LEGEND

This legend is common to maps 2042A, 2043A, 2044A, 2045A, 2046A, 2047A, and 2048A. Coloured legend blocks indicate map units that appear on this map.

Not all map symbols shown in the legend appear on this map.

QUATERNA HOLO

Fpt FLUVIAL DEPOSITS (nonglacial alluvial floodplain, terrace, fan, and delta topsets):
gravel, sand, boulders, minor silt, and muck; 1–10 m thick; deposited in braidplains.

MARINE DEPOSITS: sediments deposited during postglacial regression of a high

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; mimics surface of underlying till or rock. Fine-grained sediment bears a continuous vegetation cover patterned with subparallel rills.

GLACIAL MARINE DEPOSITS: sand, silt, gravel, and boulders; 2–30 m thick; deposited in the high proglacial sea.

Glacial marine blanket: sand, silt, minor gravel, and dropstones; 2–30 m thick;

Glacial marine delta: sand, silt, boulders, and gravel; 2–20 m thick; massive to crossbedded sediments that coursen upwards in ice-contact deposits or at termination of outwash trains or meltwater channels.

deposited from suspension and iceberg rafting; locally capped by Holocene marine regression sediments.

GLACIOFLUVIAL DEPOSITS: gravel and sand; 1–30 m thick; deposited by meltwater behind, at, and in front of ice margins.

Glaciofluvial outwash: stratified gravel and sand; 1–30 m thick; proglacial floodplains, terraces, and fans; includes kame terraces, minor subglacial and subaquatic deposits, glacial lacustrine channelled deltas and fans; locally kettled; grade to glacial marine deltas at marine limit; may include washed till surfaces with few fines.

Glaciofluvial ice-contact deposits (eskers and kames): poorly stratified to sorted gravel, sand, and boulders; 5–20 m thick; forming ridges and hummocks.

EARLY HOLOCENE AND WISCONSINAN

metamorphic clasts; 0.5–20 m thick; deposited in subglacial and ice-marginal environments of local ice caps (Meta Incognita Peninsula) and of the Foxe Ice Dome (Amadjuak Ice Divide). Minor silty till deposited on Hudson Strait coast by Labrador (i.e. trans-strait) and central Laurentide (i.e. down-strait continental outlet) ice.

TILL: clast-supported silty sand, dominantly cobble- and boulder-size igneous and

Th Hummocky till: diamicton which may be underlain by remnant glacier ice; 1–20 m thick; rolling to hummocky; mainly in Frobisher Bay moraines.

Till blanket: diamicton; 1–10 m thick; undulating plain with minor fluted, hummocky, ridged, ribbed, or channelled areas; solifluction lobes on steeper slopes; thick end moraines; minor till veneer or glaciofluvial outwash; rare glaciolacustrine fines.

Till veneer: diamicton; 0.5–2 m thick; >40% of area is till, <60% of area is rock ledges and knobs, and rubble; bedrock topography is evident; minor till blanket, minor

colluvium, including talus, colluvial fans, solifluction lobes, and undifferentiated valley-bottom deposits; minor washed-till boulder fields.

QUATERNARY AND PRE-QUATERNARY

BEDROCK AND ROCK WEATHERING PRODUCTS: intact and frost-riven outcrop, discontinuous cover of rubble, boulders, gravel, sand, and minor silt; glacially scoured to frost-rived or disaggregated outcrop; <40% till and boulder fields (including till from which finer fraction was washed by glacial meltwater or a higher sea), and colluvium; very minor fluvial deposits, muck, or raised marine nearshore and shoreline deposits. Topography variable from rolling to rough with some major and numerous minor ridges and scarps. Vegetation continuous to absent, low Arctic to mid-Arctic, depending on substrate, exposure, and elevation. Subdivided by M.R. St-Onge by resistance to weathering, least to most: units OI, Ps, Pc, APt, and Pg.

Ordovician limestone.

Ps Clastic metasedimentary rocks of Paleoproterozoic Sugluk and Lake Harbour groups and Blandford Bay assemblage.

Pc Marble of Paleoproterozoic Lake Harbour Group.

APt Tonalite-monzogranite orthogneiss of Archean Superior Province and of Paleoproterozoic Narsajuaq arc and Ramsey River.

Pg Monzogranite of Paleoproterozoic Cumberland batholith.

