















PLEISTOCENE GEOLOGY OF PORTAGE COUNTY, WISCONSIN

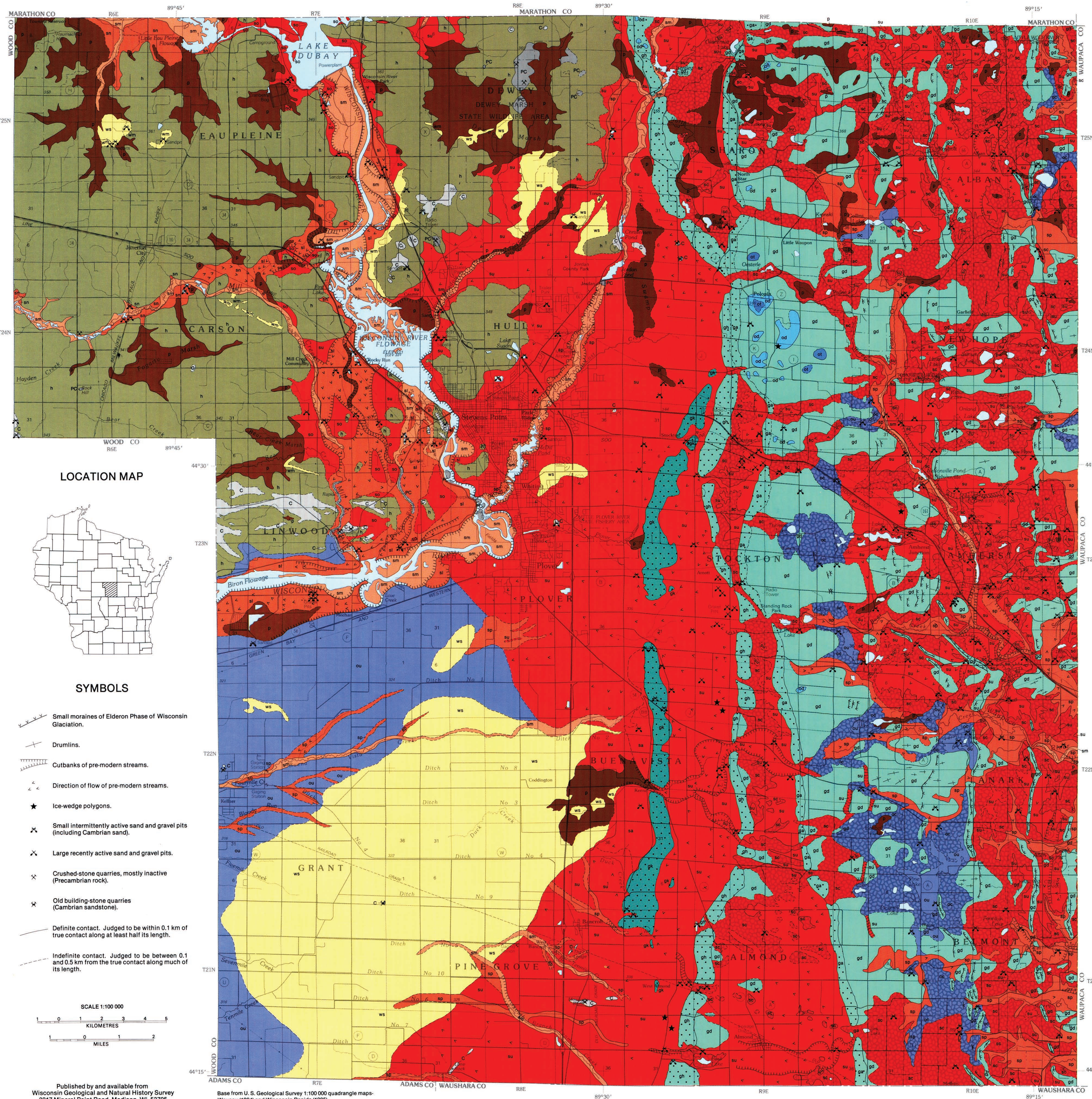
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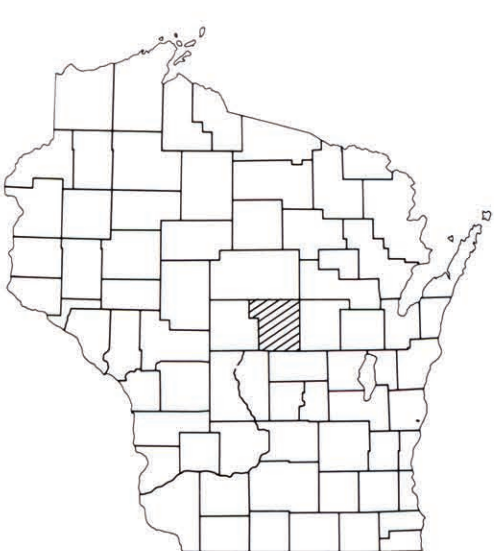
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EXPLANATION












