



1:50000 SURFICIAL GEOLOGY MAP SERIES - ISLAND OF NEWFOUNDLAND
D.R. Grant
Geological Survey of Canada

GENETIC OR PROCESS/ENVIRONMENT CATEGORIES OF TERRAIN CLASSIFICATION

GENETIC OR PROCESS/ENVIRONMENT CATEGORIES	K KARST	C COLLUVIAL	M MARINE	F FLUVIAL	GF GLACIOFLUVIAL	L LACUSTRINE	N NEGLIGIBLE	O ORGANIC	E EOLIAN
geomorphic modifier									
c concealed	observed only by vegetation								
v weathered	front-broken (falconer)			wimowed, "washed" and subdued by wave action				blowouts	
e eroded				channeled by former streams of glacial meltwater, in a braided or parallel pattern					
g gullied				dissected by modern ravines in a dendritic pattern					
k 'collapsed'	karst		kettled		kettled		kettled		
p plain	plain	plain	floodplain	outwash plain	plain	plain	plain	"high bog" plain	plain
v veneer		thin enough - usually less than 10 feet thick - to reveal geomorphic fabric of underlying formation							
r ridged	corrugated with parallel stratification ridges, igneous and tectonic foliation	terrace	transverse elements: end, recessional, ribbed, de Geer moraines	point bars	eskerine complex	beach berms, strand-lines and wave-cut benches		string bog	dunes
h hummocky			ablation and chaotic disintegration moraine		kames			palas	dunes
d drumlinoid			longitudinal elements: drumlins, fluting, drag-and-tail hills						
l lineated	fractured	solifluction lines		meander scars				vegetation stripes	
d delta				delta	delta				
f fan		calus cone		alluvial fan					
a apron		scree slope			apron	apron			
t terrace		anticlinal terrace; bench		terrace; bench	kame terrace	terrace; bench	terrace; bench		

SYMBOLS

- Boundary of terrain units: defined, approximate, transitional
- Longitudinal ice-flow features
- Drumlin, drumlinoid, fluting
- Drag-and-tail hill
- Shoie moutonnée
- Striation
- Transverse ice-flow features
- Crestline of end moraine; prominent and continuous, subdued and broken
- Ribbed moraine, De Geer moraine, minor moraine
- Lake, 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
- Emerald shorelines of former proglacial lake or marine submergence
- Landslide scar
- Scarp of terrace, bench, delta
- Marl sediment in lake or pond
- Location of sample
- Spring
- Stinkhole, pond
- Location of radiocarbon-dated organic material

