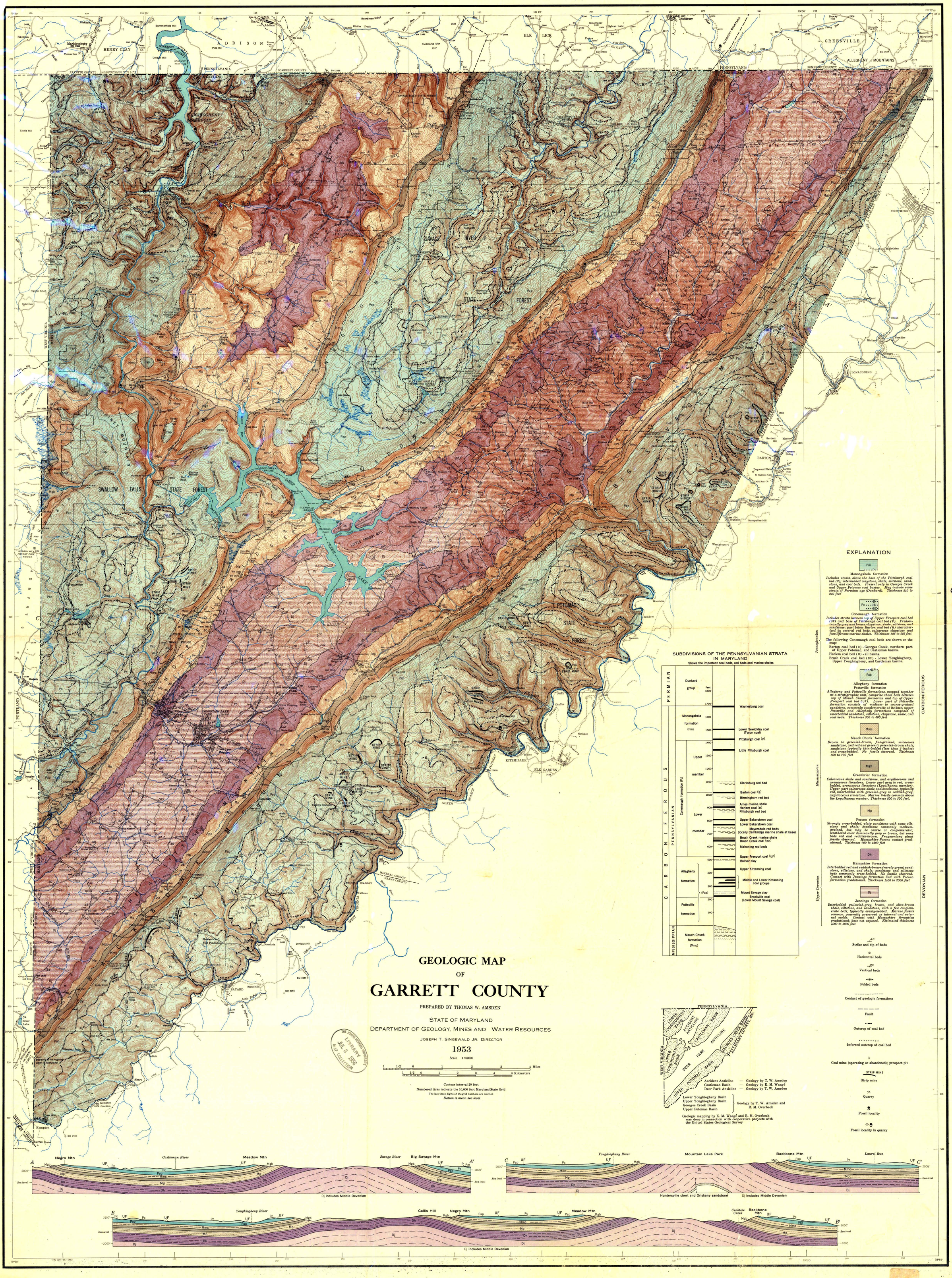
GEOLOGIC MAP
OF
GARRETT COUNTY
PREPARED BY THOMAS W. AMSDEN
STATE OF MARYLAND
DEPARTMENT OF GEOLOGY, MINES AND WATER RESOURCES
JOSEPH T. SINGEWALD JR. DIRECTOR
1953
Scale 1:62500
1 1/2 0 1 2 3 4 Miles
1 1/2 0 1 2 3 4 5 Kilometers
Contour interval 20 feet
Numbered ticks indicate the 10,000 foot Maryland State Grid
The last three digits of the grid numbers are omitted
Datum is mean sea level
EXPLANATION
Pm
Monongahela formation
Includes strata above the base of the Pittsburgh coal bed (P); interbedded claystone, shale, siltstone, sandstone, and coal beds. Present only in Georges Creek and Upper Potomac coal basins. May include some strata of Permian age (Dunkard). Thickness 240 to 270 feet
Pc
Conemaugh formation
Includes strata between top of Upper Freeport coal bed (UF) and base of Pittsburgh coal bed (P). Predominantly gray and brown claystone, shale, siltstone, and sandstone; part below Barton coal bed (B) characterized by several red beds, calcareous claystone and fossiliferous marine shales. Thickness 825 to 925 feet
The following Conemaugh coal beds are shown on the map:
Barton coal bed (B) - Georges Creek, northern part of Upper Potomac, and Castleman basins.
