References

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Table 1. Radiocarbon ages.

Map no.	Age (BP)	Lab. Identication	Elev. (m)	Material
1	4740 ± 150	S-3577	7	Whalebone
2	8210 ± 170	S-3611	29	Whalebone
3	8170 ± 170	S-3578	31.5	Whalebone
4	8850 ± 80	TO-5962	44	Walrus tusk
5	9050 ± 180	S-3575	43	Whalebone
6	8950 ± 180	S-3576	46	Whalebone
7	8110 ± 190	S-3570	26	Whalebone
8	8040 ± 200	S-3569	26	Whalebone
9	9420 ± 200	S-3572	64.5	Whalebone
10	9140 ± 200	S-3573	57	Whalebone
11	4900 ± 170	S-3574	4.5	Whalebone
12	8570 ± 200	S3587	8.25	Whalebone
13	8820 ± 200	S-3589	9	Whalebone
14	9170 ± 200	S-3585	16	Whalebone
15	8390 ± 200	S3586	3.5	Whalebone
16	9150 ± 190	S-3590	20.25	Whalebone
17	9200 ± 170	S-3612	19	Whalebone
18	8730 ± 190	S-3584	11.75	Whalebone
19	9060 ± 210	S-3581	14.25	Whalebone
20	8750 ± 200	S-3582	11.75	Whalebone
21	8470 ± 190	S-3579	10.25	Whalebone
22	8420 ± 190	S-3583	7	Whalebone
23	9110 ± 190	S-3593	16	Whalebone
24	1240 ± 50	GSC-5918	15	Driftwood
25	9740 ± 200	S-3591	29	Whalebone
26	9540 ± 200	S-3580	32.5	Whalebone
27	8970 ± 190	S-3594	17.5	Whalebone
28	9920 ± 180	S-3595	13	Whalebone
29	8470 ± 200	S-3588	5.5	Whalebone
30	8770 ± 170	S-3596	11.75	Whalebone
31	9450 ± 190	S-3592	21	Whalebone
32	23200 ± 290	GSC-5848	35	Shells
33	25410 ± 210	TO-5153	35	Shells
34	23830 ± 250	TO-5152	35	Shells
35	27200 ± 270	TO-4879	35	Shells

Dates are reported in the tables according to the reporting protocols of the various laboratories. All dates on terrestrial materials are normalized to the -25 per mil PDB standard. However, dates on marine materials are reported inconsistently. GSC marine dates are reported with a 400 year reservoir correction. TO dates are reported without a reservoir correction. S dates are reported without normalization and without a reservoir correction.

Abstract

This new surficial geology map product represents the conversion of Map 1970A (Dyke, 2001) and its legend, using the Geological Survey of Canada's Surficial Data Model (SDM version 2.3) (Deblonde et al., 2017). All geoscience knowledge and information from Map 1970A that conformed to the current SDM were maintained during the conversion process. The purpose of converting legacy map data to a common science language and common legend is to enable and facilitate the efficient digital compilation, interpretation, management, and dissemination of geological map information in a structured and consistent manner. This provides an effective knowledge management tool designed around a geodatabase that can expand, following the type of information to appear on new surficial geology maps.

Résumé

Ce nouveau produit cartographique de la géologie des formations superficielles correspond à la conversion de la Carte 1970A (Dyke, 2001) et de sa légende, en se servant du Modèle de données pour les formations superficielles (MDFS version 2.3) de la Commission géologique du Canada (Deblonde et al., 2017). Toutes les connaissances et l'information de nature géoscientifique de la Carte 1970A qui sont en conformité avec le modèle de données ont été conservées pendant le processus de conversion. Le but de la conversion de cartes publiées antérieurement suivant un langage scientifique commun et une légende commune est de permettre et de faciliter la compilation, l'interprétation, la gestion et la diffusion efficaces de l'information géologique cartographique en mode numérique de façon structurée et cohérente. Cette façon de faire offre un outil efficace de gestion des connaissances élaboré à l'aide d'une géodatabase qui pourra évoluer suivant le type d'information à paraître sur les nouvelles cartes des formations superficielles.

