

WATER-MODIFIED TILL OF THE LAKE PLAIN OF NORTH-WESTERN OHIO. In the lake plain of northwestern Ohio, beneath the lacustrine sands, silts, and clays of the surface and above the underlying till is, in places, some till-like material called by some people "false" till and probably better called "modified" till. Although characterized by a generally till-like mechanical composition, the percentages of clay and silt are somewhat less and the amount of sand somewhat more than in the subjacent till. In addition, the texture of this modified till is considerably looser and more porous than that of normal till. Thin ($\frac{1}{4}$ to 1 inch thick) discontinuous layers of fine sand or silt are locally present. Other than these modifications, which appear to represent the effects of submergence and not of soil-forming processes, and the fact that it has been oxidized, the material does not appear to have been weathered. In some places, the presence of a pebble line between the modified till and the underlying true till suggests that the modified till has been transported at least a short distance.

This modified till has been observed by me only in pits dug by soils scientists for a field conference in northwestern Ohio. The locations of the pits, and the stratigraphy observed in them, is shown in table 1.

TABLE 1
Locations of soils pits which contributed to recognition of water-modified till

County	Twp.	Sec.	Associated with beach of Glacial Lake	Name of soil	Thickness and nature of overlying lacustrine material	Modified till present?	Pebble line between tills present?	Unmodified till below?
Seneca	Adams	20	Maumee III	Haskins	40" silt and clay	yes	—	—
Hancock	Pleasant	32	Maumee III	Seward	25" sand	yes	no	yes
Wood	Bloom	3(N)	Warren	Wauseon	30" sand	yes	—	—
Wood	Bloom	3(S)	Warren	Rimer	25" sand	yes-7"	yes	yes
Wood	Milton	3	Warren	Mermill	20" sand, silt, and clay	yes-40"	no	yes

The modified till appears to represent original till that has been slightly sorted, and in some place transported short distances, by lake waves or currents in shallow water, before deposition of the overlying sorted lacustrine materials. Material similar to this modified till has been reported by John Fyles (1956) from Vancouver Island, Canada, where it contains marine fossils and occurs associated with and above true till (Vashon) and below sorted nonglacial materials of various kinds.

Future work is necessary in Ohio (by any interested persons) in order to learn more about the variation in composition, thickness, and overall extent, as well as about the origin, of this modified till.—JANE L. FORSYTH, *Ohio Division of Geological Survey, 1207 Grandview Avenue, Columbus, Ohio 43212.*

REFERENCE

- Fyles, J. G. 1956. Surficial geology of the Horne Lake and Parksville map-area, Vancouver Island, British Columbia. Unpublished Ph.D. dissertation, The Ohio State University, p. 207.