





## **MAP NUMBER**

Natural Resources Canada, Geological Survey of Canada  
Canadian Geoscience Map 413

Canada-Nunavut Geoscience Office  
Open File Map 2022-04

## **TITLE**

Surficial geology, Avalikuarjuk River, Nunavut, NTS 56-P/13 and 14

## **SCALE**

1:50 000

## **CATALOGUE INFORMATION**

Catalogue No. M183-1/413-2022E-PDF  
ISBN 978-0-660-31220-0  
<https://doi.org/10.4095/315017>

## **COPYRIGHT**

© His Majesty the King in Right of Canada, as represented by the Minister of Natural Resources, 2022

Information contained in this publication or product may be reproduced, in part or in whole, and by any means, for personal or public non-commercial purposes, without charge or further permission, unless otherwise specified.

You are asked to:

- exercise due diligence in ensuring the accuracy of the materials reproduced;
- indicate the complete title of the materials reproduced, and the name of the author organization; and
- indicate that the reproduction is a copy of an official work that is published by Natural Resources Canada (NRCan) and that the reproduction has not been produced in affiliation with, or with the endorsement of, NRCan.

Commercial reproduction and distribution is prohibited except with written permission from NRCan. For more information, contact NRCan at [nrcan.copyrightdroitdauteur.nrcan@canada.ca](mailto:nrcan.copyrightdroitdauteur.nrcan@canada.ca).

## **RECOMMENDED CITATION**

Geological Survey of Canada, 2022. Surficial geology, Avalikuarjuk River, Nunavut, NTS 56-P/13 and 14; Geological Survey of Canada, Canadian Geoscience Map 413 (Surficial Data Model v. 2.3.14 conversion of Open File 5016, map 3); Canada-Nunavut Geoscience Office, Open File Map 2022-04, scale 1:50 000.  
<https://doi.org/10.4095/315017>

## **ABSTRACT**

This new surficial geology map product represents the conversion of Open File 5016, map 3 (Little, 2006) and its legend only, using the Geological Survey of Canada's Surficial Data Model (SDM version 2.3.14) (Deblonde et al., 2018). All geoscience knowledge and information from Open File 5016, map 3 that conformed to the SDM were maintained during the conversion process. Supplementary legacy information (descriptive notes) on the original map is not included here. Limited legacy information was added to complement the converted geoscience data. This consists of striations (McMartin et al., 2003). It is identified in the accompanying geodatabase. 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 3 du Dossier public 5016 (Little, 2006) et de sa légende uniquement, en se servant du Modèle de données pour les formations superficielles (MDFS version 2.3.14) de la Commission géologique du Canada (Deblonde et al., 2018). Toutes les connaissances et l'information de nature géoscientifique de la carte 3 du Dossier public 5016 qui sont en conformité avec le modèle de données ont été conservées pendant le processus de conversion. De l'information additionnelle (notes descriptives) présente sur la carte originale n'est pas incluse ici. Une quantité limitée de données existantes a été ajoutée en complément aux données géoscientifiques converties. Il s'agit de données sur des stries glaciaires tirées de McMartin et al. (2003). Ces données sont identifiées dans la géodatabase de la carte. 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 de la géologie des formations superficielles.

## **LICENCE AGREEMENT**

View the license agreement at

<http://open.canada.ca/en/open-government-licence-canada>

## **ACCORD DE LICENCE**

Voir l'accord de licence à

<http://ouvert.canada.ca/fr/licence-du-gouvernement-ouvert-canada>

## **SHEET 1 OF 1, SURFICIAL GEOLOGY**

### **GENERAL INFORMATION**

Author: Geological Survey of Canada

Geology by E.C. Little, M. Giangioppi, D. Utting, T. Ferbey, and C. Ozyer, 2003; additional air photo interpretation along the northwestern map margin by D.E. Kerr, 2017

Geological compilation by E.C. Little, 2004 and 2005

Geology conforms to Surficial Data Model v. 2.3.14 (Deblonde et al., 2018).

Geological data conversion by D.E. Kerr, 2016 to 2018

Geology has been spatially adjusted to fit the updated base.

Geomatics by J. Kingsley, C.D. Stevens, and L. Robertson

Cartography by D. Viner

Scientific editing by L. Ewert

Joint initiative of the Geological Survey of Canada and the Canada-Nunavut Geoscience Office, conducted under the auspices of the Information Management Project as part of Natural Resources Canada's Geo-Mapping for Energy and Minerals (GEM) program

Map projection Universal Transverse Mercator, zone 16  
North American Datum 1983

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.

Magnetic declination 2022, 13°26'W, decreasing 27.5' annually

This map is not to be used for navigational purposes.

