References and additional striation data from

Deblonde, C., Plouffe, A., Eagles, S., Everett, D., Hundey, D.H., Inglis, E., Kerr, D.E., Moore, A., Parent, M., Robertson, L., Smith, I.R., St-Onge, D.A., and Weatherston, A., 2014. Science language for an integrated Geological Survey of Canada data model for surficial geology maps, version 2.0; Geological Survey of Canada, Open File 7631, 464 p. doi:10.4095/294225

Hardy, F. and Deligaty, J., 2006. Surficial geology of the Snowbird Lake area, NTS 65-D; in Martel, E. and Pierce, K., 2006. An ArcView 3.x digital geological atlas of the Snowbird Lake area, NTS 65-D; Northwest Territories Geoscience Office, NWT Open File 2006-02, digital files and 2 maps, scale 1:125 000.

Taylor, F.C., 1963. Snowbird Lake map area, District of Mackenzie; Geological Survey of Canada, Memoir 333, 23 pages.

Abstract

This new surficial geology map product represents the conversion of NWT Open File 2006-02 and its legend only, using the Geological Survey of Canada's Surficial Data Model (SDM version 2.0) which can be found in Open File 7631. All geoscience knowledge and information from map NWT Open File 2006-02 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 and consistent management, analysis, exchange 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 de géologie de surface NWT Open File 2006-02 et la légende seulement, a été produit avec le Modèle de données des formations superficielles (MDFS version 2.0) de la Commission géologique du Canada qui a été publié sous forme de dossier public 7631. La connaissance et toutes les données de la carte NWT Open File 2006-02 se retrouvant dans le MDFS ont été maintenues pendant le processus de conversion. Le but de convertir les cartes publiées antérieurement en langage commun et légende est de permettre et faciliter 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.

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

Catalogue No. M183-1/202-2014E-PDF
ISBN 978-1-100-24654-7
doi:10.4095/296283

© Her Majesty the Queen in Right of Canada, as represented by the Minister of Natural Resources Canada, 2015

Natural Resources Canada | Ressources naturelles du Canada

GEOLOGICAL SURVEY OF CANADA
CANADIAN GEOSCIENCE MAP 202
NORTHWEST TERRITORIES GEOLOGICAL SURVEY
NWT OPEN FILE 2015-03

SURFICIAL GEOLOGY
SNOWBIRD LAKE
Northwest Territories
NTS 65-D
1:125 000

QUATERNARY

HOLOCENE

POSTGLACIAL ENVIRONMENT

O — **Organic deposits, undifferentiated:** peat, soft mud, and acidic water; brown to black fibrous and spongy; semi-dry to water saturated; greater than 1 m thick; associated with bogs, fens, swamps; commonly in poorly drained areas bordering lakes and rivers and in low-lying drainage spillways.

A — **Alluvial sediments, undifferentiated:** detrital mixture of sand and gravel with some silt, clay, and organic material; variable thickness; deposited in modern rivers and streams; stratified and well sorted channel and overbank deposits include floodplains, deltas, terraces, and fans.

PLEISTOCENE

GLACIAL ENVIRONMENT

GFFl — **Glaciofluvial subaerial outwash fan sediments:** coarse grained silt, sand and gravel; poorly to well sorted; planar bedded to crossbedded; variable thickness; derived from glacial ice; flat to rolling plains; commonly contain scoured surfaces, kettles, pits, and ridge terraces.

GFl2 — **Glaciofluvial subaqueous outwash fan sediments:** coarse grained silt, sand and gravel; poorly to well sorted; planar bedded to crossbedded; variable thickness; derived from glacial ice; flat to rolling plains; commonly contain scoured surfaces, kettles, pits, and ridge terraces.

GFc — **Glaciofluvial ice-contact sediments:** coarse grained silt, sand and gravel, with till, cobbles and large boulders locally; poorly to moderately sorted and stratified; variable thickness; forms kames, aprons, and hummocks.

GFh — **Glaciofluvial hummocky sediments:** coarse silt, sand and gravel, and boulders; massive to planar bedded to cross-stratified; variable thickness; comprising plains or groups of mounds or crevasse fill ridges; alignment may be parallel, oblique, or transverse to ice flow direction; associated with kettle depressions, kettle lakes, and scoured bedrock.

