

LEGEND

SURFICIAL DEPOSITS

QUATERNARY

HOLOCENE - LATE WISCONSINAN

MA/OW MARINE - ALLUVIAL AND OUTWASH DEPOSITS (MA, OW): MA, silty clay, sand and gravel forms estuarine deposits, alluvial floodplains and alluvial channel deposits. OW, silt, sand and gravel, massive to horizontally bedded, channel sequences common; forms flat plains and terraced deposits.

IC ICE-CONTACT DEPOSITS (IC): silty sand, gravel and boulders, abrupt grain size transition from shallow- to steeply-dipping beds; faulting is common; clasts reflect provenance of surrounding till; may be interstratified with till forms kames, kame terraces, ice contact deltas and eskers; thickness 1-15m.

LATE - MIDDLE WISCONSINAN

GSRT/MSRT SHELburne RIVER TILL: Occurs as granite (GSRT) and greywacke/slate (MSRT) lithological facies; loose, texture varies from a sandy matrix-rich to a stony, clast supported till; colour varies from white (10YR8/1) to very pale brown (10YR7/3); nonweathered appearance; occurs as hummocks, ridges and a rolling ground moraine; deposits are crudely stratified; spatially associated with kames and eskers; exhibits extensive onlap of clasts down-ice onto adjacent bedrock units; renewal distances vary from 0.1 km to 5 km; matrix may be derived from up-ice lithologies and may not reflect the composition of the pebble fraction; thickness varies from 1-3 m in areas of ground moraine to 10-15 m on hummocks and ridges; the major transport direction is toward the southeast with lesser transport toward the south and west.

GTC/GWC/SLC BEAVER RIVER TILL: Divided into ablation, ground moraine and drumlin-derived units.

GTB/GWB/SLB Ground moraine: Subdivided into granite (GTB) and greywacke-slate (GWB) lithological facies; structureless stony matrix, though sandier varieties with washed zones around boulders are common; colour varies from light yellowish-brown (10YR6/4) to dark yellowish-brown (10YR4/4) in the granitic facies, light olive-brown (2.5Y5/4) in the greywacke and slate facies; generally flat, a featureless ground moraine; exhibits rapid lithological change down-ice of bedrock contacts; 90% of clasts are transported less than 1 km; renewal distances vary from tens to hundreds of metres; thickness 1-5 m; glacial transport directions are difficult to determine due to short renewal distance, it is south-southwest across most of the South Mountain Batholith (SMB); northward, northwesterly and westward dispersal was mapped in the northern and western margins of the SMB.

GTB(D) Drumlin-derived moraine (GTB(D)): Loose, medium- to coarse-grained, sandy matrix, moderately stony, minor washing colour is brown (10YR5/3) to dark yellowish-brown (10YR4/4); till mantles and forms a ground moraine between drumlines; nongranitic lithologies are incorporated from stratigraphically older tills; matrix composition is in part dependent on composition of reworked older till; thickness 1-4 m; actual glacial transport directions are the same as those of the ground moraine unit; however, a strong southeast transport was inherited from older, reworked southeast-transported tills.

LT LAWRENCE TOWN TILL (LT): Muddy to sandy till, moderately compact, containing green mottling in the weathered zone; colour varies from dark reddish-brown (2.5YR3/4) to strong brown (7.5YR4/6); occurs as a ground moraine and drumlines; clast lithologies vary from 10-90% local bedrock to 10-20% non-granitic clasts derived from as far as 90 km; distal sources are the metasedimentary/volcanic massifs of the Cobouid Highlands, Meguma Group, metasedimentary and volcanic rocks of the White Rock, New Canaan, Kentville and Torbrook formations, and North Mountain basalt; renewal distances vary from hundreds of metres to tens of kilometres; thickness is 1-2 m as a ground moraine and 4-30 m as drumlines; dispersal direction varies from southward to southeastward.

EARLY WISCONSINAN (?)