The Geological Survey of Canada welcomes corrections or additional information from users ([gscpublications-cgcpublications@nrcan-rncan.gc.ca](mailto:gscpublications-cgcpublications@nrcan-rncan.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.

This publication is available for free download through GEOSCAN (<https://geoscan.nrcan.gc.ca/>) and Canada-Nunavut Geoscience Office (<https://cngo.ca/>).

### **MAP VIEWING FILES**

The published map is distributed as a Portable Document File (PDF), and may contain a subset of the overall geological data for legibility reasons at the publication scale.

### **DEFINITION QUERIES USED ON MAP**

This map utilizes definition queries in order to customize the display for visualization on the PDF of the map only and does not affect the digital data. The following features have a definition query applied:

- Field stations

### **REFERENCES**

Deblonde, C., Cocking, R.B., Kerr, D.E., Campbell, J.E., Eagles, S., Everett, D., Huntley, D.H., Inglis, E., Parent, M., Plouffe, A., Robertson, L., Smith, I.R., and Weatherston, A., 2018. Surficial Data Model: the science language of the integrated Geological Survey of Canada data model for surficial geology maps; Geological Survey of Canada, Open File 8236, ver. 2.3.14, 1 .zip file. <https://doi.org/10.4095/308178>

Dyke, A.S. and Peltier, W.R., 2000. Forms, response times and variability of relative sea-level curves, glaciated North America; *Geomorphology* v. 32, p. 315–333. [https://doi.org/10.1016/s0169-555x\(99\)00102-6](https://doi.org/10.1016/s0169-555x(99)00102-6)

Little, E.C., 2006. Surficial geology, Ellice Hills (north), Nunavut; Geological Survey of Canada, Open File 5016, scale 1:50 000, 1 .zip file. <https://doi.org/10.4095/222142>

McMartin, I., Utting, D.J., Little, E.C., Ozyer, C.A., and Ferbey, T., 2003. Complete results from the Committee Bay drift prospecting survey, central Nunavut (NTS 56-K, 56-J north, 56-O south, and 56-P); Geological Survey of Canada, Open File 4493, 1 .zip file. <https://doi.org/10.4095/214646>

### **ADDITIONAL INFORMATION**

The Additional Information folder of this product's digital download contains figures and tables that appear in the map surround as well as additional geological information not depicted on the map, nor this document, nor the geodatabase.

-PDF of Table 1

### ***AUTHOR CONTACT***

Questions, suggestions, and comments regarding the geological information contained in the data sets should be addressed to:

Geological Survey of Canada

601 Booth Street

Ottawa ON

K1A 0E8

[gscpublications-cgcpublishations@nrcan-rncan.gc.ca](mailto:gscpublications-cgcpublishations@nrcan-rncan.gc.ca)

### ***COORDINATE SYSTEM***

Projection: Universal Transverse Mercator

Units: metres

Zone: 16

Horizontal Datum: NAD83

Vertical Datum: mean sea level

### ***BOUNDING COORDINATES***

Western longitude: 90°00'00"W

Eastern longitude: 89°00'00"W

Northern latitude: 68°00'00"N

Southern latitude: 67°45'00"N

### ***SOFTWARE VERSION***

Data has been originally compiled and formatted for use with ArcGIS™ desktop version 10.8.2 developed by ESRI®.

### ***DATA MODEL INFORMATION***

#### **Surficial**

The Geological Survey of Canada (GSC) through the Geo-mapping for Energy and Minerals Program (GEM) has undertaken the Geological Map Flow to develop protocols for the collection, management (compilation, interpretation), and dissemination of surficial and bedrock geology data and map information. To this end, a data model has been created.

The Surficial Data Model (SDM) was designed using ESRI geodatabase architecture. The XML workspace document provided can be imported into a geodatabase, and the geodatabase will then be populated with the feature datasets, feature classes, tables, relationship classes, subtypes, and domains.

Shapefile and table (.dbf) versions of the data are included within the data. Column names have been simplified and the text values have been maintained within the shapefile attributes. The direction columns are numerical, to display rotation for points, and the symbol fields will hold the correct values to be matched to the appropriate style file.

For a more in depth description of the data model please refer to the official publication:

Deblonde, C., Cocking, R.B., Kerr, D.E., Campbell, J.E., Eagles, S., Everett, D., Huntley, D.H., Inglis, E., Parent, M., Plouffe, A., Robertson, L., Smith, I.R., and Weatherston, A., 2018. Surficial Data Model: the science language of the integrated Geological Survey of Canada data model for surficial geology maps; Geological Survey of Canada, Open File 8236, ver. 2.3.14, 1 .zip file.  
<https://doi.org/10.4095/308178>