

F-6841
 P. McO-25

John Gilbert et al Trustees No. 2 (1069) Well

Browns Creek District, McDowell County, W. Va.

By Godfrey L. Cabot, Inc., Charleston, W. Va.

Located 0.42 mi. S. of 37°30' and 2.06 mi. W. of 81°35' - NC - Welch Quadrangle.

Elevation, 1448' L.

Permit McO-25

Drilling commenced Oct. 10, 1942; completed, May 8, 1943.

Dry hole.

16" casing, 26'; 15 5/8", 200'; 10", 899'; 8 5/8", 2633'; 7", 3814'

Section based on samples from 26 to 6478' examined by J. H. C. Martens.

Top Bottom Thickness

Pettsville Formation, 984+ feet

Top	Bottom	Thickness	Description
0	26	26	No samples
26	75	49	Sandstone, white, medium-grained (1 sample)
75	80	5	Coal
80	150	50	Sandstone, white, fine (1 sample)
150	140	10	Sandstone, light-gray, very fine, black shale, 48%; coal, 5%
140	145	5	Sandstone, white, medium-grained
145	195	50	No sample
195	207	12	Sandstone, gray, very fine; also a little coarse sand and some silty gray shale
207	217	10	Sandstone, light-brown, very fine
217	230	13	Sandstone, white, fine
230	257	27	Shale, dark-gray, very silty
257	283	26	Sandstone, nearly white, with some rust stain, medium-grained
283	306	23	Shale, gray
306	330	24	Siltstone, gray, shaly
330	340	10	Shale, gray
340	350	10	Siltstone and shale, gray
350	367	17	Shale, dark-gray
367	402	35	Shale and siltstone, dark-gray
402	444	42	Shale, black, mostly silty

Top	Bottom	Thickness	
444	453	9	Siltstone, dark-gray
453	498	35	Shale, dark-gray to black, with some lighter gray siltstone
488	498	10	Sandstone, gray, very fine
498	514	16	Siltstone gray, shaly
514	521	7	No sample
521	548	27	Siltstone, gray to nearly white, partly shaly
548	580	32	Sandstone, white, medium-grained, nearly all quartz
580	637	57	Sandstone, white, coarse and pebbly; crystals faces on many quartz grains
637	657	20	Shale, black with traces of coal
657	673	16	Sandstone, light-gray, very fine
673	678	5	Sandstone, light-gray, fine
678	686	8	Siltstone, gray
686	701	15	Sandstone, white to gray, fine, 70%; gray shale and siltstone, 30%
701	736	35	Sandstone, light-gray, fine to medium-grained
736	748	12	Siltstone and silty shale, gray
748	780	32	Sandstone, light-gray, fine to very fine
780	789	9	Shale and siltstone, gray
789	805	16	Siltstone, nearly white, sandy, with a few siderite spherulites
805	815	10	Shale, dark-gray
815	820	5	Siltstone, gray, with a little black shale and coal
820	831	11	Shale, black, with a little coal
831	843	12	Siltstone, light-gray, sandy, with siderite spherulites
843	857	12	Shale, black to dark-gray, 70%; light-gray, sandy siltstone, 30%
857	895	38	Siltstone, gray, sandy
895	978	83	Shale and siltstone, dark-gray; some fragments of siderite concretions
978	984	6	Siltstone, gray

Top	Bottom	Thickness	
<u>Mauch Chunk Group, 1649 feet</u>			
984	1020	36	Shale, gray, partly calcareous, 60%; gray to green fine siltstone, 35%; very fine textured brown limestone, 5%
1020	1030	10	Siltstone, gray, micaceous
1030	1057	27	Sandstone, white, fine - to medium-grained
1057	1065	8	Sandstone, white to light-green, mostly fine, 60%; gray siltstone and silty shale, 40%; also a few fragments of red and green shale
1065	1068	4	No sample
1068	1092	23	Shale, gray to slightly greenish, 85%; red shale, 15%
1092	1120	28	Shale, red, 50%; gray to greenish shale, 50%; a very few limestone fragments
1120	1126	6	Shale, gray, with small amount of red
1126	1137	11	Shale and siltstone, gray to dark-gray, partly calcareous
1137	1147	10	Siltstone, very light green, calcareous, 70%; green and red shale, 30%
1147	1168	21	Shale, gray, soft with limy nodules
1168	1182	14	Shale, very dark gray
1182	1203	21	Shale, black
1203	1213	10	Shale, gray, very silty
1213	1250	37	Shale, very dark gray to black, mostly silty
1250	1260	10	Shale, black, with very small fossil shells
1260	1270	10	No sample
1270	1291	21	Shale, black, with very small fossil shells
1291	1402	111	Shale, very dark gray to black; mostly very fine textured and distinctly laminated
1402	1436	34	Sandstone, white, fine; samples all contain large amounts of gray shale, perhaps mostly cavings
1436	1456	20	Sandstone, white, fine; sample contains some gray shale, but generally less than in interval above

