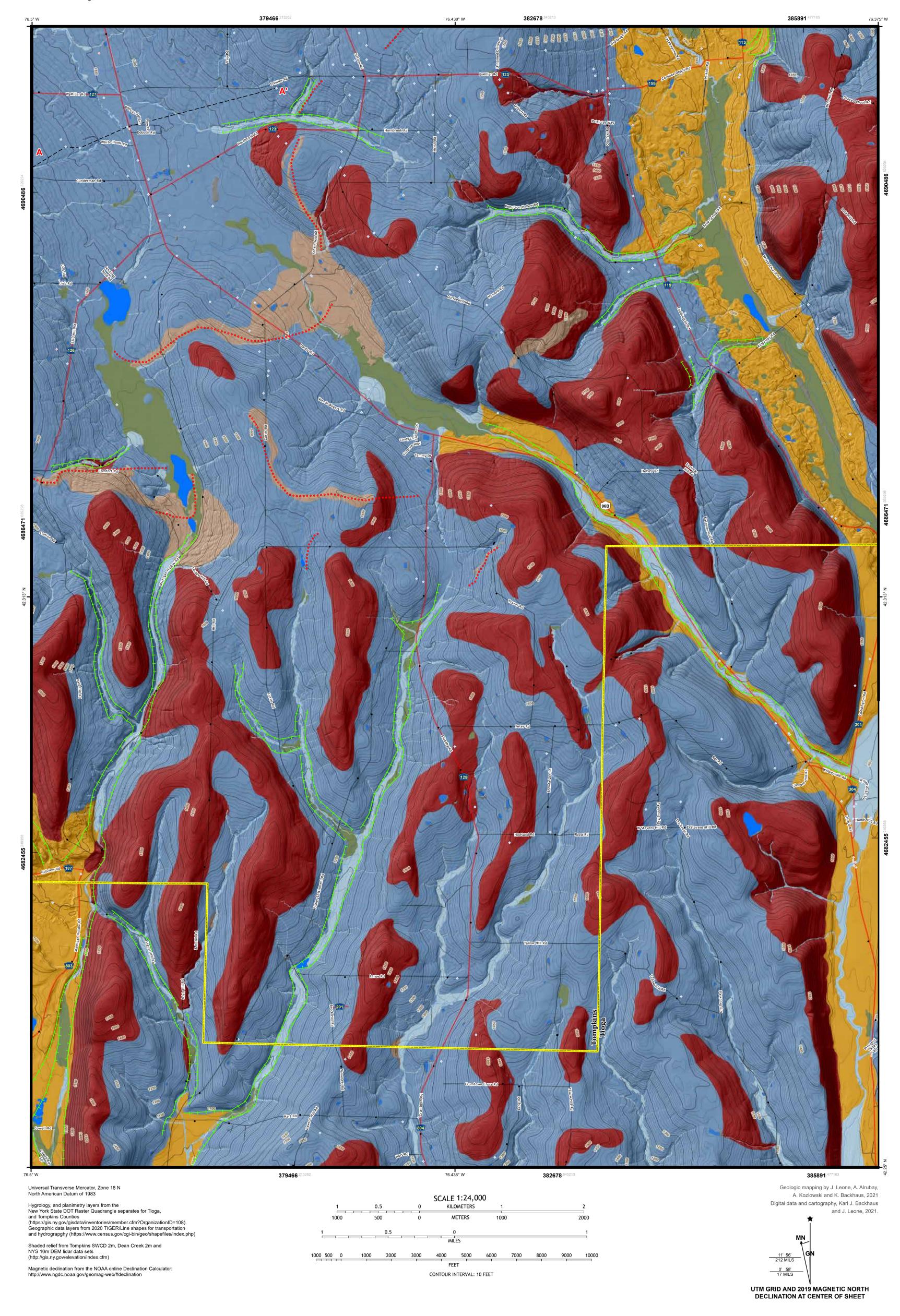
New York State Museum

Mark Schaming, Director

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## SURFICIAL GEOLOGY OF THE WILLSEYVILLE 7.5-MINUTE QUADRANGLE, TIOGA AND TOMPKINS COUNTIES, NEW YORK

James R. Leone, Andrew L. Kozlowski, Karl J. Backhaus and Akeed Alrubay 2021

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prepared by
James R. Leone and Karl J. Backhaus

Supported in part by the U.S Geological Survey Cooperative Agreement Number G20AC00418

National Cooperative Geologic Mapping Program (STATEMAP)

### **DESCRIPTION OF MAP UNITS**

### Holocene

Artifical Fill (Af)

Surficial sediment composed of coarse/fine and or crushed rock anthropogenically transported and used for construction purposes.

