

Oscar McDowell No. 8512 Well

Meade District, Marshall County, W. Va.

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

Located 4.27 mi. W. of 80°35' and 0.8 mi. S. of 39°45' -NC- Littleton Quadrangle.

Elevation, 1250'L.

Permit, Mars-108.

Drilling commenced July 25, 1940; completed Nov. 15, 1940.

Shot in Gordon Stray, Nov. 26, 1940.

Volume, 12,700 cu. ft.

Fresh water, 114 feet, salt water, 1904-1922' and 2220'.

13" casing, 152'; 10", 1202'; 8 1/2", 1924'; 6-5/8", 2130'; 5-3/16", 2821'.

Section based on samples from surface to 3092' examined by J. H. C. Martens.

Top	Bottom	Thickness	
<u>Dunkard Group 749+ feet</u>			
0	10	10	Clay, brown
10	18	8	Shale and limestone, brown, weathered
18	25	7	Shale and siltstone, brown
25	40	15	Clay, red and yellow; also some brown siltstone and limestone
40	65	25	Siltstone and shale, yellow and brown; practically all of the material down to 65' appears weathered
65	73	8	Shale, gray, soft, 50%; light-gray limestone, 50%
73	87	14	Clay, gray, with a little limestone
87	91	4	Siltstone, light-gray, micaceous
91	101	10	Shale, gray
101	122	21	Sandstone, white to light-gray, fine, micaceous and calcareous
122	130	8	Sandstone, gray, very fine, silty
130	138	8	Shale, light-brown, highly calcareous
138	152	14	Shale, gray, 70%; limestone, 20%; green siltstone, 10%
152	156	4	Shale, gray, soft
156	161	5	Shale, gray, green and red; also some limestone
161	171	10	Shale, gray
171	181	10	Shale and siltstone, green, 50%; red and yellow clay, 40%; limestone, 10%
181	198	17	Sandstone, nearly white, fine, micaceous and calcareous; also some limestone and green shale, perhaps cavings

Top	Bottom	Thickness	
198	225	27	Sandstone, light-green to white, fine, micaceous, slightly calcareous
225	245	20	Shale, gray, green and brown, calcareous
245	259	14	Shale, gray, green and brown, 70%; light-brown limestone, 30%
259	271	12	Clay, gray and red, 40%; gray to green silty shale, 40%; light-brown limestone, 20%
271	278	7	Shale, green, silty, calcareous
278	297	19	Sandstone, gray, fine, micaceous and calcareous
297	306	9	Clay, red and yellow, 50%; green shaly siltstone with limestone nodules, 50%
306	314	8	Shale and siltstone, green
314	342	28	Sandstone, nearly white, fine
342	350	8	Shale, red, soft
350	357	7	Siltstone, green, shaly, micaceous and calcareous
357	383	26	Shale, red, soft
383	390	7	Shale, green, silty
390	397	7	Clay, light-gray and green, with limestone nodules
397	410	13	Siltstone, light-green, micaceous, 60%; yellow limestone, 40%
410	418	8	Sandstone, white, medium-grained
418	426	8	Clay, red, calcareous
426	440	14	Sandstone, light-green, very fine, silty, calcareous
440	470	30	Shale, light-gray to light-brown, soft and clay like; contains many small limestone nodules
470	495	25	Shale, red, soft, calcareous
495	503	8	Shale, green, silty, calcareous
503	523	20	Sandstone, light-green, very fine, micaceous and calcareous
523	527	4	Shale, gray and green, soft
527	542	15	Siltstone, light-green; also some gray to green shale
542	552	10	Sandstone, white, fine, calcareous
552	560	8	Limestone, very light brown
560	575	15	Clay, red, calcareous
575	584	9	Clay and shale, various color
584	592	6	Shale, dark-gray, very silty
592	600	8	Sandstone, gray, fine, carbonaceous

