



Natural Resources  
Canada

Ressources naturelles  
Canada

## **CANADIAN GEOSCIENCE MAP 385**

**SURFICIAL GEOLOGY**

# **LOWER HAYES RIVER**

Nunavut

NTS 56-M

**Map Information  
Document**

**Geological Survey of Canada  
Canadian Geoscience Maps**

**2019**

**Canada** 



## **MAP NUMBER**

Natural Resources Canada, Geological Survey of Canada  
Canadian Geoscience Map 385

## **TITLE**

Surficial geology, lower Hayes River, Nunavut, NTS 56-M

## **SCALE**

1:250 000

## **CATALOGUE INFORMATION**

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## **RECOMMENDED CITATION**

Geological Survey of Canada, 2019. Surficial geology, lower Hayes River, Nunavut, NTS 56-M; Geological Survey of Canada, Canadian Geoscience Map 385 (Surficial Data Model v. 2.3.14 conversion of Map 7-1981), scale 1:250 000.  
<https://doi.org/10.4095/313098>

## **ABSTRACT**

This new surficial geology map product represents the conversion of Preliminary Map 7-1981 (Thomas and Dyke, 1982) and its legend, 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 Preliminary Map 7-1981 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 préliminaire 7-1981 (Thomas et Dyke, 1982) et de sa légende, 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 préliminaire 7-1981 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 de la géologie des formations superficielles.

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

## ***GENERAL INFORMATION***

Author: Geological Survey of Canada

Geology by R.D. Thomas (east half) and A.S. Dyke (west half), 1976 and 1977

Geological compilation by R.D. Thomas

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

Geological data conversion by D. E. Kerr, 2012, 2017, and 2018

Geomatics by S. Eagles, K. McNeil, C.D. Stevens, and J. Kingsley

Cartography by N. Côté

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 15  
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.

Mean magnetic declination 2019, 7°27'W, decreasing 4.6' annually

Readings vary from 9°38'W in the NE corner to 5°21'W in the SW 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  
(<https://geoscan.nrcan.gc.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.

### ***CARTOGRAPHIC REPRESENTATIONS USED ON MAP***

This map utilizes ESRI Cartographic Representations in order to customize the display of standard GSC symbols for visual clarity on the PDF of the map only. The digital data still contains the original symbol from the standard GSC symbol set. The following legend features have Cartographic Representations applied:

- Meltwater channel: minor, paleocurrent direction unknown
- Meltwater channel: minor, paleocurrent direction known
- Moraine ridge: major unspecified

### ***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>

Thomas, R.D. and Dyke, A.S., 1982. Surficial geology, lower Hayes River, District of Keewatin; Geological Survey of Canada, Map 7-1981, scale 1:250 000.  
<https://doi.org/10.4095/109351>

### ***AUTHOR CONTACT***

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

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### ***COORDINATE SYSTEM***

Projection: Universal Transverse Mercator  
Units: metres  
Zone: 15  
Horizontal Datum: NAD83  
Vertical Datum: mean sea level

### ***BOUNDING COORDINATES***

Western longitude: 96°00'00"W  
Eastern longitude: 94°00'00"W  
Northern latitude: 68°00'00"N  
Southern latitude: 67°00'00"N

### **SOFTWARE VERSION**

Data has been originally compiled and formatted for use with ArcGIS™ desktop version 10.2.2 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>