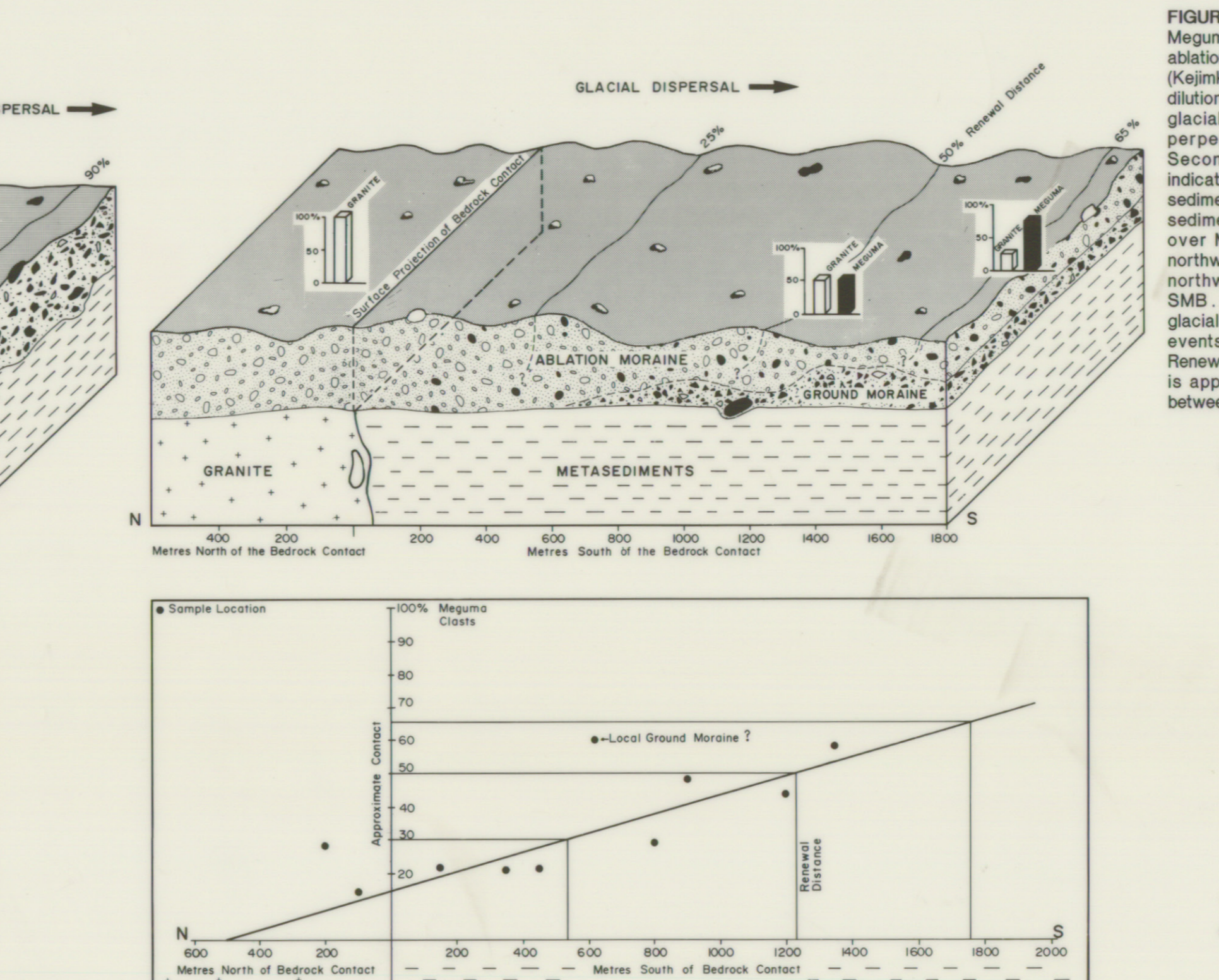
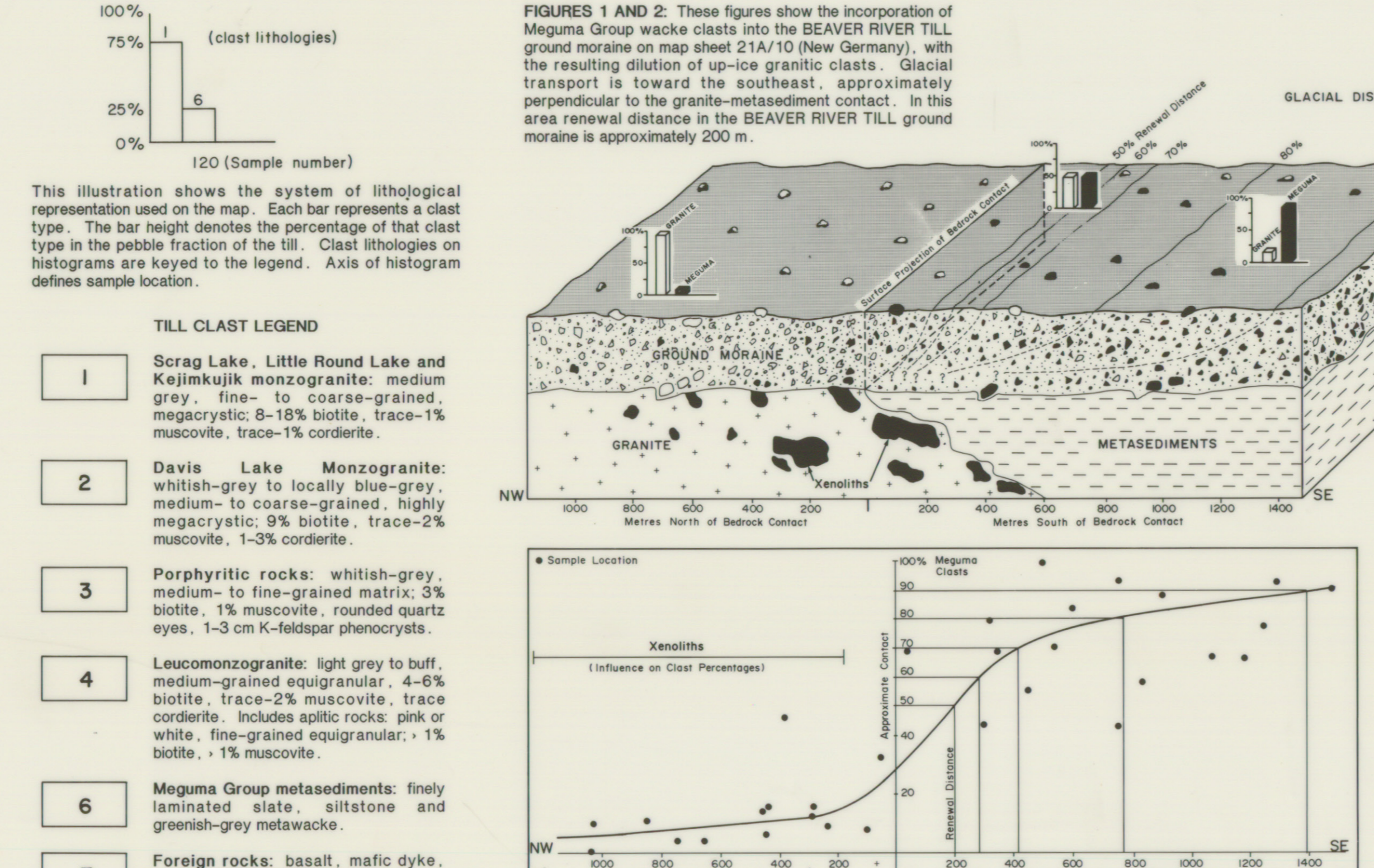
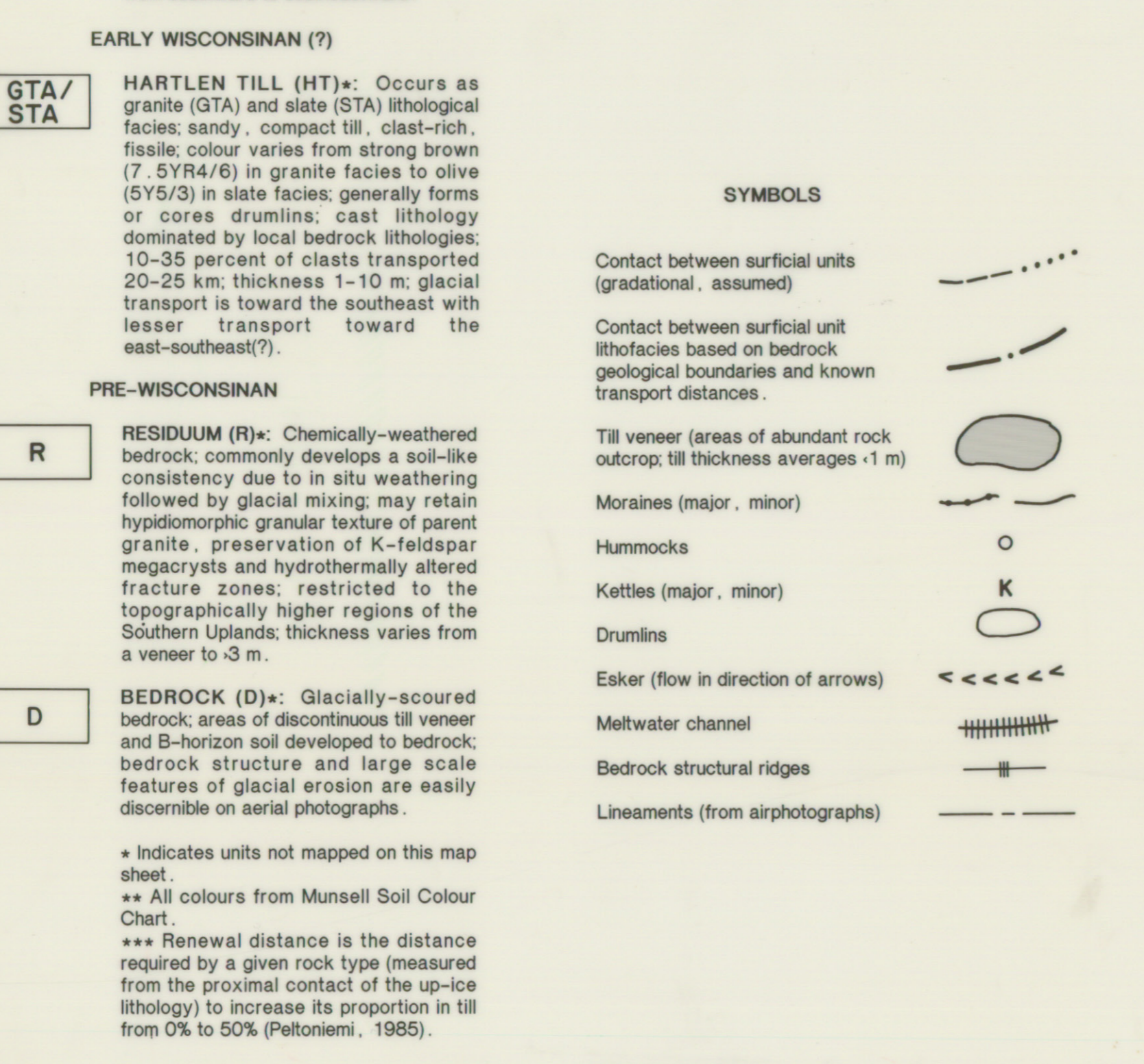
GTA/STA HARTLEIGH TILL (HT): Occurs as granite (GTA) and slate (STA) lithological facies; sandy, compact till, clast-rich, facies colour varies from strong brown (7.5YR4/6) in granite facies to olive (5Y5/3) in slate facies; generally forms or cores drumlines; clast lithology dominated by local bedrock lithologies; 10-35 percent of clasts transported 20-25 km; thickness 1-10 m; glacial transport is toward the southeast with lesser transport toward the east-southeast(?).