Top	Bottom	Thickness	
1456	1459	3	Shale, light-gray, soft, 70%; white, medium-grained sandstone, 30%
1459	1519	60	Sandstone, white, medium-grained to fine-grained
1519	1526	7	Siltstone, greenish-gray
1526	1543	17	Limestone, gray, containing some clayey material
1543	1588	45	Limestone, dark-gray, shaly, fossiliferous
1588	1656	68	Shale, red
1656	1679	23	Shale, red, calcareous and dolomitic
1679	1700	21	Shale, red, silty
1700	1707	7	Shale, red, highly dolomitic
1707	1716	9	Shale, gray
1716	1745	29	Shale, red and gray
1745	1761	16	Siltstone, red
1761	1814	53	Shale, red; also some red siltstone
1814	1843	34	Shale, grayish-red, silty and micaceous
1843	1863	15	Shale and siltstone, red
1863	1868	5	No sample
1868	1883	15	Sandstone, white, fine
1883	1892	9	Shale, grayish-green
1892	1937	45	Shale, gray, silty, micaceous
1937	1947	10	Siltstone, light-gray to green, 60%; soft gray shale, 40%
1947	1959	12	Siltstone, light-gray to green, 80%; gray shale, 20%
1959	1969	10	Sandstone, white to light-gray; very fine, 80%; gray shale and siltstone, 20%
1969	1975	6	Shale dark-gray, fossiliferous and calcareous (sample out of place?)
1975	1983	8	Shale and siltstone, gray
1983	2003	20	Sandstone, white to gray, very fine, 50 to 80%; gray shale, 50 to 20%
2003	2023	20	No sample
2023	2047	24	Sandstone, white, very fine, 80%; shale of various colors but mostly dark-gray, 20%

Top	Bottom	Thickness	
2047	2125	78	Sandstone, white, fine to very fine
2125	2151	6	Sandstone, white, very fine, 60%; shale of various colors, probablyavings, 40%
2151	2153	22	Sandstone, white, fine
2153	2163	10	Sandstone, white, medium-grained to fine-grained, 70%; gray siltstone, 30%
2163	2168	5	No sample
2168	2181	13	Sandstone, white, fine
2181	2188	7	Sandstone, white, very fine, 50%; shale of various kinds, probablyavings, 50%
2188	2193	5	Shale, red
2193	2233	40	Shale, gray to grayish-green
2233	2270	37	Shale, dark-gray
2270	2278	8	Limestone, dark-gray, fossiliferous
2278	2299	21	Siltstone and shale, light-gray to light-green, 60 to 70%; dark-gray limestone and shale 40 to 30%
2299	2302	3	Siltstone and shale, gray
2302	2323	21	Shale, gray to slightly greenish
2323	2337	14	Shale, dark-gray, partly calcareous, 80%; gray limestone, 20%
2337	2348	11	Shale, black, very silty, pyritic
2348	2360	12	Shale, gray to dark-gray, 60%; dark-gray pyritic limestone, 40%
2060	2390	30	Shale, gray to grayish-green
2390	2438	48	Sandstone, white and gray, very fine, 70%; dark-gray siltstone and silty shale, 30%; some pyrite, carbonaceous matter and fragments of plant fossils
2438	2449	11	Shale, gray, soft, thinly laminated; also small amount of limestone (sample out of place?)
2449	2478	29	Sandstone, white and gray, very fine, 50%; dark-gray siltstone and silty shale, 50%; similar to interval 2390-2438'
2478	2484	6	Shale, dark-gray, thinly laminated, 60%; gray limestone, 40%
2484	2504	20	Shale, dark-gray, thinly laminated, fossiliferous, 70 to

Top	Bottom	Thickness	
			80% dark-gray limestone, 30 to 20%
2504	2525	21	Shale, dark-gray, partly calcareous, 80%; gray limestone, 20%
2525	2592	67	Limestone, very dark gray to brownish, with some white spots; fossiliferous; small amounts of soft gray laminated shale
2592	2633	41	Shale, gray, fossiliferous
			<u>Greenbrier Limestone, 467 feet</u>
2633	2639	6	Limestone, brownish-gray
2639	2646	7	Shale, gray to greenish, silty, highly calcareous, 60% gray limestone, 40%
2646	2660	14	Limestone, very light brown
2660	2682	22	Limestone, light-brown to light-gray, with considerable amount of green shaly limestone
2682	2697	15	Limestone, very dark gray, shaly
2697	2729	32	Limestone, gray, oolitic
2729	2749	20	Limestone, brown
2749	2803	54	Limestone, very dark brownish-gray
2803	2845	42	Limestone, brown
2845	2871	26	Limestone, light-brown
2871	2912	41	Limestone, light-brown, with some oolites
2912	2960	48	Limestone, brown
2960	3012	52	Limestone, light-brown
3012	3085	73	Limestone, brown; a few fragments of red limestone, 3012-3022'
3085	3100	15	Limestone, gray to white, 70%; red shale, 25%; white anhydrite, 5%
			<u>Maccrady Formation, 42 feet</u>
3100	3118	18	Shale, red, highly dolomitic; contains a little anhydrite
3118	3142	24	Siltstone, red

