



CANADA NEWFOUNDLAND MINERAL EXPLORATION AND EVALUATION PROGRAMME

SURFICIAL GEOLOGY

NEW BAY POND MAP-AREA



LEGEND

GENETIC OR PROCESS/ENVIRONMENT CATEGORIES OF TERRAIN CLASSIFICATION

	R	C	m	F	GF	L	М	0	E	
GEOMORPHIC MODIFIER	ROCK	COLLUVIAL	MORAINAL	FLUVIAL	GLACIOFLUVIAL	LACUSTRINE	MARINE	ORGANIC	EOLIAN	
c concealed	obscured only by vegetation	-	_	-	_	-	-	-	_	
w 'weathered	frost-broken (felsenmeer)	-	winnowed,	"washed" and	subdued by way	e action	• • • • • •	-	blowouts	
e eroded	channel	channelled 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	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 strati-fication ridges, igneous and tectonic foliation	terracettes	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		-	ablational and chaotic disinte- gration moraine	-	kames	, ,	-	palsa	dunes	
d drumlinoid	<u>-</u>	-	longitudinal ele- ments: drumlins, fluting, crag-and- tail hills	. -			-		-	
1 lineated	fractured	solifluction lines		meander scars	-	-	_	vegetation stripes	_	
d delta	-	_	-	delta		delta	delta		-	
f fan	_	talus cone		alluvial fan	e se	-	-			
a apron	_	scree slope	≟ .	-	_	apron	apron	-	_	
t terrace	·	antiplanation terrace; bench	=	terrace; bench	kame terrace	terrace; bench	terrace; bench	-	-	

SYMBOLS

Boundary of terrain units; defined, approximate,

Drumlin, drumlinoid, fluting

Longitudinal ice-flow features

Crag-and-tail hill

Rôche moutonnée

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

Emerged shorelines of former proglacial lake or marine

Landslide scar

Scarp of terrace, bench, delta

Marl sediment in lake or pond

O Location of sample

Spring

X Sinkhole, pond

Location of radiocarbon-dated organic material

Boulder train (dispersion fan of mineralized fragments)

Boundary of geochemical test area

Isopleth of per cent granite fragments in till

Down-ice edge of granite source area

EXPLANATORY NOTES

ate, <u>COMPLEXES</u>

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 "mv/OR" 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. Rc//R 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. "m vdhe" means that a veneer of till has been moulded into a smeared 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 ("GFp - Mt") or kame and kettle glaciofluvial topography that blends with hummocky disintegration moraine ("GFh - Mhe").

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,

 $\frac{\overline{Mv}}{md}$, which indicates that thin muskeg has developed over a marine mantle on drumlinoid till.

TEXTURAL MODIFIER

Ordinarily, textural characteristics are implied by the genetic - morphologic assignment, but occasionally more specific grainsize 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; 'c' for silt and clay. Combinations such as 'gc' signify a stony pelite, like the sort of "till" produced by the accumulation of ice-rafted debris at the terminus of a floating glacier.

D.R. Grant

Geological Survey of Canada