



MAP 2005 - 03
OLD PERLICAN
 NEWFOUNDLAND

0.8 0.4 0 0.8 1.6 2.4 3.2
 km

LEGEND

Each outlined area is assigned a classification consisting of up to three generic categories and modifiers that designate the types of deposits within each area. Each category within a classification is listed in order of dominance and is separated from the other categories by a slash (e.g., Tc1). Generally, the areas are divided so that three landforms or deposit types are identified within a given area. The classification system is also used to denote the approximate percentage of landforms occurring within an outlined area, but those which form less than 5 percent of the area are not included in the classification. Four variations of the landform system are as follows:

- Where three different landforms are included in a single map unit they are each separated by a single slash (/) and their relative percentages are (80-80), (15-35), and (5-15).
- Where two landforms are included in a single map unit, a double slash (//) or single slash (/) is used to separate them, and their relative percentages are (80-20) or (15-15) for double slash, or (80-15) or (15-15) for a single slash.
- A hyphen between two landform types indicates that they are approximately equal in area. For example, Tc1c1 indicates that 50 percent of the area is covered by fluvial sediment, 15-40 percent by glacioluvial sediments, and is underlain by 85.
- A composite symbol is used to show combinations of the above codes. For example, Tc1c1// indicates that about 80-85 percent of the area is covered by fluvial sediment, 15-40 percent by glacioluvial sediments, and is underlain by 85.

GENETIC CLASSIFICATION

Symbol	Depositional Environments	Origin and Characteristics of Materials
	Bog	Pointy drained accumulations of peat, peat moss and other organic matter; developed in areas of poor drainage
	Fluvial	Alluvium consisting of silt and clay to boulders; gravel, fine, medium and coarse sands associated with modern stream channels, their floodplains and deltas; usually less than 1 m thick, deposited by fluvial action of below maximum flood levels
	Colluvial	Coarse-grained bedrock derived materials; may include sand, silt or clay; accumulates on the lower parts, or at the base of steep rock faces, transported by gravity
	Aeolian	Medium to fine-grained sand and silt, well sorted, poorly compacted; commonly forms as dunes up to 10 m high; transported and deposited by wind
	Glacioluvial	Fine-grained sand to coarse-grained silt/clay; forms (drift, ridges, eskers), hummocks, kames and deltas; generally greater than 1 m thick; deposited as outwash in an ice-contact or proglacial position
	Lacustrine	Silt, clay, gravel and sand; forms as plains and basins; silt and clay is deposited in freshwater lakes from suspension, sand and silt by lake-floor currents, gravel and sand by shoreline wave action
	Marine	Clay, silt, gravel and sandstone; sand is present in some places, generally moderately to well sorted and commonly stratified, but may be massive; some shales, dolomite, sandstone and bars deposited in a marine environment; gravel and sand are formed by shoreline wave action; may include shells and silt deposited from suspension and turbidity currents; generally a wave-washed lag
	Glacial	Includes all types of till composed of diamictite; transported and subsequently deposited by ice from local or distant sources; may be massive or stratified; may contain clasts of 10 m diameter (Tc, Tc1, Tc1c1, Tc1c1c1) or bedrock clasts through ice disaggregation (Tc, Tc1)
	Rock	Bedrock, either exposed (R) or concealed by vegetation (Rc)

