

KGS Sample No. 1014 57'-7272'

WEST VIRGINIA

MCDOWELL COUNTY

New River Pocahontas Coal Co. No. 6219 well

McD 31

United Fuel Gas Co.

Located 1,800 ft north of 37° 15'; 8,750 ft west of 81° 35'.

Elevation, ground, 1,627.16 ft. Total depth, 7,276 ft.

Drilling commenced Oct. 11, 1947; completed Jan. 19, 1949.

Coal at 2,017-2,020, 2,020-2,022, 2,022-2,030, 2,030-2,033, 6,018-6,028 ft.

22 - J - 25

USGS
13511
1027L

Formations	Thickness (feet)	Depth to base of formation (feet)
Bluestone formation	635+	602
Princeton sandstone	49	741
Hinton formation:		
Hinton formation undivided	186	927
Avis limestone of Reger	50	977
Hinton formation undivided	573	1,550
Stony Gap sandstone member	105	1,655
Bluefield formation	600	2,255
Greenbrier limestone	960	3,215
Macerady shale	55	3,270
Pocono formation	414	3,684
Big Stone Gap shale	160	3,844
Chemung and Brallier formations	1,171	5,015
Millboro shale of Butts (1940)	1,382	6,397
Huntersville chert of Price (1929)	61	6,458
Ridgeley sandstone and Rocky Gap sandstone of Swartz (1929)	59	6,517
New Scotland limestone	64	6,581
Cayuga dolomite	442	7,023
Clinton formation	245	7,268
Clinch sandstone	8+	7,276

New River & Pocahontas Consolidated Coal Co. No. 1

(6219)

Creek District, McDowell County, W. Va.

By United Fuel Gas Co., Charleston, W. Va.

Located 5.55 miles S of 37° 20' and 1.5 miles W. of 81° 35'.

Welch Quadrangle - SC.

Elevation 1827.16' L.

Permit - PD - 31.

Drilling commenced October 11, 1947; completed Jan. 19, 1949.

Well was not shot.

Dry hole.

Meter 350', 1 BPH.

20" casing 30'; 16" casing 258'; 12", 1155'; 10", 2460'; 7", 6426' all left in section based on samples from 57' to 7276'; examined by Russell R. Flowers.

Top	Bottom	Thickness	Pottsville Formation, 42, plus, feet.
57	62	5	Shale, medium dark to dark-gray, soft, very silty and sandy; a large amount of light-gray, fine to coarse sandstone, calcareous in part
62	72	10	Shale (very silty) to siltstone (shaly), medium dark to dark-gray, mostly olive-gray to medium dark gray with very fine sand in the upper part, soft
72	83	16	Sandstone, light-gray, very fine to medium-grained, some coarse grains, contains some chert (chalcedonic to dark-gray), calcareous; a large amount of medium dark to dark-gray, very silty, soft shale (some of this shale is included in the sandstone)
83	99	11	Shale (very silty) to siltstone (very shaly), medium dark to dark-gray, sandy in part, somewhat calcareous; small amount of dark yellowish brown siderite
			<u>Mauch Chunk Series, 2480 Feet.</u>
99	110	11	Shale (silty) and some siltstone, dark greenish gray with olive-gray to dark yellowish brown, limestone nodules and streaks
110	120	10	Sandstone, greenish-gray to dark greenish gray and medium-gray, chloritic, calcareous; some medium- to dark-gray shale
120	134	14	Sandstone, very light to light-gray and greenish-gray, very fine grained, calcareous, chloritic and micaceous
134	137	3	Shale, black (carbonaceous) and grayish-black to black, fossiliferous (ostracods), pyritic; a large amount of medium dark to dark-gray siltstone
137	144	7	Clay, olive-gray to medium dark gray, some grayish-brown, calcareous to highly calcareous with some light olive gray to olive-gray limestone; some medium dark to dark-gray siltstone in the lower part
144	150	6	Clay-shale, grayish-brown to very dusky red, silty; a large amount of medium- to medium dark gray, calcareous siltstone to olive-gray limestone
150	160	10	Siltstone, dark greenish gray to medium dark gray, chloritic and micaceous, somewhat calcareous; some grayish-brown to brownish-gray (calcareous) shale with olive-gray limestone

greenish-gray to medium dark gray, dark-gray to grayish-black (somewhat carbonaceous) with some olive-gray to olive-black limestone nodules

