

U.S. GEOLOGICAL SURVEY
CHARLES D. WALCOTT, DIRECTOR

STATE OF PENNSYLVANIA
GEORGE W. MC NEES, SIMON HARROLD,
FRED D. BARKER, COMMISSIONERS

GEOLOGIC STRUCTURE

PENNSYLVANIA
BROWNSVILLE QUADRANGLE

LEGEND

SURFICIAL ROCKS

Pal
Alluvium
(in flood plains of
present streams)

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

SEDIMENTARY ROCKS

Cd
Dunkard
formation
(sandstone, shale, coarse
sandstone, some thin lime-
stone and beds of coal,
many of workable size)

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

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

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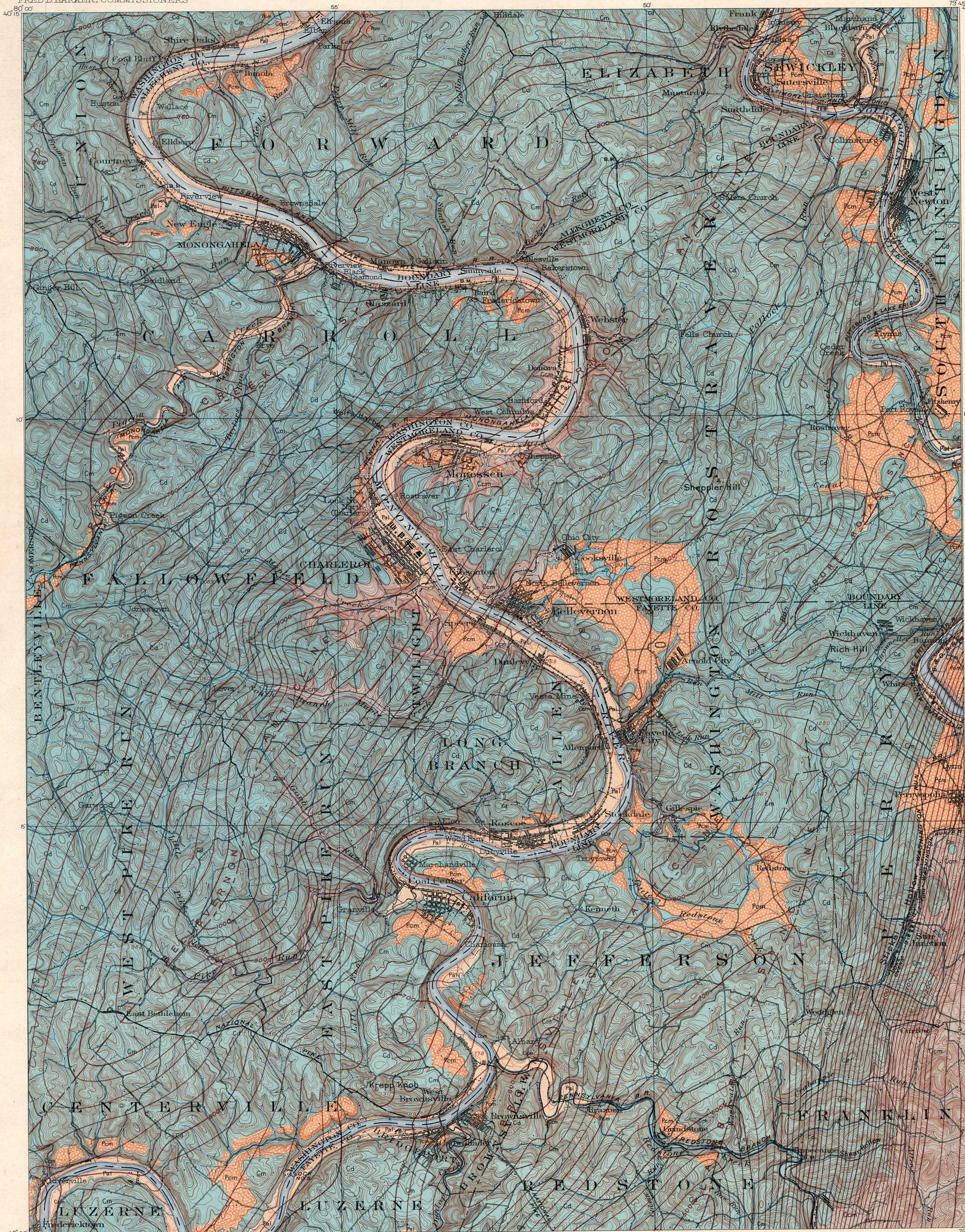
Contour lines drawn
upon floor of
Pittsburgh coal at
base of Monongahela
formation
(contour interval is 20 feet
except in extreme southeast
corner where it is 50 feet;
datum is mean sea level;
where the coal has been
removed by erosion the
lines are determined by
the calculated position
of the bed.)

The axes of the folds are
represented by heavy line
lines drawn along the
lowest parts of the synclines
and the highest parts of the
anticlines.

PLEISTOCENE

CARBONIFEROUS

(Continued)



H.M. Wilson, Geographer in charge.
Control by Sledge Tatum and Arthur C. Roberts.
Topography by Frank Sutton, J.H. Wheat, W.N. Morrill, and T.G. Basinger.
Surveyed in 1899-1900 in cooperation with the State of Pennsylvania.

Scale 1:25,000
1 2 3 4 5 Miles
1 2 3 4 5 Kilometers
Contour interval 20 feet.
Datum is mean sea level.
Edition of Feb. 1903.

Geology by Marius R. Campbell.
Assisted by L.C. Glenn,
Charles Butts, and L.H. Woolsey.
Surveyed in 1891.