



OCT 29 1949

Island Creek Coal No. 33(903) Well.

Logan District, Logan County, W. Va.

By Columbian Carbon Company, Charleston, W. Va.

Located 1.02 Mi. S. of 37° 50' and 1.12 Mi. W. of 82° 05' — SC —

Holden Quadrangle

Elevation 975, 8' L

Permit - Log-155

Drilling commenced June 26, 1946; completed Oct. 1, 1946

Well was not shot

Dry Hole

Salt water 1050' and 1203'

13 3/8" 48# casing, 26' 6"; 10 3/4" 36#, 470' 10"; 8 1/4" 24#, 1502' 1",
(pulled); 7", 1959' 1"

Coal was encountered at 264-267'; 335-339' and 436-438'

Section based on samples from 0 to 4472'

Examined by Russell R. Flowers.

Top	Bottom	Thickness	<u>POTTSVILLE FORMATION, 1495 plus, FEET.</u>
0	25	25	Sandstone (very fine) to siltstone, light- to medium-gray, some olive-gray, highly micaceous, chloritic; a large amount of interbedded shale, grayish-black to black (highly carbonaceous), some medium- to dark-gray; small amount of dark yellowish brown, highly sideritic shale
25	35	10	Sandstone, light-gray to light olive gray, and greenish-gray, fine-grained, highly micaceous, contains carbonaceous material, chlorite and a little siderite
35	45	10	Siltstone to sandstone (fine), light- to medium-gray, light olive gray to greenish-gray, highly micaceous, somewhat sideritic, 60%; shale, grayish-black to black (highly carbonaceous), some medium-gray to dark-gray and brownish-gray

45	113	68	Sandstone, light-gray to light olive gray and greenish-gray, fine to very fine grained in the upper part, fine-grained and some medium grains in the lower part, calcareous in part, highly micaceous and chloritic; contains spots and streaks of black, carbonaceous material and dark yellowish brown siderite; some medium dark to dark-gray shale; some dark to dusky yellowish brown siderite at 81 to 102; a large amount of medium dark to dark-gray, highly micaceous, somewhat carbonaceous shale at the bottom
113	126	13	Sandstone (fine) to siltstone, light- to medium-gray (with medium dark to dark-gray, shaly, somewhat carbonaceous streaks); small amount of dark yellowish brown, sideritic shale
126	141	15	Shale to siltstone, medium- to dark-gray, (with some black, carbonaceous streaks), some brownish-gray to dark yellowish brown (highly sideritic)
141	181	40	Siltstone, medium- to medium dark gray (with black, carbonaceous spots and streaks), very highly micaceous, sideritic in part.
181	228	47	Sandstone, very light to medium light gray, fine- to medium-grained, very fine to fine-grained at the top and bottom, contains some chlorite, mica, carbonaceous material and some siderite, moderately sideritic at the 204 to 210 and at the bottom, moderately calcareous in part
228	254	26	Siltstone to shale, medium dark to dark-gray, small amount of dark yellowish-brown (sideritic), sandy in part
254	265	11	Shale, dark-gray to black (carbonaceous); some medium to medium dark gray siltstone to sandstone (cavings?); some dark to dusky yellowish brown, highly sideritic shale
265	270	5	Coal; some medium to dark-gray shale; trace of pyrite (coal 264-267 - driller's log)

270	276	6	Clay-shale, olive-black to brownish-black, silty, micaceous; some coal (cavings ?)
276	282	6	Siltstone, medium dark to dark-gray, highly micaceous, some black (carbonaceous) and some dark yellowish brown (sideritic) spots
282	331	49	Sandstone, light-gray with dark yellowish brown spots (siderite), some black, carbonaceous spots and streaks, fine to very fine grained, fine- to medium-grained with dark-gray to black (carbonaceous) shale partings from 306' to 331', moderately to highly sideritic
331	340	9	Coal, 40%; shale and siltstone, medium to medium dark gray, 60% (coal 335' to 339' from driller's is record)
340	377	37	Sandstone, light-gray and fine to very fine grained in the upper part, very light to light-gray, fine- to medium-grained, contains black spots and streaks of carbonaceous material and dark yellowish brown lumps of siderite siderite siderite, chloritic, somewhat micaceous, contains much medium to dark-gray, very silty shale in the lower part
377	387	10	Shale and siltstone, medium dark to dark-gray; some dark to dusky yellowish brown, sideritic shale
387	392	5	Siltstone to shale, medium- to dark-gray with grayish-black to black, carbonaceous streaks
392	415	23	Shale, medium- to dark-gray, brownish-gray (sideritic) to dark yellowish brown (highly sideritic), soft
415	420	5	Shale to siltstone, medium dark to dark-gray (with black, carbonaceous spots and streaks), sideritic in part; some light-gray, very fine grained sandstone
420	437	17	Sandstone, light-gray with medium- to dark-gray, highly micaceous, shaly streaks (particularly in the lower part), very fine grained, chloritic and micaceous; contains spots and streaks of black, carbonaceous material and dark yellowish brown siderite; some coal at the bottom
437	446	9	Coal, 50%; shale, medium- to dark gray, 40%; medium-gray to olive-gray siltstone and dark yellowish-brown, sideritic shale, 10%

