

STRUCTURE AND ECONOMIC GEOLOGY

U.S. GEOLOGICAL SURVEY
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STATE OF PENNSYLVANIA
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COMMISSIONERS
(Curwensville)

PENNSYLVANIA
PATTON QUADRANGLE



LEGEND

SEDIMENTARY ROCKS

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

Recent series

Qal

Alluvium
(in flood plains of present streams)

QUATERNARY

Pennsylvanian series

Ccm

Conemaugh formation
(shale, thin limestone, some red shale, thin coal beds locally workable and coarse thick-bedded sandstones containing the *Maryannia*, *Cm*, *Saltburg*, *Cb*, and *Bedford* Co. members)

Ca

Allegheny formation
(chiefly light and dark gray shale with variable beds of coarse gray sandstone and several valuable coal beds; *Dwyer* Freeport coal at top)

Cpv

Pottsville formation
(thick-bedded sandstone with shales in the middle carrying thin coal locally workable)

CARBONIFEROUS

Mississippian series

Cmc

Mauch Chunk formation
(soft red shale in upper part, overlain by gray thick-bedded sandstone in lower part)

ECONOMIC AND STRUCTURE DATA

Coal outcrops
(dashed lines represent coals not known to be workable)

Dwyer Freeport
Lower Freeport
Dwyer-Birmingham
Lower Allegheny
Brookville
Moran

Structure contours
on the top of the Lower Freeport coal
(contour interval, 50 feet; datum, mean sea level)

- * Shipping coal mine (unless otherwise specified)
- * Abandoned coal mine
- x Country coal bank or prospect
- o Diamond drill hole (only those are shown whose records are represented on columnar-section sheets)

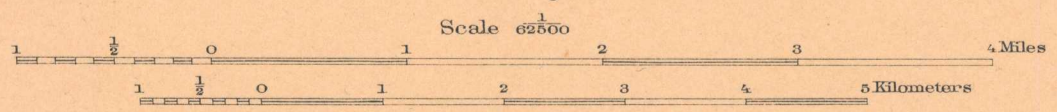
Note: In addition to the coal measures, clay and shale for brick and tile occur in the Allegheny and Conemaugh formations and building stone in the Conemaugh formation.

NAMES OF MINES.

Location indicated on the map by numbers.

1. Miller Run.
2. Red Top Nos. 1 and 2.
3. Pardee Nos. 27 and 29.
4. Hastings No. 20.
5. Rich Hill.
6. Oak Ridge.
7. Hastings No. 13.
8. Hastings No. 12.
9. Hastings No. 11.
10. Cymbria No. 2.
11. Starling No. 3.
12. Cymbria No. 3.
13. Cymbria No. 1.
14. Eclipse.
15. Victor No. 1.
16. Victor No. 10.
17. Victor No. 6.
18. Victor No. 5.
19. Victor No. 4.
20. Victor No. 3.
21. Starling No. 5.
22. Starling No. 3.
23. Starling No. 2.
24. Nanty Glo No. 2.
25. Starling No. 6.
26. Logan No. 5.
27. Black Diamond.
28. Patton No. 1.
29. Patton No. 2.
30. Ashcroft No. 35.
31. Ashcroft No. 34.
32. Pardee No. 28.
33. Columbian No. 32.
34. Victor No. 12.
35. Pardee No. 39.
36. Pardee No. 26.
37. Patton Clay Mfg. Co.
38. Flannagan No. 31.
39. Flannagan No. 30.
40. Flannagan No. 36.
41. Mohannon No. 38.
42. Mohannon Nos. 33 and 37.
43. Mount Verde.
44. Blain Run No. 2.
45. Oakland No. 2.
46. Blain Run No. 1.
47. Oakland No. 3.
48. Blain Run.
49. Superior No. 2.
50. Alpha.
51. Oakland No. 4.
52. Beaver Dam.
53. Beaver Dam.
54. Dean No. 8.
55. Richland.
56. Jones No. 2.
57. Pennsylvania No. 16.
58. Pennsylvania No. 7.
59. Delaney No. 2.
60. Delaney No. 5.
61. Glenwhite.
62. Miller.

H. M. Wilson, Geographer in charge.
Triangulation by S. S. Gannett.
Topography by Frank Sutton, A. M. Walker, and J. D. Forster.
Surveyed in 1901-2 in cooperation with the State of Pennsylvania.



Scale 62500
Contour interval 20 feet.
Datum is mean sea level.
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Surveyed in 1905-6 and 1909.
SURVEYED IN COOPERATION WITH THE STATE OF PENNSYLVANIA.