-  **PEAT AND MUCK.** Organic sediment in bogs, swamps, and marshes; commonly a few metres thick; most deposited during past 10,000 years. Overlies a variety of material, most typically sand, slightly gravelly sand, or gravelly sand.
-  **WIND-BLOWN SAND.** Well-sorted sand; commonly a few metres thick; probably deposited shortly after glaciation or during middle Holocene time. **wm:** Overlying hillslope deposits on Precambrian rock. **ws:** Overlying offshore or stream-deposited sand; in the southwestern part of the county includes large number of small unmapped patches of peat and muck.
-  **MODERN STREAM SEDIMENT.** Gravelly sand, sandy gravel, slightly gravelly sand, sand, and gravel deposited on the floodplains of modern streams; generally no more than a few metres thick. Typically overlies older stream deposits.
-  **EARLY-POSTGLACIAL STREAM SEDIMENT IN EASTERN AND SOUTHWESTERN PORTAGE COUNTY.** Sand and slightly gravelly sand deposited by nonglacial streams shortly after Wisconsin Glaciation; noncalcareous; may be 10 to 20 m thick in parts of eastern Portage County. Includes hillslope deposits derived from steep valley sides in eastern Portage County.
-  **STREAM SEDIMENT OF LOVE TERRACE.** Sandy gravel and gravelly sand deposited by Wisconsin River, probably shortly after Wisconsin Glaciation; noncalcareous; commonly only a few metres thick. Overlies older stream sediment or Precambrian rock.
-  **NONGLACIAL STREAM SEDIMENT IN NORTHWESTERN PORTAGE COUNTY.** Slightly gravelly sand and gravelly sand in terraces of streams north and west of the Wisconsin River during or shortly after Wisconsin Glaciation; noncalcareous; commonly a few metres thick.
-  **MELT-WATER-STREAM SEDIMENT.** Slightly gravelly sand, gravelly sand, and sandy gravel deposited by glacial melt-water streams; tens of metres thick in some areas. Included in Horicon Formation. **su:** Deposited on solid ground by proglacial streams from Green Bay Lobe during Wisconsin Glaciation; gravelly sediment generally contains dolomite pebbles and cobbles within a metre of surface but sandy sediment is noncalcareous to several metres depth. **sc:** Similar to unit su but hilly because deposited on stagnant glacial ice; map unit also includes sediment of melt-water streams in eastern Portage County that is hilly because of postglacial erosion adjacent to eastward-flowing streams of unit sp. **sp:** Deposited by Wisconsin River, flowing from Green Bay, Langlade, and Wisconsin Valley Lobes during Wisconsin Glaciation; less calcareous than su. **sa:** Deposited by proglacial streams from Green Bay Lobe during Arnott Glaciation; probably largely noncalcareous.
-  **MELT-WATER-STREAM SEDIMENT AND OFFSHORE SEDIMENT, UNDIFFERENTIATED.** **ou:** Similar to unit su but also includes sand, slightly gravelly sand, gravelly sand, and sandy gravel deposited in proglacial lakes by underflow currents. Included in Horicon Formation. **oc:** Similar to unit ou but hilly because deposited on stagnant glacial ice.
-  **OFFSHORE SEDIMENT.** Sediment deposited by underflow currents in ice-walled lakes during Wisconsin Glaciation; commonly a few metres thick; calcareous below a depth of a few metres. Generally overlies till. Included in Horicon Formation. **od:** Largely sand. **ot:** Largely silt.
-  **TILL OF MAPLEVIEW MEMBER.** Clayey, silty, slightly gravelly to gravelly sand deposited by Green Bay Lobe during Wisconsin Glaciation; surface boulders common; dolomite pebbles and cobbles abundant below depth of a few metres. Included in Horicon Formation. **gd:** Complex topography resulting from draping of till over a variety of pre-existing types of topography; till may be tens of metres thick but till of last glacial phase is only a few metres thick in many areas. **gh:** Moraine of Hancock Phase; till about as thick as height of moraine, or a few tens of metres in some areas. **ga:** Moraine of Almond Phase; till about as thick as height of moraine, or several metres to a few tens of metres in some areas.
-  **TILL OF KEENE MEMBER.** Slightly gravelly to gravelly, clayey, silty sand deposited by Green Bay Lobe during Arnott Glaciation; surface boulders common; 10 to 30 m thick; generally noncalcareous to depth of 10 m or more. Included in Horicon Formation.
-  **HILLSLOPE DEPOSITS.** Slightly gravelly to gravelly, clayey, sandy silt deposited largely by hillslope processes such as shallow soil flowage, slope wash, and creep, and derived from residuum that in turn was derived from Precambrian rock during late Cenozoic time; generally a few metres thick; surface boulders are same lithology as underlying Precambrian rock. May include scattered patches of till of Edgar or Wausau Member of Marathon Formation.
-  **CAMBRIAN UNITS.** Sandstone and sand as thick as several tens of metres in some areas; base of sequence includes weathering zone on underlying Precambrian rock.
-  **PRECAMBRIAN UNITS.** Igneous and metamorphic rock.



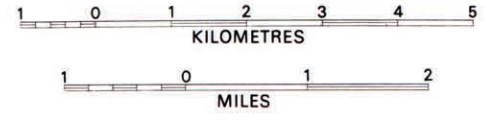
LOCATION MAP



SYMBOLS

-  Small moraines of Elderon Phase of Wisconsin Glaciation.
-  Drumlins.
-  Cutbanks of pre-modern streams.
-  Direction of flow of pre-modern streams.
-  Ice-wedge polygons.
-  Small intermittently active sand and gravel pits (including Cambrian sand).
-  Large recently active sand and gravel pits.
-  Crushed-stone quarries, mostly inactive (Precambrian rock).
-  Old building-stone quarries (Cambrian sandstone).
-  Definite contact. Judged to be within 0.1 km of true contact along at least half its length.
-  Indefinite contact. Judged to be between 0.1 and 0.5 km from the true contact along much of its length.

SCALE 1:100 000



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Base from U. S. Geological Survey 1:100 000 quadrangle maps—
Wausau (1984) and Wisconsin Rapids (1989)