

J. L. Carr No. 4 (6092) Well

Grant District, Doddridge County, W. Va.

By Pittsburgh and West Virginia Gas Co., Pittsburgh, Pa.

Located 3.72 mi. S. of 39° 25' and 1.7 mi. W. of 80° 40' - WC - Center-point Quadrangle.

Elevation, 1140' B.

Permit Dod-96.

Drilling commenced May 20, 1939; completed, July 10, 1939.

Volume 259,000 cu. ft.

Rock pressure 90 lbs. on tubing (Gordon Sand) and 62 lbs. on casing head (Big Injun Sand).

Fresh water 615'; Salt water 1148'.

Coal encountered 465-469'; 715-717' (Pittsburgh); 1362-1363'.

Section based on samples from 1705 to 2857', examined by J. H. C. Martens.

Samples from 0 to 1705' are also available.

Pottsville Formation, 165+ feet

Top.	Bottom.	Thick- ness.	
1705	1720	15	Siltstone, gray
1720	1770	50	Sandstone, white, fine
1770	1832	62	Shale, gray to dark-gray
1832	1864	32	Sandstone, white, coarse at bottom
1864	1870	6	Sandstone, light-gray, medium-grained, 70%; gray siltstone with siderite spherulites, 30%

Mauch Chunk Group, 186 feet

1870	1885	15	Siltstone and silty shale, gray; contains small specks and concretions of siderite
1885	1895	10	Shale, green; also small amount of green siltstone and red shale
1895	1905	10	Shale and siltstone, gray
1905	1924	19	Shale, red, partly calcareous
1924	1932	8	Shale and siltstone, green
1932	1947	15	Shale, red, 50%; green and gray shale and siltstone, 50%
1947	1956	9	Shale, red, calcareous

Top.	Bottom.	Thick- ness.	
1956	1965	9	Shale and siltstone, gray, with a little red
1965	1985	20	Limestone, dark-brown, fossiliferous
1985	1992	7	Shale, gray, soft
1992	2010	18	Shale, green, gray and red, fossiliferous
2010	2056	46	Sandstone, white, very fine to fine

Greenbrier Limestone, 125 feet

2056	2071	15	Limestone, light-brown
2071	2091	20	Limestone, dark-brown
2091	2094	3	Sandstone, white, very fine, calcareous, 50%; brown to light-brown limestone, 50%
2094	2120	26	Sandstone, nearly white, fine- to medium-grained, calcareous
2120	2123	3	Limestone, nearly white, sandy
2123	2166	43	Limestone, nearly white, very sandy, highly dolomitic; slightly porous throughout (Show of gas, 2130-32 and 2143-45')
2166	2181	15	Dolomite, white to yellowish, sandy

Pocono Formation, 437 feet

2181	2246	65	Sandstone, white to very light gray, fine- to medium-grained (Small gas pays at 2191-94' and 2201-05')
2246	2395	149	Shale and siltstone, gray
2395	2503	108	Siltstone, light-gray, mostly coarse and grades into very fine sandstone in some samples; also small amounts of gray shale
2503	2527	24	Siltstone and silty shale, gray
2527	2609	82	Shale, dark-gray to very dark gray
2609	2618	9	Shale, dark-gray to black, 60%; gray, sandy, siltstone, 40% (Berea horizon?)

Devonian Shales, 239+ feet

2618	2650	32	Shale and fine siltstone, gray
2650	2670	20	Siltstone, gray to greenish, 60%; gray shale, 40%
2670	2680	10	Shale, gray to greenish, very silty
2680	2690	10	Shale, red, 60%; greenish-gray shale and siltstone, 40%

Top.	Bottom.	Thick- ness.	
2690	2703	13	Siltstone and shale, grayish-green
2703	2723	20	Shale, red, silty, 50%; grayish-green shale and siltstone, 50%
2723	2734	11	Shale, and siltstone, gray (?)
2734	2765	31	Shale and siltstone, gray and green
2765	2790	25	Shale, dark-gray
2790	2794	4	Shale and siltstone, gray
2794	2801	7	Siltstone, green, 60%; gray shale, 40%
2801	2813	12	Shale, gray, 60%; light-gray to green siltstone, 40%
2813	2818	5	Sandstone, white, very fine, 50%; gray shale, 50%
2818	2823	5	Sandstone, light-gray; contains some very coarse quartz grains surrounded by much finer sand
2823	2830	7	Shale, dark-gray
2830	2838	8	Sandstone, light-gray, fine, with a few larger quartz grains (gas 2826-2836')
2838	2842	4	Shale, gray
2842	2850	8	Sandstone, nearly white, fine, 50%; dark-gray shale, 50%
2850	2857	7	Shale, gray
	2857		Total depth.