

STRUCTURE AND ECONOMIC GEOLOGY

PENNSYLVANIA
INDIANA QUADRANGLE

LEGEND

SEDIMENTARY ROCKS

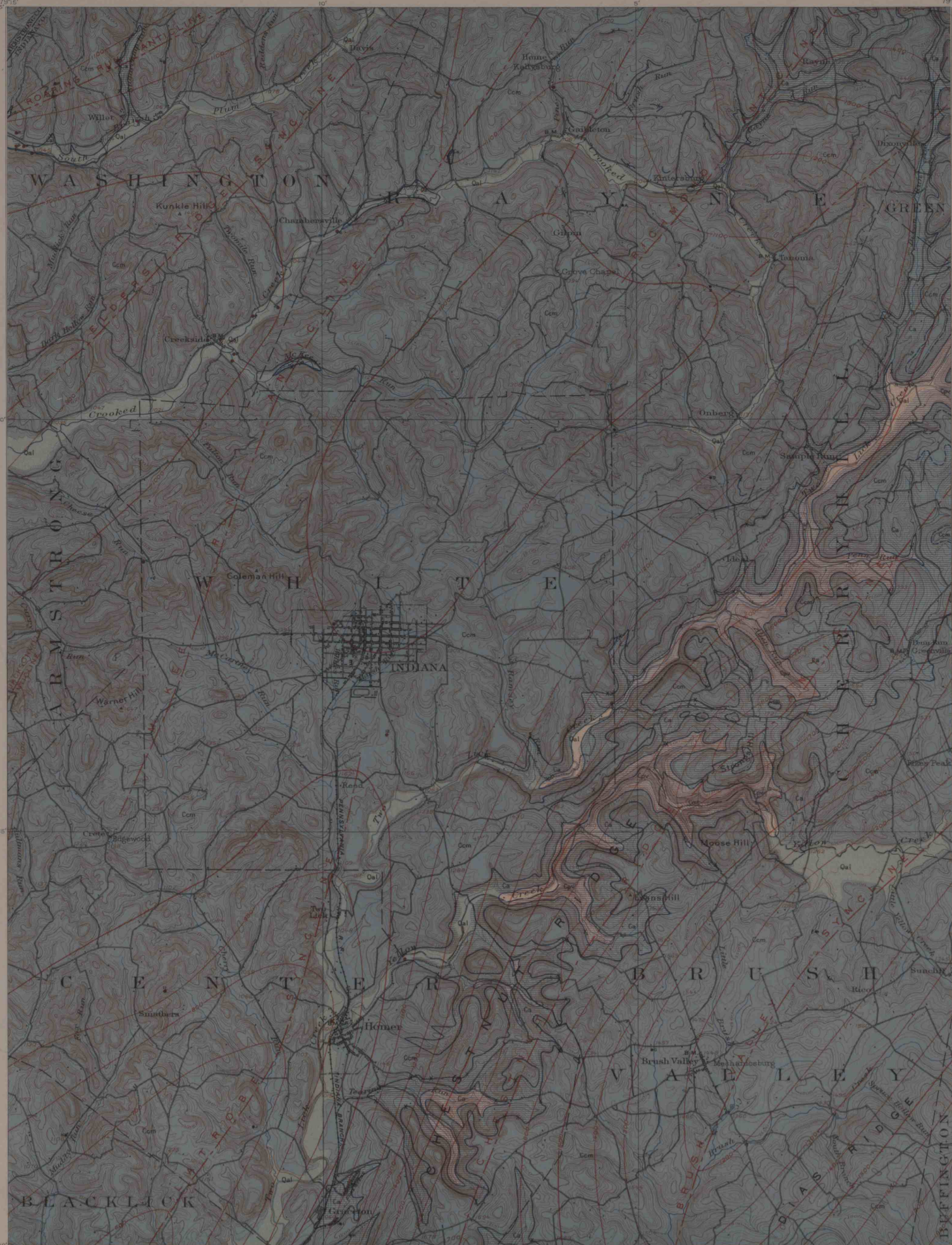
(Areas of subaqueous deposits are shown by patterns of parallel lines; alluvial deposits by patterns of dots and circles.)

Recent	Qal	QUATERNARY
	Alluvium (in flood plains of present streams)	
	Ccm	
	Conenough formation (sandstone, shale and limestone with a few small coal beds)	
	Ca	
	Allegheny formation (shale, sandstone, thin limestone, fire clay and several workable beds of coal, Upper Freeport coal at the top)	
	Cpv	
	Pottsville formation (massive sandstone and shale)	
	Gme	
	Mauch Chunk shale (red and green shale)	

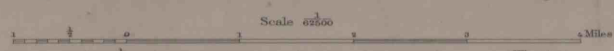
- ✕ Coal mines
- Deep wells drilled for gas
- Productive gas wells
- Diamond drill holes whose records are published in this file

Known productive areas

- Coal outcrops
(Upper Freeport, Lower Freeport, Lower Allegheny and other coal-bearing line indicates that the presence of coal is doubtful)
- Coal
(areas indicated by coal of probable workable thickness; depth to Upper Freeport coal horizon may be estimated from the structure contours)
- Structure contours
(showing the elevation above sea and the top of the Upper Freeport coal horizon)



H. M. Wilson, Geographer in charge.
Control by A. H. Thompson, Frank Burton and J. D. Forster.
Topography by Frank Sutton and T. G. Basinger.
Surveyed in 1900 in cooperation with the State of Pennsylvania.



Contour interval 20 feet.
Datum is mean sea level.
Edition of July 1903.

Marius R. Campbell, Geologist in charge.
Geology by George B. Richardson.
Surveyed in 1901 in cooperation with the State of Pennsylvania.

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