

Pleistocene to Holocene

Qa

Alluvium^{1/}

Sand, silt, and gravel along some stream courses or in small terraces bordering streams

Qs

Swamp and related deposits^{1/}

Peat, muck, and silt in swamps and filled-in former shallow lakes and bogs. In places, encloses arrested drainage areas along streams (locally known as deadwaters) that result from beaver-made, man-made, or natural dams

Qic

Qik

Ice contact deposits

Sand and gravel, well-stratified to poorly stratified; crossbedding common locally. Deposits may rest on bedrock or till

Qic, eskers (locally known as "horsebacks") long, narrow, rounded, locally discontinuous ridges of sand and gravel deposited by meltwater streams in tunnels in or under the ice or in open channels in the ice. Eskers vary along their course from about 10 to 20 feet to as much as 120 feet in height

Qik^{1/}, kame fields with associated kettle holes (some occupied by small lakes), kames and kame terraces, ice channel fillings; includes patches of outwash and till. Collapse features present in some deposits. May enclose eskers, or bound them on one side. Grades into eskers at several places

Pleistocene

QUATERNARY

Qd

Stratified drift^{1/}

Stratified and crossbedded silt, sand, and gravel (as large as cobble size) of glaciofluvial origin; cut-and-fill structure well developed locally. Thickness variable but in places at least 15 feet. Unit mapped only on western edge of area.

Qt

Qtt

Drift

Chiefly till and some local areas of stratified drift and ice contact deposits. Till is nonsorted to poorly sorted, commonly with many boulders and with a sandy to clayey matrix.

Qtt, less than 3 feet thick; commonly found along ridge and hill tops.

Qt, more than 3 feet thick; commonly found along valleys or hill slopes

af

Artificial fill

Man-made land, extensively graded; shown only at Houlton airport. Fill along roadways and related features in settled areas not mapped

Contact

Long dashed where inferred or uncertain; short dashed where a gradational contact of uncertain position over a wide area separates thin and thick till



Glacial striae

Point of symbol at outcrop

Outcrops visited



Sand and gravel pits
(Active and inactive)

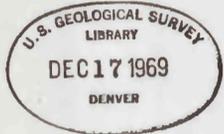
^{1/} Compiled in part from interpretation and generalization of the soils maps published by Arno (1964) for the Houlton quadrangle

Reference cited

Arno, J. R., 1964, Soil survey of Aroostook County, southern part: U.S. Dept. Agr. Ser. 1961, no. 6.

Note: The topography of the base map locally was found to be in error; the surficial deposits are located as they actually occur on the ground, resulting in apparent disharmony between the geology and base map

U.S. Geological Survey
OPEN FILE MAP
This map is preliminary and has not been edited or reviewed for conformity with Geological Survey standards or nomenclature.



Surficial geology Houlton quadrangle, Maine
by Louis Pavlides

plate II

PLEASE REPLACE IN POCKET
IN BACK OF BOUND VOLUME