PREPARED IN COOPERATION WITH
THE STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
GEOLOGICAL AND NATURAL HISTORY SURVEY

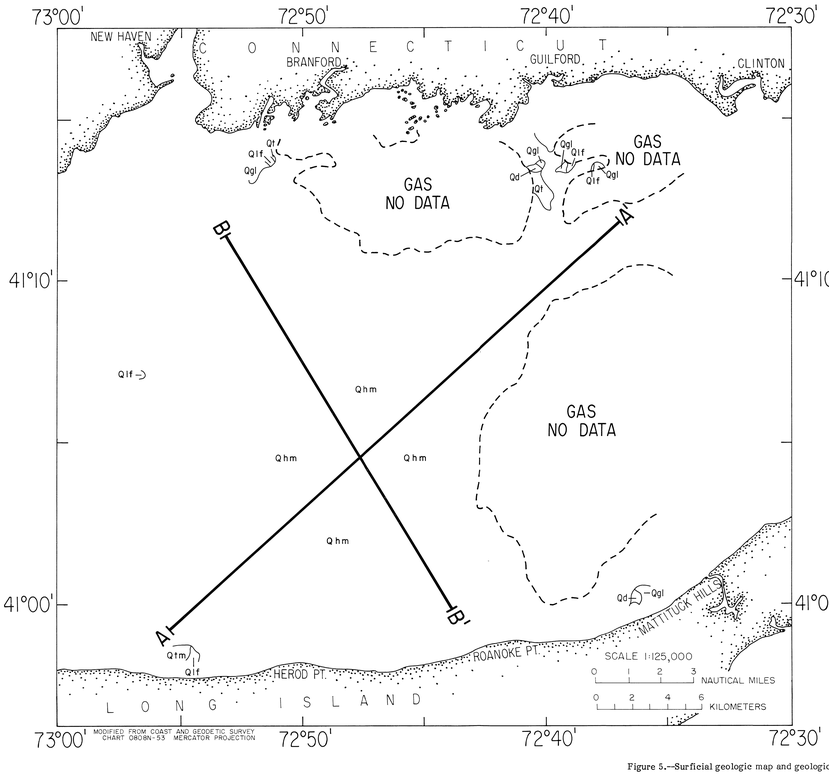


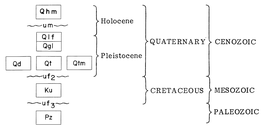
Figure 5.—Surficial geologic map and geologic cross-sections A-A' and B-B'.

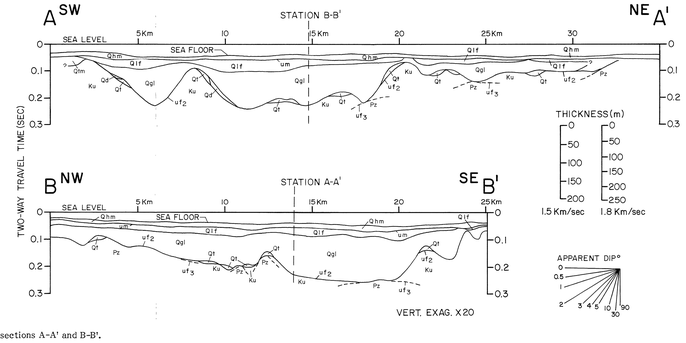
DESCRIPTION OF GEOLOGIC UNITS

The distribution and lithology of units are inferred from interpretation of high-resolution seismic-reflection profiles, vibracore information, and comparison with similar units onshore. Units may be overlain by thin younger sediments that are not resolved in the seismic records.

- **Qhm** — Marine deposits (Holocene)—Post-transgressive marine deposits, composed of silt, sand, pebbles, gravel, and shell fragments
- **Qlf** — Upper lacustrine and fluvial deposits (Holocene and late Pleistocene)—Deposits composed of sand and silt (?) of lacustrine, deltaic, and fluvial origin, associated with the lake in Long Island Sound. Probably derived from glacial and terrigenous sediments
- **Qgl** — Lower glacial lake deposits (late Pleistocene)—Freshwater lake deposits of late Wisconsinan age. Composed of laminated silt and clay with lenses of coarser sediment
- **Qtm** — End-moraine deposits (late Pleistocene)—Deposits that form end moraines of late Wisconsinan age, but may include deformed older deposits. Composed of till and stratified gravel, sand, silt, and clay
- **Qt** — Glacial deposits, mostly till (Pleistocene)—Deposits composed mostly of till of late Wisconsinan age, but may include older deposits and stratified gravel, sand, silt, and clay
- **Qd** — Glacial drift (Pleistocene)—Outwash and ice-contact stratified drift of late Wisconsinan age, composed of gravel, sand, silt, and clay. May include older deposits
- **Ku** — Coastal-plain strata (Cretaceous)—Coastal-plain sediments mostly of late Cretaceous age; may include strata of Tertiary age. Composed of unconsolidated to semi-consolidated gravel, sand, silt, and clay
- **Pz** — Bedrock (Paleozoic)—Crystalline bedrock

