

LEGEND This legend covers both the Series map (1:100 000) and inset map (1:250 000)

- QUATERNARY HOLOCENE 8 ALLUVIUM: Modern floodplain or deltaic deposits; silt, sand, and gravel with organic fragments and lenses; includes all areas that are inundated during normal overbank flooding. Surfaces are commonly scoured by abandoned channels. COLLUVIUM: Oxidized, noncalcareous, poorly sorted stony mud with crude fissility parallel to slope; commonly interbedded chaotically with sorted sand and gravel, organic matter, and buried soil horizons. The unit is derived from glacial muds and forms a consistent cover 2m thick over most slopes covered by map units 2, 3a, and 3b. It is only indicated where valleysides are thickly covered, obscuring stratigraphy. BLOCKFIELDS AND LANDSLIDE TALUS: Blockfields - Boulder concentrations on valley floors; thought to have slid downslope during periglacial conditions or to have been concentrated by fluvial erosion of hills; noted particularly on bottoms and sides of tributary valleys south of Gayhurst dam and in tributary and meltwater valleys on south side of Victoria Valley. LANDSLIDE TALUS - Angular boulders formed by rockslides primarily in Boundary Mountains; mapped only at Sidedown Mountain near Lac Emile but common in steep-sided valleys along the St. Lawrence-Kennebec drainage divide (International Boundary). FLUVIAL TERRACE GRAVEL: Paired or unpaired terraces capped by silt, sand, and gravel of former floodplains; comprises 2 to 4 m thick beds lying unconformably on older Quaternary sediments. BOG AND LAKE DEPOSITS: Marl, woody peat, and gyttja; also occurs as lacustrine sediment; 3 to 10 m thick. PLEISTOCENE WISCONSINAN 4 PROGLACIAL LAKE SEDIMENT: Fine to medium grained, structureless to crossbedded sand; rare laminated silt and clay; usually less than 2 m thick. 4a DELTAIC FACIES: Fine gravel and coarse sand with large-scale cross-stratification. 3 ICE-CONTACT STRATIFIED DRIFT: Coarse sand to cobble gravel; contains large and small-scale crossbedding, ripple and bedding, and 1 cm to 2 m thick graded beds; bedding may be folded and commonly is cut by high-angle reverse faults; sediment in any one deposit can vary from silt to boulder gravel, and large boulders may be distributed randomly throughout a deposit. Landform is commonly a hummocky bench or ridge with undrained depressions. 3a ICE-CONTACT DELTA: Sand and pebble gravel with large-scale crossbedding dipping away from the former ice front; surface expression and internal structures may be similar to unit 3. 3b ESKER: Sand, cobble gravel, and boulder gravel occurring in straight to sinuous ridges; with a height ratio of about 10:1; sedimentary and glaciogenic structures similar to map unit 3; may be mantled by poorly sorted cobbly silt, at least 1 m thick at crest, or by wedges (in cross-section) up to several metres thick of poorly sorted, crudely stratified gravel on flanks. 2 LENOXVILLE TILL: Compact to loose, grey-weathering buff, calcareous, cobbly silt; subequal amounts of sand, silt, and clay in matrix (<2 mm). Compact lodgment member commonly is mantled by a dense mantle of large boulders (abandon mantle); in mountains near the International Boundary, the lodgment member becomes sandy and is mantled by a cover of varying thicknesses of ablation till composed of boulders with a loose sandy matrix. Fabric generally reflects south-southeast and east-southeast movement of depositing glacier. 2a DROLET LENTIL: Compact, calcareous, grey-weathering brown to red-brown, very clayey till; few stones and less than 10% sand in the matrix; its generally flat surface is covered by a dense mantle of large boulders with significant amounts of granodiorite over much of its outcrop area. This deposit is interrupted by deeply incised but widely spaced valleys and by massive, rounded slump blocks near Chauviree, Drolet, and Eugène rivers. 2b END MORAINIC FACIES: Gravel and compact to loose, calcareous, silt to sandy, cobbly to bouldery till that occur in smooth ridges, 100 m to 3 km long by 100 to 200 m wide, commonly in raised clusters; vary from 2 m to 30 m in height; may also comprise hummocky strips up to 3 m long by 0.5 to 1 km wide; in both forms the till may be completely mixed laterally and vertically with sandy to bouldery stratified sediment. 1 PRE-LENOXVILLE SEDIMENTS: Mainly laminated silt and clay of the Gayhurst Formation which outcrops in valley sides below 430 m altitude. Near Gayhurst dam and in upper Eugène Valley, sandy to pebbly sand (abandon mantle) occurs within the silty clay of the Gayhurst Formation. Calcareous, very compact Chauviree Till lies beneath Gayhurst Formation near river level in several Chauviree River tributaries and in the Chauviree River channel south of Saint-Martin. Includes pre-Chauviree fluvial, lacustrine, and glacial deposits in some sections along Samson, Grand Coulee, and Livière valleys. Chauviree Till directly underlies Lennoxville Till in deep exposures in Annoté valley. 1a PRE-LENOXVILLE ICE-CONTACT GRAVEL: Crossbedded sand to coarse gravel lying beneath Lennoxville Till; individual deposits display overall poor sorting (silt to bouldery beds in same exposure) and fold and fault structures typical of ice-contact deposits. Deposits identified only in three artificial exposures but may be present at any altitude beneath any thickness of Lennoxville Till. R BEDROCK: Closely spaced outcrops or rock covered by less than 1 to 2 m of unconsolidated sediment (usually till). Exposed rock surfaces are only slightly weathered, and rock is commonly polished, striated, and fresh where covered by vegetation or unconsolidated sediment. Some outcrops show evidence of frost heaving or faulting of cleavage-bounded, striated blocks. Rock types in the map area are mostly northwesterly striking, steeply dipping, brittle-bearing slate and impure sandstone of low metamorphic grade. These rocks are cut by large intrusions of granodiorite and by numerous small dykes of lamprophyre, vein quartz, and porphyritic felsic rocks. A steeply dipping band of tiny mudstone trends north-south across the northeast corner of the map area through La Guadeloupe. South of Victoria River and south of a line extending northeastward from the mouth of Victoria River, impure sandstone and minor slate are interbedded with basic extrusive and intrusive rocks, which are intruded by granodiorite in the Lac aux Araignées basin; east and south of the Lac aux Araignées batholith, the mountains are formed on pre-Devonian sandstones and crystalline rocks of anomalously high metamorphic grade and uncertain age and origin.