MORPHOLOGY

Symbol	Morphology	Description
a	apron	A relatively gentle slope at the foot of a steeper slope; commonly used to describe colluvium at the base of a rock escarpment; consists of material derived from the usually steeper upper slope
b	barren	Any deposit greater than 1.5 m thick, minor irregularities of the underlying unit are masked but the major topographic form is still evident
c	concealed by vegetation	Vegetation that developed on either colluvial surfaces or a thin layer of angular frost-shattered and high-mass rock fragments; overlying bedrock, includes areas of shallow (less than 1 m), discontinuous outwash
d	dramatic	Elongate ridges between 1.5 and 20 m high, 20 and 300 m wide, and 200 to 5000 m long; ridges have a rounded and pointing in the up-slope direction and gently sloping sides that taper in the down-slope direction; exhibit a convex longitudinal profile, commonly with a steeper slope in the up-slope direction; consist of high-mass rounded, angular clasts in a matrix of fine-grained sand and silt; the surface of gentle flow; commonly consist of silt, although some may contain stratified drift; may have a rock core
e	eroded and dissected	A series of closely spaced gullies or closely spaced channels, can have a dendritic pattern or may be a single straight or slightly channel gullies and channels may contain underdrains
f	fan	A gently sloping accumulation of debris deposited by a stream issuing from a valley onto a basin; has a fan shape as a result of the valley floor which the stream issues; the fan slope results from the deposition of material as the stream swings back and forth across the basin; basal fans are usually formed from eroded glacial and glacioluvial deposits; glacioluvial fans (delta) are deposited in standing water rather than in a terrestrial environment; colluvial fans are derived from bedrock and are usually steeper (1:10, cone shaped)
h	hummock	An apparently random assemblage of knobs, mounds, ridges and depressions without any pronounced orientation; irregular form or orientation; formed by glacial melting during ice stagnation and disintegration; includes subglacial, englacial, supraglacial and stratified materials
k	kettle	A basin or bowl-shaped closed depression or hollow in glacial drift; results from the melting of a block of partly buried bedrock block or lens of glacial ice; commonly occurs in association with hummocks
l	leveled	Elongate saddle-shaped ridges between 5 and 60 m high, 75 and 200 m wide and up to 4000 m long; ridges are commonly straight sided, taper at one or both ends, and have a flat longitudinal profile; consist of subglacially formed deposits shaped in a streamlined form parallel to the direction of ice flow; commonly consist of silt, although some may contain stratified drift; may have a rock core
p	plain	A comparatively flat, level, or slightly undulating tract of land; materials are either silt, glacioluvial, alluvial, marine, lacustrine or organic sediments; bedrock features are commonly masked by the overlying sediments
r	ridge	Narrow, elongated and commonly associated features that rise above the surrounding terrain; materials are either rock, silt, glacioluvial, fluvial, marine, lacustrine, aeolian, or organic sediments; includes long low (L)
t	terrace	Long, narrow, level or gently inclined step-like surface, bounded along one edge by a steep or oversteep slope or cliff and along the other by a steep ascending slope or ridge; terraces are either silt, glacioluvial, fluvial or lacustrine sediments; generally formed by fluvial and glacioluvial erosion or coarse wave action
v	veener	Any deposit less than 1.5 m thick; morphology of the underlying unit is evident
w	weathered	A thin layer, generally less than 1 m thick, of frost heaved and frost-shattered bedrock fragments
x	complex	Commonly used to indicate numerous other ridges that are closely spaced; can be used where any generic category exhibits numerous surface expressions in a small area, and in which no single element can be defined at this scale

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
 Department of Natural Resources
 Geological Survey

SURFICIAL GEOLOGY OF THE OLD PERLICAN MAP SHEET (NTS 2C03)
 MAP 2005 - 03

SYMBOLS

Geological boundary		Drumlin (direction known, unknown)	
Scarp face at edge of fluvial terrace		Clay and silt fill	
Cirque		Fluting	
Esker (flow direction known or assumed, unknown)		Ridge mounds	
Meltwater channel (small, large)		Asanatcha track	
Chestline of major moraine ridge		Kettle hole (small, large)	
Trend of ribbed or minor moraine ridges		Beach ridges	
Sea-level rise		Cheesewick ridge	
Sand dunes		Delta	
Radacation date		Radacation date	

Note: All symbols and classifications may not occur on this map. Elevation in feet above mean sea level. Contour interval 50 feet.

Geology by M.J. Batterson. Map edited by D.M. Taylor.
 GIS/cadastre cartography by T.J. Sears
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 Department: <http://www.gov.nl.ca/nres/>
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 E-mail: dl@nres.gov.nl.ca
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