165	166	1	Clay-shale and shale, grayish-brown to dusky-brown, (calcareous), some dark-gray to grayish-black
166	169	3	Siltstone to sandstone (very fine), light to medium-gray (with olive cast), highly calcareous
169	185	16	Sandstone, light-gray (with some medium-gray to olive-gray, shaly, silty streaks), fine-grained, subrounded to rounded, highly calcareous, shaly and silty; some medium dark gray, silty shale at the top; some medium dark gray to dark greenish gray, shaly, sandy siltstone at the bottom
185	187	2	Shale, grayish-red to dusky-brown; shale and siltstone, medium dark to dark-gray
187	201	14	Sandstone, light- to medium light gray (with greenish cast), silty; some greenish-gray to medium dark gray siltstone and shale
201	209	8	Clay-shale, reddish-gray, dark greenish gray to medium dark gray, calcareous with limestone nodules
209	213	4	Shale, grayish-brown to dusky-red, silty; a large amount of greenish-gray shale and siltstone in the lower part
213	216	3	Shale, very dusky red to dusky-brown, soft
216	223	7	Shale, very dusky red to dusky-brown and reddish-gray with varicolored limestone nodules; some greenish-gray siltstone and shale in the upper part to siltstone and very fine sandstone in the lower part
223	226	3	Shale, very dusky red to dusky-brown, some greenish-gray to dark greenish gray, silty, contains grayish-brown to greenish-gray limestone nodules
226	228	7	Siltstone, greenish-gray to medium-gray, calcareous
228	239	6	Shale, grayish brown to very dusky red, some greenish-gray to medium dark gray in the upper part
239	245	6	Siltstone, greenish-gray to medium-gray, calcareous; some very dusky red to grayish-brown shale in the upper part
245	249	4	Sandstone, light-gray to greenish-gray, very fine grained, highly calcareous, chloritic
249	254	5	Siltstone, greenish-gray to medium-gray, micaceous, chloritic, calcareous, shaly at the bottom; a large amount of grayish-brown to dusky-brown siltstone and shale, calcareous in part
254	258	4	Siltstone (shaly) to shale (very silty), medium dark gray to dark greenish gray, calcareous
258	267	9	Sandstone, greenish-gray and pale-brown to medium-gray, very fine grained, silty, chloritic, calcareous; a large amount of siltstone and shale, medium dark gray to dark greenish gray, some grayish-brown to brownish-gray
267	270	3	Shale, medium dark gray, very silty
270	274	4	Siltstone, medium to medium dark gray with greenish cast, highly micaceous, chloritic and somewhat calcareous

279	279	5	Shale, medium to dark-gray
279	284	5	No sample
284	293	9	Siltstone and shale (silty), olive-gray to medium-gray, some medium dark to dark-gray, calcareous in part
293	308	15	Siltstone, and shale, medium- to medium dark gray; some dark-gray to grayish-black shale, somewhat fossiliferous (ostracods)
308	312	4	Siltstone, medium to medium dark gray, shaly with some carbonaceous material; a moderate amount of dark-gray shale
312	322	10	Shale and siltstone, dark-gray to grayish-black, calcareous in part
312	326	4	Shale, dark-gray, black (highly carbonaceous), fossiliferous (ostracods), calcareous
326	330	4	Shale, dark-gray to grayish-black, silty, calcareous in part
330	338	8	Shale, black (highly carbonaceous), dark-gray to grayish-black, somewhat fossiliferous (ostracods), somewhat calcareous
338	350	12	Clay, olive-gray to medium-gray, silty, highly calcareous
350	363	13	Clay-shale, medium to medium dark gray, very highly fossiliferous (ostracods), highly calcareous
363	366	3	Shale, grayish-black to black, carbonaceous, fossiliferous, calcareous
366	390	24	Siltstone, medium to medium dark gray (with shaly, carbonaceous specks and streaks), calcareous in part; shale dark-gray to grayish black, somewhat pyritic
390	410	20	Shale, grayish-black to black, highly carbonaceous, calcareous; some medium dark gray siltstone in the lower part
410	426	16	Clay-shale, medium dark to dark-gray, very silty; some siltstone; contains many siderite spherulites; trace of coal in bottom sample
426	440	14	Siltstone, medium-gray to medium dark gray, some medium-gray to dark greenish gray, contains limestone nodules and siderite spherulites; some grayish-black to black (carbonaceous) shale with ostracods (440-438 depth correction)
438	515	77	Siltstone to shale, dark-gray to grayish-black
515	536	21	Shale, grayish-black, silty in part
536	611	75	No sample
611	614	3	Sandstone, very light gray, fine-grained, quartzose, subrounded
614	692	78	No sample
692	696	4	Sandstone, light-gray, very fine to medium-grained, silty somewhat calcareous; some medium dark to dark-gray shale
696	701	5	No sample
701	705	4	Sandstone, very light to light-gray, very fine to medium grained, some coarse grains, subangular to subrounded

