

1:50000 SURFICIAL GEOLOGY MAP SERIES - ISLAND OF NEWFOUNDLAND

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GENETIC OR PROCESS/ENVIRONMENT CATEGORIES OF TERRAIN CLASSIFICATION

	ROCK	C	T (Hil)	F	GF	L	M	O	E
	ROCK	COLLUVIAL	MORAINAL	FLUVIAL	GLACIOFLUVIAL	LACUSTRINE	MARINE	ORGANIC	ESOLAR
c concealed	observed only by vegetation	-	-	-	-	-	-	-	-
v "weathered"	frost-broken (felsenmeer)	- winnowed, "washed" and subdued by wave action	-	-	-	-	-	blowouts
e eroded channelled by former streams of glacial meltwater, in a braided or parallel pattern	-	-	-	-	-	-	-	-
gullies dissected by modern ravines in a dendritic pattern	-	-	-	-	-	-	-	-
k "collapsed"	karet	-	kettled	-	kettled	kettled	kettled	-	-
p plain	plain	plain	plain	floodplain	outwash plain	plain	plain	'high bog'	plain
v veneer	-	thin enough - usually less than 10 feet thick - to reveal geomorphic fabric of underlying formation	-	-	-	-	-	-	-
r ridged	corrugated with parallel struts; flection ridges, igneous and tectonic foliation	terraces	transverse elements: and, recessional, ribbed, De Geer moraines	point bars	eskerline complex	beach bars, strand-lines and wave-cut benches	string bog	dunes	-
h hummocky	-	-	ablational and chaotic disintegration moraine	-	kames	-	-	palae	dunes
l lineated	fractured	solifluction lines	longitudinal elements: drumlins, fluting, crag-and-tail hills	meander scars	-	-	-	vegetation stripes	-
d delta	-	-	-	delta	-	delta	delta	-	-
f fan	-	talus cone	-	alluvial fan	-	-	-	-	-
a apron	-	scree slope	-	-	-	apron	apron	-	-
t terrace	-	anticlinal terrace; bench	-	terrace; bench	kame terrace	terrace; bench	terrace; bench	-	-

SYMBOLS

EXPLANATORY NOTES

- Boundary of terrain units; defined, approximate, transitional
- Longitudinal ice-flow features
- Drumlin, drumlinoid, fluting
- Crag-and-tail hill
- 80% moutonise
- Striation
- Transverse ice-flow features
- Crestline of end moraine; prominent and continuous, subdued and broken
- Ribbed moraine, De Geer moraine, minor moraine
- Esker, crevasse filling
- Solifluction lines in colluvial and organic terrain
- Stratification ridges in sedimentary and volcanic rocks; igneous and tectonic foliation
- Depressional lineament along fracture or fault trace
- Abandoned channel of former meltwater stream
- Emergent shorelines of former proglacial lake or marine submergence
- Landelide scar
- Scarp of terrace, bench, delta
- Marl sediment in lake or pond
- Location of sample
- Spring
- Shoehole, pond
- Location of radiocarbon-dated organic material

COMPLEXES

Where two or more classes of terrain are interspersed in a mosaic or repeating pattern on a scale too small to warrant meaningful differentiation, the proportion of each component in the combination is given in a three-position designation set off by slashes denoting arbitrary percentage limits. For example "T₁₀/O₉₀" means that at least 60% of the area is underlain by thin till, with up to 40% boggy areas, and less than 15% scattered rock outcrops. R₆₀/H₄₀ indicates more than 60% bedrock concealed by vegetation and less than 15% outcrop.

MORPHOLOGIC OVERPRINT

Where a sequence of geomorphic processes has produced a multi-aspect or compound terrain fabric, the geomorphic modifier suffixes are appended in the inferred order of superposition. "T₁₀/H₁₀" means that a veneer of till has been moulded into a meander or drumlinoid form, then mantled with hummocky till during ablation, and finally channelled by former meltwater streams.

TRANSITIONAL ASSOCIATIONS

Locally, two or more terrain units are juxtaposed by reason of related origin, temporal sequence, or ambiguous geomorphic distinction. Such situations are identified by a compound designation marked by a hyphen. Examples are: an outwash plain that slopes down and is transitional to a marine terrace ("O₁₀ - H₉₀") or kame and kettle glaciofluvial topography that blends with hummocky disintegration moraine ("G₁₀ - H₉₀").