446	456	10	Shale, medium dark to dark-gray with an occasional carbonaceous streak; some dusky-brown (highly sideritic); a large amount of medium- to dark-gray siltstone to sandstone (very fine) in the lower part
456	481	25	Siltstone to sandstone (very fine), light-to medium-gray; a very large amount of interbedded, medium dark gray to grayish-black (carbonaceous), silty and sandy shale; mostly shale in the lower part (466' DLM=463' SLM)
481	543	62	Shale, medium dark to dark-gray, some medium-gray, silty to siltstone, contains mica and carbonaceous material; some grayish-black to black (carbonaceous) shale at 409 to 517' and at the bottom; some dark yellowish brown, sideritic shale
543	610	67	Sandstone, very light to light-gray with green (chloritic) and dark-gray to black, (carbonaceous), shaly spots, fine- to medium-grained, some coarse grains, fine to very fine grained at the top, subangular to subrounded, contains some dark yellowish brown, sideritic spots, slightly calcareous, somewhat sideritic
610	620	10	Shale, dark-gray to grayish-black, 80%; sandstone, very light to light-gray, 20%
620	698	78	Shale, dark-gray to grayish-black, silty, somewhat carbonaceous, calcareous in part
698	718	20	Sandstone (very fine) to siltstone, light- to medium-gray, somewhat sideritic; some dark-gray to black, (carbonaceous) shale
718	766	48	Shale, medium dark to dark-gray, grayish-black to black (carbonaceous), some olive-black, a moderate amount of brownish gray to dark yellowish brown (highly sideritic)
766	774	8	Shale, medium dark gray to black, some olive-black and some dark yellowish brown, 70%; sandstone, very light to light-gray, fine- to medium-grained, micaceous, chloritic, 30%

774	881	107	Sandstone, very light gray and mostly medium-grained (774 to 825') light-gray and fine- to medium-grained (835 to 880' -- no sample from 825 to 835'), highly chloritic; micaceous, contains spots and streaks of dark-gray to black, carbonaceous shaly material and dark yellowish brown siderite; some dark greenish gray to dark-gray and black (carbonaceous) shale (816 to 855')
881	891	10	Sandstone, very light to light-gray, very fine grained, somewhat sideritic, 60%; shale, medium dark to dark-gray, 40%
891	901	10	Shale, medium dark to dark-gray, very silty, 60% to 70%; sandstone, very light to light-gray, fine-grained with streaks of siderite, 40% to 30%; some medium-gray siltstone
901	908	7	Shale, medium dark to dark-gray, very silty with bands of medium-gray siltstone, 60%; sandstone, very light gray, mostly quartz, fine-grained, 40%
908	1085	177	Sandstone, white to very light gray, fine- to medium-grained, with some coarse to very coarse grains, fine to very coarse grains, fine to very coarse grained from 1040 to 1085', contains some shale grains (chloritic, carbonaceous, and sideritic), almost entirely quartz (some of the grains show secondary crystal faces), subangular to subrounded
1085	1092	7	Sandstone, white to very light gray, medium- to coarse-grained, pebbly, 60%; small amount of pyrite; shale, dark-gray to grayish-black ^{40%} small amount of dark to dusky yellowish brown
1092	1113	21	Shale, dark-gray to grayish-black, small amount of dark to dusky yellowish brown
1113	1125	12	Shale, dark-gray to grayish-black, some black in the lower part; a moderate amount (at top) to a large amount (at the bottom) of sandstone, very light to light-gray with dark gray to black shaly streaks, very fine to fine-grained, kaolinitic