720	720	15	Sandstone (very fine) to siltstone, light- to medium-gray, some conglomerate at the top (very fine to coarse, some granular), somewhat calcareous, highly calcareous (with some medium- to dark-gray limestone) at the top
720	724	4	Sandstone, very light to light-gray, some medium-gray, very fine to fine-grained, slightly calcareous
724	741	17	Sandstone, very light to light-gray, conglomeratic, fine to very coarse grained, subangular to subrounded, contains limestone spots and nodules and some shale grains, calcareous; a large amount of dark-gray to grayish-black shale and some siltstone at the top
741	746	5	Shale, medium dark gray (silty) to dark-gray (with greenish cast), some grayish-black to black; small amount of dolomite and sandstone
746	751	5	No sample
751	761	10	Shale and siltstone, medium dark to dark-gray; some shale dark-gray (with greenish cast) to grayish-black and black, calcareous and dolomitic in part; a larger amount of the dark shale in the lower part
761	766	5	Shale, dark greenish gray to dark-gray (dolomitic, soft), medium dark to dark-gray, some grayish-black
766	770	4	Shale, dark greenish gray to dark-gray, some grayish-brown, dolomitic, soft
770	775	5	No sample
775	788	13	Siltstone, medium dark gray, some dark greenish gray, somewhat sideritic; shale, medium dark gray, somewhat sideritic
788	800	12	Siltstone, medium dark gray to dark greenish gray, sandy (very fine) in part; shale, dark-gray to grayish-black
800	824	24	Shale, dark gray to grayish-black, some grayish-black to black (carbonaceous), fossiliferous (ostracods), silty in part; siltstone, medium to medium dark gray; highly calcareous
824	846	22	Shale, dark-gray and dark greenish gray to olive-black, calcareous and dolomitic; a large amount of dark-gray to grayish-black shale
846	863	17	Shale, dark greenish gray to olive-gray and dark-gray, highly dolomitic; siltstone, dark greenish gray to medium dark gray (slightly dolomitic), some brownish-gray to grayish-brown
863	868	5	Shale (very silty) to siltstone, medium dark gray to olive-gray and dark greenish gray to dark-gray, highly calcareous, dolomitic
868	875	7	Siltstone, medium dark gray, some medium dark gray to dark greenish gray, calcareous and dolomitic; some dark-gray to grayish-black shale
875	903	28	No sample
903	915	12	Siltstone and shale (silty), medium dark to dark-gray; dolomitic in part
915	927	12	Shale, medium dark to dark-gray, calcareous
927	955	28	Shale, medium dark to dark-gray with abundant limestone fossil fragments and highly fossiliferous limestone nodules or layers

