New York State Museum New York State Geological Survey Mark Schaming, Director North American Datum of 1983 Geologic mapping by D. Pair, 2003 Digital data and cartography, J. Manchester Hygrology, and planimetry layers from the New York State DOT Raster Quadrangle separates for Madison and K. Backhaus, 2007 & 2021 0 KILOMETERS 1 (https://gis.ny.gov/gisdata/inventories/member.cfm?OrganizationID=108). Geographic data layers from 2020 TIGER/Line shapes for transportation and hydrograpghy (https://www.census.gov/cgi-bin/geo/shapefiles/index.php) Shaded relief from 2003 Onondaga County 3m, 2015 Madison and Otsego County 1m and NYS 10m DEM (http://gis.ny.gov/elevation/index.cfm) Magnetic declination from the NOAA online Declination Calculator: CONTOUR INTERVAL: 10 FEET http://www.ngdc.noaa.gov/geomag-web/#declination UTM GRID AND 2019 MAGNETIC NORTH

SURFICIAL GEOLOGY OF THE ORAN 7.5-MINUTE QUADRANGLE, MADISON AND ONONDAGA COUNTIES, NEW YORK

Donald L. Pair 2008

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prepared by

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Holocene DESCRIPTION OF MAP UNITS

Stratified silt, sand and gravel (Ha)

Sorted and stratified silt, sand, and gravel, deposited by rivers and streams. May include cobbles and boulders. Inferred as post-glacial alluvium and includes modern channel, over-bank and fan deposits

Wetland Deposit (Hw)

Hw Peat, muck, marl, silt, clay or sand deposited in association with wetland environments. Various sediments can be present at transitional boundaries from one facies to another

Pleistocene

Silt and Clay (Psc)

Stratified, fine-grained sediment consisting of fine sand, silt and clay size particles. Inferred to be deposited in mid shore to deepwater settings of glacial lakes. May include marl, rythmites, and varves.

Cobbles to Sand (Pics)

Stratified ice contacted deposits, variable coarse-grained sediment consisting of boulders to sand size particles. Inferred to be deposited along an ice-margin. May include, interbedded coarse lenses of gravel and clast supported diamictons (flow tills).

Stratified sand and gravel (Psg)

Well-sorted and stratified sand and gravel. May include cobbles and boulders. Inferred to be delta, fan or lag deposits in glacial channels or near former ice margins.

Diamicton (Pd)

An admixture of unsorted sediment ranging from clay to boulders. Generally matrix supported, massive and clast-rich.

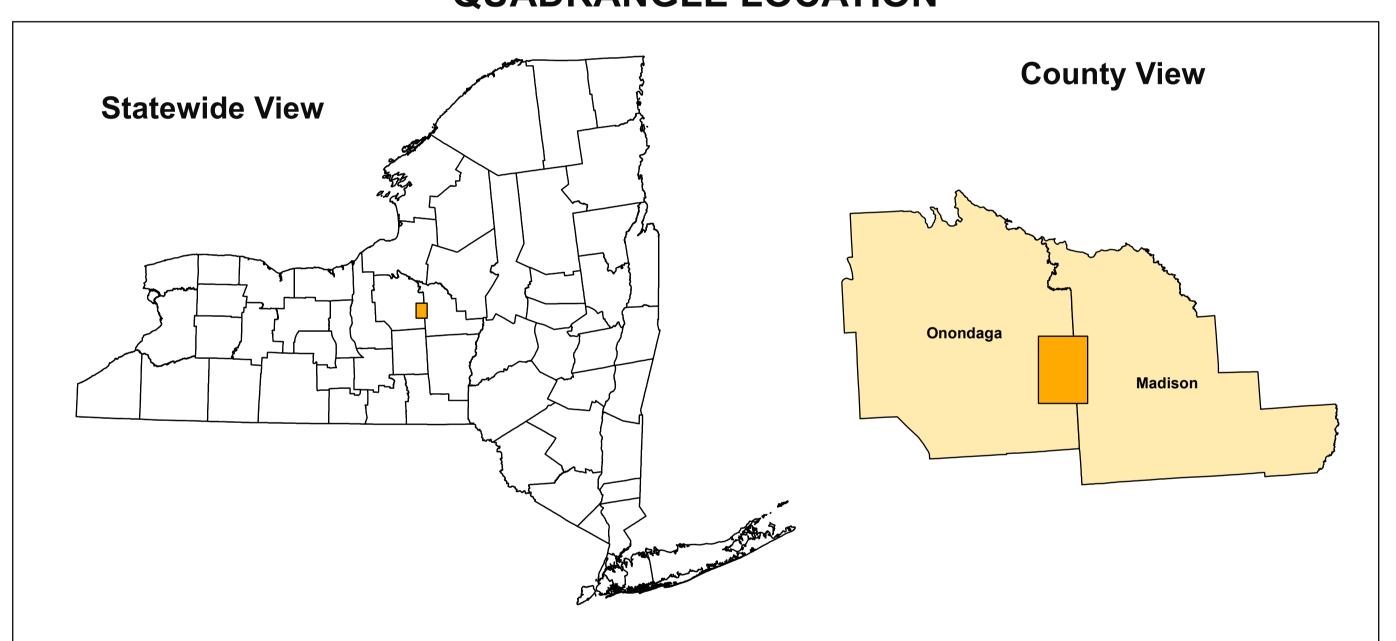
Pre-Pleistocene

Be Br No

Bedrock (Br

Non-glacially derived, hard rock, pre-pleistocene in age. May be covered up to a meter in diamicton, sand and gravel, or sand and clay in areas marked as Br.

QUADRANGLE LOCATION



ADJOINING QUADRANGLES

Streets Streams NYSDEC Oil & Gas Well Location Highways Contours Orumlins County Line NYSDEC Water Well Location NYSDEC Water Well Location Meltwater Channels

This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program STATEMAP award number 02HQAG0020 in the year 2003

Syracuse East Manius Canastota Caragrovia Caterovia Tury DeRuyter Erieville

QUADRANGLE ELEVATION 75.875'W N.58275'W

Feet-amsl

1:75,000 scale; 2x vertical exaggeration

Shaded relief generated from 2003 Onondaga
County 3m. 2015 Madison and Otsego County
1m and NYS 10m lidar data sets.

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