

LEGEND

- QUATERNARY**  
 Q Stream, deltaic, glacial and marine beach sediments (mapped only where underlying bedrock geology could not be inferred with reasonable certainty)
- TERTIARY**  
 LOWER TERTIARY  
 Tt EUREKA SOUND FORMATION: sandstone; siltstone; shale; minor conglomerate; dominantly continental
- SILURIAN AND (LOWER) DEVONIAN**  
 UPPER SILURIAN TO (LOWER) DEVONIAN  
 SDp4 PEEL SOUND FORMATION (SDp1-SDp4)  
 Member 4: conglomerate, polymictic; red; minor sandstone, red  
 SDp3 Member 3: sandstone and pebbly sandstone, red; minor conglomerate, polymictic  
 SDp2 Member 2: conglomerate, oligomictic; minor sandstone  
 SDp1 Member 1: sandstone, red, grey or green; interbedded siltstone and mudstone, red, green or variegated
- SILURIAN**  
 UPPER SILURIAN  
 Ss2 SOMERSET ISLAND FORMATION (Ss1-Ss2)  
 Upper member: dolomite and limestone, grey, greenish or buff, laminated; siltstone, red, green or variegated; rare limestone, bioclastic  
 Lower member: dolomite and limestone, grey, greenish or buff, laminated; limestone, argillaceous or bioclastic; rubby weathering (minor in west, becoming more common eastward)  
 Ss1 Lower member: dolomite and limestone, grey, greenish or buff, laminated; limestone, argillaceous or bioclastic; rubby weathering (minor in west, becoming more common eastward)  
 Ss2 DOURO FORMATION: limestone, argillaceous; limestone, dolomitic; nodular, grey to greenish grey; rubby weathering; minor limestone, bioclastic or intraclastic; distinctive reefed mounds  
 Scs CAPE STORM FORMATION  
 Western areas: dolomite, grey, buff or brown; lesser limestone and sandstone; minor siltstone and shale  
 East coast: dolomite, buff brown, parts sandy; limestone, dolomitic, grey, parts sandy; sandstone; rare evaporites  
 All lithologies thin to medium bedded; recessive
- ORDOVICIAN AND SILURIAN**  
 UPPER ORDOVICIAN TO UPPER SILURIAN  
 Osa ALLEN BAY FORMATION: dolomite, buff to pale grey, finely crystalline, medium to massive bedded, parts stromatolitic or bioclastic; resistant. Basal part probably includes dolomitized siltstone equivalents of the Thumbar Mountain Formation in areas where that formation was not recognized
- ORDOVICIAN**  
 MIDDLE AND UPPER ORDOVICIAN  
 COu1 CORNWALLIS GROUP (COu-OCu1)  
 Ocu1 IRENE BAY FORMATION: limestone, argillaceous or dolomitic; shale; greenish grey; resistant  
 THUMB MOUNTAIN FORMATION: limestone, dolomitic; dolomite, calcareous; pale grey, cream or greenish grey; fossiliferous; resistant  
 Ocu2 BAY FIORD FORMATION: dolomite, dark grey or greenish grey; fossiliferous; very fine grained; recessive
- LOWER TO MIDDLE ORDOVICIAN**  
 Os SHIP POINT FORMATION: dolomite, pale grey or buff, thin to medium bedded, parts stromatolitic or bioclastic; rare chert nodules; sandstone common locally
- CAMBRIAN AND ORDOVICIAN**  
 UPPER CAMBRIAN TO LOWER ORDOVICIAN  
 COc12 TURNER CLIFFS FORMATION (COc1-COc12)  
 Upper member: dolomite, pale grey or buff, fine grained, cherty, dominantly thin to massive bedded; resistant  
 COc11 Lower member: dolomite, grey to buff, commonly laminated, thin to medium bedded; dolomite, greenish, fissile to thin bedded; sandstone, grey to white, locally red brown; common intraformational breccias and conglomerate; local stromatolitic units. Lithology highly variable laterally
- HELIKIAN**  
 NEOHELIKIAN  
 PH HAVINGTOWN FORMATION: dolomite, grey, bluish grey or red, thin to thick bedded; commonly stromatolitic, parts cherty or interbedded with chert; minor interbedded shale, red to buff; siltstone, purple, and sandstone
- PROTEROZOIC**  
 PA ASTON FORMATION: sandstone, red, fine to medium grained; minor siltstone and shale, red to purple; and conglomerate; distinctive red, stromatolitic, dolomite marker unit near base
- ARCHEAN**  
 A Crystalline rocks: predominantly gneiss; minor metapsammite, metabasite, granite and diabase; distinctive calc-silicates and marble bands

ACKNOWLEDGMENTS

Operation Boothia sections measured by G.E. Reimann, 1975; and A.D. Miall, 1978. Additional GSC sections measured by R. Thorsen, 1972, 1973. University of Ottawa sections measured by J. Dixon, 1975; B. Jones, 1971-1973, 1975, 1976; M.R. Gilling, 1973-1974, 1976; J.M. Sawille, 1973; and G.M. Narbonne, 1976, 1978. Kimberlite diatremes studied by R.H. Mitchell.