980	980	25	Shale (highly calcareous) to limestone (very shaly), dark-gray to olive-gray
980	988	8	Shale, dark-gray, highly calcareous and fossiliferous; siltstone, dark greenish gray to olive-gray (calcareous); brownish-gray to dusky-brown
988	993	5	Siltstone and some shale, brownish-gray to grayish-brown, calcareous in part; some dark-gray, highly calcareous shale to very shaly limestone
993	1037	44	Shale, grayish-brown to dusky-brown, some grayish-brown to very dusky red, silty in part; some dark-gray, highly calcareous shale at the top
1037	1045	8	Siltstone, medium dark gray to brownish-gray; some grayish-brown to very dusky red shale
1045	1058	13	Siltstone and shale, brownish-gray to dusky-brown, highly micaceous; some grayish-brown to very dusky red shale
1058	1070	12	Shale, very dusky red to grayish-brown, small amount of dark greenish gray to medium gray, soft
1070	1106	36	Shale, grayish-brown to dusky-brown; some medium dark gray to dark greenish gray; some dark-gray to grayish-black (in the lower part)
1106	1136	30	Shale, very dusky red to grayish-brown, a large amount of very dusky red to brownish-gray at the bottom (highly calcareous)
1136	1155	19	Siltstone, brownish-gray to brownish-black and dusky-brown; some shale, very dusky red to grayish-brown
1155	1162	7	Shale, medium dark gray to dark greenish gray, dark-gray to grayish-black, some brownish-gray to grayish-brown (silty), highly calcareous
1162	1170	8	Shale, grayish-red to dusky-brown (silty), some dark-gray to grayish-black (calcareous)
1170	1194	24	Shale and siltstone, brownish-gray to dusky-brown, medium dark gray to dark greenish gray (sandy and highly calcareous in part), some dark-gray to grayish-black
1194	1210	16	Shale, olive-black to grayish-black, calcareous and dolomitic; some shale and siltstone, brownish-gray to grayish-brown, some dark greenish gray to medium dark gray
1210	1218	8	Siltstone, brownish-gray, very shaly
1218	1228	10	Siltstone and shale, brownish-gray to grayish-brown and grayish-red, some dark greenish gray to grayish-black; some light olive gray, calcareous dolomite at the top and some light-gray to greenish-gray limestone at the bottom
1228	1234	6	Shale, brownish-gray to dusky-brown; some sandstone (very fine), brownish-gray to medium-gray to greenish-gray, highly micaceous, chloritic
1234	1253	19	Siltstone, brownish-gray, some olive-gray, very shaly, highly micaceous; some medium dark gray shale
1253	1267	14	Siltstone, brownish-gray, some brownish-black to dusky-brown, very shaly; some grayish-brown to grayish-red shale at the bottom
1267	1289	22	Siltstone and shale, brownish-gray to dusky-brown; some shale, dark greenish gray to dark-gray and grayish-black

1314	25	Siltstone and shale, brownish-gray to dusky-brown; some sandstone at the top, pale-brown to brownish-gray, very fine grained; small amount of dark greenish gray to grayish black shale	
1314	1319	5	Shale, grayish-brown to dusky-brown, some medium dark gray to dark greenish gray
1319	1332	13	Shale and siltstone, grayish-brown to very dusky red, a large amount of dark greenish gray to dark-gray in the lower part, micaceous
1332	1352	20	Siltstone, brownish-gray, some brownish-gray to brownish-black, very shaly
1352	1378	26	Siltstone, dark greenish gray to medium dark gray, chloritic; a large amount of medium dark to dark-gray, silty, micaceous shale
1378	1415	37	Sandstone, light-gray (with some medium-gray, very silty, shaly streaks), very fine grained, some fine grains in the upper part, calcareous in part, contains many shale grains, somewhat chloritic
1415	1429	14	Shale, dark greenish gray to medium dark gray, dark grayish-black, highly calcareous in part with a little shaly limestone, highly dolomitic in part; a large amount of pale-brown to very dusky red, shaly siltstone to sandstone (very fine)
1429	1435	6	Siltstone, greenish-gray to olive-gray and medium dark gray, some brownish-gray and medium dark gray, some brownish-gray to very dusky red; some medium dark to grayish black shale, dolomitic in part
1435	1442	7	Dolomite (very shaly) to shale, brownish-black to black
1442	1463	21	Siltstone, greenish-gray to brownish-gray, calcareous; shale, grayish-brown, dark greenish gray to medium dark gray, some dark gray to grayish-black, highly calcareous in part
1463	1469	6	Shale and some siltstone, medium dark to dark-gray
1469	1475	6	Siltstone, medium dark gray; some dark-gray shale
1475	1480	5	Siltstone, olive-gray to brownish-gray and grayish-brown; shale, medium-to dark-gray and grayish-black; some brownish-gray to brownish-black, calcareous dolomite
1480	1485	5	Shale, dark-gray to grayish-black, some grayish-black to black (carbonaceous)
1485	1495	10	Sandstone (very fine) to siltstone, greenish-gray to medium-gray, chloritic; some medium dark to dark-gray shale
1495	1509	14	Siltstone and some sandstone (very fine), greenish-gray to dark greenish gray, some medium dark gray; shale, medium dark to dark-gray, some grayish-black, some dark greenish gray, calcareous and dolomitic in part
1509	1527	16	Shale, dark-gray to grayish-black, highly calcareous at the bottom; small amount of dusky yellowish brown siderite
1527	1550	23	Siltstone, medium- to dark-gray, shaly; shale, medium dark gray to grayish-black; very silty
1550	1554	4	Siltstone to sandstone (very fine), light- to medium-gray (with dark-gray, silty shale streaks)

