New York State Museum New York State Geological Survey Mark Schaming, Director

SURFICIAL GEOLOGY OF THE LYSANDER 7.5-MINUTE QUADRANGLE, CAYUGA, ONONDAGA AND OSWEGO COUNTIES, NEW YORK

0 KILOMETERS 1

CONTOUR INTERVAL: 10 FEET

Hygrology, and planimetry layers from the

and hydrograpghy

Counties 1m and NYS 10m DEM (http://gis.ny.gov/elevation/index.cfm)

New York State DOT Raster Quadrangle separates for Cayuga, Oswego and

(https://gis.ny.gov/gisdata/inventories/member.cfm?OrganizationID=108).

Geographic data layers from 2020 TIGER/Line shapes for transportation

Shaded relief from 2003 Onondaga County 3m, 2018 Cayuga and Oswego

(https://www.census.gov/cgi-bin/geo/shapefiles/index.php)

http://www.ngdc.noaa.gov/geomag-web/#declination

Magnetic declination from the NOAA online Declination Calculator:

Donald L. Pair

SURFICIAL GEOLOGY OF THE LYSANDER 7.5-MINUTE QUADRANGLE, CAYUGA, ONONDAGA AND OSWEGO COUNTIES, NEW YORK

Janet Manchester and Karl J. Backhaus

Supported in part by the U.S Geological Survey Cooperative Agreement Number G12AC20313 National Cooperative Geologic Mapping Program (STATEMAP)

DESCRIPTION OF MAP UNITS

Holocene

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)

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)

PISC 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 (Pdmm)

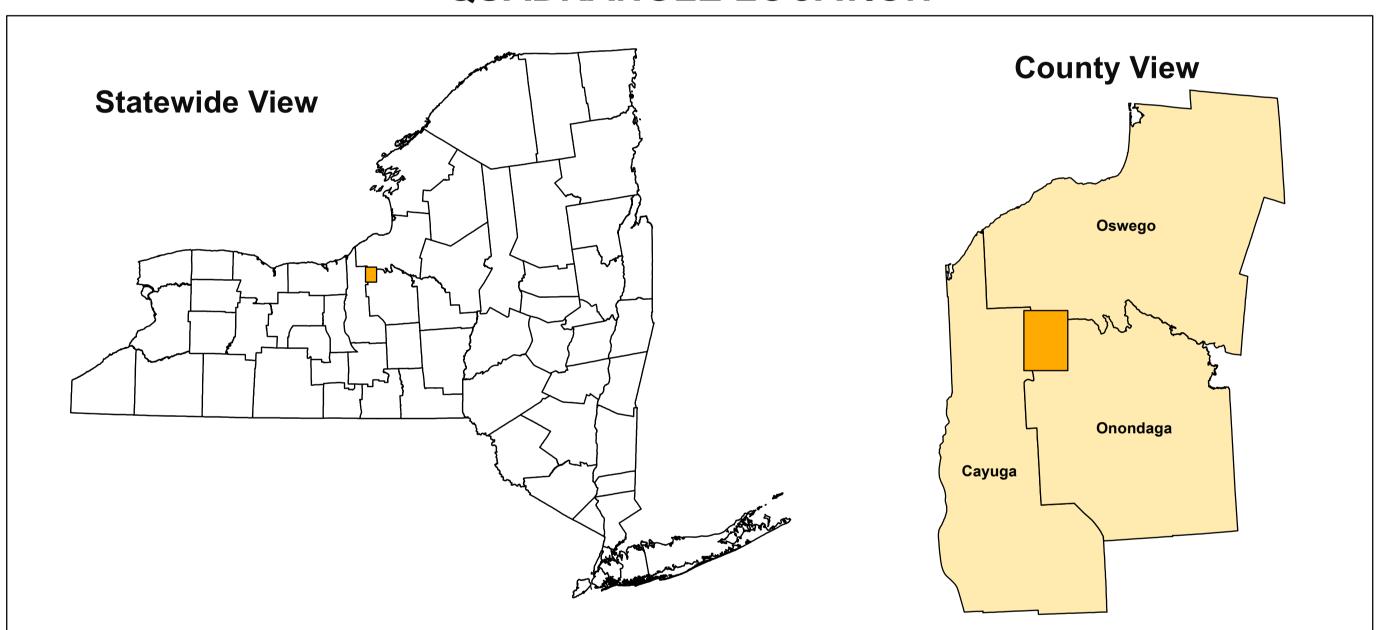
An admixture of unsorted sediment ranging from clay to boulders. Generally matrix supported, massive and clast-rich.

