



Holocene

Organic deposits

- peat and muck, occurring as flat to gently sloping plains
- fO** FENLAND: woody sedge peat, 1-2 m thick
- pO** PEATLAND: sphagnum peat generally underlain by woody sedge peat, 0.5-2 m thick
- pO-k** PEATLAND: contains thermokarst depressions
- pFO** PEATLAND (> 50%) AND FENLAND
- fpO** FENLAND (> 50%) AND PEATLAND

Alluvial deposits

- sand, silt and minor gravel in association with modern drainage regime
- Ap** ALLUVIAL PLAIN: coarse sand and gravel with silt, fine sand and some organic debris, occurring as channel and overbank floodplain sediments or in-channel bars; 3-5 m thick
- Af** ALLUVIAL FAN: mainly sand and silt with minor gravel and discontinuous layers of peat occurring as fan deposits
- Ax** ALLUVIAL COMPLEX: floodplain and fan deposits; may contain small areas of colluvium
- Ax-g** ALLUVIAL COMPLEX, GULLED: floodplain and fan deposits; may contain small areas of colluvium, affected by gully processes
- Ax-k** ALLUVIAL COMPLEX WITH THERMOKARST DEPRESSIONS: floodplain and fan deposits; may contain small areas of colluvium, affected by thermokarst depressions

Colluvial and landslide deposits

- diamict and rubble derived from bedrock and/or surficial material through a variety of colluvial and landslide processes
- Cx** COLLUVIAL COMPLEX: slope complex consisting of diamict and rubble; may include minor landslides (Cz) and/or alluvial fan (Af) units; > 2 m thick
- Cz** LANDSLIDE: bedrock, rubble and/or diamict occurring as stepped or tongue-shaped deposits, formed by rotational slumping, retrogressive thaw flow, debris flows, rock topple and translational slides in surficial sediments and/or bedrock; they are prominent along former meltwater channels

Late Pleistocene

Eolian deposits

- fine to medium sand, minor silt derived from deltaic or glaciolacustrine deposits in association with wind direction
- Ev** EOLIAN VENEER: discontinuous cover of mainly fine sand and silt over other surficial units and bedrock; < 1 m thick
- Evb** EOLIAN VENEER TO BLANKET: discontinuous cover (veneer dominant) of mainly fine sand and silt over surficial materials, most commonly till, lacustrine and/or glaciolacustrine deposits; < 1-10 m thick
- Ebv** EOLIAN BLANKET TO VENEER: discontinuous cover (blanket dominant) of mainly fine sand and silt over surficial materials, most commonly till, lacustrine and/or glaciolacustrine deposits; < 1-10 m thick
- Eb** EOLIAN BLANKET: deposited over surficial materials, particularly lacustrine and till plains; 2-10 m thick
- Er** PARABOLIC DUNES: sand; < 15 m thick
- Ex** EOLIAN COMPLEX: veneer to blanket deposited over other surficial materials, particularly lacustrine and till plain; includes parabolic dunes

Glaciolacustrine deposits

- silt and clay with minor sand and diamict; sediments deposited in a proglacial lake
- Lp** LACUSTRINE PLAIN: flat to gently sloping cover, locally overlain by eolian sand; 1-10 m thick
- Lp-k** LACUSTRINE PLAIN WITH THERMOKARST DEPRESSIONS: flat to gently sloping cover, locally overlain by eolian sand; 1-10 m thick
- Lb** LACUSTRINE BLANKET: deposit conforms to local topography up to 8 m of relief; locally overlain by eolian sand; 2-10 m thick
- Lv** LACUSTRINE VENEER: discontinuous deposits, conforming to local topography; commonly associated with small lakes following ice retreat, locally overlain by eolian sand; < 2 m thick
- Lvb** LACUSTRINE VENEER TO BLANKET: locally overlain by eolian sand; < 3 m thick
- Ls** SHORELINE DEPOSITS: low, ridged beach deposits of sand and gravel; < 5 m thick
- Lx** LACUSTRINE COMPLEX: deltaic sediments transitional between glaciolacustrine and glaciolacustrine deposits with upper 0-5 m consisting of sand; locally overlain by eolian sand; < 20 m thick

Glaciolacustrine deposits, outwash

- sand and gravel locally with a veneer of eolian silt and/or sand; deposited as proglacial sediment by glacial meltwater
- Gp** GLACIOFLUVIAL PLAIN: flat to gently sloping; 2-20 m thick
- gt** GLACIOFLUVIAL TERRACE: 10-50 m thick
- Gv** GLACIOFLUVIAL VENEER: with slopes conforming to underlying topography; < 2 m thick
- gf** GLACIOFLUVIAL FAN: mainly coarse gravel with minor sand, locally with mudflow deposits; commonly deposited in a meltwater channel or lake; 5-7 m thick