1655	101		Sandstone, white to very light gray, very fine to fine-grained, quartzose, subrounded, somewhat dolomitic, contains dark-gray to grayish-black (silty) shale breaks in the upper part, fine-grained 1571 to 1595, mostly very fine grained sh from 1625 to bottom
1655	1660	5	Shale, dark-gray (with greenish cast), silty
1660	1685	25	Siltstone and some sandstone (very fine), greenish-gray to medium-gray, some dark greenish gray to medium dark gray; some dark greenish gray to dark-gray shale; small amount of very dusky <u>red</u> siltstone to <u>reddish-gray</u> shale
1685	1692	7	Siltstone and shale, brownish-gray to dusky-brown, dark greenish gray to dark-gray, some dark-gray to grayish-black
1692	1696	6	Shale, medium dark to dark-gray, silty
1696	1725	27	Siltstone and shale, medium dark to dark-gray; a large amount of shale, dark-gray to grayish-black
1725	1760	35	Siltstone, dark-gray to grayish-black, some medium dark gray streaks, very shaly
1760	1776	18	Sandstone, light-gray, very fine grained, highly lino-litic, a little chlorite and mica, slightly dolomitic; some dark-gray to grayish-black shale breaks
1776	1785	7	Clay-shale, dark-gray; some shale and siltstone, brownish-gray to grayish-brown, greenish-gray to medium dark gray (depth correction 1785 to 1771?)
1771	1790	19	Shale, grayish-brown to very dusky red, dark greenish gray to dark-gray (shale in upper part but mostly siltstone in the lower part)
1790	1800	10	Clay-shale and shale, dark-gray with some dark greenish gray (dolomitic), a large amount of medium dark to dark-gray (highly dolomitic) in the lower part
1800	1820	20	Shale (highly dolomitic) to dolomite (very shaly), dark-gray to grayish-black, some medium dark-gray; some light- to medium-gray anhydrite
1820	1837	17	Shale, medium dark gray to dark greenish gray and dark-gray, dolomitic in part; some shaly dolomite as in the above interval
1837	1842	5	Shale, reddish-gray to grayish-brown, medium dark to dark-gray and dark greenish gray (dolomitic), some grayish-black (shaly dolomite); some sandstone, light-gray to greenish- gray gray, very fine grained
1842	1854	12	Sandstone, greenish-gray, very fine to siltstone, medium dark gray; a large amount of shale, medium dark to dark-gray, some grayish-black, highly dolomitic in part
1854	1871	17	Siltstone, light- to medium dark gray, sandy (very fine) in part, slightly dolomitic; a large amount of dark-gray to grayish-black, shaly streaks and shale
1871	1896	25	Siltstone, dark greenish gray to medium dark gray; some dark-gray and grayish-black shale
1896	1908	12	Shale, dark-gray to grayish-black dolomitic and highly calcareous in part at the top to a dark-gray to grayish-black, very shaly limestone in the lower part
1908	1913	5	Siltstone, dark greenish gray to medium dark gray; small amount is sandy and calcareous