EXPLANATORY NOTES

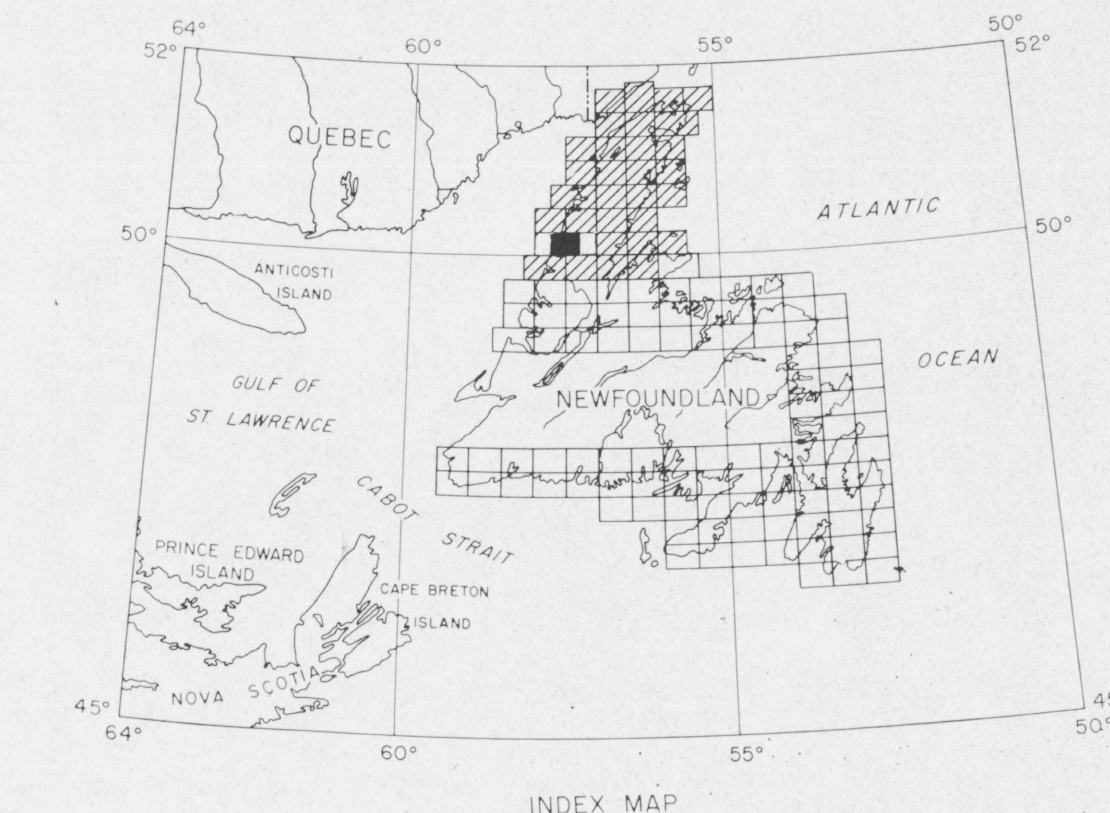
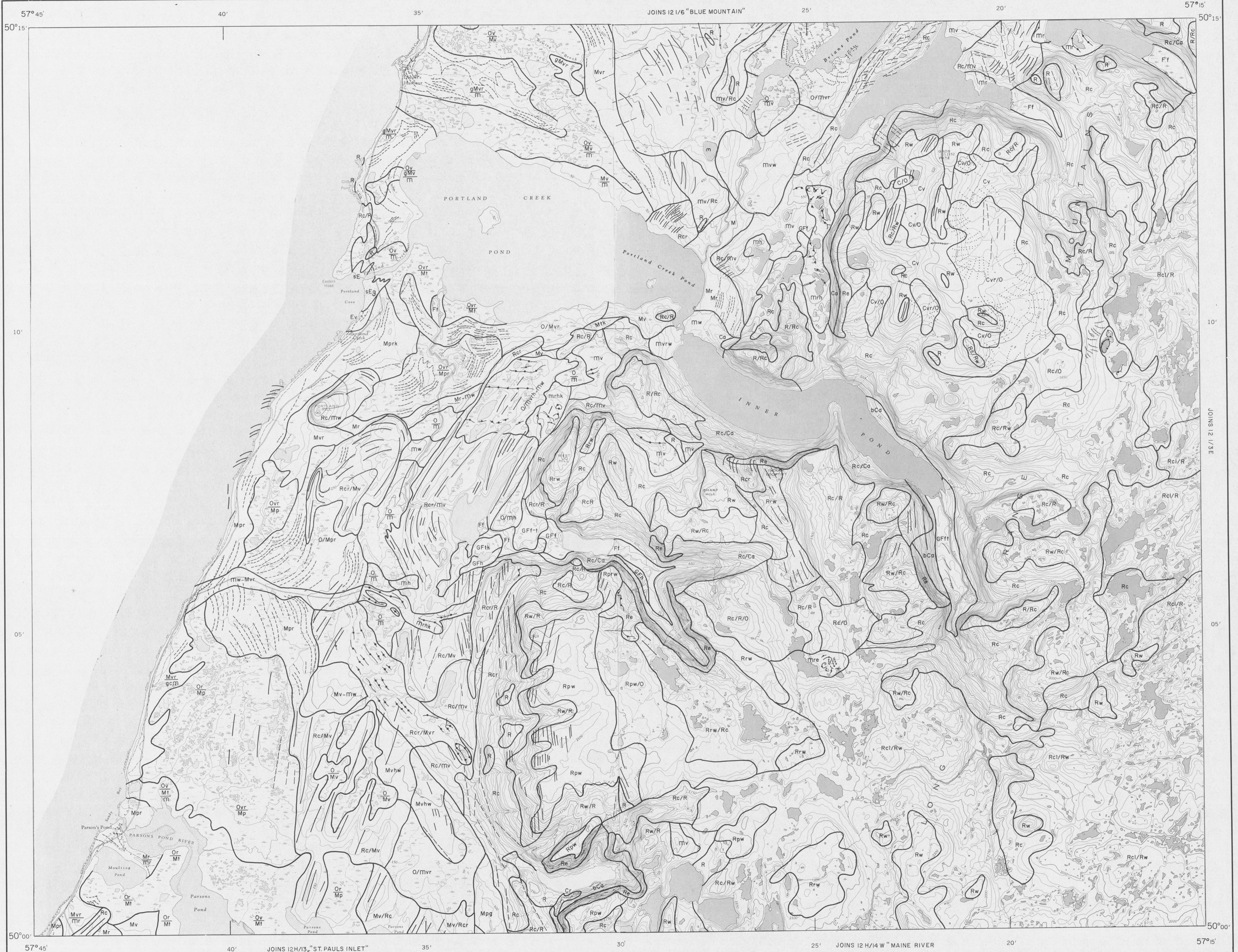
COMPLEXES
Where two or more classes of terrain are interposed in a mosaic or repeating pattern on a scale too small to warrant meaningful differentiation, the proportion of each component in the combination is given in a three-position designation set off by slashes denoting arbitrary percentage limits. For example "mv/0/0" means that at least 80% of the area is underlain by this till, with up to 10% boggy areas, and less than 1% scattered rock outcrops. R/R indicates more than 80% bedrock concealed by vegetation and less than 1% outcrop.

NONISOPHONIC OVERLAP
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. "m sh" means that a veneer of till has been hummocked into a smoozed 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 ("0p - Rc") or kame and kettle glaciofluvial topography that blends with hummocky disintegration moraine ("0p - sh").

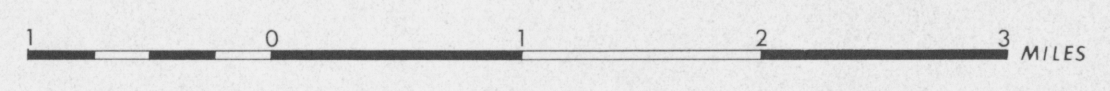
STRATIOPHONIC SEQUENCE
Natural exposures are rare, except along coasts, and are minimally shallow along roads, but where materials of different origin or texture are known to be superposed, or can be reasonably confidently inferred, the sequence is indicated in conventional order using horizontal separators, such as:
Ov / Mv / Rc
The "Ov" indicates that this marking has developed over a marine mantle on drumlinoid till.

TEXTURAL MODIFIERS
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 textures differ 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: "s" for rocks and rubble; "g" for gravel and sand; "f" for sand; "st" for fine sand and silt; "cl" for silt and clay. Combinations such as "st" signify a sandy pellet, like the sort of "fill" produced by the accumulation of ice-rafted debris at the terminus of a floating glacier.



SURFICIAL GEOLOGY
PORTLAND CREEK-INDIAN LOOKOUT
NEWFOUNDLAND

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