

C. & H. Corporation No. 7822 Well

Jefferson District, Nicholas County, W. Va.

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

Located 1.63 mi. W. of 81°05' and 2.26 mi. S. of 38°20' -SC- Clay Quadrangle;
on Laurel Fork, 2 mi. N. E. of Vaughan.

Elevation, 1040' L.

Permit, (NIC-15)

Drilling commenced February 10, 1939; completed, November 23, 1939.

Volume, 47,600 cu. ft.; well was not shot; pressure, not available.

Fresh water at 60, 290, 316, and 955'.

Salt water at 1340'.

13" casing, 208'; 10", 768', 8 1/2", 1193'; 6 5/8", 1802'; all left in;
casing not cemented.

Coal was encountered at 113-116, 244-247, and 822-826'

Starts about 350 feet below top of Pottsville.

Top	Bottom	Thickness	<u>Pottsville Formation, 1355 feet</u>
0	920	920	No samples
920	955	35	Sandstone, white with much rust stain, medium-grained, nearly all quartz
955	975	20	Sandstone, white, coarse, nearly all quartz; with small amounts of dark-gray siltstone
975	1024	49	Sandstone, white, medium-grained, nearly all quartz
1024	1030	6	Shale, dark-gray
1030	1047	17	Siltstone, dark-gray, micaceous, mostly shaly
1047	1059	12	Shale, medium- to dark-gray
1059	1065	7	Siltstone, dark-gray
1065	1073	7	Sandstone, light greenish gray, fine
1073	1078	5	Sandstone, light-gray, fine; somewhat brownish from siderite
1078	1083	5	Shale, gray, silty, micaceous
1083	1095	12	Sandstone, light-gray fine, contains some mica and siderite
1095	1130	35	Shale, dark-gray to black; some streaks of siltstone near top

Top	Bottom	Thickness	
1130	1137	7	Shale, gray, soft, 60%; light-gray fine sandstone, 40%
1137	1184	47	Shale, gray to black; some is soft and clay like
1184	1267	83	Sandstone, light-gray to white, fine- to medium-grained
1267	1273	6	Siltstone, gray, shaly
1273	1282	9	Sandstone, white, fine
1282	1332	50	Shale, dark-gray to black
1332	1355	23	Sandstone, medium-grained, nearly white, 70%; gray shale, 30% (shale may be oavings)
<u>Mauch Chunk Group, 363 feet</u>			
1355	1361	6	Shale, gray, silty
1361	1366	5	Siltstone, gray
1366	1377	11	Siltstone, gray, 70%; gray and green shale, 30%; some fragments are dolomitic
1377	1394	17	Shale, red, soft, dolomitic
1394	1400	6	Siltstone, light-green, shaly, calcareous, 50%; light-brown limestone, 30%; red shale, 20%
1400	1413	13	Shale, red, soft
1413	1430	17	Siltstone, gray to green, shaly, micaceous, 70 to 90%; red shale, 30 to 10%
1430	1441	11	Shale, grayish-red, silty, micaceous
1441	1461	20	Siltstone, grayish-green, grading into very fine sandstone toward bottom
1461	1490	29	Shale, red, soft, dolomitic
1490	1496	6	Siltstone, gray, shaly
1496	1505	9	Shale, gray, very silty, 70%; white, fine sandstone, 30%
1505	1515	10	Siltstone, gray; dolomitic from 1510 to 1515'
1515	1527	12	Shale, gray, somewhat calcareous
1527	1546	19	Shale, red, slightly dolomitic
1546	1569	23	Shale, gray, green and red, 70%; gray to green dolomitic siltstone, 30%
1569	1605	36	Shale, gray, soft, distinctly laminated; fragments fall apart on addition of water
1605	1649	44	Limestone, dark-gray to somewhat brownish, with white specks, fossiliferous; all samples contain gray shale like that above, varying from about 70% at top

Top	Bottom	Thickness	
			to 20% toward bottom; much of this may be cavings
1649	1660	11	Shale, gray with a little light-green; soft and distinctly laminated
1660	1702	42	Sandstone, light-brown, fine, dolomitic; dolomite content increases toward bottom; gas pay at 1670 to 1676'
1702	1707	5	Limestone, brown, very dolomitic
1707	1712	5	Sandstone, brown, fine, very dolomitic
1712	1718	6	Dolomite, brown, very fine textured
<u>Greenbrier Limestone, 212 feet</u>			
1718	1723	5	Limestone, light-gray, 80%; soft gray and green shale, 20%
1723	1728	5	No sample
1728	1733	5	Limestone, light-gray to brownish, 80%; soft gray shale, 20%
1733	1739	6	Limestone, light-gray
1739	1754	15	Limestone, brown
1754	1770	16	Limestone, brown, partly sandy and oolitic
1770	1784	14	Limestone, light-brown to nearly white, fossiliferous; samples contain a little gray and green shale
1784	1800	16	Limestone, light-brown, sandy, with some oolites
1800	1810	10	Sandstone, brownish-gray, highly calcareous
1810	1825	15	Limestone, light-brown, very fine textured
1825	1850	25	Limestone, light-brown, sandy
1850	1868	18	Limestone, brown, oolitic
1868	1875	7	Limestone, nearly white, oolitic; very distinct oolites make up practically all of the rock
1875	1908	33	Limestone, nearly white, somewhat dolomitic; contains a little sand and some oolites which are rather indistinct, probably as a result of recrystallization; from 1895 to 1900' more distinctly oolitic and a nearly pure limestone
1908	1914	6	Limestone, light-brown, very fine textured
1914	1926	12	Limestone, brown, very sandy, somewhat dolomitic
1926	1930	4	Limestone, dark-brown, with a few large rounded sand grains and a little very fine sand

Top	Bottom	Thickness	
<u>Maocrady Formation, 19 feet</u>			
1930	1936	6	Siltstone, red, containing some fine sand
1936	1949	13	Siltstone, red, 60%; red shale, 40%
<u>Mississippian and Devonian, not subdivided, 786 feet</u>			
1949	1978	29	No samples, reported as slate
1978	2043	65	Siltstone, grayish-green, 70 to 90%; gray shale 30 to 10%; much of the siltstone is almost coarse enough to be sandstone
2043	2120	77	Siltstone, gray to grayish green, 50 to 60%; gray shale, 50 to 40%; mostly a little darker and finer textured than the interval above
2120	2130	10	Siltstone, grayish-green
2130	2138	8	No sample, reported as slate and shells
2138	2181	43	Shale, gray, 50%; grayish-green to gray siltstone, 50%; might all be called "very silty shale"
2181	2191	10	No sample, reported as slate and shells
2191	2236	45	Shale, gray, 50%; lighter gray siltstone, 50%
2236	2296	60	Shale, gray, 60 to 80%; lighter gray siltstone, 40% to 20%
2296	2316	20	Shale, very dark gray to black, 70%; gray and brown siltstone, 30% (Possibly Sunbury Shale)
2316	2616	300	Shale, gray, silty, 70 to 80%, lighter gray siltstone 30 to 20%; fragments show all gradations from shale to siltstone so estimates of relative amounts are only approximate
	2735		Total depth