Ice-moulded rock

Striation (sense known, unknown)

Till lineation/streamline/smear

Drumlin

Esker

Interlobate moraine

End and/or lateral moraine

Assumed ice margin (readvance/recessional); thick till on proximal side

Subaqueous push moraine (De Geer moraine)

Subglacial or proglacial meltwater outlet (flow direction known, unknown)

Lateral (sidehill) meltwater channel; barb upslope

Perched delta; marine or glaciolacustrine

Glacial lake shoreline

Limit of marine inundation, observed

Limit of marine inundation, interpolated where data permits

Beach ridges, prominent

Solifluction terrace

River icing

Elevation (m): w - washing limit, d - delta top, b - beach

''C date location (see Table 1)

Ground observation

Author: D.A. Hodgson

Geology by D.A. Hodgson, 1995–1997, 1999

Digital map compilation by D.A. Hodgson, 1997–2002

Digital cartography by E. Everett, Earth Sciences Sector Information

This map was produced from processes that conform to the ESS Info Publishing Services Subdivision Quality Management System, Ottawa, registered

Division (ESS Info)

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

to the ISO 9001: 2000 standard

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

Mean magnetic declination 2003, 34°10'W, decreasing 24.8' annually. Readings vary from 33°33'W in the SW corner to 34°44'W in the NE corner of the map

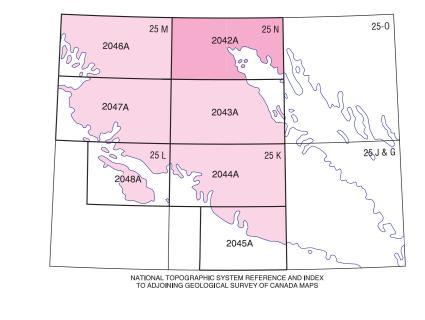
Elevations in metres above mean sea level

REFEREN

St-Onge, M.R., Scott, D.J., and Wodicka, N.
1999: Geology, Frobisher Bay, Nunavut; Geological Survey of Canada, Map 1979A, scale 1:100 000.

.ge ¹	Lab. identification	Elev. (m)	Material
0 ± 190	GX-8159	39	Molluscs
5 ± 450	GX-8696	1	Bulk organics
0 ± 70	AA-15123	16	Molluscs
0 ± 150	QC-905	5	Molluscs
0 ± 320	QC-902	34	Molluscs
0 ± 220	GSC-2771	11	Molluscs
0 ± 135	QC-901	13	Molluscs
0 ± 175	GX-8160	16	Molluscs
0 ± 120	GSC-5903	1	Molluscs
0 ± 170	GSC-464	15	Molluscs
0 ± 160	GSC-533	3	Molluscs
0 ± 225	GX-8695	2	Bulk organics
0 ± 170	GSC-503	15	Molluscs
5 ± 100	AA-6526	15.5	Humic acids
0 ± 130	GSC-849	15	Charred fat
5 ± 75	AA-6525	15.5	Humic acids
5 ± 140	GX-8385	<30	Peat
5 ± 70	Beta-1087	<30	Peat
0 ± 70	Beta-1622	<30	Peat
5 ± 135	GX-8384	<30	Peat
± 130	GX-8380	17	Peaty sand
± 100	Beta-1086	<30	Peat
± 130	GX-8383	<30	Peat
0 ± 50	AECV-1708C	10	Bone
0 ± 70	AECV-1349C	16	Bone
0 ± 80	AECV-1350C	16	Wood
± 150	AA-6524	15.5	Humic acids
0 ± 60	AECV-1348C	6	Bone
0 ± 70	AECV-1351C	8	Bone
± 125	GX-8381	17	Peaty sand
± 150	GSC-467	21	Molluscs
± 125	GX-8382	<30	Peat

Table 1. Summary of radiocarbon dates. ¹For nonmarine material, the normalized age (machine age corrected to a $\delta^{13}C=-25\%$) is given where available, otherwise the uncorrected age is given. For marine organisms, where the isotopic ratio is known the age is corrected following GSC convention to a $\delta^{13}C=0\%$, which is equivalent to subtracting a marine reservoir effect of 400 years from a normalized age; otherwise the uncorrected age (which incorporates the marine reservoir effect) is given.





MAP 2042A
SURFICIAL GEOLOGY

FROBISHER BAY

BAFFIN ISLAND NUNAVUT

69°00'

Scale 1:100 000/Échelle 1/100 000

Universal Transverse Mercator Projection
North American Datum 1927

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North American Datum 1927

Système de référence géodésique nord-américain, 1927

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Canadi

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Recommended citation:

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2003: Surficial geology, Frobisher Bay, Baffin Island, Nunavut;

Geological Survey of Canada, Map 2042A, scale 1:100 000.