GFr — **Esker sediments:** sand and gravel with blocks and boulders; massive, planar bedded to cross-stratified; variable thickness; may consist of one continuous trunk or comprise a complex of multiple ridges; associated with kettle depressions, kettle lakes, and scoured bedrock.

Tv — **Till veneer:** diamicton with massive sandy-silt matrix; contains angular to subrounded cobbles and boulders; minor lenses of stratified and sorted sand; poorly sorted, non-stratified, compact; up to 2 m thick; commonly associated with mud bolls.

Tb — **Till blanket:** diamicton with massive sandy-silt matrix; contains angular to subrounded cobbles and boulders; minor lenses of stratified and sorted sand; poorly sorted, non-stratified, compact; 2 to 10 m thick; commonly associated with drumlinoids and minor moraines.

Th — **Hummocky till:** diamicton with sandy-silt-clay matrix; loose to moderately compact; poorly to moderately sorted; 2 to 10 m thick; commonly characterized by folded and faulted beds; associated with steeply sloped hummocks, deep kettle depressions, boulder lag concentrations, and abundant meltwater channels.

T — **Till, undifferentiated:** sand, gravel, clast and cobble rich diamicton; poorly sorted, loose, permeable; deprived of silt and clay; variable thickness; ablation till. Where overlain by reworked sediment symbol, till is poorly to moderately sorted; loose to moderately compact sandy-gravelly diamicton; derived from reworked (post-depositional) till veneer, till blanket, and hummocky till; less than 2 to 10 m thick; commonly associated with boulder lag deposits and minor lenses of stratified and sorted sand.

U — **Undifferentiated deposits (boulder fields and felsenmeer):** continuous patches of large boulders (0.5 to 3 m); locally derived (frost-heaved) or glacially derived (post-depositional concentration).

PRE-QUATERNARY

R — **Bedrock, undifferentiated:** barren outcrop exposures almost or completely (greater than 75%) deprived of surficial deposits; roches moutonnées, striations and grooves commonly well preserved.

Reworked sediments

Geological contact

Beach crest

Minor moraine, Rogen, ribbed

Eskers, sense inferred

Drumlinoids

Striation, sense known

Sample location

Recommended citation
Geological Survey of Canada, 2015. Surficial geology, Snowbird Lake, Northwest Territories, NTS 65-D; Geological Survey of Canada, Canadian Geoscience Map 202 (preliminary, Surficial Data Model v 2.0 conversion of NWT Open File 2006-02); Northwest Territories Geological Survey, NWT Open File 2015-03, scale 1:125 000. doi:10.4095/296283

Canadian Geoscience Maps

Author: Geological Survey of Canada

Geology by F. Hardy and J. Deligaty (Northwest Territories Geological Survey), 2004

Geology conforms to Surficial Data Model v. 2.0

Data conversion by D.E. Kerr and S. Eagles, 2014

Geomatics and cartography by L. Robertson and D. Viner

Joint initiative of the Geological Survey of Canada and Northwest Territories Geological Survey, conducted under the auspices of Natural Resources Canada's Geo-mapping for Energy and Minerals (GEM-2) Program.

Map projection Universal Transverse Mercator, zone 13.
North American Datum 1983

SURFICIAL GEOLOGY
SNOWBIRD LAKE
Northwest Territories
NTS 65-D
1:125 000

2 0 2 4 6 8 10 km

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

Magnetic declination 2015, 7°39'E decreasing 10.1' annually.
Readings vary from 6°29'E in the NE corner to 8°43'E 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 documentation accompanying the data.

This publication is available for free download through GEOSCAN (http://geoscan.nrcan.gc.ca/).

Preliminary publications in this series have not been scientifically edited.

GEOLOGICAL SURVEY OF CANADA
CANADIAN GEOSCIENCE MAP 202
NORTHWEST TERRITORIES GEOLOGICAL SURVEY
NWT OPEN FILE 2015-03
SURFICIAL GEOLOGY
SNOWBIRD LAKE
Northwest Territories
NTS 65-D