

AREAL GEOLOGY

STATE OF PENNSYLVANIA

GEORGE W. MCNEES, RICHARD R. HICE, ANDREW S. MCCREATH
COMMISSIONERS
(Barnesboro)

PENNSYLVANIA
JOHNSTOWN QUADRANGLE

U.S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR



LEGEND

SEDIMENTARY ROCKS
(Areas of subaqueous
deposits are shown by
patterns of parallel lines;
alluvial deposits by
patterns of dots and
circles)

Qal
Alluvium
(only the larger
areas shown)

Ccm
Conemaugh
formation
(shale with several thin coal
beds; sometimes fine clay
some red shale and heavy-
bedded sandstone carrying
the Summerhill, Ca. Maryland
Ebensburg, Cb. Schuylkill, Cb.
and Buffalo, Cb. members)

Ca
Allegheny
formation
(chiefly gray and dark
shale, with local beds
of heavy sandstone and
several workable coal beds)

Cpv
Pottsville
formation
(heavy bedded sandstone
with shale bed containing
locally a thin coal bed
and fine clay)

Cmc
Manch Chunk
shale
(red and green shale
with a thick bed of gray
sandstone)

Cps
Pocono
formation
(grayish green sandy
shale and sandstone
with several beds of
red shale)

Dck
Catskill
formation
(red shale and reddish
and green sandstones)

QUATERNARY

CARBONIFEROUS

DEVONIAN

H. M. Wilson, Geographer.
Frank Sutton and R. D. Cummin in charge of section.
Topography by R. D. Cummin and A. C. Roberts. Assistant, B. B. Alexander.
Control by S. S. Gannett and H. B. Paige.
Surveyed in 1901-1904.

SURVEYED IN COOPERATION WITH THE STATE OF PENNSYLVANIA.

Scale 62500
1 2 3 4 Miles
1 2 3 4 Kilometers

Contour interval 20 feet.
Datum is mean sea level.

Edition of May 1910.

Geology by W. C. Phalen,
assisted by Lawrence Martin,
under the supervision of G. H. Ashley.
Surveyed in 1906.

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