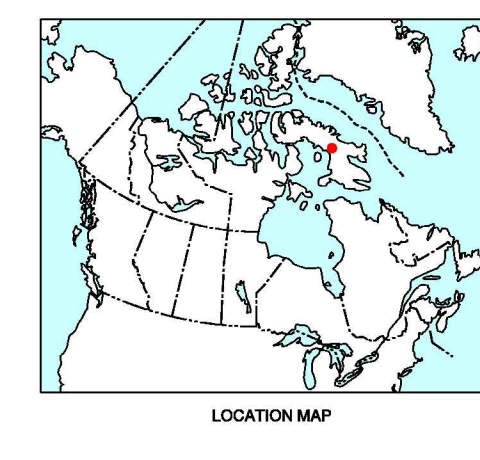


- QUATERNARY**
- SURFICIAL DEPOSITS**
- QUATERNARY HOLOCENE**
- ICE: Glacier ice: 5–800 m thick; forming ice caps and outlet glaciers.
 - A** FLUVIAL DEPOSITS (nonglacial alluvial floodplain sediments and active proglacial outwash): gravel, sand, and boulders; 1–5 m thick; forming terraces and valley bottom deposits.
 - MARINE DEPOSITS: sediments deposited during regression of a high postglacial sea.
 - Mr** Beach sediments: sand and gravel; 1–5 m thick; forming flights of ridges with intervening swales.
 - Md** Deltaic sediments: sand and gravel topsets; grading downwards to forests of fine sand or silt; 2–15 m thick; sparsely fossiliferous; forming terraces and plains where meltwater streams emptied into the regressing sea.
 - Mb** Marine blanket deposits: sand and silt with some sea-ice rafted debris; 2–10 m thick; forming continuous cover of sublittoral and offshore sediments.
 - Mv** Marine veneer: sand, silt, and gravel; 0.5–2 m thick; discontinuous cover of littoral and offshore sediment including beach ridges and sea-ice rafted debris; mimicking surface of underlying till or rock.
 - GM** Glaciomarine blanket: diamictic stony sand and mud with ice-rafted dropstones; 2–10 m thick; forming undulating plains ridged with small moraines that have been reworked by marine processes; deposited in an ice-contact environment.
 - Lb** Glaciolacustrine blanket deposits: sand and mud with ice-rafted dropstones; 2–10 m thick; forming flat to undulating plains interspersed with small moraine ridges.
 - Lv** Glaciolacustrine veneer: sandy sediments; 0.5–2 m thick; forming plains interspersed with till or rock.
 - GLACIOFLUVIAL DEPOSITS:** gravel and sand; 2–20 m thick; deposited behind, at, and in front of the ice margin.
 - Gp** Glacioluvial outwash: stratified gravel and sand; 2–15 m thick; locally knotted; grading to deltaic deposits near margins and deposited in a proglacial environment in valley trains, braided plains, terraces, and fans.
 - Gr** Ice-contact deposits: eskers and kames; poorly stratified or sorted sandy to bouldery gravel; 5–20 m thick; forming ridges and hummocks; deposited in a subglacial environment along meltwater corridors.
- EARLY HOLOCENE AND WISCONSINAN**
- Tm** Massive and moraine: glacial diamict; 5–60 m thick; extensively leached in places; forming broadly arcuate ridges that were deposited along ice margins. Near glaciers and ice caps this unit may contain or overlie remnant glacial ice.
 - Th** Hummocky till: glacial diamict which may contain remnant glacial ice; 2–30 m thick; forming rolling to hummocky terrain.
 - Tb** Till blanket: glacial diamict; 2–10 m thick; forming undulating plains with fluted or drumlinized areas, and areas of boulder fields; deposited mainly in a subglacial environment by basal melt-out.
 - Tv** Till veneer: glacial diamict; 0.5–2 m thick; discontinuous cover mimicking topography of underlying bedrock.
- PALEOZOIC AND PRECAMBRIAN**
- BEDROCK:** Intra- and inter-tectonic outcrop of several compositions and ages, variously modified by glacial erosion; rolling to hilly topography with numerous ridges and scarpes; some streamlined landforms; surfaces range from rough and weathered to glacially polished.
- RC** Limestone and dolomite of Paleozoic age; commonly forming ledges and bluffs; weathers into platy fragments or to sandy silt.
 - RF** Marble of the First Lake Formation; commonly forming small outcrops in valleys; weathers to gray sand.
 - RA** Sulphide-bearing black pelite, with oxidized pelite, psammite and iron-formation of the Aslatu River Formation; forming rolling plains and some ridge and valley topography. Overlying till has a silty sand matrix.
 - RL** Clastic metasedimentary rocks, chiefly psammite, pelite, wacke and quartzite of the Longstaff Bluff and Dewar Lakes Formations; commonly forming plains or ridges and valley topography. Overlying till commonly has a silty sand matrix.
 - RB** Mafic and ultramafic rocks, chiefly of the Bravo Lake Formation.
 - RG** Granite and gneiss; forming resistant hills commonly overlain by bouldery till with a sandy matrix.
- Geological boundary**
- Areas of loess fill by Little Ice Age snowbanks and snowfields (indicated by a white pattern)
 - Seepage or river lining
 - Boulder fields
 - Holocene fossil locality
 - Glosser
 - Prominent ice wedge polygons
 - Isolated bedrock outcrop
 - Perched delta (elevation in metres)
 - Soilification lobes
 - Landslide or rockslide
 - Kame or conical gravel hill
 - Kettle (large, small)
 - Drumlinoid ridge
 - Rock-crag and till-tail form
 - Glacially plucked bedrock
 - Striation (ice flow direction known, unknown)
 - Crossed striation (numbers indicate relative ages, 1 being the oldest)
 - Glacially shaped bedrock, undifferentiated
 - Ground observation and sample site
 - Ice-marginal meltwater channel; barb on upslope side
 - Subglacial and proglacial meltwater channel (small, ephemeral)
 - Beach ridge crest
 - Marine washing limit; with elevation in metres
 - Glacial lake shoreline
 - Overflow channel or spillway from glacial lake
 - Esker
 - End moraine
 - DeGeer or sublacustrine moraine
 - Ice-contact face
 - Cliff face in bedrock