Top	Bottom	Thickness	
600	608	8	Sandstone, gray, fine, 70%; gray to black shale, 30%
608	614	6	Coal and black shale, 50%; nearly white clay, 30%; fine white sandstone, 20% (Washington Coal)
614	629	15	Limestone, light-gray to yellow, 70%; gray calcareous siltstone, 30%
629	642	13	Sandstone, light-gray, very fine, silty, highly calcareous
642	668	26	Siltstone and shale, grayish-green, calcareous
668	687	19	Shale, dark-gray to brownish; also some brown limestone
687	702	15	Siltstone, light-green, calcareous; contains concretions of yellow limestone
702	725	23	Sandstone, white, coarse (Waynesburg Sandstone)
725	749	24	Shale, gray, soft, 90%; coal, 10%
<u>Monongahela Formation, 299 feet</u>			
749	767	18	Sandstone, white, fine; also much shale, probably cavings
767	790	23	Shale, red, calcareous
790	795	5	Shale, green, silty, calcareous
795	808	13	Clay and shale, gray, 50%; brown limestone, 50%; small amount of coal
808	816	8	Sandstone, white fine
816	824	8	Clay, gray
824	860	36	Limestone, light-brown, 70 to 80%; green, red and gray clay 30 to 20%
860	868	8	Siltstone, green, sandy, calcareous
868	900	32	Limestone, light-brown to yellow
900	907	7	Limestone, grayish-yellow, 60%; green shale, 40%
907	949	42	Limestone, light-brown to yellowish; also small to moderate amounts of soft green and gray shale
949	951	2	Coal (Sewickly Coal)
951	956	5	Limestone, dark-gray, shaly
956	963	7	Clay, gray to dark-gray; also some limestone
963	990	27	Limestone, light-gray to light-brown
990	1004	14	Shale and siltstone, gray; also some limestone as above

Top	Bottom	Thickness	
1004	1038	34	Limestone, light-brown; small amounts of clay and shale
1038	1042	4	Shale, gray, silty, micaceous; also some limestone as above
1042	1048	6	Coal (Pittsburgh Coal)
<u>Conemaugh Formation, 542 feet</u>			
1048	1055	7	Shale, white to light-green, soft, 80%; light-brown limestone, 20%
1055	1063	8	Sandstone, nearly white, fine
1063	1070	7	Shale, gray and light-green, soft
1070	1094	24	Limestone, gray to yellow, 50%; soft gray and green shale, 50%
1094	1102	8	Clay, red, gray and green, calcareous
1102	1108	6	Limestone, light-gray to light-brown, 50%; light-green shale, 30%; red clay, 20%
1108	1128	20	Siltstone, green, shaly, with small limestone nodules
1128	1150	22	Clay, red and yellow, calcareous
1150	1160	10	Clay, gray, green, and red, calcareous
1160	1198	38	Clay, red and yellow, calcareous; contains small limestone nodules
1198	1213	15	Siltstone, green, shaly
1213	1235	22	Clay, red, calcareous
1235	1258	33	Shale, green, silty; also large amount of red clay, perhaps cavings
1258	1273	15	Shale, gray to reddish; also large amount of red clay cavings
1273	1280	7	Shale, green, silty
1280	1287	7	Siltstone, green
1287	1303	16	Sandstone, light-green, fine, calcareous
1303	1330	27	Clay, red, calcareous
1330	1354	24	Shale and siltstone, green, calcareous; also large amount of red clay, perhaps cavings
1354	1362	8	Clay, red and yellow, calcareous
1362	1408	46	Sandstone, light-green and light-gray, very fine, almost a siltstone near top
1408	1425	17	Sandstone, very light brown, medium-grained

Top	Bottom	Thickness	
1425	1433	8	Clay, light-gray to yellowish with a few red and green spots; has conchoidal fracture; some fragments are translucent on edges and resemble chert; does not disintegrate in water
1433	1441	8	Clay and soft shale, green and red
1441	1450	9	Clay, red and gray; fragments fall apart quickly when wet
1450	1457	7	Siltstone, green, sandy, calcareous; also much clay as above
1457	1465	8	Limestone, light-brown; also much siltstone, red clay, etc.
1465	1473	8	Shale, white to light-green, silty, micaceous, sideritic
1473	1480	7	Siltstone, grayish-green, shaly, micaceous
1480	1494	14	Siltstone, black, shaly, micaceous
1494	1510	16	Shale, very dark gray, silty, micaceous
1510	1535	25	Shale, dark-gray to black with small amount of coal; some fragments of coal and shale are highly pyritic; there are a few fossil shells in the shale (Brush Creek Coal and Shale?)
1535	1542	7	Clay and soft shale, mostly gray, with some green and red
1542	1557	15	Shale, green, silty; also much gray and red clay and some limestone
1557	1574	17	Sandstone, white, fine
1574	1590	16	Sandstone, white, coarse
<u>Allegheny and Pottsville Formations, 488 feet</u>			
1590	1606	16	Shale, dark-gray to black, with a little coal and some siderite concretions
1606	1613	7	Clay, gray, red and green (probably wrong depth on sample)
1613	1620	7	Coal, 20%; gray and black shale, 80%
1620	1630	10	Siltstone, gray to white, grading to sandstone
1630	1638	5	Sandstone, white, very fine
1638	1648	10	Shale, gray to black, 60%; brown impure limestone, 40%
1648	1657	9	Coal, 50%; gray and brown shale, 50%
1657	1680	23	Sandstone, white, medium- to coarse-grained
1680	1696	16	Siltstone, light-gray, very sandy
1696	1715	19	Sandstone, white, medium-grained
1715	1735	20	Shale, gray
1735	1754	19	Siltstone and shale, light-gray