	1930	7	Shale, dark-gray to grayish-black, highly dolomitic in part
1920	1932	12	Shale, very dusky red to reddish-gray and grayish-brown, medium dark black gray to grayish-black (highly dolomitic in part), some dark greenish gray to olive-gray (dolomitic)
1932	1937	5	Siltstone, dark greenish-gray to medium dark gray
1937	1945	8	Shale, dark-gray to grayish-black, highly dolomitic in part
1945	1960	15	Shale, very dusky red to reddish-gray, some grayish-brown dark greenish gray to olive-gray and dark-gray (dolomitic)
1960	1975	15	Shale, medium-dark to dark-gray, highly dolomitic in part
1975	1989	14	Shale, dark-gray to grayish-black, calcareous to very highly calcareous; some medium dark to dark-gray shale, highly dolomitic in part
1989	2000	11	Shale, dolomitic to dolomite (very shaly), dark-gray to grayish-black, some grayish-black (highly calcareous)
2000	2010	10	Shale to siltstone (very shaly), medium dark gray to grayish-black, very highly calcareous
2010	2017	7	Siltstone, medium light to medium dark gray, somewhat dolomitic (contains many medium dark to dark-gray, highly micaceous streaks of silty shale); small amount of black, very highly carbonaceous shale to coal
2017	2020	3	Coal to black highly carbonaceous shale; small amount is highly pyritic; a large amount of medium to medium dark gray siltstone; some dark-gray clay-shale
2020	2023	3	A large amount of coal to black, highly carbonaceous shale, pyritic; clay-shale, medium dark to dark-gray; some light- to medium-gray siltstone
2023	2033	10	Siltstone to sandstone (very fine), light-gray; a large amount of medium dark to dark-gray shale in the upper part; a large amount of coal and black, highly carbonaceous shale in the lower part; some of the shale and coal is highly pyritic
2033	2067	34	Siltstone to sandstone (very fine), very light to light-gray, some medium-gray (with dark-gray to grayish-black shale streaks and some silty shale partings), dolomitic in part
2067	2170	103	Shale, medium dark to dark-gray, small amount of grayish-black to dark yellowish brown (highly sideritic); much of the shale is silty
2170	2207	37	Shale, brownish-black to grayish-black, calcareous with highly calcareous fossiliferous spots
2207	2228	21	Shale, (highly calcareous) to limestone (very shaly), brownish- to grayish-black, highly fossiliferous
2228	2245	17	Siltstone, dark-gray, highly calcareous, very shaly
2245	2259	14	Shale and siltstone, medium dark to dark-gray, some dark-gray to grayish- and brownish-black, calcareous
2259	2265	6	Limestone, brownish-black to grayish-black, very shaly, highly fossiliferous, collitic in part
2265	2272	7	Shale, grayish-black, very highly calcareous, fossiliferous

grayish-black to black, highly fossiliferous

2305	2304	9	Limestone, grayish-black to black, very shaly
2304	2306	2	Siltstone to shale (silty), medium- to dark-gray, highly calcareous
2306	2308	2	Shale, dark greenish gray to dark-gray with some calcified fossil fragments
2308	2316	8	Shale, medium dark gray to dark-gray, some dark greenish gray, very highly calcareous (mostly fossil fragments)
2316	2321	5	Limestone, grayish-black with medium-gray spots, very shaly, very highly fossiliferous
2321	2355	34	Shale, medium dark gray to dark greenish gray, silty in the upper part to a shaly siltstone at the bottom, somewhat calcareous with shaly calcified fossil fragments; some medium dark to dark-gray shale
2355	2380	25	Shale, medium dark to dark-gray, some dark greenish gray to medium dark gray in the middle part; some grayish-black, highly fossiliferous, shaly limestone in the middle part
2355	2382	24	
2380	2393	13	Limestone, medium dark to dark-gray, very shaly, very highly fossiliferous (mostly crinoidal)
2393	2396	3	Limestone, dark-gray to grayish-black, very highly fossiliferous, shaly
2396	2405	9	Shale, medium dark to dark-gray, some calcified fossil fragments
2405	2406	1	Siltstone and shale, medium dark gray to dark greenish gray, very highly calcareous due to fossil fragments; a large amount of dark-gray shale
2405	2408x		
2406	2417	11	Shale, grayish-brown to brownish-gray, a large amount of dark-gray to grayish-black shale
2417	2435	18	Shale (highly calcareous) to limestone (very shaly), olive-gray and dark greenish gray to medium dark gray; some medium dark to dark-gray, highly fossiliferous, shaly limestone; a large amount of dark-gray shale
2435	2441	6	Limestone (very shaly) at top to shale (very highly calcareous) at the bottom, dark greenish gray to medium dark gray; a large amount of dark-gray to grayish-black shale
2441	2445	4	Shale, medium dark to dark-gray; some grayish-black, silty, highly calcareous
2445	2460	15	Depth correction
2460	2476	16	Shale, dark-gray to grayish-black, highly calcareous
2476	2505	29	Shale, dark-gray to grayish-black, highly fossiliferous, very highly calcareous, silty
2505	2540	35	Shale, dark-gray to grayish-black, highly calcareous
2540	2552	12	Shale (very highly calcareous) to limestone (very shaly), medium dark to dark-gray, some grayish-black, very silty, dolomitic
2552	2558	6	Limestone, medium- to dark-gray, oolitic in part, shaly and silty
2558	2565	7	Dolomite (very shaly) to shale (highly dolomitic), dark greenish-gray to medium dark gray, highly calcareous