Geology based on fieldwork by L.A. Dredge, R.D. Knight, P. Toole, H. Bonish, R. Chouinard, J. Stevens, and A. Tizzard, 2001 and 2002.

Geological compilation by L.A. Dredge, 2003

Digital cartography by P. Corrigan, 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

Logistical support provided by the Polar Continental Shelf Project as part of its mandate to promote scientific research in the Canadian North. PCSP 1009

OPEN FILE 1570
SURFICIAL GEOLOGY
HANTZSCH RIVER
BAFFIN ISLAND
NUNAVUT

Scale 1:100 000 / Échelle 1/100 000

Universal Transverse Mercator Projection
North American Datum 1983
© Her Majesty the Queen in Right of Canada 2003

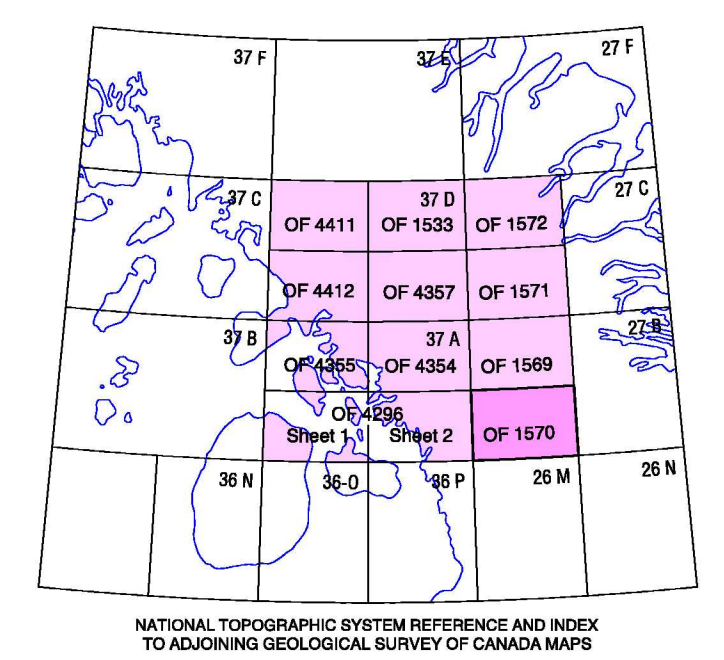
Projection transversale de Mercator
Système de référence géodésique nord-américain, 1983
© Sa Majesté la Reine du chef du Canada 2003

Elevations in feet above mean sea level

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

Proximity to the North Magnetic Pole causes the magnetic compass to be erratic in this area. Mean magnetic declination 2000, 41°40' W, decreasing 33.6' annually. Readings vary from 40°48' W in the SW corner to 42°15' W in the NE corner of the map.



OPEN FILE 1570
Dossier public
2003

Open files are products that have not gone through the GSC formal publication process.

Les dossiers publics ont été publiés sans passer par le processus officiel de publication de la GSC.

Recommended citation:
Dredge, L.A., 2003: Surficial geology, Hantzsch River, Baffin Island, Nunavut. Geological Survey of Canada, Open File 1570, scale 1:100 000.