Top	Bottom	Thickness	
1754	1778	24	Sandstone, white, medium-grained
1778	1779	1	Coal and nearly white shale
1779	1787	8	Shale, very light gray
1787	1795	8	Shale, gray to dark-gray, 90%; coal, 10%
1795	1802	7	Shale, gray, soft
1802	1818	16	No sample
1818	1825	7	Shale, gray, soft, 80%; coal, 20%
1825	1864	39	Shale and siltstone? (depths on samples doubtful)
1864	1881	17	Shale, dark-gray, silty
1881	1890	9	Shale, dark-gray, with a little coal
1890	2010	120	Sandstone, white to nearly white, fine- to medium-grained
2010	2018	8	Shale, gray, silty
2018	2033	15	Sandstone, gray, very fine, silty
2033	2039	6	Sandstone, nearly white, medium-grained
2039	2050	11	No sample
2050	2066	16	Sandstone, white, coarse
2066	2078	12	Shale, dark-gray to black; a little dark-brown limestone (top of Mauch Chunk between 2070 and 2078')
<u>Mauch Chunk Group, 57 feet</u>			
2078	2095	17	Shale, gray, soft, 50%; dark-brown limestone, 50%
2095	2104	9	Limestone, brown, 60%; soft gray shale, 40%; a little green shale
2104	2120	16	Sandstone, white, fine
2120	2125	5	Shale, gray, soft, distinctly laminated
2125	2135	10	No sample
<u>Greenbrier Limestone, 39 feet</u>			
2135	2138	3	No sample (top of Greenbrier from driller's record)
2138	2157	19	Limestone, light-brown
2157	2174	17	No sample
<u>Lower Mississippian and Upper Devonian, 920+ feet</u>			
2174	2200	26	Sandstone, light-green, fine, slightly calcareous; also considerable limestone from above
2200	2208	8	Sandstone, nearly white, medium-grained, 80%; light-green shale and siltstone, 20%

Top	Bottom	Thickness	
2208	2232	24	Sandstone, white, medium-grained (water, 2220')
2232	2271	39	Sandstone, light grayish green, very fine
2271	2397	126	Sandstone, white, medium-grained; a little siltstone, 2292-2300'
2397	2412	15	Siltstone, gray, shaly
2412	2427	15	Sandstone, white, fine
2427	2465	38	Shale, gray, silty
2465	2502	37	Siltstone and shale, gray
2502	2530	28	Shale, gray
2530	2538	8	Sandstone, light-gray, very fine, 60%; gray shale, 40%
2538	2576	38	Siltstone, gray, shaly
2576	2646	70	Sandstone, light-gray, very fine, slightly calcareous, almost a siltstone
2646	2686	40	Siltstone, gray, shaly
2686	2765	79	Shale, gray, silty
2765	2787	22	Siltstone, light-gray, sandy
2787	2820	33	Shale and siltstone
2820	2837	17	Siltstone, gray and green, 60%; gray shale, 40%
2837	2870	43	Shale, grayish-red; also considerable amount of gray shale
2870	2890	20	Siltstone, red
2890	2910	20	Shale, red, silty
2910	2921	11	Shale, red and gray
2921	2945	24	Shale, red, silty
2945	2977	32	Shale, gray
2977	2994	17	Sandstone, white, fine
2994	3019	25	Shale, gray to grayish-red, 50%; white to gray siltstone and very fine sandstone, 50%
3019	3052	33	Sandstone, white, 60%; gray shale, 40%; sandstone is mostly fine with a few coarse grains
3052	3063	11	Shale, gray
3063	3069	6	Sandstone, white, fine, 60%; gray shale, 40%
3069	3075	6	Shale, gray
3075	3092	17	Sandstone, white to light-gray, very fine
	3092		Total depth