CORRELATION OF GEOLOGIC UNITS





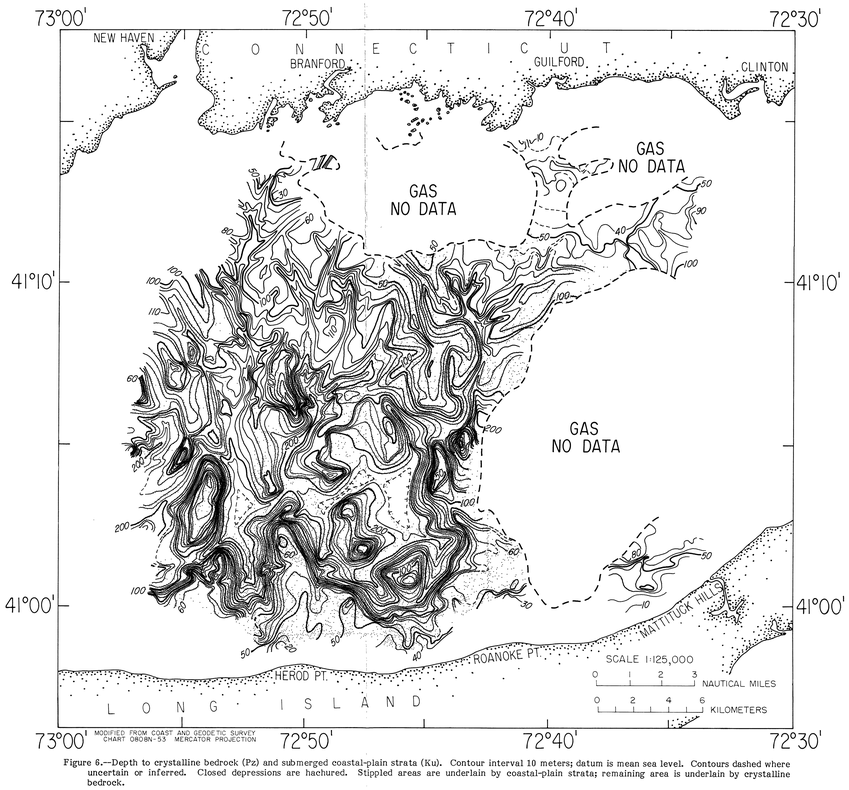


Figure 6.—Depth to crystalline bedrock (Pz) and submerged coastal-plain strata (Ku). Contour interval 10 meters; datum is mean sea level. Contours dashed where uncertain or inferred. Closed depressions are hachured. Stippled areas are underlain by coastal-plain strata; remaining area is underlain by crystalline bedrock.

