

Descriptive Notes
This map encompasses three physiographic regions: the De Pas batholith to the west, the glacially eroded composite terrane Core Zone rocks in the central portion, and Neoproterozoic and Neoproterozoic intrusives along the eastern margin of the map (James et al., 2003).

Acknowledgements
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Suggested Readings
Yes, J.D., 1960. Former ice-dammed lakes and the deglaciation of the middle reaches of the George River, Labrador-Ungava. Geographical Branch, Department of Mines and Technical Surveys, Geographical Bulletin, v. 14, p. 44-70.

Rice, J.M., McClenaghan, M.B., Paulsen, R.C., Pyne, M.D., Ross, M., and Campbell, H.E., 2020. Field data for till samples collected in 2014, 2015, and 2016 in the Southern Core Zone, Quebec and Labrador (NTS 23-P and 23-I). Geological Survey of Canada, Open File 9955, 1 zip file. https://doi.org/10.4095/9955

Abstract
The Lac aux Goélands area is of moderate relief characterized by till blankets in the lowlands and till presence with large exposures of bedrock outcrops in the western and eastern margins. Bedrock was variably eroded by the Laurentide ice sheet, east of the Ancestral Labrador ice divide.

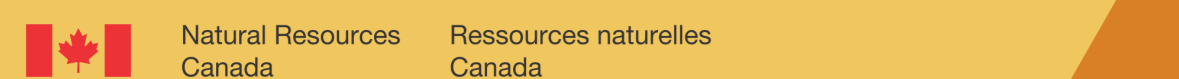
Résumé
La région cartographique de Lac aux Goélands présente un relief modéré et est caractérisée par la présence de nappes de till dans les basses terres et de placages de till avec de grandes étendues d'affleurements rocheux le long de ses marges ouest et est. Le substratum rocheux a été érodé à des degrés divers par l'inlandsis laurentidien, à l'est de la protogée de partage glaciaire du Labrador.

Table with 4 columns: CGM 333, CGM 316, CGM 410, CGM 429, CGM 377, CGM 395, CGM 346, CGM 315

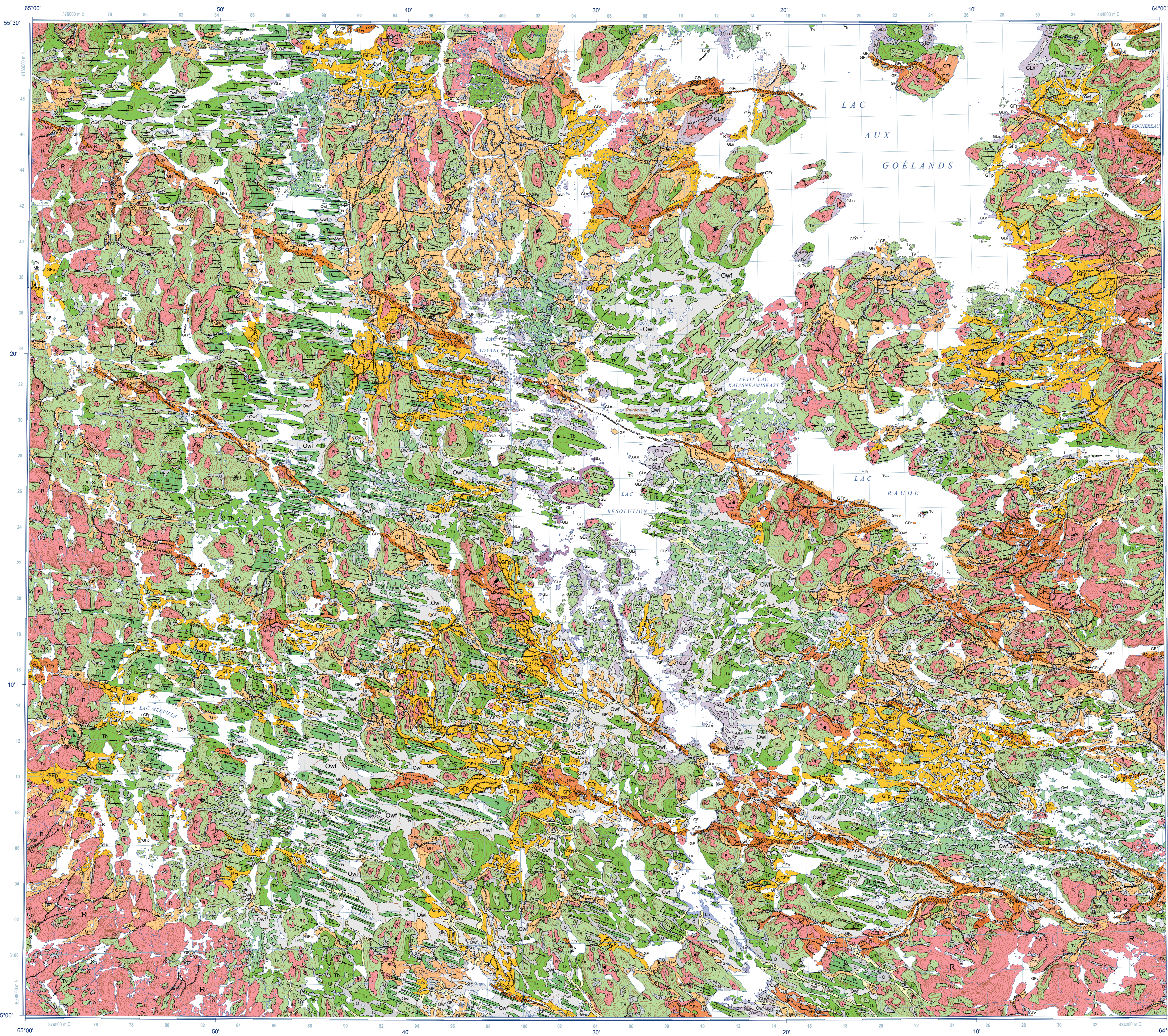
National Topographic System reference and index to adjoining published Geological Survey of Canada maps

