References

Deblonde, C., Plouffe, A., Eagles, S., Everett, D., Huntley, 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

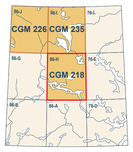
Dredge, L.A., Kerr, D.E., and Ward, B.C., 1996. Surficial geology, Point Lake, District of Mackenzie, Northwest Territories; Geological Survey of Canada, Map 1890A, scale 1:125 000. doi:10.4095/208591

Abstract

This new surficial geology map product represents the conversion of A-Series Map 1890A and its legend only, using the Geological Survey of Canada's Surficial Data Model (SDM version 2.0.1) which can be found in Open File 7631. All geoscience knowledge and information from Map 1890A 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 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 cartographique de la géologie des formations superficielles correspond uniquement à la conversion de la Carte 1890A et de sa légende, en se servant du Modèle de données pour les formations superficielles (MDFS version 2.0.1) de la Commission géologique du Canada, lequel peut être consulté dans le Dossier public 7631. Toutes les connaissances et l'information de nature géoscientifique de la Carte 1890A qui sont en conformité avec le modèle de données ont été conservées pendant le processus de conversion. Le but de cette 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 des formations superficielles.



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

Catalogue No. M183-1/218-2016E-PDF
ISBN 978-0-660-05374-5
doi:10.4095/298703

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Natural Resources Canada / Ressources naturelles du Canada

2nd EDITION

CANADIAN GEOSCIENCE MAP 218

SURFICIAL GEOLOGY

POINT LAKE

Northwest Territories–Nunavut

NTS 86-H

1:125 000

QUATERNARY

HOLOCENE

NONGLACIAL ENVIRONMENT

O — **Organic deposits, undifferentiated:** peat and muck, up to 2 m thick; formed predominantly by the accumulation of vegetative material in bogs; occurs in depressions and along valley bottoms; permafrost is commonly present; may contain small palsas, ice-wedge polygons and thermokarst collapse structures; small unmapped organic deposits occur in most terrain units.

Ap — **Alluvial floodplain sediments:** gravel to silt, generally are stratified and moderately sorted; 1 to 5 m thick; deposited by modern streams and rivers; in places may be covered by icings.

PLEISTOCENE (WISCONSIN GLACIATION)

GLACIAL ENVIRONMENT

GL — **Glaciolacustrine sediments, undifferentiated:** silt and sand; cross-stratified to planar bedded; 1 to 8 m thick; deposited into temporary glacier-dammed lakes and ponds, includes deltaic sediments.

GLACIOFLUVIAL SEDIMENTS: sand, gravel, and minor silt, sorting ranges from good to poor, and stratification from massive or cross-stratified to planar bedded; greater than 1 m thick; deposited by water flowing from or in contact with glacier ice

GFf — **Subaerial outwash fan sediments:** rounded gravel and sand; massive to cross-stratified; probably less than 5 m thick; occurs as braided fans.

GFr — **Esker sediments:** sand, silt, and gravel; in planar, cross-stratified, and massive beds; 1 to 40 m thick; forms ridges with both sharp-crested and flat-topped segments, mounds, flanking aprons and circular rim ridges; deposited at or behind the ice margin; formed subglacially or in subaerially exposed ice-walled channels; zones of washed rock, small transverse gravel ridges, isolated kame deposits and circular rim ridges associated with this unit are shown by symbols.

GLACIAL SEDIMENTS (TILL): unsorted glacial diamicton; slightly stony to stony with silty matrix; 1 to greater than 30 m thick; characteristics strongly influenced by the nature of the local bedrock.

Th — **Hummocky till:** diamicton, from 5 to 30 m thick; forms irregular to rolling terrain with relief up to 15 m; some areas have abundant small meltwater channels and lag concentrations of boulders in depressions.

Tv — **Till veneer:** diamicton, less than 2 m thick; rock structure is generally visible on airphotos; unit includes patches of bedrock and till blanket.

Tb — **Till blanket:** diamicton, from 2 to 10 m thick; occurs as till plains mimicking bedrock topography or as drumlinoids. small rock outcrops in this unit are shown by symbols.

PRE-QUATERNARY

BEDROCK: Archean granitic, gneissic, metasedimentary and metavolcanic rocks; Proterozoic sedimentary rocks, mafic dykes; and minor, younger (Tertiary?) kimberlite; may include patches of till veneer or glaciofluvial deposits; areas of shattered and frost-heaved rock (felsenmeer), particularly on metasediments are designated by symbols.

R1 — **Sedimentary bedrock:** sedimentary rocks.

R2 — **Igneous bedrock:** volcanic, granitoid.

R3 — **Metamorphic bedrock:** metasedimentary and metavolcanic rocks.

Felsenmeer, frost heaved and shattered rock

Area of meltwater lag scour

Geological boundary, defined

Beach crest

Minor meltwater channel, sense known

Major moraine ridge

Esker ridge:

Sense unknown

Sense known

Drumlinoid

Crag-and-tail

Fluted bedrock, sense known

Patterned ground (ice wedge polygon)

Karne, gravelly transverse ridge

Striation:

Well defined, ice flow direction known

Crossed (1 = oldest, 3 = youngest)

Gossan

Outcrop, small

Fossil location

Mineral occurrence (ground observation)

Dated sample location (*see* Table 1)

Sample location

Map ID	Sample ID	Latitude	Longitude	Elevation (m a.s.l.)	Material	Radiocarbon Age	Environment
1	GSC-5943	65.96812E	-113.28948S	450	Peat	3070 ± 60 BP	In esker
2	GSC-5944	65.96812E	-113.28948O	450	Peat	1360 ± 60 BP	In esker

Table 1. Radiocarbon age.

Author: Geological Survey of Canada

Geology by L.A. Dredge, D.E. Kerr, and B.C. Ward, 1996

Geology conforms to Surficial Data Model v. 2.0.1

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

Geology has been spatially adjusted to fit the updated base.

Geomatics by L. Robertson

Cartography by D. Viner

Map projection Universal Transverse Mercator, zone 12. 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

Mean magnetic declination 2016, 16°20'E, decreasing 24.7' annually. Readings vary from 15°33'E in the SE corner to 17°04'W in the NW 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/).

Preliminary publications in this series have not been scientifically edited.

Recommended citation
Geological Survey of Canada, 2016. Surficial geology, Point Lake, Northwest Territories–Nunavut, NTS 86-H; Geological Survey of Canada, Canadian Geoscience Map 218 (2nd edition, preliminary, Surficial Data Model v. 2.0.1 conversion of Map 1890A), scale 1:125 000. doi:10.4095/298703