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

Diamict Colluvium (Hdc)

Unsorted and unstratified deposit of gravel, sand, silt, clay, with boulders/cobbles possible. Described as a mass-wasting deposit at the base of steep hillslopes and cliffs as part of a slump or hillslope failure.

### Pleistocene

Silt and Clay (Ps

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.

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.

Pdcs Diamicton (Pdcs)

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

### **Pre-Pleistocene**

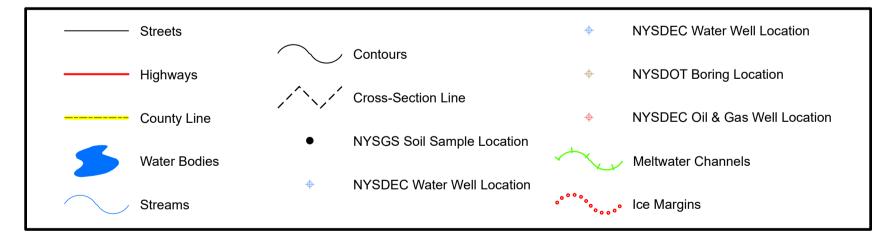


Bedrock (Br)

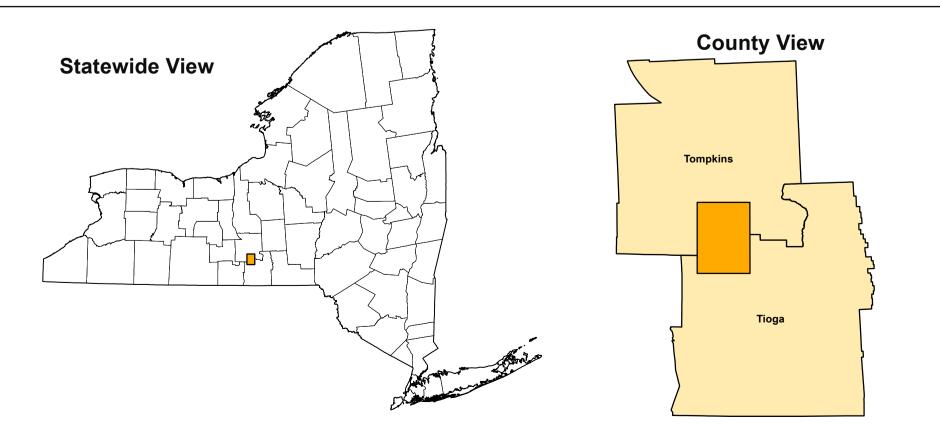
Non-glacially derived, hard rock, pre-pleistocene in age. May be covered up to a meter in diamicton, sand and gravel, or sand and clay in areas marked as Br.

# CROSS-SECTION A-A' A 430 410 330 300 0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0 3.16 Distance (kilometers)

### SYMBOLS

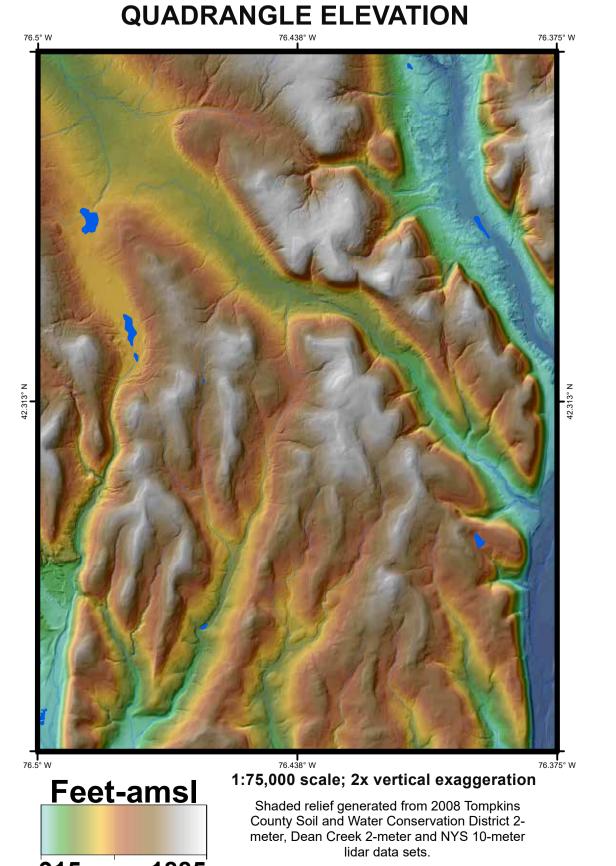


### **QUADRANGLE LOCATION**



# ADJOINING QUADRANGLES | Hand | Hand

# NOTICE This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program STATEMAP award number G20AC00418 in the year 2021. 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 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 NYSED.



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