Top Bottom Thickness

Pocahontas Formation, 640 feet

Top	Bottom	Thickness	Description
3142	3155	13	Shale, gray
3155	3282	127	Siltstone, gray; a little glauconite, 3180-3199'
3282	3312	30	Shale and siltstone, gray
3312	3363	51	Siltstone, gray, shaly
3363	3714	346	Shale, dark-gray, with up to about 30% lighter gray siltstone
3714	3729	15	Shale, dark-gray to black
3729	3744	15	Shale, gray to black, 60%; fine gray siltstone, 40%
3744	3754	10	Siltstone, light-gray and dark brownish gray, 70%; gray to black shale, 30%
3754	3772	18	Sandstone, white to light-gray, fine to very fine; some fairly coarse grains 3762-3772' (Berea Sandstone)
3772	3782	10	No sample (salt water in bottom of Berea)
<u>Devonian Shales, ²³⁹⁵ 2442 feet</u>			
3782	3718	36	Shale, gray silty
3718	3834	16	No sample
3834	3849	15	Siltstone and shale, gray
3849	3870	21	Shale, dark-gray, silty
3870	3892	22	Siltstone, light-gray to white, 70%; gray shale, 30%
3892	3908	16	Sandstone, white, very fine, silty
3908	3915	7	No sample
3915	4044	129	Siltstone and silty shale, gray
4044	4125	81	No sample
4125	4662	537	Siltstone and silty shale, gray; most of the shale from 3915 to 4662' is dark-gray and the siltstone generally lighter, considerable variation in individual samples
4662	4727	65	Shale, dark-gray

Top	Bottom	Thickness	
4727	4829	102	Shale, gray; a little very dark gray shale and light-gray fine siltstone; a few very small spherical pyrite concretions in the shale
4829	5046	217	Siltstone, gray, fine, 60 to 80% gray to nearly black shale, 40 to 60%
5046	5289	243	Shale, gray to very dark gray, with small amounts of gray siltstone
5289	5330	41	Shale, very dark gray to black
5330	5940	610	Shale, gray; large amount of very dark gray shale in many samples in this interval, but medium gray predominates
5940	5998	58	Shale, very dark gray to black; a few pieces of gray limestone
5998	6180	182	Shale, very dark gray to black
	6180		Depth corrected to 6127
6127	6157	30	No samples
6157	6177	20	Shale, black, pyritic, with a few veinlets of white calcite
<u>Huntersville Chert, 47 feet</u>			
6177	6182	5	Limestone, gray, cherty, 20% black shale, 80%
6182	6209	27	Limestone, gray to brownish, very cherty
6209	6229 ⁴	15	Chert, gray to brownish, calcareous; contains some silt and glauconite; some darker sandy material near bottom
<u>Criskany Sandstone, 11 feet</u>			
6229 ⁴	6235	11	Sandstone, gray, medium-grained, slightly calcareous; larger grains are well rounded
<u>Helderberg Group 128 feet</u>			
6235	6255 ⁹	24	Limestone, gray, cherty; contains a little silt and fine sand
6259	6263	4	Chert, gray, calcareous
6263	6269	6	Limestone, gray, cherty
6269	6281	12	Limestone, gray, very sandy
6281	6302	21	Limestone, gray, cherty and silty; contains a little glauconite

6177
1448
4729

Top Bottom Thickness

6302	6325	23	Limestone, light-brown to white, fossiliferous, a little chert and silt
6325	6331	6	No sample
6331	6351	20	Limestone, gray, cherty; also very shaly, 6398-6404'
6351	6363	12	Limestone, gray, with much pyrite and some silt and chert
<u>Cayagan Group 170+ feet</u>			
6363	6371	8	Limestone, brownish-gray, very fine textured, slightly dolomitic
6371	6391	20	Limestone, brownish-gray, very fine textured, highly dolomitic
6391	6425	34	Limestone, brownish-gray, dolomitic; contains small amount of white anhydrite
6425	6451	26	Limestone, dark-gray, somewhat dolomitic; with a little white anhydrite
6451	6460	9	Limestone, nearly black, dolomitic
6460	6463	3	Limestone, light-gray, dolomitic, with a little anhydrite
6463	6489	26	Limestone, very dark gray, somewhat dolomitic
6489	6494	5	No sample
6494	6506	12	Limestone, brownish-gray, slightly sandy, dolomitic, 80% white anhydrite, 20%
6506	6533	27	Dolomite, dark brownish gray, very fine textured, with about 10% white anhydrite
6533			Total depth