Pre-Pleistocene

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

SYMBOLS ———— Streets NYSDOT Boring Location °°°° lce Margins County Lines NYSDEC Oil & Gas Well Location Water Bodies Glacial Lake Shoreline

This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program STATEMAP award number G12AC20313 in the year 2013.

The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily presenting the official policies, either expressed or implied, of the U.S. Government.

While every effort has been made to ensure the integrity of this digital map and the factual data upon which it is based, the New York State Education Department ("NYSED") makes no representation or warranty, expressed or implied, with respect to its accuracy, completeness, or usefulness for any particular purpose or scale. NYSED assumes no liability for damages resulting from the use of any information, apparatus, method, or process

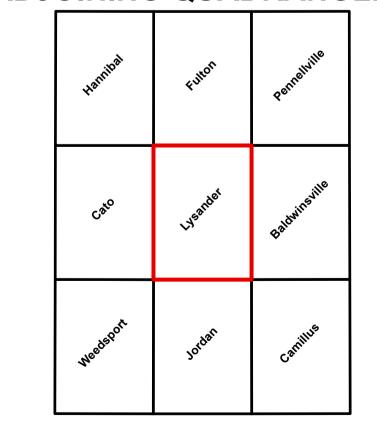
NOTICE

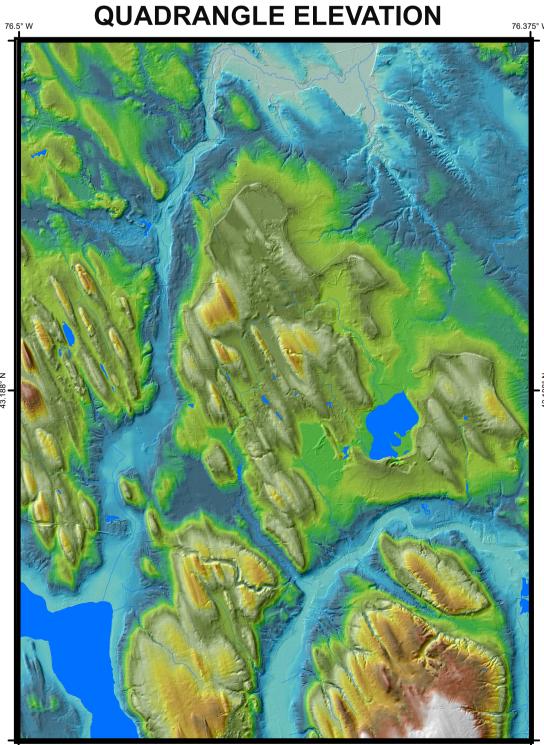
Geologic mapping by D. Pair, 2013

Digital data and cartography, B. Bird

UTM GRID AND 2019 MAGNETIC NORTH **DECLINATION AT CENTER OF SHEET**

and K. Backhaus, 2013 & 2021





Feet-ams 1:75,000 scale; 2x vertical exaggeration Shaded relief generated from 2003 Onondaga County 3m, 2018 Cayuga and Oswego Counties 1m and NYS 10m lidar data sets.

disclosed in this map and text, and urges independent site-specific verification of the information contained herein. Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by New York State Museum Map & Chart No. 61 ISSN:0097-3793 ; ISBN:978-1-55557-266-2