

J. A. Albright No. 7842 Well

Logan District, Logan County, W. Va.

By Hope Natural Gas Company, Clarksburg, W. Va.

Located 2.08 mi. W. of 81°30' and 4.4 mi. S. of 38°00' -EC- Logan Quadrangle;

2.6 mi. W. of Hiffen and 0.6 mi. S. of Isom.

Elevation, 1495' L.

Permit, Log-59.

Drilling commenced June 24, 1939; completed, August 13, 1939

Shot August 17, 1939 at 2704-2736'.

Gas well; volume 556,000 cu. ft. per day.

Fresh water at 235; salt water at 1235, 1390-1396'.

10" casing, 18'; 8 1/4", 1022'; 6-5/8", 2121'. Casing not cemented.

Coal was encountered at 80-82; 355-356', 497-502', 595-597', and 203-205'.

Top Bottom Thickness

Pottsville Formation, 1595 feet

Top	Bottom	Thickness	Description
0	20	20	Sandstone, brown, fine
20	50	30	Sandstone, light yellowish gray, medium-grained; contains small amount of mica
50	70	20	Shale and siltstone, gray, with some siderite
70	80	10	Sandstone, gray, fine, micaceous
80	82	2	Coal
82	90	8	Sandstone, gray, fine, micaceous
90	140	50	Sandstone, light-gray, medium-grained; mostly broken into individual grains; contains small amounts of mica, chlorite and kaolin
140	155	15	Shale, gray, with large amount of gray siltstone
155	230	75	Sandstone, light-gray, fine-to medium-grained; contains small amounts of muscovite, biotite, chlorite and carbonaceous material; some samples are yellowish from partly altered siderite, and some are greenish from chlorite (coal reported at 203 to 205)
230	236	6	No sample
236	240	4	Shale, gray
240	270	30	Sandstone, yellowish-gray, highly calcareous; contains some iron carbonate and some mica
270	350	80	Sandstone, light-gray, fine-to medium-grained; contains mica and chlorite, thin streaks of carbonaceous material and a little siderite

Top	Bottom	Thickness	
320	350	30	Siltstone, gray, micaceous
350	360	10	Sandstone, gray, very fine (coal reported at 355 to 363)
360	370	10	Shale, dark-gray, silty
370	380	10	Siltstone, dark-gray, micaceous
380	415	35	Sandstone, gray, very fine, micaceous; contains thin streaks of carbonaceous matter
415	450	35	Shale, gray, silty, micaceous
450	497	47	Sandstone, gray, fine, micaceous; contains a little siderite and carbonaceous matter
497	502	5	Coal
502	585	83	Sandstone, light-gray to nearly white, mostly fine, slightly calcareous
585	587	2	Coal
587	620	33	Shale, gray very silty, micaceous; most of this could just as well be called siltstone
620	670	50	Sandstone, very light-gray, fine; contains a little mica and kaolin
670	690	20	Siltstone, dark-gray, shaly micaceous
690	719	29	Sandstone, gray, very fine, micaceous; contains thin carbonaceous streaks
719	735	16	Sandstone, gray, fine, with darker shaly streaks
735	770	35	Shale, very dark gray, silty, micaceous
770	790	20	Siltstone, black, micaceous
790	870	80	Shale, dark-gray to black, mostly silty and micaceous
870	900	30	Sandstone, nearly white, fine, broken small; contains a little mica and siderite
900	916	16	Sandstone, light-gray, fine, with darker, shaly streaks
916	930	14	Shale, dark-gray 60%; nearly white, medium-grained sandstone, 40%
930	960	30	Sandstone, light-gray, medium-grained; contains small amounts of mica, chlorite and clayey material
960	1120	160	Sandstone, nearly white, medium-to fine-grained; samples have some yellow rust stain
1120	1140	20	Siltstone, gray, shaly, with some light-gray sandstone
1140	1235	95	Shale, dark-gray, micaceous; has considerable proportion of silty material