1125	1134	9	Shale, dark-gray to grayish-black, silty; some dusky-brown to brownish-black, highly sideritic shale
1134	1142	8	Shale, dark-gray to grayish-black, some black, some dusky-brown (highly sideritic), 40%; sandstone, very light gray, mostly fine-grained, some medium grains, 60%
1142	1464	322	Sandstone, white to very light gray, fine-grained (1142-1186'), fine- to medium-grained (1186-1240'), fine to coarse-grained, (poorly sorted) with granules to pebbles 1240 to 1391', fine- to medium-grained, (1391 to 1433'), fine- to coarse-grained with some granules 1433 to 1459', very fine to fine-grained at the bottom, almost entirely quartz with some iron stain, subangular to rounded, many of the grains show secondary crystal facets; some dark-gray to grayish-black shale 1230 - 1257' (cavings ?)
1464	1471	7	Sandstone, very light gray, fine-grained with some medium to very coarse grains, 60%; shale, olive-gray to medium dark gray, some black, "coaly" shale, sideritic in part to a dark yellowish brown siderite, 40%
1471	1476	5	Shale, olive-gray to medium dark gray, some coal
1476	1495	19	Shale, olive-gray and brownish-gray to brownish-black with black, carbonaceous streaks, soft; (depth corrected from 1495' to 1505' S L M)
<u>MAUCH CHUNK GROUP, 439 FEET.</u>			
1505	1516	11	Limestone, brownish-gray and dark-gray (shaly); shale, medium dark gray to dark greenish gray with dark-gray, highly calcareous spots and streaks
1516	1554	38	Shale, grayish-brown to dusky-brown, greenish-gray to dark greenish gray, calcareous; moderate to large amount of greenish-gray siltstone at the bottom; some grayish-olive to olive-gray limestone
1554	1564	10	Shale, grayish-brown to grayish-red, 60% to 40%; shale, greenish-gray, brownish-gray to medium dark gray, 30% to 40%; limestone, grayish-olive to olive-gray and greenish-gray, 10% to 20%

1564	1584	20	Shale, grayish-brown to grayish-red and very dusky red, a moderate amount of greenish-gray (partly siltstone) to medium dark gray, some dark-gray; a small amount of grayish-olive to olive-gray limestone
1584	1621	37	Shale, very dusky red to grayish-brown and dusky-brown, some brownish-gray to dark-gray and grayish-black, calcareous in part; some siltstone and shale (calcareous) to a limestone, greenish-gray to dark greenish-gray; in the middle and lower parts, some very light gray to light greenish gray, fine-grained sandstone.
1621	1654	33	Shale (highly calcareous) to a limestone (shaly), very dusky red to grayish-brown and brownish-gray; moderate to large amounts of greenish-gray to dark-gray shale and siltstone; some very light to light-gray and light greenish gray, fine-grained sandstone and a large amount of dark-gray to greenish-black and black shale at the top
1654	1668	14	Shale and siltstone, medium dark to dark-gray and dark greenish gray; some very dusky red to grayish-brown and brownish-gray, calcareous shale to shaly limestone (cavings ?)
1668	1693	25	Shale and siltstone, dark greenish gray and medium dark gray to a dark-gray and grayish-black, highly calcareous shale and shaly limestone
1693	1700	7	Shale and siltstone, medium dark to dark-gray
1700	1725	25	Clay-shale, medium dark to dark-gray (with black, carbonaceous streaks and brownish-black, siderite spherulites); a large amount of white fine-grained sandstone containing pyrite in the upper part
1725	1733	8	No sample
1733	1805	72	Sandstone, white to light-gray and very porous in the upper part, brownish-gray (highly calcareous) with white to light-gray spots in the lower part, fine-grained, medium-grained at the bottom, subrounded to rounded, mostly quartz grains (some have crystal facets) with calcite cement in the lower half; contains much pyrite