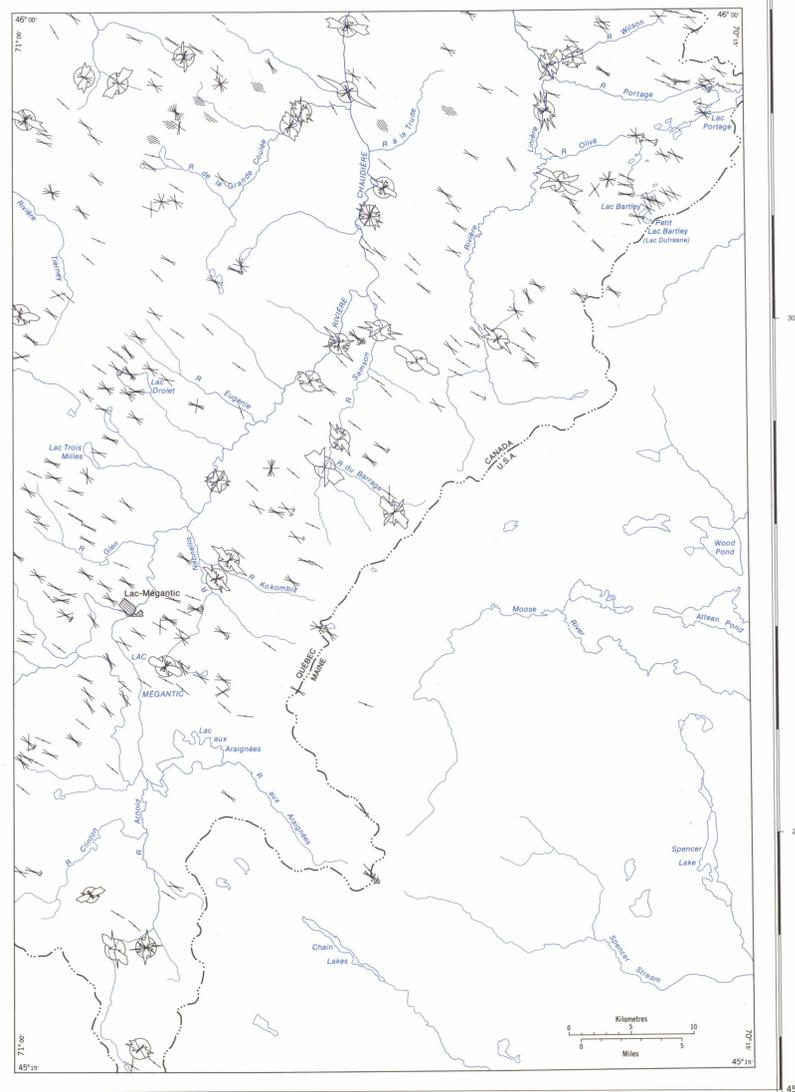
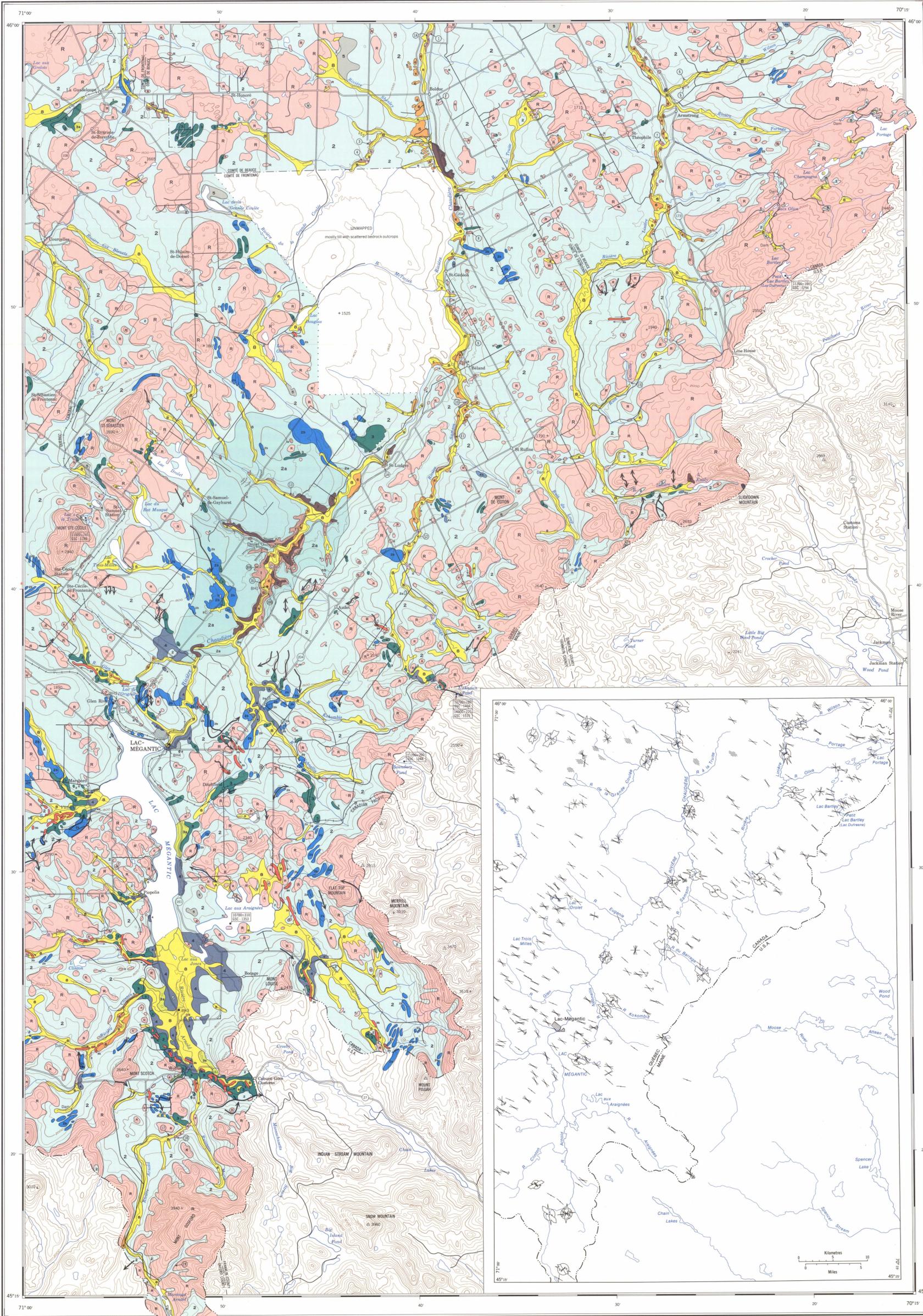
- Geological boundary
Melwater channel (direction of flow known, unknown)
Esker (direction of flow known or assumed, unknown)
Glacial fluting
Strias, ice flow direction known, unknown; location of measurement is at centre of staff
Till fabric; radius of circle proportional to 4 measurements
Slump escarpment; hachures point in direction of movement
Bore hole
Location of stratigraphic section, number refers to section number
Core sample from lake with date on basal organic section and laboratory number

Geology by W.W. Shilts, 1967-1969
To accompany Memoir 397 by W.W. Shilts
Geological cartography by F.J. Heney, Geological Survey of Canada
Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada
Base-map cartography by the Geological Survey of Canada from map published at 1:250,000 scale by Surveys and Mapping Branch, 1974
Magnetic declination 1980 varies from 17°31' westerly at centre of west edge to 18°13' westerly at centre of east edge. Mean annual change -0.7'
Elevations in feet above mean sea level

Note: At the time the cartographic compilation of this map was carried out adequate base material was not available. As a result topographic features on parts of the map do not accurately reflect the geology, and certain cultural features are incorrectly portrayed.



This map has been produced from a scanned version of the original map. Reproduction par numérisation d'une carte sur papier



MAP 1494A SURFICIAL GEOLOGY LAC-MÉGANTIC QUEBEC-MAINE Scale 1:100 000 Kilometers 0 2 4 6 8 Kilometers Miles 0 2 4 Miles Universal Transverse Mercator Projection © Crown Copyrights reserved

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