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Her Majesty the Queen in Right of Canada, as represented by the Minister of Natural Resources, 2022



CANADIAN GEOSCIENCE MAP 429
SURFICIAL GEOLOGY
LAC AUX GOÉLANDS
Quebec
NTS 23-P southeast
1:100 000



QUATERNARY POST LAST GLACIATION NON-GLACIAL ENVIRONMENT
ORGANIC DEPOSITS: peat and muck, 1 to 2 m thick on average, formed by the accumulation of plant material in various stages of decomposition, occurs as low-lying wet terrain (meadows, bogs, and fens).
Organic deposits, fen: derived from sedges and partially decayed shrubs in a eutrophic environment, commonly forms a ribbed pattern of small shrubs transverse to the flow of water.
Organic deposits, undifferentiated: undifferentiated bog and fen deposits, the area may be locally mired or underlain with alluvial sediments, often associated with minor alluvial channels established for surface drainage.

GLACIAL SEDIMENTS: silt-sand to sandy diamicton; with striated and faceted clasts of various lithologies, clast content ranges from 15 to 25%; thickness ranges from 1 to >4 m thick; till at lower elevations has been exposed to varying degrees of weathering and winnowing from meltwater channel systems and glacial Lake Naskapi; generally thicker in the lowland regions and also as ice-leave tails of streamlined glacial landforms, deposited directly by the Laurentide Ice Sheet.

Bedrock: Core Zone bedrock, consisting of a composite Precambrian lithotectonic terrane of undifferentiated Archean rocks and Paleoproterozoic supracrustal rocks. The middle Paleoproterozoic De Pas Batholith outcrops in the western margin of the map area. Neoproterozoic metasediments, and tonalite and granitic gneisses of the Core Zone are located in the central portion of the area. Mesoproterozoic intrusive suites of granitic pegmatite, berylite, porphyritic granite, diatexite, and orthogneiss occur along the eastern edge of the map sheet.

