

C. W. Cook No. 1 Well

Tygart District, Wood County, W. Va.

By Glen W. Roberts; deepened from Oriskany by United Carbon Co. et al.

Permit, Hood-99.

Located 3.63 mi. W. of 81°30' and 5.18 mi. S. of 39°15' -NE- Bellville
Quadrangle.

Elevation, 605' L.

Drilling deeper completed May 9, 1941.

Samples from 4720 to 6245' examined by J. H. C. Martens.

Such stratigraphic information as is given for depths above 4720' is from
the driller's record.

Top Bottom Thickness

2000	2010	10	Shale, brown (Sunbury Shale?)
2010	2020	10	Sand (Berea Sandstone?)
2020	4475	2455	Devonian Shales
4475	4583	108	Husterville Chert
4583	4625	42	Oriskany Sandstone
4625	4720	95	<u>Helderberg Group, 181 feet</u> Reported as "lime"
4720	4740	20	Limestone, gray to brown, cherty, silty and fossiliferous
4740	4755	15	Limestone, brown and gray, finely crystalline, fossiliferous
4755	4766	11	Sample out of place
4766	4806	40	Limestone, brown, slightly cherty, highly fossiliferous
<u>Salina Formation, 707 feet</u>			
4806	4817	11	Limestone, very light brown or grayish-yellow, very fine textured, highly dolomitic
4817	4831	14	Limestone, gray and light-brown, somewhat dolomitic; a little chert
4831	4840	9	Limestone, brownish-gray, dolomitic, slightly cherty; similar to interval above
4840	4878	38	Dolomite-anhydrite rock; dark-brown, very fine textured dolomite with about 20 to 30% of white to light-brown anhydrite
4878	4911	33	Dolomite, brown; about 10 to 20% of anhydrite

Top	Bottom	Thickness	
4911	4925	14	Dolomite-anhydrite rock, brown; small amount of chert
4925	4959	34	Dolomite, brown, with about 10% of anhydrite
4959	5025	66	Dolomite-anhydrite rock, brown, mostly contains about 30 to 40% of anhydrite; perhaps less anhydrite in some
5025	5048	23	Dolomite, light-brown, with about 10% of anhydrite
5048	5121	73	Dolomite, brown, with varying amounts of anhydrite; mostly very fine textured; some small gaps in samples
5121	5177	56	Dolomite, light-brown, with about 5 to 10% of anhydrite
5177	5210	33	Dolomite, light-brown
5210	5251	41	Dolomite, light-brown, with about 10% of anhydrite
5251	5258	7	No sample
5258	5278	20	Dolomite-anhydrite rock, white and light-brown; about half anhydrite
5278	5291	13	Dolomite-anhydrite rock, light-brown, 90%; chert, 10%
5291	5314	23	Dolomitic-anhydrite rock, light-brown
5314	5328	14	No sample
5328	5350	22	Dolomite, brown, very fine textured, with small amount of anhydrite
5350	5385	35	Dolomite, dark-brown, very fine textured, partly shaly
5385	5402	17	Dolomite, brown, very fine textured; a few fragments contain small rounded sand grains
5402	5419	17	Shale, grayish-green, dolomitic, 40%; brown dolomite, 50%; white anhydrite, 10%
5419	5431	12	Shale, grayish-green, dolomitic, 50%; brown dolomite, 50%
5431	5447	16	No sample
5447	5455	8	Dolomite, light-brown, 60%; grayish-green dolomitic shale, 30%; white and brown anhydrite, 10%
5455	5467	12	Dolomitic-anhydrite rock, brown to gray; about 22% anhydrite
5467	5513	46	Dolomite, brown, very fine textured, with small amount of anhydrite
<u>Leekport Dolomite, 202 feet</u>			
5513	5559	46	Dolomite, brown and white, finely crystalline; contains small amount of fine sand and a few colorless fragments of anhydrite; many fragments consists of very small

