

References
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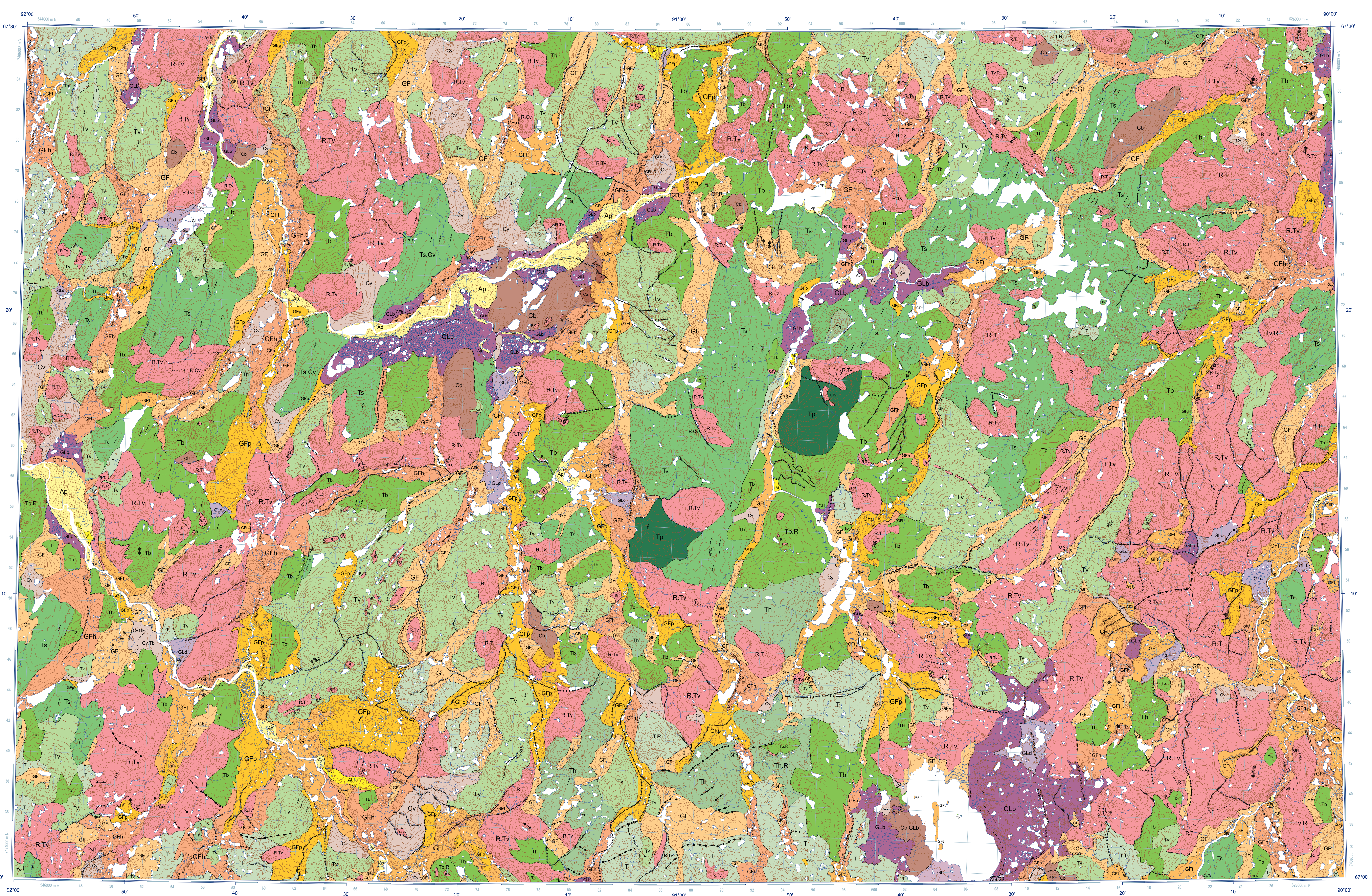
Suggested Readings
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Abstract
This new surficial geology map depicts the conversion of Open File 4281 (Ozyer, 2004) and its legend using the Geological Survey of Canada's Surface Data Model (SDM) version 2.3.14 (Deblonde et al., 2016). All geoscience knowledge and information from Open File 4281 that contributed to the SDM were maintained during the conversion process. Additional material such as marginal notes which may exist on the original map, are not included here. Supplementary limited legacy information was added to complement the converted geoscience data. This consists of glacial stations and notes, moraine lines from Madsen et al. (2003). It is identified in the accompanying legend to be enabled and facilitate the efficient digital completion, 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 which can expand following the type of information to appear on new surficial geology maps.