PRE-WISCONSINAN

R RESIDUUM (R): Chemically-weathered bedrock; commonly develops a soil-like consistency due to in situ weathering followed by glacial mixing; may retain hypidomorphic granular texture of parent granite, preservation of K-feldspar megacrysts and hydrothermally altered fracture zones; restricted to the topographically higher regions of the Southern Uplands; thickness varies from a veneer to 3 m.

D BEDROCK (D): Glacially-scoured bedrock; areas of discontinuous till veneer and B-horizon soil developed to bedrock; bedrock structure and large scale features of glacial erosion are easily discernible on aerial photographs.

* Indicates units not mapped on this map sheet.
** All colours from Munsell Soil Colour Chart.
*** Renewal distance is the distance required by a given rock type (measured from the proximal contact of the up-ice lithology) to increase its proportion in till from 0% to 50% (Peltonius, 1985).



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Nova Scotia Department of Natural Resources
Mines and Energy Branches
OPEN FILE MAP 92-004
Glacial and Till Clast Geology of
KEJIMIKUJIK LAKE
NOVA SCOTIA
NTS SHEETS 21A/06 & 21A/07

SOUTH MOUNTAIN BATHOLITH PROJECT
P. W. FINCK, F. J. BONER AND R. M. GRAVES,
Scale 1:50 000

Nova Scotia Department of Natural Resources
Honourable John G. Leefe, Minister
Halifax, Nova Scotia
1992

Department of Natural Resources
Canada-Nova Scotia
Mineral Development Agreement