

E. B. Nelson No. 8507 Well

Washington District, Boone County, W. Va.

By Hope Natural Gas Company.

Located 3.90 mi. W. of 81°50' and 3.44 mi. S. of 38°05' -SC- Madison Quadrangle; 4 mi. W. of Haddleton.

Elevation, 1287' L.

Permit, B00-460.

Drilling Commenced July 12, 1940; completed, Aug. 30, 1940.

Shot at 2307 to 2320'.

Gas well; volume 81,544 cu. ft.

Fresh water at 110'; salt water at 800'.

Coal was encountered at 200 to 205'.

10" casing, 21'; 8 $\frac{1}{4}$ ", 393'; 6-5/8", 1631'.

Samples from 205 to 2315' examined by Francis Prudich and description revised by

J. H. C. Martens

Top	Bottom	Thickness	
<u>Pottsville Formation, 1440+ feet</u>			
0	10	10	Soil
10	50	40	Clay
30	60	30	Sand
60	75	15	Slate
75	100	25	Sand
100	200	100	Slate (fresh water at 110')
200	205	5	Coal
205	285	80	Shale, gray, silty
285	295	10	No sample
295	300	5	Shale, gray, silty, 50%; white sandstone, 50%
300	320	20	Sandstone, white, medium-grained
320	365	45	Shale, gray
365	380	15	Sandstone, white and brown
380	400	20	Sandstone, white, medium-grained, 60%; gray shale, 40%
400	420	20	No sample
420	430	10	Sandstone, 60%; shale, 40%
430	440	10	Shale, gray, silty, 75%; white, medium-grained sandstone, 25%

Top	Bottom	Thickness	
440	450	10	Sandstone, white, medium-grained
450	480	30	Shale, gray silty
480	515	35	Shale, gray
515	565	50	Shale, gray, silty
565	575	10	No sample
575	585	10	Shale, gray, 75%; white medium-grained sandstone, 25%
595	655	60	Shale, gray
655	700	45	No sample
700	710	10	Sandstone, white, medium-grained, 80%; gray shale, 20%
710	750	40	Sandstone, white, medium-grained
750	760	10	Sandstone, white, medium-grained, 80%; gray shale, 20%
760	810	50	Sandstone, white, medium-grained
810	815	5	No sample
815	835	20	Sandstone, white, 70%; gray shale, 30%
835	965	130	Sandstone, white
965	975	10	Sandstone, white, coarse, 50%; gray shale, 50%
975	1000	25	Siltstone, gray
1000	1020	20	Shale, gray
1020	1040	20	Siltstone, gray
1040	1050	10	Sandstone, white, medium-grained
1050	1060	10	Siltstone, gray
1060	1190	130	Sandstone, white, medium-grained
1190	1245	55	Sandstone, light-brown, coarse
1245	1440	195	Sandstone, white, fine- to medium-grained
<u>Mauch Chunk Group, 160 feet</u>			
1440	1485	45	Shale, red and green, calcareous
1485	1545	60	Shale, red, green, and gray
1545	1550	5	Shale, gray, 50%; limestone, 50%
1550	1600	50	Limestone, gray (driller's record gives "Pencil Cave" at 1595-1600')
<u>Greenbrier Limestone, 200 feet</u>			
1600	1800	200	Limestone, gray and brown; not described in detail; some anhydrite, 1790-1800'

Top Bottom Thickness

Maccrady Formation, 50 feet

1800 1850 50 Siltstone, red, a few coarse sand grains

Pocono Formation, 480 feet

1850 2239 439 Shale and siltstone, gray

2239 2304 15 Shale, black (Sumbury Shale)

2304 2333 29 Sandstone (Berea Sandstone; gas at 2308, 2314, 2320, 2325')

Devonian Shales, 20+ feet

2333 2353 20 "Slate"

2353 Total depth