



### LEGEND

**SURFICIAL DEPOSITS QUATERNARY HOLOCENE**

**FLUVIAL SEDIMENTS:** alluvium; gravel and sand, 2–20 m thick.

- Ap Alluvial plains: active braided floodplains; includes active proglacial outwash.
- At Alluvial terraces
- Af Alluvial fans

**MARINE AND GLACIAL MARINE SEDIMENTS:** gravel, sand, silt, and clay, 1–20 m thick, deposited in deep-water, deltaic and beach environments during regression of the postglacial sea.

- Mr Beach sediments: gravel and sand, 1–5 m thick, forming ridges and swales.
- Mt Deltaic sediments: clay, silt, sand, and gravel, 5–20 m thick, forming coarsening upward sequences under dissected terraces.
- Mv Deepwater proglacial silt veneers: silt, clay silt, and fine sand with dropstones, 1–2 m thick.
- Mb Deepwater proglacial silt blankets: silt, clay silt, and fine sand with dropstones and minor gravel, 2–10 m thick.

**GLACIAL LACUSTRINE SEDIMENTS:** clay, silt, sand, and gravel deposited in glacier-dammed lakes in deep-water, beach, and deltaic environments.

- Lr Beach sediments: sand and gravel, 1–5 m thick, forming beach ridges.
- Lt Deltaic sediments: clay, silt, sand, and gravel, 5–20 m thick, forming coarsening-upward sequences under dissected terraces.
- Lv Deepwater proglacial silt veneers: silt, clay silt, and fine sand with dropstones, 1–2 m thick.
- Lb Deepwater proglacial silt blankets: silt, clay silt, and fine sand with dropstones, 2–5 m thick.

**GLACIOFLUVIAL SEDIMENTS:** gravel and sand, 1–10 m thick, deposited behind, at, and in front of the ice margin.

- Gp, Gt, Gf Proglacial outwash: gravel and sand, 1–10 m thick, forming braided floodplains. Gp: terraces; Gt: and fans; Gf.
- Gr, Gh Ice contact stratified drift: gravel and sand, 1–5 m thick, forming eskers, Gr; and kames, Gh.

**EARLY HOLOCENE AND WISCONSINAN**

**TILL:** nonsorted stony muds, 0.5–60 m thick, deposited in subglacial and ice-marginal environments; lithic composition generally reflects underlying bedrock.

- Tm End moraines: 5–60 m high, composed of or mantled by till, extensively kettled in places; large features mainly cored by debris-rich, retic glacier ice.
- Tv Till veneer: 0.5–2 m thick and discontinuous.
- Tvw Till veneer: 0.5–2 m thick, surface armoured by stones due to washing by subglacial meltwater.
- Tb Till blanket: 2–10 m thick forming an undulating blanket with drumlins and ribbed moraines in places.
- Tbr Till blanket: 2–10 m thick forming ribbed (Rogen) moraines.

**BEDROCK PRE-QUATERNARY**

- R **ROCK:** rock of various compositions and ages (Jackson and Sangster, 1987) variously modified by glacial erosion during the Quaternary and with patchy till cover; hilly and hummocky surfaces, ice moulded in places, with lake basins in subglacially scoured regions; smooth surfaces exhibiting little or no sign of glacial erosion in peninsular interiors (Dyke, 1993); cliffs resulting from glacial over-steepening; in places veneered by thin silt, commonly bouldery.

Geological boundary (defined, assumed) .....  
 Areas covered by perennial icefields during the Little Ice Age (indicated by a white pattern) [white pattern]  
 Glacial lake spillway [wavy line]  
 Glacial lake limit [dotted line]  
 Marine limit [dashed line]  
 Escarpment [stepped line]  
 Lateral meltwater channel; barb on upslope side [line with barbs]  
 Subglacial and proglacial meltwater channel [line with arrows]  
 Esker [dashed line]  
 Ice-contact face [line with triangles]  
 Ribbed moraines [line with ridges]  
 Lateral moraine [line with ridges]  
 End moraine [line with ridges]  
 Margin of dispersal train; teeth toward axis, steep side of teeth face down-ice direction [line with teeth]  
 Drumlinoid hill [line with ridges]  
 Crag-and-tail feature [line with ridges]  
 Ice-moulded bedrock [line with ridges]  
 Striae (ice-flow direction known, unknown) [line with arrows]  
 Crossed striae (numbers indicate relative age, 1 being the oldest) [line with arrows and numbers]  
 Marine limit elevation (metres) ..... 88



MAP 2066A  
 SURFICIAL GEOLOGY  
**ERICHSEN LAKE**  
 BAFFIN ISLAND  
 NUNAVUT

Geology by A.S. Dyke, 2002  
 Field data provided by De Beers Canada Inc., 2002  
 Digital cartography by M.M. Proulx, Earth Sciences Sector Information Division (ESS Info)  
 This map was produced from processes that conform to the ESS Info Publishing Services Subdivision Quality Management System, registered to the ISO 9001:2000 standard  
 Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Scale 1:250 000/Échelle 1/250 000  
 Universal Transverse Mercator Projection / Projection transverse universelle de Mercator  
 North American Datum 1983 / Système de référence géodésique nord-américain, 1983  
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Digital base map from data compiled by Geomatics Canada, modified by ESS Info  
 Locational accuracy of the base appears to be ±100 m based on plotting of GPS measured field site locations  
 Proximity to the North Magnetic Pole causes the magnetic compass to be erratic in this area  
 Mean magnetic declination 2004, 40°30'W, decreasing 43.6' annually. Readings vary from 44°16'W in the NE corner to 36°10'W in the SW corner of the map  
 Elevations in metres above mean sea level



**REFERENCES**

Dyke, A.S., 1993: Landscapes of cold-climbed Late Wisconsinan ice caps, Canadian Arctic; Progress in Physical Geography, v.17, p. 223–247.  
 Jackson, G.D. and Sangster, D.F., 1987: Geology and resource potential of a proposed national park, Bylot Island and northwest Baffin Island, Northwest Territories; Geological Survey of Canada, Paper 87-17, 31 p.

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 Dyke, A.S., 2004: Surficial geology, Erichsen Lake, Baffin Island, Nunavut; Geological Survey of Canada, Map 2066A, scale 1:250 000.