1805	1819	14	Shale (calcareous) to limestone (shaly), medium dark gray to grayish-black; small amount of pyrite
1819	1834	15	Sandstone, very light to medium light gray, fine-grained, somewhat dolomitic, pyritic, contains some dark-gray to black (shaly, carbonaceous) streaks
1834	1853	19	Shale and siltstone, medium- to dark-gray and dark greenish gray, grayish-brown to brownish-gray, some grayish-olive to olive-gray (dolomite), some dark-gray to grayish-black (in the middle and lower part)
1853	1858	5	Shale and siltstone, medium dark gray to grayish-black (with black carbonaceous material and dusky-brown, siderite spherulites) some dark greenish gray, some grayish-brown to brownish-gray; some olive-black to brownish black clay-shale, 60%; sandstone, light greenish gray to greenish-gray, some light-gray, very fine grained, 40%
1858	1871	13	Sandstone, light greenish gray to greenish-gray, very fine grained
1871	1876	5	Sandstone, light greenish gray to greenish-gray, very fine grained, 30%; shale, dark-gray to grayish-black, some brownish-gray, 70%
1876	1881	5	Shale, medium dark gray to grayish-black; small amounts of brownish-gray to grayish-brown and dark yellowish brown (highly sideritic)
1881	1914	33	Shale, medium dark gray to grayish-black, distinctly laminated, and calcareous in part to a brownish-black, very shaly limestone with light-gray, fossiliferous spots
1914	1940	26	Limestone, brownish-black (with light-gray to light brownish gray, fossiliferous spots) very shaly to a dark-gray, calcareous shale; some dark-gray to dark greenish gray shale in the lower part (1940' corrected to 1944' S L M)
<u>GREENBRIER LIMESTONE, 135FEET</u>			
1944	1953	9	Limestone, olive-gray (shaly to shale) to brownish-gray and brownish-black, shaly, very sandy; trace of glauconite

1953	1965	12	Limestone, brownish-gray to brownish-black, some olive-gray (very shaly) to dark greenish gray (calcareous shale) at the top, sandy, shaly, contains many light-gray to light brownish gray, fossiliferous spots
1965	1973	8	Limestone, light brownish gray to brownish-black, very shaly, silty and sandy, somewhat pyritic
1973	2012	39	Limestone, olive-gray to brownish-gray with white to light-gray spots, very shaly and silty, contains fossil fragments
2012	2066	54	Limestone, light-gray to light brownish gray, very highly oolitic, some fossil fragments, somewhat sandy, somewhat shaly at the top
2066	2079	13	Limestone, white to light-gray and light brownish gray, highly oolitic in part, somewhat sandy; some brownish-gray to grayish-brown, silty limestone (included pebbles from the underlying Macgregady ?)
<u>MACGREGADY FORMATION, 96 FEET</u>			
2079	2087	8	Siltstone, brownish-gray, some dark greenish gray and some shale, grayish-red to very dusky red
2087	2175	88	Siltstone and shale, grayish-brown to dusky-brown, grayish-red to very dusky red, mostly dusky-brown to very dusky red siltstone at 2114 to 2153'; some medium-gray to dark greenish gray siltstone and some medium dark to dark gray shale at the bottom
<u>POCONO FORMATION, 574 FEET</u>			
2175	2309	134	Siltstone to sandstone (very fine), medium light to medium dark to dark-gray, contains much mica and carbonaceous specks; some brownish-gray to dark yellowish brown, sideritic siltstone; the amount of shale in this interval increases toward the bottom; trace of pyrite
2309	2390	81	Sandstone (very fine) to siltstone, light- to medium-gray, some medium dark gray (shaly) to dark-gray shale, the sandstone and siltstone is kaolinitic and the shale is micaceous with carbonaceous specks; a moderate amount of pyrite