Table with 3 columns: CGM 380, CGM 397, CGM 398; CGM 396, CGM 294; CGM 151, CGM 294; CGM 381, CGM 344, CGM 312

National Topographic System reference and index to adjoining published Geological Survey of Canada maps
Catalogue No. M183-1397-2023E-PDF
ISBN 978-0-609-09107-7
https://doi.org/10.4095/314543

NATURAL RESOURCES CANADA
GEOLOGICAL SURVEY OF CANADA
CANADIAN GEOSCIENCE MAP 397
CANADA-NUNAVUT GEOSCIENCE OFFICE
OPEN FILE MAP 2023-01
SURFICIAL GEOLOGY
ARROWSMITH RIVER SOUTH
Nunavut
NTS 56-O south
1:100 000



QUATERNARY
HOLOCENE
PERIGLACIAL ENVIRONMENT
GLACIAL ENVIRONMENT
GLACIAL SEDIMENTS (TLL): diamict (granite to boulder-size clasts suspended in a poorly sorted clay to sand matrix)
ALLUVIAL SEDIMENTS: set sand and gravel deposited by streams either within channels or as overbank deposits
FLOODPLAIN SEDIMENTS: predominantly sands and gravels, may be locally overlain by or include lacustrine silt, clay and minor peat and organic silt
Terraced sediments: sand and gravel with minor silt, massive to stratified, well-sorted to well-sorted, thickness ranges from sporadic cover on bedrock to several metres
HOLOCENE AND LATE PLEISTOCENE (NONSIAN)
PROGLACIAL AND GLACIAL ENVIRONMENT
GLACIOLACUSTRINE SEDIMENTS: sand, silt, and clay, stratified, thickness ranges from 1 to 10 m deposited in lakes dammed by glacial ice
Detailed sediments: sand and rounded gravels, cross-stratified, varied hummocky, or pitted terrain caused by subsequent meltout
Detailed sediments: sand and rounded gravels, cross-stratified, varied thickness, a scarp or face with a low-relief mantle associated with glaciofluvial deposition into a glaciolacustrine environment
GLACIOLACUSTRINE BLANKET: clay, silt, and sand, well stratified, thickness ranges from 1 to greater than 20 m, local relief less than 1 m (plateau) and masks the underlying topography
GLACIOLACUSTRINE SEDIMENTS, UNDIFFERENTIATED: glaciolacustrine complex, varied thickness, units are too small to be represented at the scale of mapping; consist primarily of glaciolacustrine sediments, but may have relatively small pockets of alluvial, colluvial, till, and/or glaciofluvial sediments
GLACIOLUVAL SEDIMENTS: sand and gravel with minor silt and diamict, well stratified to massive, ranging from well to poorly sorted; deposited by streams flowing away from, or in contact, with glacial ice; strata are commonly deformed due to synsedimentary collapse from the meltout of supporting ice
OUTWASH PLAIN SEDIMENTS: sand and rounded gravels, moderately to well sorted, cross-stratified, varied thickness, includes a scarp or face with a low-relief outwash mantle
GLACIOLUVAL TERRACED SEDIMENTS: sand and rounded gravels, moderately to well sorted, cross-stratified, varied thickness, includes a scarp or face with a low-relief outwash mantle
GLACIOLUVAL HUMMOCKY SEDIMENTS: primarily sand and gravel, poorly sorted, from 6 to 15 m thick; ice-contact deposits; complex arrangement of dipoles extending from rounded depressions, to irregular conical mounds, and includes esker ridges
GLACIOLUVAL VENEER: gravel, sand, and silt; stratified to massive; thicknesses are less than 1 m; may occur in patches or gravel lag over rock
GLACIOLUVAL SEDIMENTS, UNDIFFERENTIATED: glaciolacustrine complex, varied thickness, units are too small to be represented at the scale of mapping; consists primarily of glaciolacustrine sediments, but may have relatively small pockets of alluvial, colluvial, till, and/or glaciofluvial sediments

Geological contact
Defined
Approximate
Beach crest
Minor meltwater channel, paleoflow direction unspecified
Major moraine ridge
Esker, paleoflow direction known
Drumlinid ridge, groove, fluting, length not mapped to scale
Drumlin, length not mapped to scale
Crag-and-tail, length not mapped to scale
Fluted bedrock, direction unknown, well defined, length not mapped to scale
Rockie moraine, length not mapped to scale
Kame
Shoofly
Well defined, ice-flow direction unknown
Well defined, ice-flow direction known
Crossed striations, + = obest, 4 = youngest

Recommended citation
Geological Survey of Canada, 2023. Surficial geology, Arrowsmith River south, Nunavut, NTS 56-O south. Geological Survey of Canada, Canadian Geoscience Map 397 (Surficial Data Model v. 2.3.14 conversion of GF 4281). Canada: Natural Resources Canada, Open File Map 2023-01, scale 1:100 000.
https://doi.org/10.4095/314543