

LEGEND

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

- Recent
- Qal Alluvium (in flood plains of present streams)
 - Qg Glacial gravel (outwash gravel and sands of probable Kansan age; con. tab. pebbles of Madison sandstone and crystalline rock)
- Pleistocene
- Qcm Carmichaels formation (sand, silt, clay, and water-worn pebbles of underlying rocks)
 - Qoa Older alluvium (gravel and silt of local derivation)

- Pennsylvanian
- Ccm Conemaugh formation with Ames limestone and Saltsburg sandstone lentils (sandy shale and coarse sandstones, with thin coal streaks and impure limestones)
 - Ca Allegheny formation and Varnport limestone lentil (shale and massive sandstones with beds of limestone and several valuable beds of coal and fire clay)

- Mississippian
- Cpv Pottsville formation (massive sandstone, often shaly at the top and at horizon of Merger coals)
 - Cpo Poccono formation (massive sandstone, with small coal seams and associated shale)

- Known productive areas
- Coal outcrops (continuous lines represent coal beds of workable or probably workable thickness; dashed lines, coal beds not known to be workable)
 - Upper Freeport, of Lower Freeport, of Middle Kittinging, of Lower Kittinging, of Clinton, of Cretaceous, of

- Contour lines drawn on the upper surface of the Varnport limestone lentil in the Allegheny formation (contour interval is 50 feet, datum is mean sea level)

- Oil pools (projected by the surface; individual wells not shown)

- Mines and quarries (Coal mines, unless otherwise marked)
- Scattered oil wells
 - Gas wells (Sections of numbered wells are shown on well section sheet)

- Section
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QUATERNARY

CARBONIFEROUS

MISSISSIPPIAN

Known productive areas

Contour lines drawn on the upper surface of the Varnport limestone lentil in the Allegheny formation (contour interval is 50 feet, datum is mean sea level)

Oil pools (projected by the surface; individual wells not shown)

Mines and quarries (Coal mines, unless otherwise marked)

Section



H. M. Wilson, Geographer in charge.
Control by S. S. Gannett and E. L. McNair.
Topography by W. L. Miller and W. Carvel Hall.

SURVEYED IN 1900, IN COOPERATION WITH THE STATE OF PENNSYLVANIA.

APPROXIMATE MEAN
DECLINATION 1902.

Scale 62500
1 2 3 4 5 Miles
1 2 3 4 5 Kilometers

Contour interval 20 feet.
Datum is mean sea level.
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Geology by Charles Butts,
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