2390	2425	35	Shale, medium dark gray
2425	2466	41	Shale, dark-gray, some medium dark gray
2466	2518	52	Shale, medium dark to dark-gray
2518	2602	84	Shale, medium dark to dark-gray, some olive-gray (sideritic) to dark yellowish brown (highly sideritic); a moderate amount of interbedded siltstone (sandy in part), medium-gray to dark greenish gray and olive-black
2602	2687	85	Shale, medium dark to dark-gray; siltstone, medium to dark-gray, some olive-gray to olive-black; small amount of dark yellowish brown, highly sideritic shale (2620' DLM equals 2621' SLM)
2687	2715	28	Shale, brownish- and grayish-black to black, carbonaceous, somewhat pyritic (Sunbury Shale); shale and siltstone, medium- to dark-gray, 30% of the top sample
2715	2727	12	Shale, brownish- and grayish-black to black, carbonaceous, somewhat pyritic, 80%; sandstone, white to light-gray, very fine grained to siltstone (coarse to fine), pyritic (Berea Sand), 20% (Berea Sand 2725 SLM to 2745 from driller's record)
2727	2749	22	Sandstone, white to light-gray, some light olive gray, very fine grained to siltstone (coarse to fine), pyritic (Berea sandstone)
<u>DEVONIAN SHALES, 1707 FEET</u>			
2749	2762	13	Siltstone and shale, medium- to dark-gray, some grayish-black to black; some white to light-gray, very fine grained sandstone (Probably cavings)
2762	2775	13	Siltstone and some shale, medium dark to dark-gray, some brownish- and grayish-black to black
2775	2864	89	Shale, medium dark to dark-gray, some olive-black; some dark to dusky yellowish brown, highly sideritic shale
2864	2892	28	Shale, medium dark to dark-gray, some medium-gray, some olive-black to brownish- and grayish-black (silty)
2892	2984	92	Shale, olive-black to brownish- and grayish-black, silty to siltstone, medium light to medium dark gray and olive-gray

2984	3090	106	Shale, olive-black to brownish-black, silty; a moderate to large amount of interbedded shale, medium dark gray, some dark gray and some medium-gray; small amount of dark yellowish brown, sideritic shale
3090	3218	128	Shale, medium dark gray to olive-gray, some medium-gray and some dark-gray; a moderate amount of olive-black to brownish-black, silty shale; some moderate to dark yellowish brown, highly sideritic shale
3218	3343	125	Shale, medium- to dark-gray, some olive-gray, some olive-black to grayish-black in the lower part; siltstone medium light to medium dark gray, a moderate amount at the top to a large amount at the bottom
3343	3557	214	Siltstone, medium light to medium dark gray, some olive-gray; shale, medium- to dark-gray, an increase in the amount of siltstone toward the bottom; some olive- and grayish-black to black
3557	3675	118	Siltstone and shale, medium to medium dark gray to olive-gray; shale, olive- and grayish-black to black, present in large amount in the upper part and in a moderate amount for the remainder of the interval
3675	3712	37	Shale, brownish-black to black, highly carbonaceous; some siltstone and shale, medium- and dark-gray to olive-gray and brownish-gray; a very small amount of pyrite
2712	3764	52	Siltstone to shale, brownish-gray to brownish-black, some medium to medium dark gray; a moderate to large amount of black, highly carbonaceous shale
3764	3806	42	Siltstone, brownish-gray to brownish-black (shaly), medium light gray (dolomitic) to medium dark gray; a moderate amount of black, highly carbonaceous shale
3806	3847	41	shale, greenish-gray to medium-gray, olive-gray to brownish-gray (partly silty), pyritic in part; a moderate to large amount of black, carbonaceous shale, some brownish-black

3847	3903	56	Shale, black, highly carbonaceous, some brownish-black, small amount of brownish-gray; small amount is pyritic
3903	3954	51	Shale, black with some brownish-black, highly carbonaceous; a moderate amount of olive-gray to brownish-gray shale, silty in part
3954	3995	41	Shale, black with some brownish-black, highly carbonaceous; shale, olive-gray to brownish-gray, silty in part; some of the shale is pyritic
3995	4042	47	Shale, medium-gray to greenish-gray and medium dark gray, some olive-gray to brownish-gray (sideritic), some black (carbonaceous)
4042	4125	83	Shale, medium to medium dark gray, dark greenish gray to olive-gray, some dark-gray to black (highly carbonaceous); a large amount of dark greenish gray to medium and medium dark gray at the bottom
4125	4281	156	Shale, dark greenish gray to medium and medium dark gray, some grayish-black to black, small amount of dark-gray to brownish-gray
4281	4434	153	Shale, brownish-black to black, highly carbonaceous, somewhat pyritic, calcareous in part; some olive-gray to brownish-gray shale, present in large amount at the top
4434	4456	22	Shale, black, some brownish-black, highly carbonaceous, pyritic, calcareous in part
<u>HUNTERSVILLE CHERT, 16, plus, FEET</u>			
4456	4472	16	Limestone, brownish-gray with light-gray to light brownish gray spots, very cherty to chert (toward the bottom)
4472 DLM equals 4484 SLM TOTAL DEPTH			