Top	Bottom	Thickness	
			spheres of brown dolomite in matrix of white dolomite
5559	5564	5	No sample
5564	5629	65	Dolomite, brown to very light brown, finely crystalline; there is a little more coarsely crystalline white dolomite, apparently filling cavities
5629	5680	51	Limestone, dark-brown, mostly very fine textured, partly oolitic; contains some finely crystalline dolomite throughout
5680	5683	3	No sample
5683	5688	5	Dolomite, brown
5688	5700	12	Limestone, brown, oolitic; the interval structure of most of the supposed oolites is not clearly shown, either in this interval or from 5629-5680', so they could be microfossils
5700	5705	5	Limestone, brown, finely crystalline, somewhat dolomitic
5705	5715	10	Limestone, brown and white, finely crystalline
<u>Clinton Formation, 372 feet</u>			
5715	5732	17	Sandstone, nearly white, very fine, slightly dolomitic
5732	5742	10	Dolomite, light-gray, very sandy, apparently grades into the sandstone above
5742	5747	5	Siltstone, lightgray, dolomitic
5747	5752	5	Dolomite, light-gray, sandy, pyritic
5752	5760	8	Shale, gray
5760	5950	190	Shale, grayish-red; small amounts of green shale in several samples
5950	5961	11	Shale, green
5961	5972	11	Shale, green with a little gray dolomite; a few grains of glauconite in both shale and dolomite
5972	5980	8	No sample
5980	6009	29	Shale, red; a little crystalline dolomite and green shale
6009	6028	19	No sample
6028	6037	9	Shale, red, 50%; light-green, dolomitic siltstone, 50%
6037	6055	18	No sample
6055	6060	5	Shale, grayish-red, 60%; light-gray crystalline dolomite, 30%; green shale and siltstone, 10%

Top	Bottom	Thickness	
6060	6067	7	Hematite, red, oolitic, 10%; also large amounts of red and green shale and some nearly white dolomite
6067	6067	20	Shale, green
<u>Albion Sandstone, 139 feet</u>			
6087	6125	38	Sandstone, light-gray to white, very fine; samples contain large amounts of red and green shale which are probably cavings and some gray shale which probably belongs here; some flat black fragments in sandstone near top
6125	6164	39	Sandstone, white, fine; large amounts of red and green shale cavings
6148	6171	7	Shale, gray, sandy, 60%; nearly white, fine, quartzitic sandstone, 40%
6171	6220	49	Shale, gray to grayish-green, mostly silty and sandy; also considerable amounts of light-gray to white siltstone and very fine sandstone
6220	6226	6	Sandstone, white, very fine, quartzitic; also large amounts of shale in samples, 6220-6225'
<u>Queenston Shale, 44+ feet</u>			
6226	6245	19	Siltstone, red, shaly and sandy; some very fine red sandstone at top of interval and some red shale at bottom
	6270		Total depth

Permit

99

Martens
WOOD-99

C. W. COOK #1

Located in Tygart District, Wood County, W. Va.

Owner - Glen W. Roberts

Well Deepened from Oriskany to Clinton by United Carbon Co. & Others.

Commenced Drilling - June 27, 1940

Completed to 4716' - October 10, 1940

Drilling Deeper Commenced - April 3, 1941

Drilling Deeper Completed - May 9, 1941.

Elevation - 605'.

