

DESCRIPTIVE NOTES

Quaternary Deposits and Events

The oldest unconsolidated soil in the map area is reddish brown which is mechanically and chemically weathered bedrock...

The first Wisconsin glacial event was an eastward to southward ice flow stemming from a centre outside the province...

The next phase of ice flow across the map area was southward in the western part, ranging to southward in the eastern part...

Stratigraphic evidence for a northward ice flow (Phase 3, Figure 2) is found throughout the map area and has been previously interpreted by Chambers (1956)...

The last phase of ice flow involved the readvance of glaciers centered east and northeast of the map area (Phase 4, Figure 2)...

Age of these ice flows is speculative because none of the tills related to the flows have been dated directly...

Deglaciation is recorded by the detritic glaciofluvial and glaciomarine sediments of the Five Islands Formation...

Glacial retreat was interrupted during a period of climatic warming from 11,800-10,500 years B.P. in several areas of Nova Scotia...

Outwash deposits of the Saints Bay Member provide the best aggregate resources in the map area...

Ice contact stratified drift of the Apple River Member is much more unpredictable in grain size and sand content...

Aluvial or stream deposits can provide a good source of aggregate locally, but limitations include the common use of the areas as prime farmland...

City Deposits: A buried clay deposit has been found along the north side of the Cobequid Highlands...

Drift Thickness: Spot thicknesses on the map are based on well log data from the Nova Scotia Department of the Environment...

T = 40 - (330/E)
T = Average thickness of till cover (feet)
E = Topographic elevation (feet)

For locations refer to map. Datum is the present soil surface.

