



Natural Resources  
Canada

Ressources naturelles  
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# CANADIAN GEOSCIENCE MAP 242

## RECONNAISSANCE SURFICIAL GEOLOGY

# MARBLE ISLAND

Nunavut  
part of NTS 55-J

Map Information  
Document

Preliminary



Geological Survey of Canada  
Canadian Geoscience Maps

2017

Canada 



## **MAP NUMBER**

Natural Resources Canada, Geological Survey of Canada  
Canadian Geoscience Map 242 (Preliminary)

## **TITLE**

Reconnaissance surficial geology, Marble Island, Nunavut, part of NTS 55-J

## **SCALE**

1:125 000

## **CATALOGUE INFORMATION**

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## **RECOMMENDED CITATION**

Geological Survey of Canada, 2017. Reconnaissance surficial geology, Marble Island, Nunavut, part of NTS 55-J; Geological Survey of Canada, Canadian Geoscience Map 242 (preliminary, Surficial Data Model v. 2.2 conversion of Map 10-1980), scale 1:125 000. <https://doi.org/10.4095/300228>

## **ABSTRACT**

This new surficial geology map product represents the conversion of Map 10-1980 and its legend only, using the Geological Survey of Canada's Surficial Data Model (SDM version 2.2) which can be found in Open File 8041. All geoscience knowledge and information from Map 10-1980 that conformed to the current SDM were maintained during the conversion process. Additional material such as marginal notes or figures which may exist on the original map, are not included here. Supplementary, legacy information was added to complement the converted geoscience data. This consists of ice flow features and striations from McMartin and Henderson, 2004 and Wright, 1967. 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 geologic map information in a structured and consistent manner. This provides an effective knowledge management tool designed around a geo-database which can expand following the type of information to appear on new surficial geology maps.

## **RÉSUMÉ**

Ce nouveau produit dérivé de la carte des formations superficielles 10-1980 a été produit avec le Modèle de données des formations superficielles (MDFS version 2.2) de la Commission géologique du Canada qui a été publié sous forme de dossier public 8041. La connaissance et toutes les données de la carte 10-1980 se retrouvant dans le MDFS ont été maintenues pendant le processus de conversion. Des éléments supplémentaires tels que les notes marginales ou les figures qui peuvent exister sur la carte originale, ne sont pas incluses ici. Des données complémentaires ont été ajoutées pour compléter les données géoscientifiques converties. Ce sont des formes glaciaires et stries de McMartin et Henderson, 2004 et de Wright, 1967. Elles sont identifiées dans la base de données géospatiales. Le but de convertir les cartes publiées antérieurement en langage scientifique commun et en légende commune est de permettre et faciliter la compilation, l'interprétation, la gestion et la diffusion numériques efficace d'information de cartes géologiques de façon structurée et cohérente. Cette base de données géospatiales est un outil de gestion qui pourra évoluer suivant le type d'information à paraître sur les nouvelles cartes des formations superficielles.

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

## ***GENERAL INFORMATION***

Author: Geological Survey of Canada

Geology based mainly on airphoto interpretation and ground observations by J.M. Aylsworth, A.N. Boydell, and W.W. Shilts, 1973.

Geology conforms to Surficial Data Model v. 2.2

Data conversion by D.E. Kerr, 2014, 2015

Geomatics by S. Eagles

Cartography by R. Buenviaje

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

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

Mean magnetic declination 2017, 8°18'W, decreasing 5.7' annually. Readings vary from 6°36'W in the SW corner to 10°02'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/>).

This publication has been scientifically reviewed, but it has not undergone a formal edit.

## ***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.

### **REFERENCES AND ADDITIONAL ICE FLOW DATA FROM:**

- Aylsworth, J.M., Boydell, A.N., and Shilts, W.W., 1981. Surficial geology, Marble Island, District of Keewatin; Geological Survey of Canada, Preliminary Map 10-1980, scale 1:125 000. <https://doi.org/10.4095/109704>
- Cocking, R.B., Deblonde, C., Kerr, D.E., Campbell, J.E., Eagles, S., Everett, D., Huntley, D.H., Inglis, E., Laviolette, A., Parent, M., Plouffe, A., Robertson, L., Smith, I.R., and Weatherston, A., 2016. Surficial Data Model, version 2.2.0: Revisions to the science language of the integrated Geological Survey of Canada data model for surficial geology maps; Geological Survey of Canada, Open File 8041, 45 p. <https://doi.org/10.4095/298767>
- McMartin, I. and Henderson, P. J., 2004. Ice flow history and glacial stratigraphy, Kivalliq Region, Nunavut (NTS 55-J, K, L, M, N, O; 65-I and P): complete datasets, maps and photographs from the Western Churchill NATMAP Project; Geological Survey of Canada, Open File 4595, 1.zip file. <https://doi.org/10.4095/215057>
- Wright, G.M., 1967. Surficial geology, southeastern Barren Grounds, District of Keewatin and District of Mackenzie; Geological Survey of Canada, Map 1217A, scale 1:1 000 000. <https://doi.org/10.4095.108855>

### **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: 92°00'00"W  
Eastern longitude: 90°30'00"W  
Northern latitude: 63°00'00"N  
Southern latitude: 62°30'00"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:

Cocking, R.B., Deblonde, C., Kerr, D.E., Campbell, J.E., Eagles, S., Everett, D., Huntley, D.H., Inglis, E., Laviolette, A., Parent, M., Plouffe, A., Robertson, L., Smith, I.R., and Weatherston, A., 2016. Surficial Data Model, version 2.2.0: Revisions to the science language of the integrated Geological Survey of Canada data model for surficial geology maps; Geological Survey of Canada, Open File 8041, 45 p.  
<https://doi.org/10.4095/298767>