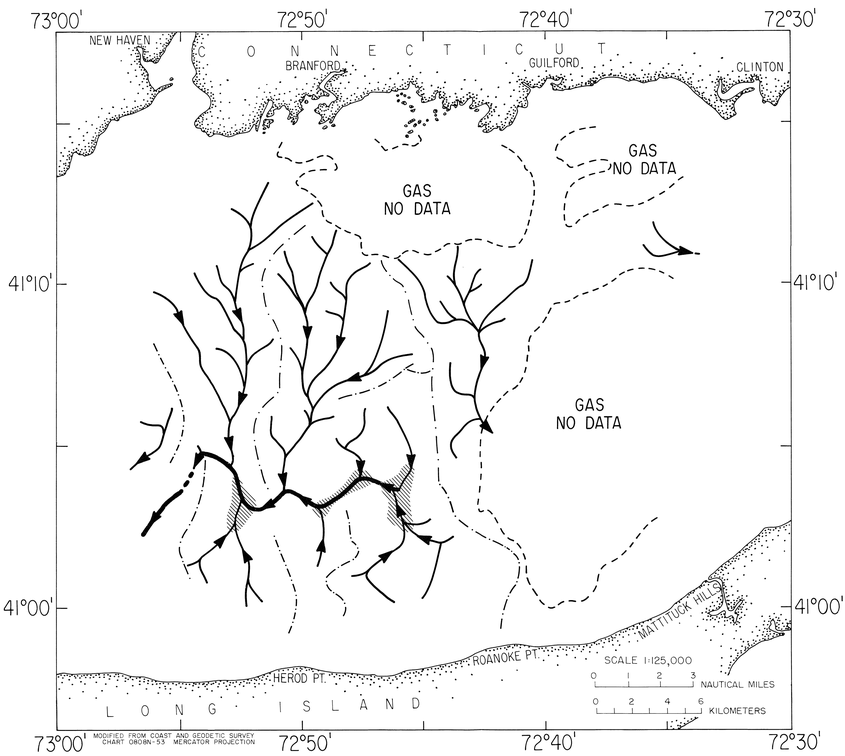


Figure 7.—Inferred pre-glacial drainage pattern. Thin lines with arrows are inferred thalwegs of pre-glacial valleys in bedrock and submerged coastal-plain strata; heavy line with arrows is inferred trunk stream. Dash-dot lines are major drainage divides. Shaded areas are closed depressions from figure 6.

Figure 8.—Thickness of glacial drift (units Qd, Qt, Qtm, Qgl, and Qlf). Contour interval 10 m. Contours dashed where uncertain or inferred. Shaded areas indicate unit present but of unknown thickness.

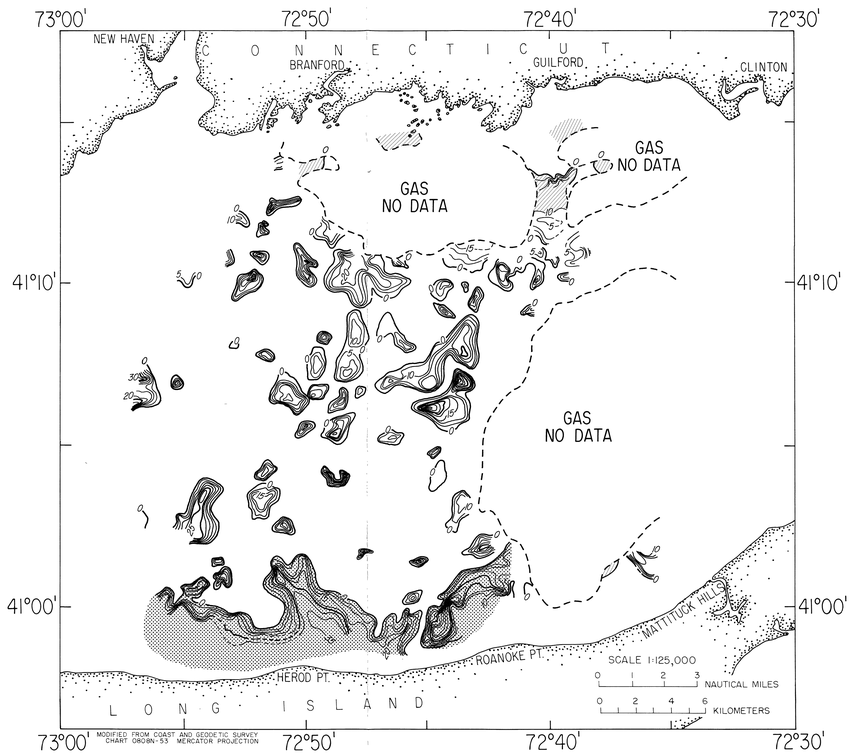


Figure 9.—Thickness of end-moraine deposits (Qtm) and glacial drift composed mostly of till (Qt). Contour interval 5 m. Contours dashed where uncertain or inferred. Shaded areas indicate unit present but of unknown thickness. Stippled areas indicate distribution of end-moraine deposits.

MAPS SHOWING THE QUATERNARY GEOLOGY OF EAST-CENTRAL LONG ISLAND SOUND

By
Sally W. Needell, U.S. Geological Survey, Ralph S. Lewis, Connecticut Geological and Natural History Survey, and Steven M. Colman, U.S. Geological Survey

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