Top	Bottom	Thickness	
1235	1245	10	Sandstone, light-gray, very fine, 60%; dark-gray shaly siltstone, 40%
1245	1374	129	Sandstone, nearly white, medium- to fine-grained, nearly all quartz; all samples have some yellow to brown stain from rust from drill steel (salt water at 1235)
1374	1417	43	Sandstone, nearly white, coarse, nearly all quartz, much of quartz has crystal faces; there is a small amount of rust-stain (salt water at 1390 to 1396)
1417	1570	153	Sandstone, light-gray nearly white, with small amount of rust-stain throughout; mostly medium-grained but rather poorly sorted, with coarse grains in some samples
1570	1595	25	Shale, gray, silty
<u>Mauch Chunk Group, 458 feet</u>			
1595	1635	40	Limestone, light-brown, fine-textured; from 1595 to 1605 samples contain some gray shale and from 1605 to 1635 they contain 20 to 30 percent of red and green shale
1635	1692	57	Shale, red, soft, calcareous; small amounts of green shale throughout
1692	1732	40	Siltstone, grayish-green, slightly calcareous, micaceous
1732	1737	5	Siltstone, grayish-green, 30%; light-brown dolomite, 20%
1737	1741	4	Dolomite, brown, 50%; red shale 30%; green siltstone, 20%
1741	1770	29	Siltstone, gray to grayish-green, dolomitic; samples also contain considerable gray and some red shale
1770	1790	20	Shale, gray, calcareous and fossiliferous
1790	1797	7	Shale, red, soft, calcareous
1797	1807	10	Clay, gray, with nodules of pyrite and of ferruginous limestone (this sample contains <sup>some</sup> more of the red shale which is above and below, so I suspect it is incorrectly labelled)
1807	1815	8	Shale, red, slightly calcareous
1815	1820	5	Sandstone, white, very fine, slightly calcareous; with considerable gray and a little red shale
1820	1825	5	Shale, gray, calcareous, not much laminated
1825	1832	7	Clay, gray, with large amount of pyrite nodules and some ferruginous probably dolomitic limestone (this sample is like the one labelled 1797 to 1807)
1832	1840	8	Shale, red, 80%; green shale and dolomitic siltstone, 20%

Top	Bottom	Thickness	
1840	1845	5	Siltstone, light-green, slightly calcareous
1845	1872	27	Shale, red, somewhat dolomitic
1872	1880	8	Shale, gray and grayish red, 60%; gray and yellow, slightly calcareous, siltstone, 40%
1880	1885	5	Shale, red, dolomitic
1885	1900	15	Siltstone, gray, 50%; red and gray shale 50%; some fragments are dolomitic
1900	1940	40	Shale, gray; strongly calcareous from 1910 to 1920, the rest only slightly so, with carbonate apparently dolomite rather than calcite; considerable yellow material in sample from 1930 to 1935
1940	1960	20	Siltstone, light-gray, 80%; darker gray shale, 20%
1960	1970	10	Siltstone, light-gray, 60%; darker gray shale, 20%
1970	1996	26	Sandstone, very light gray, with some rust-stain; fine to very fine
1996	2005	9	Limestone, gray, silty
2005	2053	48	Limestone, dark brownish gray ("Little Lime"); two samples covering interval 2040 to 2053 contain some fine-textured gray shale and much highly calcareous siltstone; this may correspond to "Pencil Cave."
<u>Greenbrier Limestone, 204 feet</u>			
2053	2065	12	Limestone, gray to somewhat brownish, lighter than the limestone above
2065	2067	22	Limestone, dark brownish gray
2067	2190	83	Limestone, light-gray, (lighter than next interval above), some very fine sand from 2154 to 2180
2170	2175	5	Limestone, gray, sandy, oolitic (only moderate amount of oolites)
2175	2205	30	Limestone, light-gray, somewhat sandy (gas at 2181)
2205	2225	20	Limestone, light-gray, with a few spots of red; contains moderate amount of sand from medium-grained to very fine; larger grains are rounded; there are a few rather indistinct oolites (gas at 2225)
2225	2257	32	Limestone, light-gray, somewhat dolomitic; contains only a very little sand (gas at 2235)

Top Bottom Thickness

Macgrady Formation, 63 feet

2257 2320 63 Siltstone, red, soft, shaly (gas at 2266)

Pocano Formation, 46<sup>8</sup> feet

2320 2406 86 Shale, gray, silty, micaceous mixed with about equal parts of somewhat lighter gray siltstone and very fine sandstone (gas at 2369)

2406 2447 42 Siltstone, light-gray, 60 to 80% somewhat darker gray shale 40 to 20%

2447 2745 298 Shale, gray, micaceous, with varying amounts of gray to greenish siltstone and very fine sandstone; most samples are at least 70% shale and only two or three have as much as 50% of siltstone and sandstone; there are only a few scattered pieces of calcareous material; there are a few flakes of biotite in the siltstone and silty portion of the shale (gas at 2585 and 2612 to 2620)

2745 2756 11 Shale, very dark gray, some almost black; contains considerable pyrite, both finely disseminated and in small spherical concretions

2756 2759 3 Sandstone, dark-gray, very fine; contains much pyrite, which helps to account for the dark color, but there are also many black specks which are possibly a solid oil residue (Berea Sandstone, 2756 to 2766)

2759 2763 4 Sandstone, gray, fine; similar to last but a little lighter and coarser (Gas, 2756 to 2765)

2763 2788 25 Sandstone, light-gray, fine to very fine; contains small amount of dolomite; samples from last 6 feet are broken finer than the rest

Devonian Shales, 37+ feet

2788 2825 37 Shale, gray, somewhat silty

2825 Total depth