Figure 1. Map 11 Stratigraphy

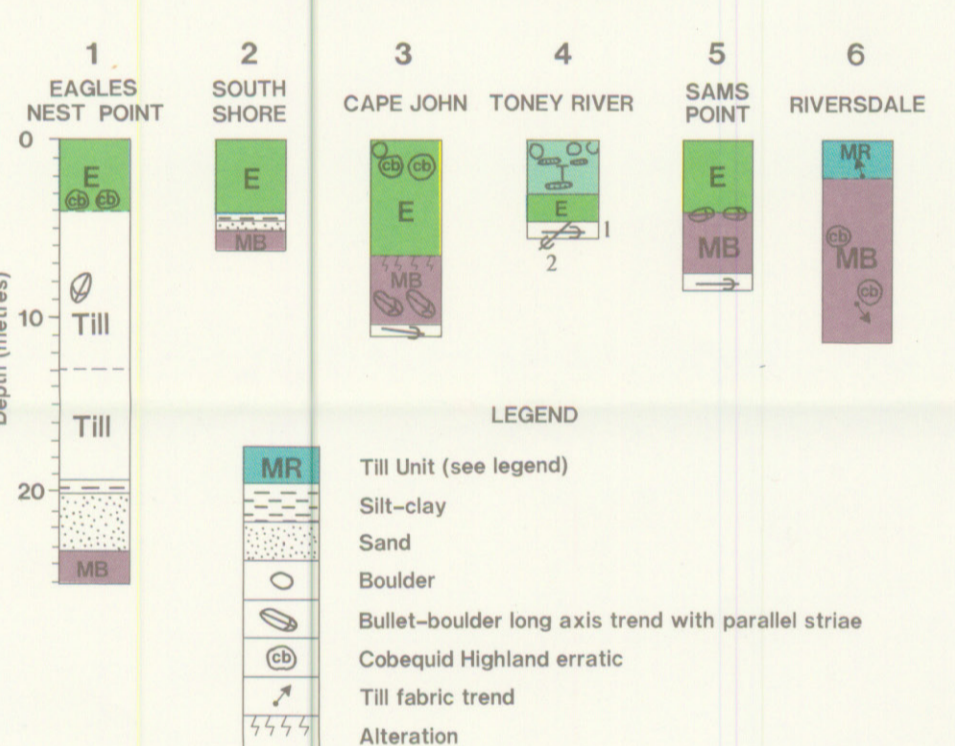
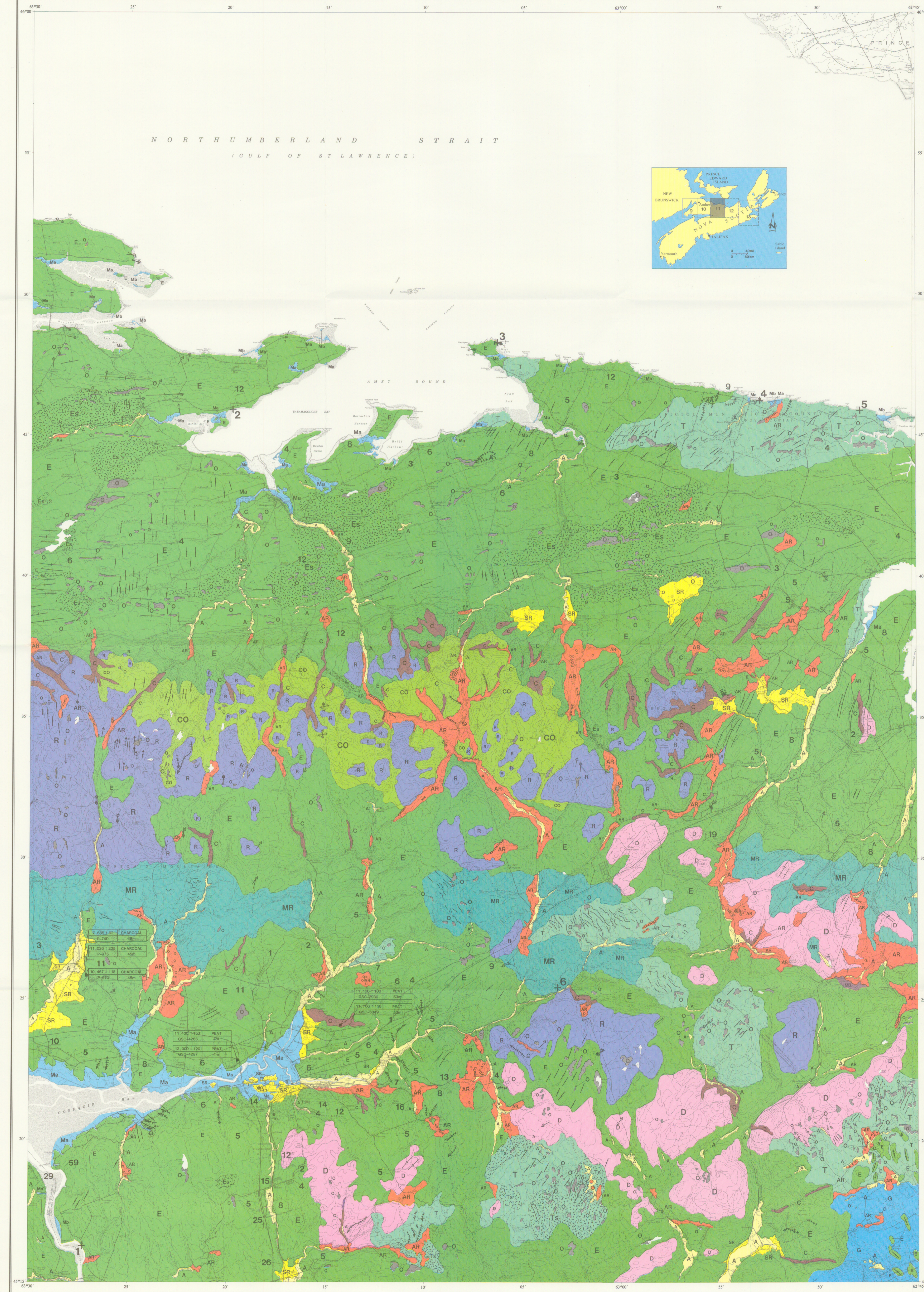
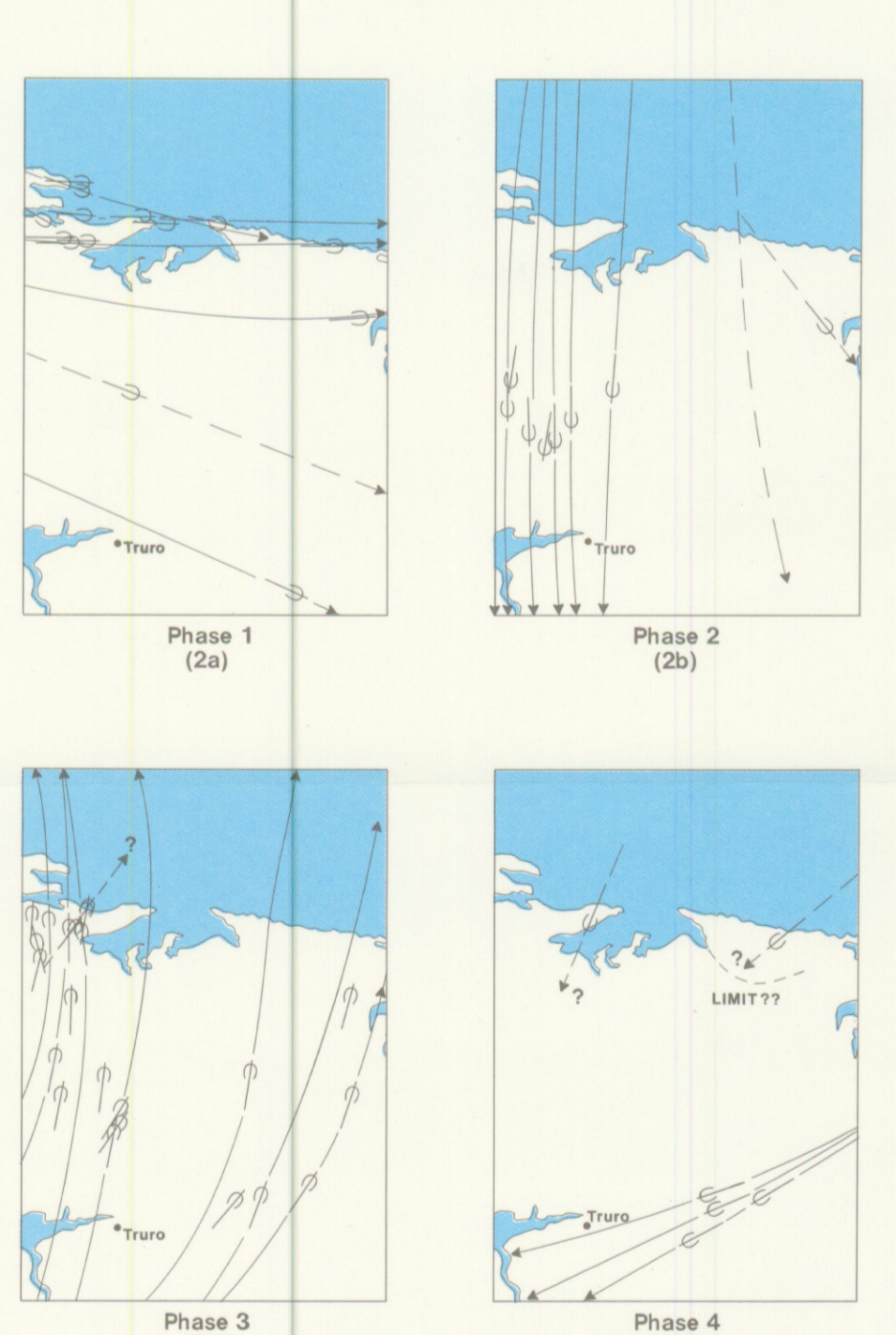


