



SURFICIAL ROCKS

SHEET SYMBOL

Pa1  
 Alluvium  
 (in flood plains of present streams)

Pcm  
 Carmichael clay  
 (clay sand and bowlders on terraces and in abandoned channels of larger streams)

SEDIMENTARY ROCKS

SHEET SECTION SYMBOL SYMBOL

Cd  
 Dunkard formation  
 (sandy shale, coarse sandstone, some thin limestone, and beds of coal, many of which are thin)

Cm Cm  
 Monongahela formation  
 (shale, limestone, and occasionally coarse sandstone, Pittsburg coal at the bottom, Weyersburg coal at the top, and coal beds of local importance between)

Ccm Ccm  
 Conemaugh formation exclusive of the Saltsburg sandstone  
 (sandstone shale, small amount of limestone, and a few small coal beds)

Ccs  
 Saltsburg sandstone lenticular in the Conemaugh formation  
 (coarse shaly sandstone or massive sandstone in the Conemaugh formation)

Ca Ca  
 Allegheny formation  
 (shale, sandstone, and clay with several thin, but important, coal beds typical of the top)

Cpv Cpv  
 Pottsville sandstone  
 (coarse massive sandstone on conglomerate with some shale and usually a coal bed at the middle)

Cmc Cmc  
 Mauch Chunk formation exclusive of the Greenbrier limestone  
 (red and green shale and thin-bedded green sandstone)

Cgr  
 Greenbrier limestone lenticular in the Mauch Chunk formation  
 (thin blue shaly limestone in the Mauch Chunk shale)

Cpo Cpo  
 Pocomo sandstone  
 (coarse sandstone grading into very sandy limestone at the top and usually containing sandy shale)

(green and red shale and green sandstone)

PLEISTOCENE

Pennsylvanian series

Carboniferous

Mississippian series

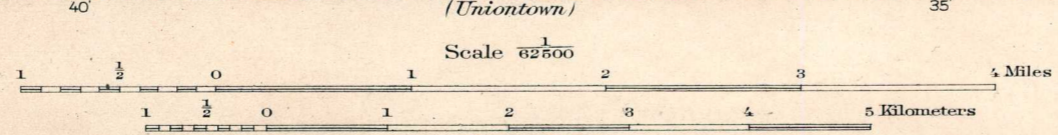
Devonian

Contour lines drawn upon floor of Pittsburg coal at base of Monongahela formation  
 (contour interval is 20 feet except on Fayette anticline where it is 50 feet. Datum is mean sea level. Where the coal has been removed by erosion the lines are determined by the calculated position of the bed.)

Contour lines drawn upon upper surface of Pottsville sandstone, approximately 500 feet below the Pittsburg coal horizon  
 (contour interval is 100 feet. Datum is mean sea level. Where the sandstone has been removed by erosion the lines are determined by the calculated position of the formation.)

The axes of the folds are represented by heavy lines, broken lines showing the lowest parts of the synclines and the highest parts of the anticlines.

H. M. Wilson, Geographer in charge.  
 Control by Walter R. Harper and A. C. Roberts.  
 Topography by Frank Sutton, J. H. Wheat, T. G. Basinger, and H. C. Frick Coke Co.  
 Surveyed in 1900 in cooperation with the State of Pennsylvania.



Geology by Marius R. Campbell.  
 Assisted by L. C. Glenn, Charles Butts, and L. H. Woolsey.  
 Surveyed in 1901.