWER AND MIDDLE DEVONIAN

Du — *UNDIVIDED DEVONIAN CARBONATES:* Du1, *limestone;* Du2, *dolomite;* Du3, *sandy limestone, anhydrite, dolomite;* Du4, *limestone*

LOWER DEVONIAN

Dpa — *PRINCE ALFRED FORMATION: dolomitic quartz sandstone, silty dolomite, dolomitic siltstone, dolomite breccia*

Dsr — *SUTHERLAND RIVER FORMATION: dolomite, silty and sandy dolomite, dolomite breccia*

SILURIAN AND DEVONIAN
UPPER SILURIAN AND LOWER DEVONIAN

SDdi — *DEVON ISLAND FORMATION: limestone or dolomite, fissile; commonly shaly or silty*

SILURIAN
UPPER SILURIAN

Sdo — *DOURO FORMATION: limestone; dolomitic limestone, silty and shaly dolomite; greenish argillaceous partings*

LOWER, MIDDLE AND UPPER SILURIAN

Scs — *CAPE STORM FORMATION: dolomitic limestone, calcareous dolomite, limestone, silty dolomite; lower part resistant; upper part thin bedded and recessive*

ORDOVICIAN AND SILURIAN
UPPER ORDOVICIAN AND LOWER SILURIAN

OSa — *ALLEN BAY FORMATION: dolomite, light to medium brown; thick- bedded to massive; recessive*

ORDOVICIAN
MIDDLE AND UPPER ORDOVICIAN
CORNWALLIS GROUP

Octi — *IRENE BAY FORMATION: limestone with greenish shaly partings; commonly fossiliferous; recessive and usually covered*
THUMB MOUNTAIN FORMATION: limestone, dolomitic limestone, dolomite, medium to dark grey or brown; resistant

Ocb — *BAY FIORD FORMATION: (Upper part) siltstone, mudstone, argillaceous dolomite, greenish grey; (Lower part) gypsum-anhydrite with limestone, shale, mudstone and dolomite*

LOWER AND MIDDLE ORDOVICIAN

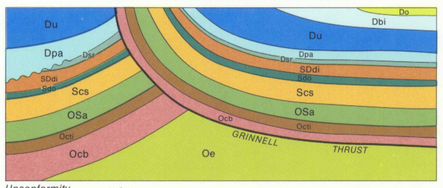
Oe — *ELEANOR RIVER FORMATION: limestone, argillaceous, medium grey, weathers yellow-grey*

Geological boundary (defined, approximate, assumed)
Bedding (horizontal, inclined, vertical, overturned)
Bedding (from aerial photographs or observed from aircraft)
Lineament (fault or fracture; from aerial photographs)
Fault of unknown type (defined, approximate, assumed; single arrow shows direction of dip; paired arrows show apparent displacement)
Normal fault (defined, approximate, solid circle indicates downthow side)
Thrust fault (defined, approximate; teeth indicate upthrust side)
Anticline (defined, approximate, showing plunge of axis)
Syncline (defined, approximate, showing plunge of axis)
Measured section (showing line of traverse)
Boundary of Quaternary sediments
Geological boundary, fold axis or fault, (inferred beneath a younger formation, Quaternary sediments or water)

Geology by J. Wm. Kerr and D.W. Morrow, 1971, 1972, and J. Wm. Kerr, 1974

To accompany Bulletin 254 by D.W. Morrow and J. Wm. Kerr

SCHEMATIC STRATIGRAPHIC RELATIONSHIPS



Unconformity

Geological cartography by D.J. Walter, Institute of Sedimentary and Petroleum Geology, Geological Survey of Canada

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Horizontal control point
Intermittent stream
Foreshore flats
Dry river bed with channel
Contours (interval 100 feet)
Cliff
Sand or gravel
Icefield, glacier
Height in feet above mean sea-level 670±

Base-map cartography by the Institute of Sedimentary and Petroleum Geology from part of 1/250,000 scale map Prince Alfred Bay 59B published by the Army Survey Establishment, R.C.E. in 1966

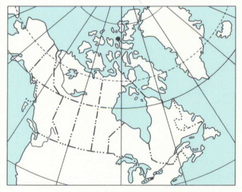
The daily change of the North Magnetic Pole causes the magnetic compass to be very erratic in this area

Note 1. Blocks of rubble, limestone and dolomite

Intensely folded

Kilometres 3 0 3 6 9 Kilometres
Miles 2 0 2 4 Miles

Transverse Mercator Projection



INDEX MAP

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

MAP 1421A
GEOLOGY
GEOLOGY OF THE PRINCE ALFRED BAY AREA, DEVON ISLAND
DISTRICT OF FRANKLIN

MAP 1421A
GEOLOGY OF THE PRINCE ALFRED BAY AREA, DEVON ISLAND
DISTRICT OF FRANKLIN

Copies of this map may be obtained from the Geological Survey of Canada:
601 Booth Street, Ottawa, Ontario K1A 0E8
3303 - 33rd Street N.W., Calgary, Alberta T2L 2A7

Printed by the Surveys and Mapping Branch, 1976