

# ECONOMIC GEOLOGY

STATE OF PENNSYLVANIA  
TOPOGRAPHIC AND GEOLOGIC SURVEY COMMISSION  
JOSEPH N. PEV, CHAIRMAN  
*Patton*

PENNSYLVANIA  
EBENSBURG QUADRANGLE

790.892 A  
479.5173 A  
97.77 A

## LEGEND

## LEGEND

(continued)

### Sections



✕ Coal mines  
x Coal prospects

### NAMES OF MINES.

Location indicated on the map by numbers.

1. Reed and Bradley.
2. Reed and Bradley.
3. Bennington No. 19.
4. Webster No. 11.
5. Taylor and McCoy.
6. Webster No. 10.
7. Webster No. 9.
8. Kokomo.
9. Sonman No. 4.
10. Lilly.
11. Piper.
12. Bear Rock.
13. Moshannon.
14. Metzger.
15. Webster No. 4.
16. Laughman.
17. Sonman Shaft.
18. Piper No. 1.
19. Webster No. 1.
20. Shoemaker.
21. Sonman Shaft.
22. Hopper.
23. Lukens and Haupt.
24. Toy Ridge.
25. Puritan.
26. Excelsior.
27. Pearse and Sons.
28. South Fork.
29. Wintersen.
30. Cambria.
31. Plymouth.
32. N. Y. Coal and Transportation Co.
33. Eleanor.
34. Beaverdam.
35. Logan.
36. Beaverdam No. 15.
37. Wagner.
38. Alton.
39. Cambria.
40. Loyal Hanna.
41. Yellow Run Shaft.
42. Mountain Coal Co.
43. Dunlo Slope.
44. Henrietta No. 1.
45. Henrietta No. 2.

### SEDIMENTARY ROCKS

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

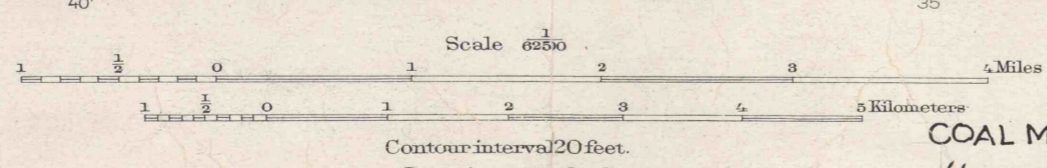
- |               |   |               |
|---------------|---|---------------|
| Recent        | Qal   | QUATERNARY    |
|               | Alluvium<br>(in flood plains of present streams)  |               |
|               | Cm  |               |
|               | Monongahela formation<br>(shale and thin sandstone)   |               |
|               | Cw Csh<br>Ce Ccm<br>Csb   |               |
|               | Conemaugh formation with Saltsburg, Ebensburg, Summerhill, and Wilmore sandstone lentils<br>(principally gray sandy shale with sandstone beds Csb, Ce, Csh, and Cw respectively)            |               |
| Pennsylvanian | Ca  | CARBONIFEROUS |
|               | Allegheny formation<br>(shaly gray and dark clay shale with beds of coarse gray sandstone, locally dolerite, and several valuable coal beds. Upper Freeport out at the top)                 |               |
|               | Cpv   |               |
|               | Pottsville formation<br>(two beds of thick-bedded sandstone, separated by shale, bearing locally a thin coal bed)   |               |
|               | Cme   |               |
|               | Mauch Chunk formation<br>(soft red shale in upper part, grayish to gray heavy-bedded sandstone in lower part)   |               |
| Mississippian | Cpo   | MISSISSIPPIAN |
|               | Pocono formation<br>(principally gray sandy shale and coarse gray sandstone, with several beds of red clay shale)   |               |
|               | Dck   |               |
|               | Catskill formation<br>(predominantly red shale and red sandstone, with some bands of gray and green shale)  |               |
|               | Dch   |               |
|               | Chemung formation<br>(gray and green shale with sandstone layers in lower portion, olive shale and sandstone in upper portion, fossiliferous throughout)                                    |               |
|               | Dn  |               |
|               | Nunda formation<br>(thinly laminated dark clay shale at bottom, passing into gray sandy shale containing thin gray and bluish sandstone, with some thin beds of reddish rock, fossils rare) |               |
|               | Dg  |               |
|               | Genesee shale<br>(soft, blue, clay shale with limestone nodules, sparingly fossiliferous)   |               |
|               | Dh  |               |
|               | Hamilton formation<br>(mostly olive and dark-green clay shale and sandy shale with thin beds of gray sandstone, fossils abundant)   |               |
|               | Economic and structural data  |               |
|               | Coal<br>(areas underlain by Allegheny formation which contains several beds of coal of workable thickness)  |               |
|               | Coal outcrops<br>(coal beds of probably workable thickness)   |               |
|               | uf Upper Freeport coal<br>uk Upper Kittanning coal<br>lk Lower Kittanning coal  |               |
|               | Structure contours<br>(showing the elevation above sea and the top of the Upper Freeport coal contour interval is 50 feet up to 3000 feet elevation, above 3000 feet it is 200 feet)        |               |

Legend is continued on the left margin.



H.M. Wilson, Geographer in charge.  
Control by S.S. Gannett and H.B. Paige.  
Topography by Frank Sutton, R.D. Cummin,  
T. G. Basinger, and J.S.B. Daingerfield.  
Surveyed in 1901-1902.

UNION DISTRICT  
MOUNTAIN STATE



Geology by Charles Butts,  
assisted by W.C. Phalen,  
under the direction of Marius R. Campbell.  
Surveyed in 1903.

SURVEYED IN COOPERATION WITH THE STATE OF PENNSYLVANIA.

### COAL MINED OUT-

Upper Freeport or E Seam Colored...  
Lower Kittanning or B " Colored...



790.892 Acres  
577.289 "

CAMBRIA STEEL COMPANY.

*M. Wilson*  
Mining Engr.

#440  
6-21-99  
CC.