AREAL GEOLOGY

STATE OF PENNSYLVANIA
GEORGE W. McNEES, RICHARD R. HICE, ANDREW S. McCREATH
COMMISSIONERS

U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

PENNSYLVANIA
CLARION QUADRANGLE

79°30′ 25′ 20′ 79°15′
41°15′ 10′ 5′ 41°00′

LEGEND

SEDIMENTARY ROCKS

(Areas of subaqueous deposits are shown by patterns of parallel lines, subaerial deposits by patterns of dots and circles)

QUATERNARY

Recent

Qal — **Alluvium** *(in flood plains of present streams)*

Pleistocene — Wisconsin? and pre-Wisconsin

Qlt — **Lower terrace deposits** *(sand, silt, clay, and rounded pebbles of local derivation on low terraces)*

Kansan?

Qcm — **Carmichaels formation** *(high terrace sands, silt, clay, and deeply decayed water worn pebbles of local derivation.)*

CARBONIFEROUS

Pennsylvanian

Ccm — **Conemaugh formation** *(soft olive shale, sandy shale, and locally heavy sandstone near base, with thin coals and limestones)*

Ca Cv — **Allegheny formation and Vanport limestone member** *(iron-bearing shale, fine-grained to conglomeratic sandstone, limestone, and valuable beds of coal and clay)*

Cpv — **Pottsville formation** *(massive sandstone with large shale lenses and thin seams of coal)*

UNCONFORMITY

Mississippian (Pocono group)

Cbg — **Burgoon sandstone** *(massive to thin-bedded sandstone with many small lenses of soft shale and thin seams of coal)*

H. M. Wilson, Geographer.
Robt. D. Cummin and J. H. Jennings, in charge of section.
Topography by Robt. D. Cummin and E. W. McCrary.
Control by E. L. McNair and W. T. Griswold.
Surveyed in 1905 and 1906.

SURVEYED IN COOPERATION WITH THE STATE OF PENNSYLVANIA.

Pre-Quaternary geology by E. F. Lines.
Quaternary geology by E. W. Shaw.
Surveyed in 1907 and 1910.

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APPROXIMATE MEAN DECLINATION 1906.

Scale 1/62500

1 0 1 2 3 4 Miles

1 0 1 2 3 4 5 Kilometers

Contour interval 20 feet.
Datum is mean sea level.
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