Harlem coal bed (H) - all basins.
Brush Creek coal bed (BC) - Lower Youghiogheny, Upper Youghiogheny, and Castleman basins.
Pennsylvanian
Pap
Allegheny formation
Pottsville formation
Allegheny and Pottsville formations, mapped together as a stratigraphic unit, comprise those beds between top of Mauch Chunk formation and top of Upper Freeport coal bed (UF). Lower part of Pottsville formation consists of medium- to coarse-grained sandstone, commonly conglomeratic at its base; upper Pottsville and Allegheny formations composed of interbedded sandstone, siltstone, claystone, shale, and coal beds. Thickness 300 to 600 feet
Mmc
Mauch Chunk formation
Brown to greenish-brown, fine-grained, micaceous sandstone, and red and green to greenish-brown shale; sandstone typically thin-bedded (less than 3 inches) and cross-bedded. No fossils observed. Thickness 500 to 700 feet
Mgb
Greenbrier formation
Calcareous shale and sandstone, and argillaceous and arenaceous limestone. Lower part grey to red, cross-bedded, arenaceous limestone (Loyalhanna member). Upper part calcareous shale and sandstone, typically red, interbedded with greenish-grey to reddish-grey, argillaceous limestone. Marine fossils common above the Loyalhanna member. Thickness 200 to 300 feet.
Mp
Pocono formation
Strongly cross-bedded, platy sandstone with some siltstone and shale; sandstone commonly medium-grained, but may be coarse or conglomeratic; weathered color dominantly grey or brown, but some beds red and reddish-brown. Fragmentary plant fossils observed. Hampshire-Pocono contact gradational. Thickness 700 to 1800 feet
Mississippian
Dh
Hampshire formation
Interbedded red and reddish-brown (rarely green) sandstone, siltstone, and shale; sandstone and siltstone beds commonly cross-bedded. No fossils observed. Contact with Jennings formation and with Pocono formation gradational. Thickness 1100 to 2000 feet
Dj
Jennings formation
Interbedded yellowish-grey, brown, and olive-brown shale, siltstone, and sandstone, with a few conglomerate beds; typically evenly-bedded. Marine fossils common, generally preserved as internal and external molds. Contact with Hampshire formation gradational; base not exposed. Estimated thickness 4000 to 5000 feet
Devonian
Strike and dip of beds
Horizontal beds
Vertical beds
Folded beds
Contact of geologic formations
Fault
Outcrop of coal bed
Inferred outcrop of coal bed
Coal mine (operating or abandoned); prospect pit
STRIP MINE
Strip mine
Quarry
Fossil locality
Fossil locality in quarry
SUBDIVISIONS OF THE PENNSYLVANIAN STRATA IN MARYLAND
Shows the important coal beds, red beds and marine shales
PERMIAN
Dunkard group
Monongahela formation (Pm)
Waynesburg coal
Lower Sewickley coal (Tyson coal)
Pittsburgh coal (P)
Little Pittsburgh coal
Upper member
Clarksburg red bed
Barton coal (B)
Birmingham red bed
Ames marine shale
Harlem coal (H)
Pittsburgh red bed
Upper Bakerstown coal
Lower Bakerstown coal
Meyersdale red beds (locally Cambridge marine shale at base)
Brush Creek marine shale
Brush Creek coal (BC)
Mahoning red beds
Upper Freeport coal (UF)
Bolivar clay
Upper Kittanning coal
Middle and Lower Kittanning coal groups
Mount Savage clay
Brookville coal (Lower Mount Savage coal)
Lower member
Conemaugh formation (Pc)
Allegheny formation
Pottsville formation
Mauch Chunk formation (Mmc)
CARBONIFEROUS
PENNSYLVANIAN
MISSISSIPPIAN
Pennsylvania
Mississippian
Upper Devonian
CARBONIFEROUS
DEVONIAN
PENNSYLVANIA
WEST VIRGINIA
LOWER YOUGHIOGHENY BASIN
ACCIDENT ANTICLINE
CASTLEMAN BASIN
UPPER YOUGHIOGHENY BASIN
DEER PARK ANTICLINE
GEORGES CREEK BASIN
ALLEGANY COUNTY
UPPER POTOMAC BASIN
Accident Anticline — Geology by T. W. Amsden
Castleman Basin — Geology by K. M. Waagé
Deer Park Anticline — Geology by T. W. Amsden
Lower Youghiogheny Basin
Upper Youghiogheny Basin
Georges Creek Basin
Upper Potomac Basin
Geology by T. W. Amsden and R. M. Overbeck
Geologic mapping by K. M. Waagé and R. M. Overbeck was done in connection with cooperative projects with the United States Geological Survey
Negro Mtn
Castleman River
Meadow Mtn
Savage River
Big Savage Mtn
Dj includes Middle Devonian
Youghiogheny River
Mountain Lake Park
Backbone Mtn
Laurel Run
Huntersville chert and Oriskany sandstone
Dj includes Middle Devonian
Youghiogheny River
Callis Hill
Negro Mtn
Meadow Mtn
Crabtree Creek
Backbone Mtn
Dj includes Middle Devonian
Sea level
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