National Topographic System reference and index to adjoining published Geological Survey of Canada maps

Catalogue No. M183-1/351-2018E-PDF
ISBN 978-0-660-24797-7
https://doi.org/10.4095/306609

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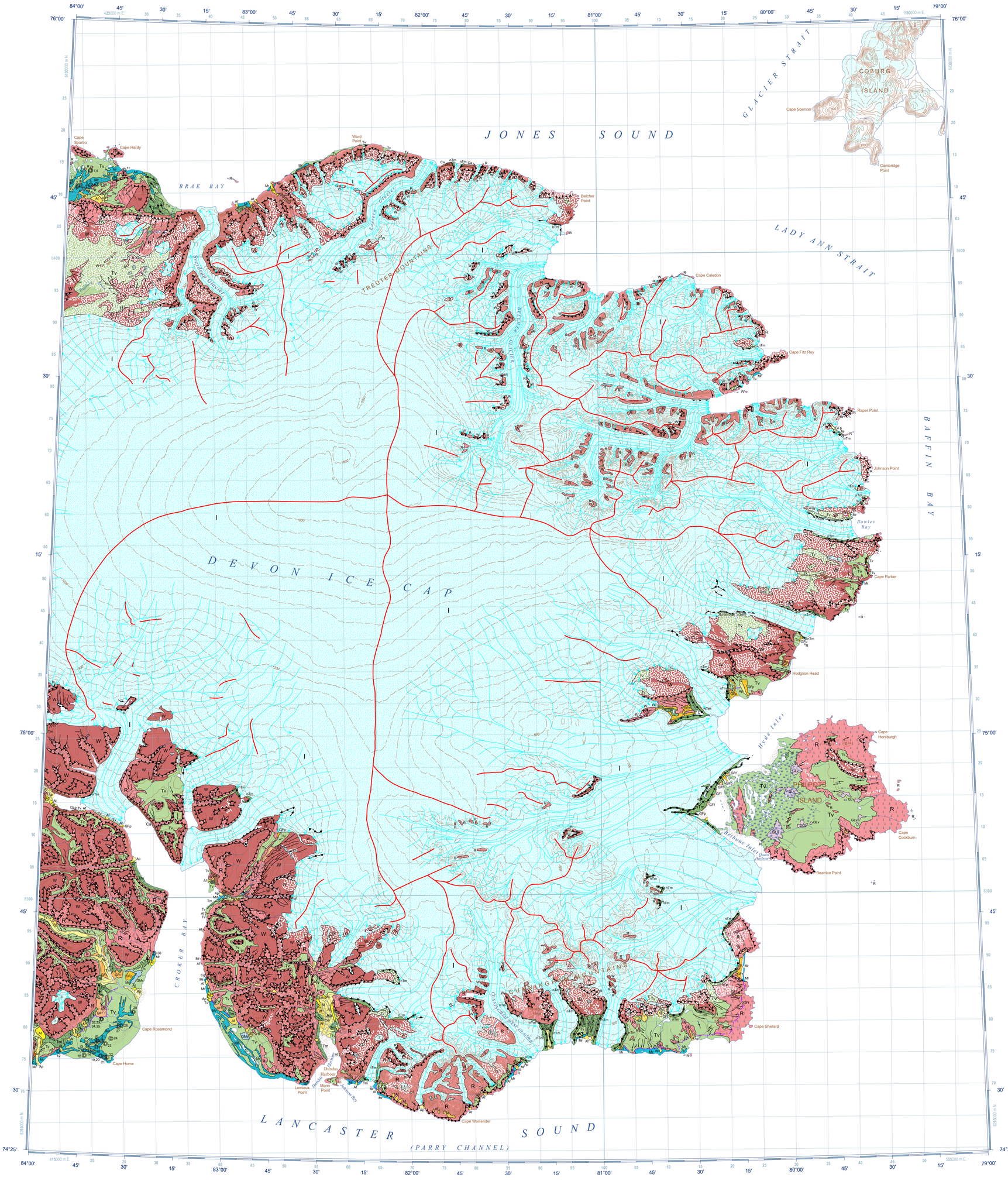
Natural Resources Canada — Ressources naturelles Canada