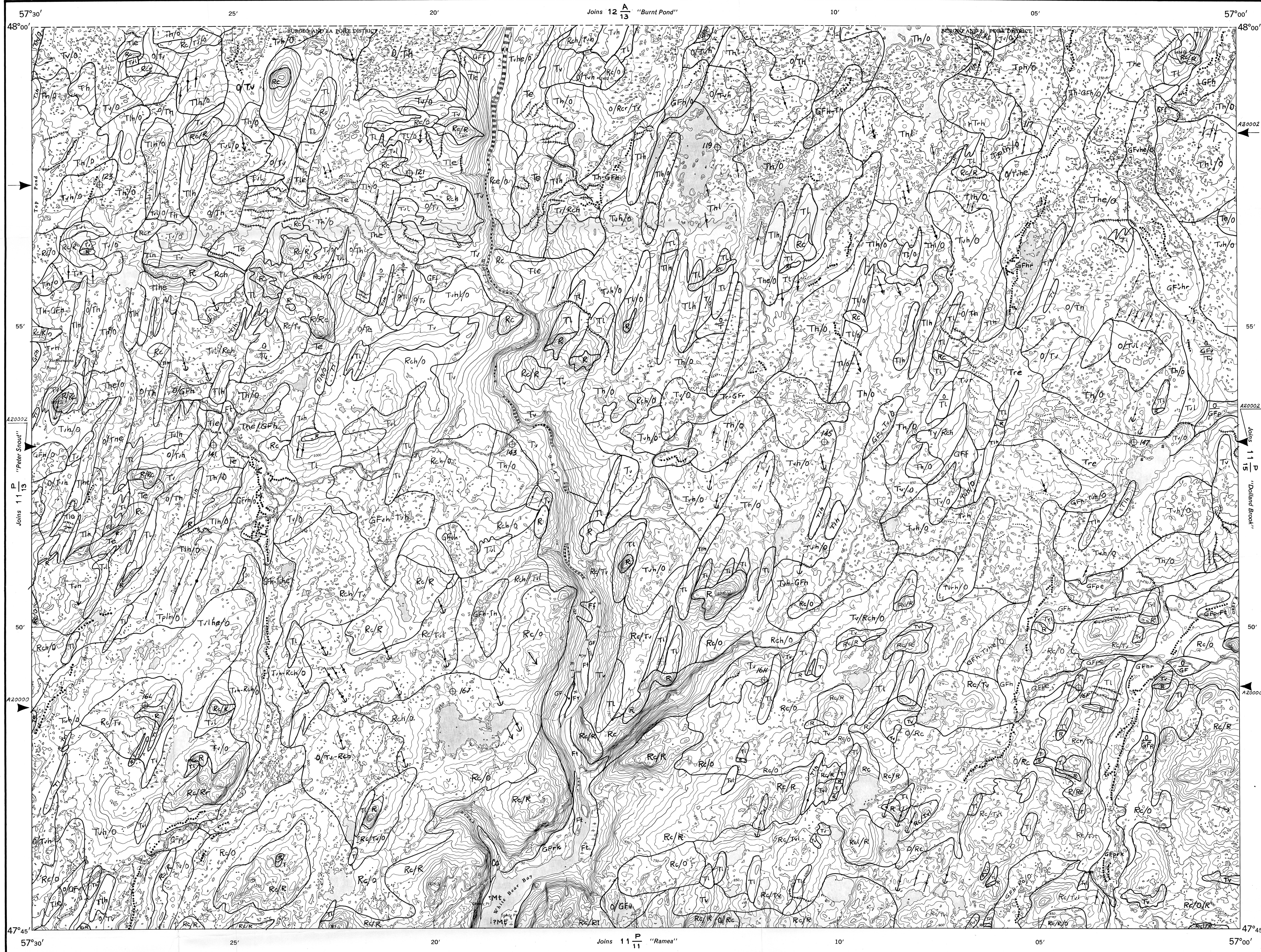
STRATIGRAPHIC SEQUENCE

Natural exposures are rare, except along coasts, and are minimally shallow along roads, but where materials of different origin or texture are known to be superimposed, or can be reasonably confidently inferred, the sequence is indicated in conventional order using horizontal separators, such as, "O₁₀ / H₉₀ / R₁₀", which indicates that thin muskeg has developed over a marine terrace on drumlinoid till.

