

Natural Resources Ressources naturelles Canada

515000

GEOLOGICAL SURVEY OF CANADA COMMISSION GÉOLOGIQUE DU CANADA

81°00' 515000 525000 20' **30'** 520000

> OPEN FILE
> DOSSIER PUBLIC
>
> 1621
>
> Open files are products that have not gone through the GSC formal publication process. GEOLOGICAL SURVEY OF CANADA COMMISSION GÉOLOGIQUE DU CANADA
>
> 2004
>
> Les dossiers publics sont des produits qui n'ont pas été soumis au processus officiel de publication de la CGC.

LEGEND

This legend is common to Open Files 1598 to 1613, and 1628 to 1631. Coloured legend blocks indicate map units that appear on this map. Not all map symbols shown in the legend necessarily appear on this map.

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

Mr Beach sediments: gravel and sand, 1 – 5 m thick, forming ridges and swales.

upward sequences under dissected terraces.

upward sequences under dissected terraces.

at, and in front of the ice margin.

Gp; terraces, Gt; and fans, Gf.

EARLY HOLOCENE AND WISCONSINAN

kames, Gh.

BEDROCK PRE-QUATERNARY

Alluvial plains: active braided floodplains; includes active proglacial outwash.

MARINE AND GLACIAL MARINE SEDIMENTS: gravel, sand, silt, and clay, 1—20 m thick, deposited in deltaic and beach environments during regression of the

Deltaic sediments: clay, silt, sand, and gravel, 5-20 m thick, forming coarsening

Deepwater proglacial silt veneers: silt, clay silt, and fine sand with dropstones,

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

Deltaic sediments: clay, silt, sand, and gravel, 5-20 m thick, forming coarsening

Deepwater proglacial silt veneers: silt, clay silt, and fine sand with dropstones,

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,

Proglacial outwash: gravel and sand, $1-10\,\mathrm{m}$ thick, forming braided floodplains,

Ice contact stratified drift: gravel and sand, 1-5 m thick, forming eskers, Gr; and

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

places; large features mainly cored by debris-rich relict glacier ice.

Till blanket: 2-10 m thick forming ribbed (Rogen) moraines.

places veneered by thin till, commonly bouldery.

Subglacial and proglacial meltwater channel (small)

Striae (ice flow direction known, unknown)

Marine limit elevation (metres)

47 E/13 47 E/14 47 E/15 47 E/16 OF 1601 OF 1600 OF 1599 OF 1598

OF 1602 OF 1603 OF 1604 OF 1605

OF 1609 OF 1608 OF 1607 OF 1606

47 E/4 47 E/3 47 E/2 47 E/1
OF 1610 OF 1611 OF 1612 OF 1613

47 E/10

47 E/11

47 E/6

Crossed striae (numbers indicate relative age, 1 being the oldest) .

sand (s), sandy gravel (sg), stony mud (sm), till (t) . .

Field observation site: bouldery diamicton (bd), bouldery gravel (bg), clay (c),

diamicton (d), gravel (g), gravelly sand (gs), mud (m), muddy sand (ms), rock (r),

Till veneer: 0.5-2 m thick and discontinuous.

End moraines: 5-60 m high, composed of or mantled by till, extensively kettled in

Till veneer: 0.5-2 m thick, surface armoured by stones due to washing by subglacial

Till blanket: 2-10 m thick forming an undulating blanket with drumlins and ribbed

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

Geological boundary (defined, assumed)

Margin of dispersal train; teeth toward axis, steep side of teeth face down ice

Areas covered by perennial icefields during the Little Ice Age (indicated by a white pattern) .

glacier dammed lakes in deepwater, beach and deltaic environments.

Beach sediments: sand and gravel, 1-5 m thick, forming beach ridges.

SURFICIAL DEPOSITS QUATERNARY HOLOCENE

Af Alluvial fans

80°00'

535000

Recommended citation: Dyke, A.S. 2004: Surficial geology, Jens Munk Island (North), Baffin Island, Nunavut; Geological Survey of Canada, Open File 1631, scale 1:50 000.

47 D/13 47 D/14 47 D/15 47 D/16 OF 1628 OF 1629 OF 1630 OF 1631 Elevations in metres above mean sea level NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJOINING GEOLOGICAL SURVEY OF CANADA MAPS

Projection transverse universelle de Mercator Système de référence géodésique nord-américain, 1983 © Sa Majesté la Reine du chef du Canada 2004

Scale 1:50 000/Échelle 1/50 000 Universal Transverse Mercator Projection North American Datum 1983 © Her Majesty the Queen in Right of Canada 2004

OPEN FILE 1631 SURFICIAL GEOLOGY

JENS MUNK ISLAND (NORTH)

BAFFIN ISLAND

NUNAVUT

Locational accuracy of the base appears to be ± 100 m based on plotting of GPS measured field site locations Mean magnetic declination 2004, 39°55'W, decreasing 40.8' annually

Proximity to the North Magnetic Pole causes the magnetic compass to be erratic in this area

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

Digital base map from data compiled by Geomatics Canada, modified by ESS Info

530000

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

510000