Figure 2



LEGEND
SURFICIAL DEPOSITS
QUATERNARY
HOLOCENE
NONGLACIAL ENVIRONMENT
ORGANIC DEPOSITS: peat, gyttja, clay, underlies bogs, fens and marshes...
COLLUVIAL DEPOSITS: gravel, sand, silt, minor clay and organic material...
ALLUVIAL DEPOSITS: gravel, sand, silt, minor clay and organic material...
MARINE DEPOSITS: Ma, fine sand, silt, clay, locally overlain by peat and organic...
NONGLACIAL AND GLACIAL ENVIRONMENT
LATE WISCONSINAN
FIVE ISLANDS FORMATION: glaciofluvial, glacioclastic and glaciomarine deposits...
SAINTS REST MEMBER: glaciofluvial gravel, sand and minor silt...
APPLE RIVER MEMBER: peat, gravel, sand and silt...
TONEY RIVER TILL: greyish-brown stony sand silt...
COBEQUID TILL: yellowish-brown stony sand silt...
MCCARRON BROOK-EAST MILFORD TILL: greyish-red silt...
ROCK PRE-QUATERNARY
RESIDUAL: fragmented, mechanically and chemically weathered bedrock...
BEDROCK: generally scoured bedrock, small and large scale features of glacial erosion...

SYMBOLS
Geological boundary (defined, gradational)
Structural (strike) ridge
Glacial striae (ice flow direction known, unknown)
Rock mounds
Ditches, filled terraces
Moraine ridge (major, minor)
Hummocky moraine, hummocks
Esker (direction of flow known, unknown)
Delta (ice contact, fluvial)
Kettle (large, small)
Sink hole
Meltwater channel
Terrace scarp
Raised beach
Elevation of delta (delta/terrace contact)
Fossil locality (buried organic)
Location of stratigraphic section of special interest
Drift thickness spot elevation (metres)
Date Material
Lab no. Elevation

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NOVA SCOTIA DEPARTMENT OF MINES AND ENERGY
MAP 88-14
SURFICIAL GEOLOGY
CUMBERLAND, COLCHESTER, AND PICTOU COUNTIES
(SHEET 11)
NOVA SCOTIA
Geology by
R. R. Stea and P. W. Fitch
Scale 1:100 000
Cartography by Nova Scotia Department of Mines and Energy.
Base map supplied by Maritime Resource Management Service, Amherst, Nova Scotia.
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