**NOTES**

- The Turner Cliffs, Ship Point and Bay Fiord formations were not differentiated for mapping purposes south of this arbitrary boundary.
- The two members of the Somerset Island Formation were not differentiated for mapping purposes beyond this arbitrary boundary.
- Measured sections 3, 4, 7, 11, 12, 21, 25, 26, 31, 36, 41 and 46 are composite sections, components of which were measured at more than one locality.
- Schematic facies change indicating area in which contact between formations changes from one stratigraphic level to another.

Geological cartography by B.H. Orman, 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

Base map from 1:250 000 scale maps "Somerset Island", S8C and parts of "Cape Clarence", S8D, "Marsden Bay", S8E and "Thudbar", S8F published by the Army Survey Establishment, R.C.E. in 1969

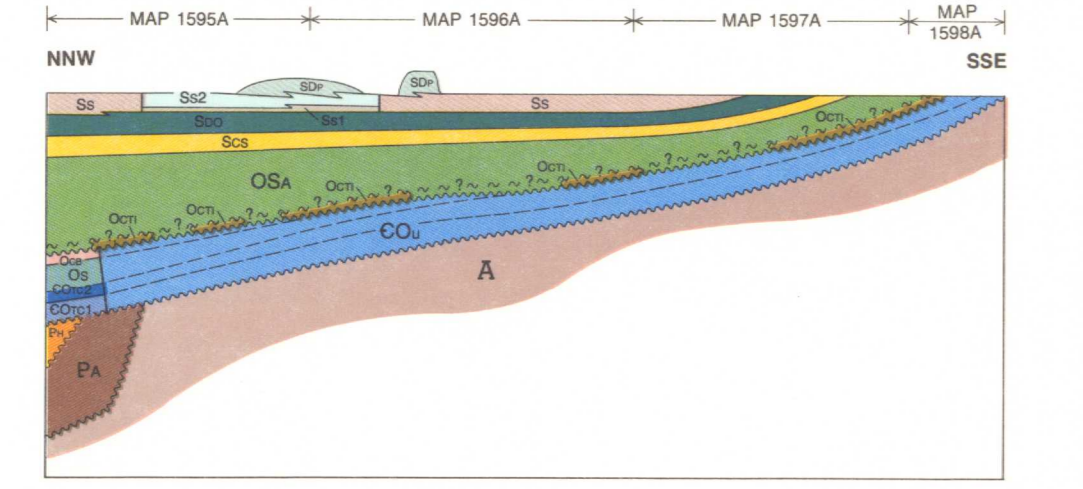
Copies of the topographical edition of these maps may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa

Magnetic declination 1983 varies from 30°52' westerly at the centre of the east edge to 35°47' westerly at the centre of the east edge. Mean annual change 35.6' westerly.

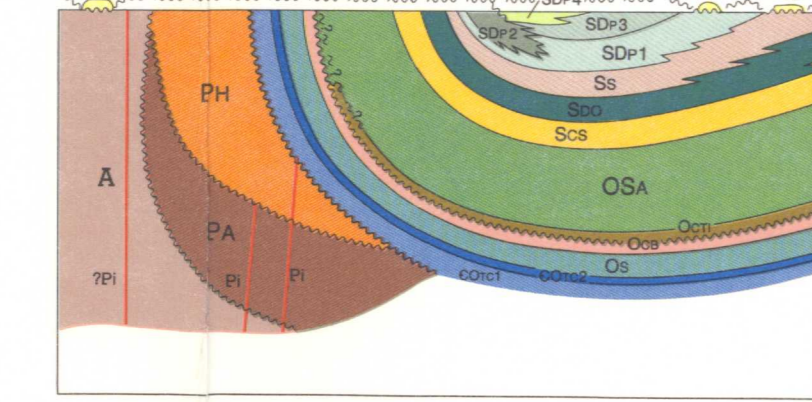
Elevation in feet above mean sea level

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 Stewart, W.D. and Kerr, J.Wm.  
 1984. Geology of Somerset Island North, District of Franklin. Geological Survey of Canada, Map 1595A, scale 1:250,000.