Glaciolacustrine deposits, ice contact

- sand and gravel locally with a veneer of eolian silt and/or sand; deposited as ice-contact sediment by glacial meltwater
- Gx** GLACIOFLUVIAL COMPLEX, includes eskers, kames and plains, commonly with thermokarst ponds; in places; 2-30 m thick
- Gx-c** GLACIOFLUVIAL COMPLEX, CHANNELLED: containing ridges, hummocks and levelled plains, affected by glaciolacustrine channeling; common along Blackwater River; 2-50 m thick

UNDERSTANDING THE LEGEND

The generic category of surficial material is indicated by the first upper case letter, e.g., G (glaciolacustrine). The morphologic category is indicated in lower case following the generic category, e.g., Gp (glaciolacustrine plain). The modifying processes are indicated in lower case separated from the morphologic category by a (-) e.g., Gp-k (glaciolacustrine plain with thermokarst processes).

Combined units are used where, for reasons of scale, the units cannot be separated. The main unit, covering over 50% of the geologic polygon, is separated by a |) from the secondary unit, e.g., Gp-k.Lp. In cases where the polygon has a third unit it is represented by a patterned symbol, e.g., eolian sand cover, peatlands or fenlands.

Glacial deposits

- unsorted silt, sand, and clay with clasts (pebbles, cobbles and some boulders) deposited by glacial ice in a variety of landforms
- Tp** TILL PLAIN: flat to gently sloping; 3-5 m thick
- Tb** TILL BLANKET: gently to moderately sloping plain conforming to underlying topography; 2-8 m thick
- Tbv** TILL BLANKET TO VENEER: conforming to underlying topography; 2-8 m thick
- Tvb** TILL VENEER TO BLANKET: conforming to underlying topography
- Tv** TILL VENEER: with slopes conforming to underlying topography; < 2 m thick
- Tx** TILL COMPLEX: largely hummocky, ridged, and/or hilly with patches of gravel; in some places Tx forms veneer over bedrock

Paleozoic to Mesozoic

Bedrock

- primarily prominent ridges, escarpments and hills associated with Devonian rocks
- R** Ordovician shale (various colours) and limestone mostly in plains areas; Paleozoic limestone, dolomite, shale (various colours), siltstone, mudstone and sandstone mostly in mountainous areas

Organic Deposits

- This pattern is used when organic deposits appear as a second or third component in a polygon
- Fenland constituting 10 - 50% of the map unit
- Peatland constituting 10 - 50% of the map unit
- Peatlands and fenlands undivided constituting 10 - 50% of the map unit

Eolian Deposits

- This pattern is used when eolian sand veneer appears as a second or third component in a polygon, eg. Tp Gx Ev
- Discontinuous veneer (<1m) mainly fine sand and silt covering other surficial units and bedrock

Colluvial Deposits

- This pattern is used when colluvial veneer and sheetwash deposits appear as a second or third component in a polygon, eg. Tv Cx, Tv Lb, Cx
- Discontinuous veneer (<1m) mainly diamict and rubble that conforms to local topography

Geological boundary (defined)

- Moraine ridge: unconsolidated sediments (silt, sand and gravel) deposited in ridges at terminal, recessional, lateral and medial positions with respect to ice margins
- Meltwater channel (minor): erosion and channel formation by meltwater flow along, beneath or in front of a glacier or ice sheet; range from broad, shallow channels to deeply incised, steep-sided channels, may run across or along slope contours; may be presently dry
- Paraglacial channel
- Esker (direction certain): sinuous, low ridge composed of sand and gravel; formed by deposition from meltwater running through a channel beneath or within glacier ice
- Esker (direction uncertain): sinuous, low ridge composed of sand and gravel; formed by deposition from meltwater running through a channel beneath or within glacier ice
- Shoreline of former lake: low, ridged beach deposits of sand and gravel
- Shoreline of former lake common to two lakes: low, ridged beach deposits of sand and gravel
- Dune ridge
- Landslide
- Ground Station

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Geology by A. Duk-Rodkin, 2007
Digital cartography by B. Finston and D.A. Lamsy
Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada
Digital base on Geomatics Canada, modified by the Geological Survey of Canada
Mean magnetic declination 2011, 21°29'E, decreasing 2.2° annually.
Readings vary from 21°42'E in the NW corner to 21°12'E in the SE corner of the map
Elevations in metres above mean sea level

