

ECONOMIC GEOLOGY

U.S. GEOLOGICAL SURVEY
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STATE OF MARYLAND
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MARYLAND-PENNSYLVANIA
GRANTSVILLE QUADRANGLE



LEGEND

SEDIMENTARY ROCKS
(Areas of subhorizontal deposits are shown by patterns of parallel lines)

Cd
Dunkard formation
(shale, sandstone, and limestone with thin coal beds)

we
Cm
Monongahela formation
(shale, sandstone, and limestone. Primary coal at the top. Secondary coal at the bottom. Waverly coal at the top. Secondary and other coal beds between.)

bt Ccm
Conemaugh formation
(shale, sandstone, and a few limestones, with Bakerstown and several thin coal beds)

af
Allegheny formation
(shale and sandstone. Upper 30 feet support coal at top. Lower 100 feet support coal below.)

Cpv
Pottsville formation
(sandstone, conglomerate, and shale with Mount Savage fire clay and a few thin coal beds)

Cmc
Mauch Chunk formation
(red and green shale and sandstone)

Cgr
Greensboro limestone
(limestone with much interbedded shale)

Cpo
Pocomo sandstone
(sandstone and conglomerate with some shale)

Dek
Catskill formation
(red and green shale and sandstone)

Dj
Jennings formation
(shale and sandstone)

Economic and structure data

Structure contours
(showing elevation above sea and configuration of the top of the Pottsville formation. Contour interval 200 feet)

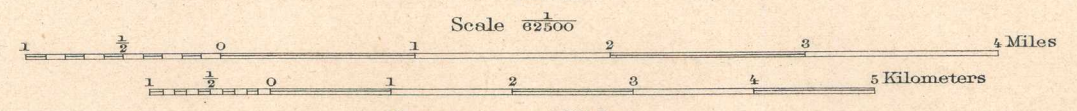
Coal outcrops
(coal of probably middle thickness)

we Waverly coal
us Upper Swatara coal
pb Bakersville coal
bt Bakerstown coal
sv Grantsville coal
af Upper Prospect coal
lk Lower Kittanning coal

Commercial coal mines
Limestone quarries
Coal prospects and country banks

Devonian: Dek, Dj
 Mississippian: Cmc, Cgr, Cpo
 Pennsylvanian (Possibly Permian at top): Cpv, Ccm, bt, we, Cm, Cd

H.M. Wilson, Geographer in charge.
Control by Geo. F. Hawkins and J.H. Jennings.
Topography by W. Carvel Hall.



Geology by G.C. Martin.
Surveyed in 1900-1903.
SURVEYED IN COOPERATION WITH THE STATE OF MARYLAND.