CANADIAN GEOSCIENCE MAP 351
SURFICIAL GEOLOGY
EASTERN DEVON ISLAND
Nunavut
NTS 48-E & 38-F and 48-H & 38-G
1:250 000



QUATERNARY

HOLOCENE

NEOGLACIATION

- I — **Glacier ice:** ice; 0–600 m thick.
- nTm — **Moraine complex:** stony mud; nonsorted; 5–20 m thick; forming end and lateral moraines of Neoglacial age; extensively ice-cored.

POST-LAST GLACIATION

COLLUVIAL DEPOSITS: block and rubble accumulations; 1–50 m thick.

- Ca — **Talus scree deposits:** blocks and rubble; as much as 50 m thick; forming active accumulations of talus (scree) aprons and fans below cliffs resulting from rock falls and debris flows; commonly crossed by debris-flow channels and levées.
- Cg — **Rock glacier debris:** talus; generally 10–50 m thick; deformed by active flow of interstitial or buried ice to form rock (talus) glaciers with transverse ridges and furrows, pits, and steep, unstable sides and fronts.

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

- Ap — **Alluvial floodplain sediments:** gravel and sand; 2–20 m thick; active braided floodplains; includes active proglacial outwash.
- Af — **Alluvial fan sediments:** gravel and sand; 2–20 m thick; forming fans.
- At — **Alluvial terraced sediments:** gravel and sand; 2–20 m thick; forming terraces.

MARINE AND GLACIOMARINE SEDIMENTS: gravel, sand, silt, and clay; 1–20 m thick; deposited in deltaic and beach environments during regression of the postglacial sea.

- Mr — **Beach sediments:** gravel and sand; 1–5 m thick; forming ridges and swales.
- Md — **Deltaic sediments:** clay, silt, sand, and gravel; 5–20 m thick; forming coarsening-upward sequences under terraces; terraces at marine limit formed at or near the ice margin.

GLACIOMARINE SEDIMENTS: sand, silt, and clay; deposited in proglacial marine environments.

- GMv — **Glaciomarine veneer:** silt, clay silt, and fine sand; with dropstones; 1–2 m thick; deep-water proglacial environment.

GLACIOLACUSTRINE SEDIMENTS: clay, silt, sand, and gravel deposited in glacier-dammed lakes in deep-water environments.

- GLo — **Offshore sediments:** silt, clay silt, and fine sand; with dropstones; 2–5 m thick blanket; deep-water proglacial environment.
- GLv — **Glaciolacustrine veneer:** silt, clay silt, and fine sand with dropstones; 1–2 m thick; deep-water proglacial environment.

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

- GFp — **Outwash plain sediments:** gravel and sand; 1–10 m thick; forming proglacial braided floodplains.
- GFt — **Terraced sediments:** gravel and sand; 1–10 m thick; forming proglacial terraces.
- GFf — **Outwash fan sediments:** gravel and sand; 1–10 m thick; forming proglacial terraces.

EARLY HOLOCENE AND WISCONSINAN

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

- Tm — **End moraine complex:** diamicton; variable thickness; 5–60 m high end moraine ridges and hummocks; comprised of debris-rich, relict glacier ice mantled by till; kettled in places and characterized by large ice-wedge polygons; may contain coarse, blocky rubble (ice-thrust bedrock).
- Tv — **Till veneer:** diamicton; 0.5–2 m thick; discontinuous.