TEXTURAL MODIFIER

Ordinarily, textural characteristics are implied by the genetic-morphologic assignment, but occasionally more specific grain-size information is available either from ground observation or by inference from distinctive morphology, or where texture differs significantly from that usually associated with a particular process, as in the case of a purely sand esker, or a gravelly alluvial plain. Textural designations are: "r" for rocks and rubble, "g" for gravel and sand, "s" for sand, "st" for fine sand and silt, "e" for silt and clay. Combinations such as "gs" signify a stony matrix, like the sort of "till" produced by the accumulation of ice-rafted debris at the terminus of a floating glacier.

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SURFICIAL GEOLOGY

WHITE BEAR RIVER

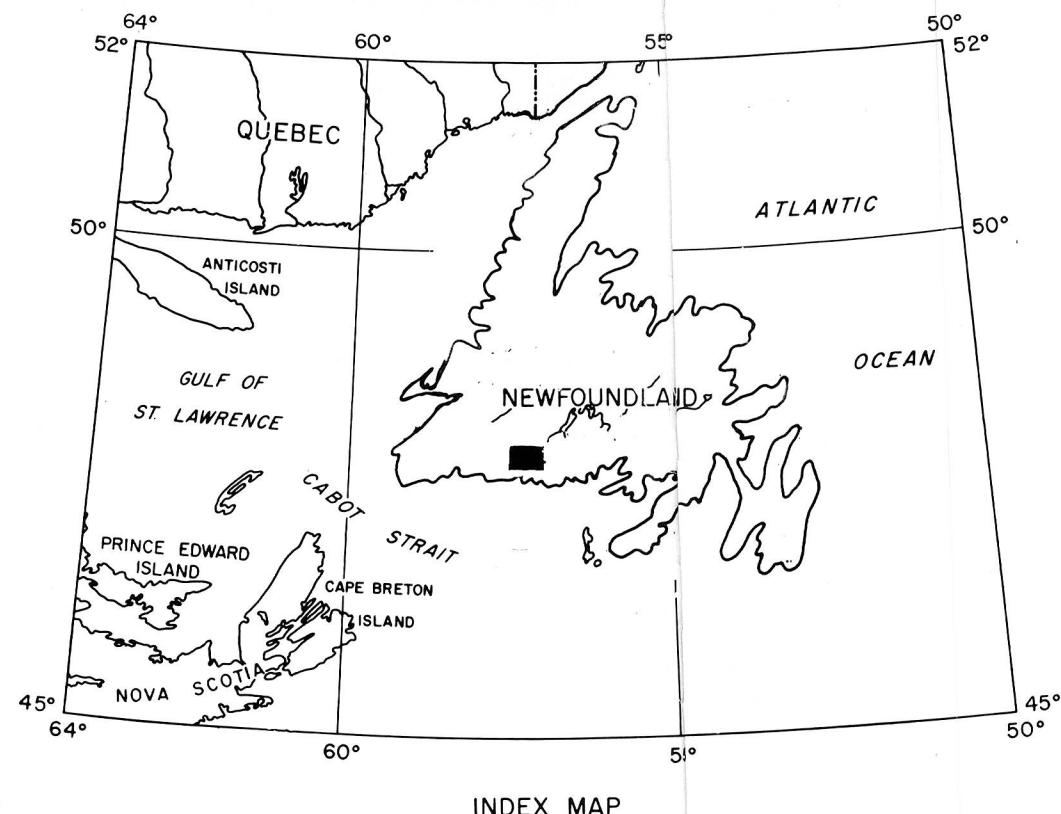
NEWFOUNDLAND

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WHITE BEAR RIVER
NEWFOUNDLAND

1 1/2 0 1 2 3
MILE MILES



INDEX MAP