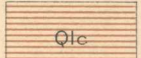


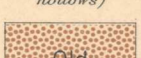
LEGEND

(continued)



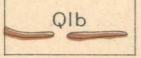
Lacustrine clay

(pebbly clay in places laminated; deposited in offshore hollows)



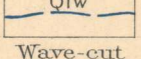
Delta sand and gravel

(includes some bars)



Beach sand and gravel

(includes some bars)

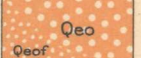


Wave-cut shore line



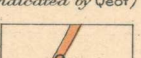
Outwash gravel

(from earlier moraine; deposited in lower stage of Lake Iroquois)

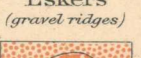


Earlier outwash gravel and sand

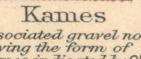
(from Niagara Falls and Erie moraine; deposited in Lake Iroquois; this sandy outwash indicated by Qeo)



Eskers (gravel ridges)

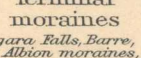


Kames (associated gravel not having the form of kames indicated by Qk)



Terminal moraines

(Niagara Falls, Erie, and other moraine; deposited in Lake Iroquois; earlier moraine deposited in lower stage of Lake Iroquois; this sandy outwash indicated by lighter pattern)



Probably overridden drumlins or drumloids

(covered by terminal moraine)

U.S. GEOLOGICAL SURVEY  
GEORGE OTIS SMITH, DIRECTOR

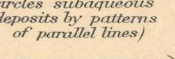
SURFICIAL GEOLOGY

NEW YORK  
NIAGARA QUADRANGLE

LEGEND

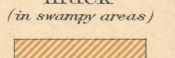
SEDIMENTARY ROCKS

(Areas of subareal deposits are shown by patterns of dots and circles; subsequent deposits by patterns of parallel lines)



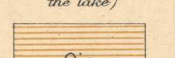
Peat and muck

(in swamps areas)



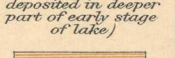
Lacustrine silt

(deposited in a shallow bay of the lake)



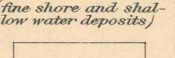
Lacustrine clay

(pebbly clay in places laminated; deposited in deeper part of each stage of lake)



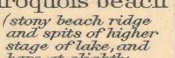
Lacustrine sand

(fine sand and shaly water deposits)



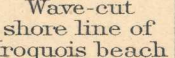
Sand and gravel of Iroquois beach

(along beach ridge and spurs of higher stage of lake; sand bars at slightly lower levels)



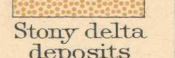
Wave-cut shore line of Iroquois beach

(not accompanied by mappable deposits of beach sand)



Stony delta deposits

(deposited at lower stage of lake and modified by wave and current action during subsequent advances)



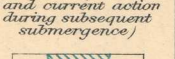
Sand and gravel of Newfane beach

(deposited at lower stage of lake and modified by wave and current action during subsequent advances)



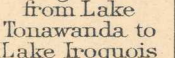
Early channels of Niagara River from Lake Tonawanda to Lake Iroquois

(shown distinguished from later channels of Niagara River)



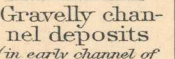
Gravelly channel deposits

(in early channels of Niagara River)



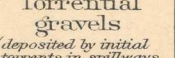
Torrential gravels

(deposited by initial floods in gullies to Lake Iroquois)



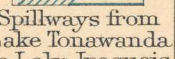
Spillways from Lake Tonawanda to Lake Iroquois

(shown distinguished from later channels of Niagara River)



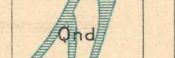
Temporary distributaries of Niagara River from Lake Erie to Lake Tonawanda

(channel floor cut in drift)



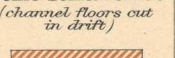
Lacustrine silt

(deposited in the deeper part of lake)



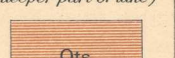
Lacustrine sand

(fine sand and shaly water deposits)



Delta gravel

(includes some bars)



Beach sand

(includes some bars)



Wave-cut shore line

(not accompanied by mappable deposits of beach sand)

Deposits of Lake Iroquois  
Wisconsin stage of Pleistocene  
Deposits made by and in conjunction with ice

QUATERNARY  
Wisconsin stage of Pleistocene  
Deposits made by and in conjunction with ice

QUATERNARY  
Wisconsin stage of Pleistocene  
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QUATERNARY  
Wisconsin stage of Pleistocene  
Deposits made by and in conjunction with ice

Recent  
Deposits of Lake Iroquois  
Wisconsin stage of Pleistocene  
Deposits made by and in conjunction with ice

QUATERNARY  
Wisconsin stage of Pleistocene  
Deposits made by and in conjunction with ice



H. M. Wilson, Geographer in charge.  
Triangulation by U.S. Lake Survey.  
Topography by U.S. Lake Survey, Frank Sutton, E. B. Clark, and J. H. Wheat.  
Surveyed 1893 and 1896 in cooperation with the State of New York.

Scale 1:25,000  
Miles  
Kilometers

Geology by G. K. Gilbert and Frank B. Taylor.  
Surveyed in 1897, 1898, 1910, 1911, and 1913.

Contour interval 20 feet.  
Datum is mean sea level.  
Edition of July 1913.

Legend is continued on the left margin.