PRE-QUATERNARY

- W — **Nonscoured and weathered bedrock:** rubble; variable thickness; derived from underlying bedrock by frost action mainly before last glaciation, variously colluviated; mantling nonscoured rock; smooth surfaces exhibiting little or no sign of glacial erosion in the form of lake basins or ice moulded eminences; commonly incised by lateral meltwater channels.
- R — **BEDROCK:** rock of various compositions and ages modified by postglacial processes and by glacial erosion during the Quaternary; Precambrian gneisses in the east, mainly gently inclined Paleozoic carbonates, with sandstone shale and gypsum in the central and western part, and folded Paleozoic to Mesozoic clastic rocks and carbonates in the northwest of the project area.
  - **Bedrock, undifferentiated:** scoured bedrock; hilly and hummocky surfaces with lake basins and ice moulded eminences resulting from light to moderate glacial scouring; surface generally disintegrated by postglacial frost action; may include major escarpments, tens to hundreds of metres high variously lined by talus; locally overlain by felsenmeer pattern.

- Area covered by perennial icefields during the Little Ice Age
- Large ice-wedge polygons
- Felsenmeer, surface generally disintegrated by postglacial frost action
- Geological contact, defined
- Limit of submergence, marine, defined
- Minor meltwater channel, lateral, barb on upslope side
- Moraine:
  - *Lateral*
  - *Major end*
- Drumlinoid, length not mapped to scale
- Fluted, ice-moulded bedrock, ice-flow direction known, length not mapped to scale
- Glacier flowlines:
  - *Direction unknown*
  - *Direction known*
- Ice divide, defined
- Bedrock scarp, cliff
- Small rock glacier
- Dated sample location, radiocarbon, *see* Table 1

Recommended citation
Geological Survey of Canada, 2018. Surficial geology, eastern Devon Island, Nunavut, NTS 48-E & 38-F and 48-H & 38-G; Geological Survey of Canada, Canadian Geoscience Map 351 (Surficial Data Model v. 2.3 conversion of Map 1970A), scale 1:250 000. https://doi.org/10.4095/306609

Geological Survey of Canada
Canadian Geoscience Maps

Author: Geological Survey of Canada

Geology based on field work by A.S. Dyke, 1993 and 1994, and on airphoto interpretation

Geology conforms to Surficial Data Model v. 2.3 (Deblonde et al., 2017)

Data conversion by D.E. Kerr, 2016, 2018

Geology has been spatially adjusted to fit the updated base

Geomatics by J. Kingsley

Cartography by M.J. Baldock

Scientific editing by A. Weatherston

Initiative of the Geological Survey of Canada, conducted under the auspices of Natural Resources Canada's Geo-mapping for Energy and Minerals (GEM) Program

Map projection Universal Transverse Mercator, zone 17 North American Datum 1983

SURFICIAL GEOLOGY
EASTERN DEVON ISLAND
Nunavut
NTS 48-E & 38-F and 48-H & 38-G
1:250 000

5 0 5 10 15 20 km

Base map at the scale of 1:250 000 from Natural Resources Canada, with modifications
Elevations in metres above mean sea level

Proximity to the North Magnetic Pole causes the magnetic compass to be erratic in this area.
Mean magnetic declination 2018, 40°13'W, decreasing 56.3' annually. Readings vary from 36°36'W in the SW corner to 43°04'W in the NE corner of the map.

This map is not to be used for navigational purposes.

The Geological Survey of Canada welcomes corrections or additional information from users.

Data may include additional observations not portrayed on this map. *See* map info document accompanying the downloaded data for more information about this publication.

This publication is available for free download through GEOSCAN (http://geoscan.nrcan.gc.ca/).

CANADIAN GEOSCIENCE MAP 351
SURFICIAL GEOLOGY
EASTERN DEVON ISLAND
Nunavut
NTS 48-E & 38-F and 48-H & 38-G

Canada