- Meander channel: Minor, paleocurrent direction unknown
Major, paleocurrent direction unknown
Major, paleocurrent direction known
Minor moraine ridge
Direction unknown or unspecified
Direction known or inferred
Drumlinoid ridge or fluting
Crag-and-tail relief, sense known
Kame
Station: Direction known
Crossed, relative ages given (1 < 0 < 2)
Small outcrop
Station location (ground observation or stratigraphic section)
Till sample location

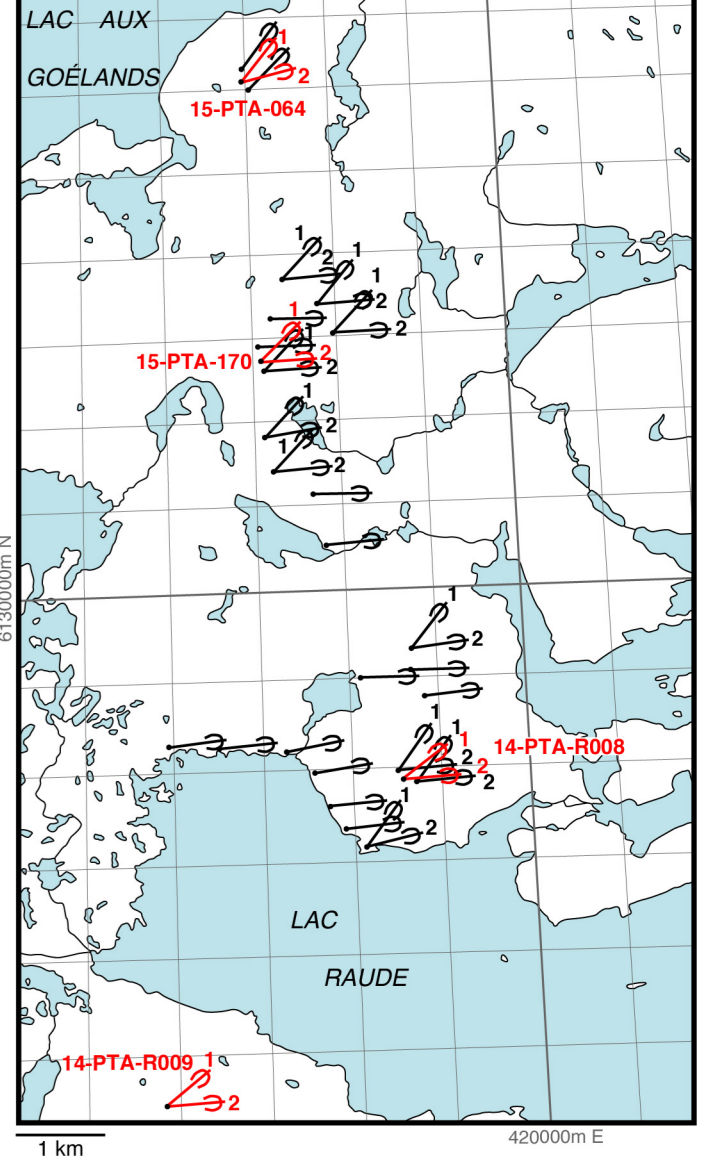


Figure 1. Detailed inset of the region between Lac aux Goélands and Lac Raude, in the northeastern part of the surficial map, showing mapped glacial striae by both Carhali and Jansson (2003) and this study (PTA stations in red), documenting an older northeast flow phase followed by an easterly flow phase. Note that the UTM gridlines on this figure are North American Datum 1927.

Recommended citation
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Geology based on air-photo interpretation and fieldwork by R.C. Paulsen and J.M. Rice, 2014 to 2016.
Geological compilation by R.C. Paulsen, 2016 to 2018
Geology conforms to Surficial Data Model v. 2.3.14 (Delbonte et al., 2016).
Geomatics by L. Robertson
Cartography by M.J. Baldock

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Map projection Universal Transverse Mercator, zone 20 North American Datum 1983

SURFICIAL GEOLOGY
LAC AUX GOÉLANDS
Quebec
NTS 23-P southeast
1:100 000

Base map at the scale of 1:50 000 from Natural Resources Canada, with modifications
Elevations in metres above mean sea level
Mean magnetic declination 2022, 20°33'W, decreasing 15.1' annually
Readings vary from 20°21'W in the SW corner to 20°45'W in the NE corner of the map.
This map is not to be used for navigational purposes.
Title photograph: On the bedrock uplands looking northeast to Lac aux Goélands, Quebec. Photograph by R.C. Paulsen. NRCan photo 2019-254

The Geological Survey of Canada welcomes corrections or additional information from users (gscpublications-operations@nrcan-nrcan.gc.ca).
Data may include additional observations not portrayed on this map. See map info document accompanying the downloaded data for more information about this publication.
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Geological Survey of Canada
Canadian Geoscience Maps

