

SURFICIAL MATERIALS
BATHURST ISLAND AREA AND BYAM MARTIN ISLAND,
DISTRICT OF FRANKLIN, N.W.T.

QUATERNARY

NONGLACIAL ENVIRONMENT

COLLUVIAL DEPOSITS: materials accumulated on lower slopes, valley floors, and the base of cliffs as a result of rill or slope wash, soilification or mass wasting, landslide or rock fall.

- 1a Fine Grained Deposits: loam or silty loam with minor carbonate clasts commonly less than 2 m thick mantles lower slopes and valley floors; generally derived from deeply weathered or poorly consolidated bedrock.
- 1b Talus: coarse rock debris with variable content of fines; from less than one to several metres thick; commonly found at the base of cliffs and steep slopes.

FLUVIAL DEPOSITS: coarse, stratified gravels with minor amounts of sand and silt; thickness varies from less than one to tens of metres.

- 2a Modern Floodplain Deposits: stratified gravel with sand and silt; includes active braided, shallow channels and adjacent terraces which are flooded each year.
- 2b Older Terrace Deposits: stratified gravels and cobbly gravel with minor amounts of interbedded sand and silt; terrace surface commonly patterned with high or low centre polygons.
- 2c Deltaic Deposits: fine sand and silt; stratified sediments up to 30 m thick; possibly proglacial.

MARINE ENVIRONMENT

MARINE DEPOSITS: gravels with varying amounts of sand and silt, and sand, silty sand, and silt deposits related to periods of marine transgression.

- 2a Raised Deltaic Deposits: stratified gravel, sand, and silt; occurs in deltas associated with higher sea levels several metres to tens of metres thick.
- 2b Raised Beach Deposits: coarse gravel with varying amounts of sand and silt; occurs as beaches in a stepwise series of berms and swales; generally less than 2 m thick.
- 2c Undifferentiated Shore and Nearshore Deposits: fine sand and silt; occurs as a discontinuous veneer generally less than 1 m thick, with no distinctive depositional morphology.

GLACIAL ENVIRONMENT

MORAINAL DEPOSITS: silty or loamy diamict generally occurring as a thin veneer, or as a thick blanket on uplands and plateaus; discontinuous; generally conforms to local bedrock topography. Marine reworked till surface, generally low lying and poorly drained is denoted by an underline (e.g. la).

- 1a Locally Derived Till Veneers: thin (2 m) veneer of silty or loamy diamict with clasts derived from both local and foreign bedrock.
- 1b Mixed Till Veneers: thin (2 m) veneer of silty or loamy diamict with clasts derived from both local and foreign bedrock.
- 1c Till Blankets: thick (2 m) deposits of silty or loamy diamict with clasts primarily derived from local bedrock; in many places high centre polygons occur.

PRE-QUATERNARY

ROCKS: consolidated and poorly consolidated sedimentary rock of Ordovician to early Tertiary age. Bedding planes sometimes obscured by discontinuous veneer of frost shattered debris, weathered rock, pockets of till, or raised beach deposits. Areas of hummocky topography resulting from glacial erosion are shown by an asterisk preceding the designator (e.g. *R2). Marine reworked bedrock surface, generally low lying and poorly drained is denoted by an underline (e.g. R3).

- R1 Unconsolidated Coarse Clastic Rocks: gravel, sand, diamict of Cretaceous to Tertiary age.
- R2 Consolidated Calcareous Clastic Rocks: weakly to moderately calcareous sandstone, siltstone, local argillaceous limestone of Ordovician to Devonian age; weathers into gravel, sand, or sandy silt.
- R3 Carbonate And Evaporite: limestone, dolomite, gypsum, and anhydrite of Ordovician to Devonian age; weathers into gravels and silty sand.
- R4 Weakly To Moderately Consolidated Shale: shale and siltstone of Devonian age; weathers into silt or silty clay.
- R5 Consolidated Noncalcareous Coarse Clastic Rocks: noncalcareous sandstone of Devonian age; weathers into rubble, gravel, and sand.