<u>Formation</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>THICKNESS</u>	<u>REMARKS</u>
Clay & Red Rock	0	95	95	20" Casing @ 23'.
Shale	95	130	35	
Limestone	130	170	40	
Shale	170	210	40	
Red Rock	210	235	25	
Shale	235	256	21	13" & 14" pipe weld- ed together - 256'
Sand	256	300	44	
Red Rock	300	320	20	
Limestone	320	330	10	
Shale	330	340	10	
Red Rock	340	355	15	
Shale	355	365	10	
Red Rock	365	390	25	
Sand	390	400	10	
Shale	400	415	15	
Limestone	415	425	10	
Shale	425	450	25	
Sand	450	475	25	
Shale	475	500	25	
Pink Rock	500	510	10	
Shale	510	530	20	
Sand	530	565	35	
Shale	565	600	35	
Red Rock	600	605	5	
Shale	605	620	15	
Red Rock	620	720	100	
Shale	720	735	15	
Red Rock	735	755	20	
Shale	755	770	15	
Pink Rock	770	780	10	
Sand	780	815	35	
Shale	815	830	15	
Red Rock	830	840	10	
Shale, dark	840	850	10	
Shale, light	850	855	5	
Limestone	855	870	15	
Shale	870	900	30	
Sand	900	910	10	
Shale	910	947	37	
Sand	947	951	4	10-3/4" Casing @ 950
Shale	951	985	34	
Slate & Shells	985	1025	40	
Sand	1025	1067	42	
Shale	1067	1115	48	
Sand	1115	1128	13	
Limestone	1128	1175	47	
Sand	1175	1208	33	
Shale	1208	1350	142	
Sand	1350	1422	72	
Shale	1422	1525	103	
Sand	1525	1664	139	
Shale	1664	1675	11	
Limestone (Big Lime) ?	1675	1700	25	
Shale	1700	1703	3	
Sand	1703	1709	6	
Shale	1709	1725	16	
Limestone	1725	1745	20	8-1/4" Csg. @ 1730'
Shale	1745	2000	255	
Shale, Brown	2000	2010	10	
Sand (Berea) ?	2010	2020	10	

C. W. COOK #1(continued)

<u>FORMATION</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>THICKNESS</u>	<u>REMARKS</u>
Shale	2020	3450	1430	
Shale (Brown)	3450	3800	350	
Shale	3800	4075	275	
Shale (Brown)	4075	4292	217	
Shale	4292	4307	15	
Shale	4307	4475	168	
Corniferous Lime	4475	4583	108	7" Casing set @ 4497'
Oriskany	4583	4625	42	
Lime, gray	4625	4650	25	
" dark	4650	4660	10	
" gray	4660	4716	56	
" dark	4716	4750	34	
" gray	4750	4865	115	
" dark	4865	4895	30	
" light	4895	4915	20	
" dark	4915	4980	65	
" light	4980	5040	60	
" dark	5040	5090	50	
" light	5090	5250	160	
" dark	5250	5270	20	
" light	5270	5325	55	
" gritty	5325	5340	15	
" brown	5340	5400	60	
" gray	5400	5450	50	
" gray	5450	5610	160	
" gray	5610	5715	105	
Sand (Big Six)	5715	5753	38	Top Clinton Formation
Shale, gray	5753	5765	12	
Shale, reddish	5765	5950	185	
Shale, green some red	5950	5965	15	
Shale, red some green	5965	6045	80	
Limestone, crystalline	6045	6050	5	
Shale, red hematitic & oolitic	6050	6060	10	
Shale, red & gray	6060	6087	27	Top White Median
Sand, light gray to white, quartzitic, considerable shale present	6087	6173	86	
Shale, gray	6173	6220	47	
Sand, white, quartzitic, some shale	6220	6230	10	
Shale, red, Queenston Shale	6230	6274	44	
TOTAL DEPTH		6274'		

No Gas.

Well to be plugged.

C. W. COOK NO. 1 Well

By Glen W. Roberts and United Carbon Co.

Located 3.63 mi. " of 81° 30' and 5.16 mi. S. of 39° 15'--NE--Belleville quadrangle

Top of Onondaga	4475	
Top of Oriskany	4583	based on
Top of Helderberg	4625	drillers record
Top of Silurian	4806	
Top of Lockport	5513	
Top of Clinton formation	5715	based on
Top of Albion (median) sandstone	6087	sample examination
Top of Queenstone Shale	6226	
Total depth	6270	