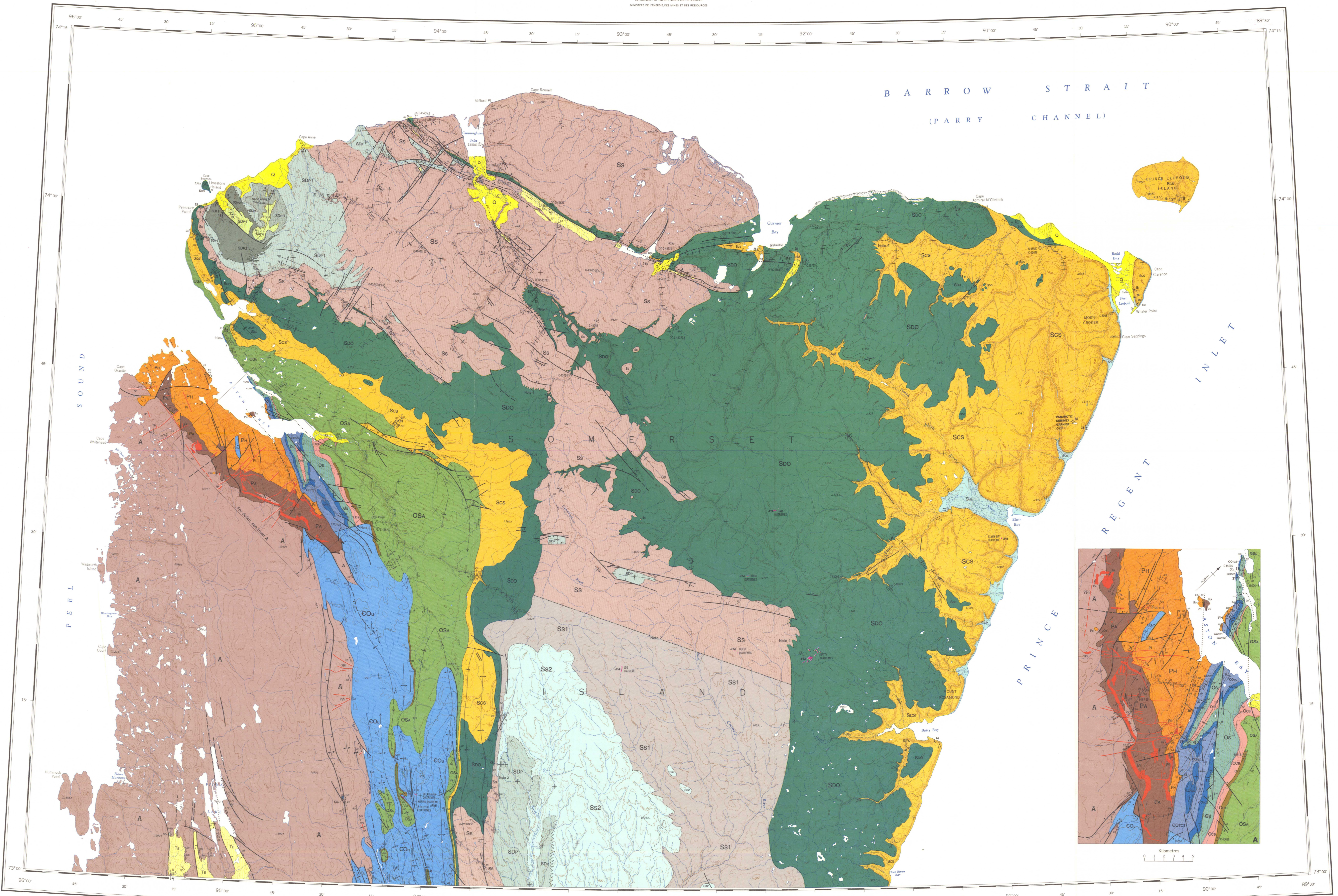
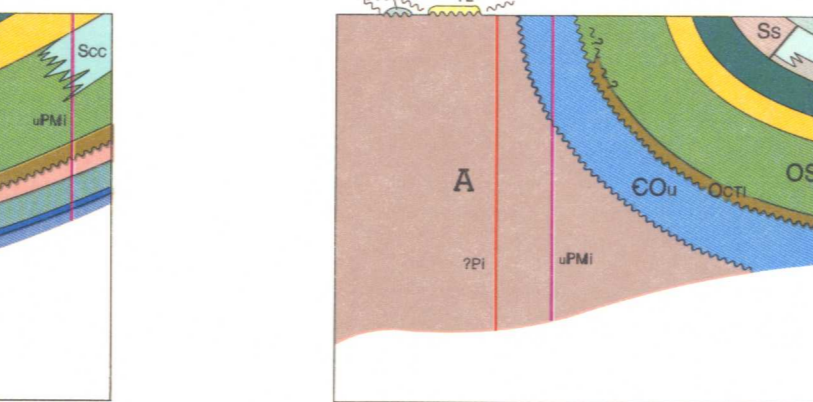
SCHEMATIC REGIONAL STRATIGRAPHIC RELATIONSHIPS ALONG EASTERN FLANK OF BOOTHIA UPLIFT BETWEEN 73°30' AND 70°45' N LATITUDE



SCHEMATIC STRATIGRAPHIC RELATIONSHIPS NORTH OF 73°30' N LATITUDE



SCHEMATIC STRATIGRAPHIC RELATIONSHIPS SOUTH OF 73°30' N LATITUDE



MAP 1595A  
 GEOLOGY  
**SOMERSET ISLAND NORTH**  
 DISTRICT OF FRANKLIN  
 Scale 1:250 000  
 Kilometres 0 5 10 15 20  
 Universal Transverse Mercator Projection  
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