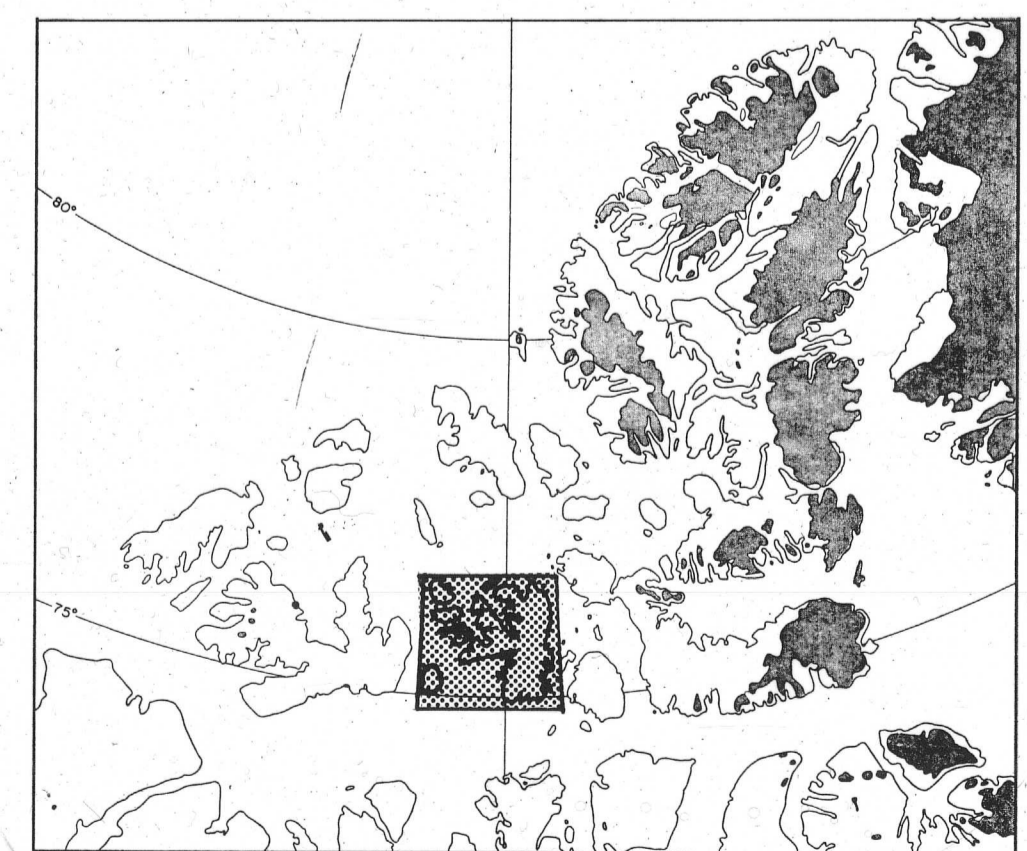
A thin, discontinuous veneer overlying bedrock is shown as, for example, 2c R5.

Textural Modifier (precedes bedrock designator as needed)

- a fine grained; silt and clay
- b mixed sand and gravel
- c sand; minor gravel or silt
- d rock fragments, with minor amounts of sand or silt

- Geological boundary (defined, approximate, assumed)
- Cliff in bedrock
- Canyon
- Cirques
- Ridges, probably glacial or ice contact in origin
- Meltwater channels: major, minor
- High centre polygons

Compilation and geological interpretation by S.A. Edlund (1985), based on airphoto interpretation and on field data of D.M. Barnett (1975, 1977), L.A. Dredge (1973), and S.A. Edlund (1973).



Scale 1:250 000 - Échelle 1:250 000
 Kilometres / Kilomètres
 Universal Transverse Mercator Projection / Projection transverse universelle de Mercator
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