2579

- 14 Shale, (very highly calcareous) to limestone (very shaly), dark greenish gray and olive-gray to medium dark gray, moderate-brown to grayish-brown; a moderate amount of medium-dark to dark-gray, somewhat shaly, fossiliferous limestone; some dark-gray to olive-black highly calcareous shale at the bottom

Greenbrier Formation, 688 Feet.

- 2579 2583 4 Limestone, medium dark to dark-gray, oolitic
- 2583 2600 17 Limestone, grayish- and brownish-black (with light to medium-gray spots), shaly, somewhat silty, oolitic
- 2600 2614 14 Limestone, brownish-black to black with medium-gray spots; somewhat fossiliferous; somewhat shaly and cherty; a little silt
- 2614 2633 19 Limestone, very shaly at top to, somewhat shaly at the bottom, grayish-black to black with medium-gray spots; somewhat cherty; some silt at the bottom
- 2633 2655 22 Shale, dark greenish gray to dark-gray, highly dolomitic, calcareous; a large amount of grayish-black to black, fossiliferous, highly oolitic, shaly, somewhat cherty limestone, mostly limestone in the lower part
- 2655 2680 25 Limestone, grayish-black to black with medium-gray spots; very shaly to a calcareous shale at the bottom; slightly cherty
- 2680 2697 17 Shale (slightly calcareous) to limestone (very shaly), grayish-black to black, fossiliferous
- 2697 2706 9 Shale (very highly calcareous) to, limestone (very silty), brownish-black to black, somewhat fossiliferous
- 2706 2718 12 Limestone, grayish-black to black, shaly and silty, sandy (very fine) at the bottom, contains medium-gray, (highly oolitic) spots
- 2718 2729 11 Shale, dark-gray (with greenish cast), highly calcareous, somewhat dolomitic; some medium-gray to black, fossiliferous limestone
- 2729 2741 12 Limestone, medium-dark to dark-gray, somewhat shaly, sandy (very fine), fossiliferous, highly oolitic
- 2741 2750 9 Limestone, light- to medium dark gray, silty, somewhat sandy and shaly at the bottom, fossiliferous, oolitic
- 2750 2755 5 Limestone, medium dark to dark-gray with light-gray spots; very shaly; shale, dark greenish gray to medium dark gray, very highly calcareous
- 2755 2768 13 Limestone, dark-gray with light-gray spots, silty, somewhat shaly; some dark greenish gray to medium dark gray, very shaly limestone
- 2768 2773 5 Limestone, dark-gray with light- to medium-gray spots; shaly, fossiliferous; limestone (very shaly) to shale (highly calcareous), dark greenish gray to medium dark gray, some pale-brown to grayish-brown in the lower part, silty
- 2773 2781 8 Limestone, medium dark to dark-gray (with brownish cast), very highly oolitic (less oolitic toward the bottom); a large amount at the top to a moderate amount at the bottom of calcareous, highly dolomitic shale, dark greenish-gray to olive-gray and grayish-brown, silty

2808	2813	27	Limestone, medium dark to dark-gray, elastic texture, oolitic; small amount of dark greenish gray to dark-gray (a little grayish-brown), dolomitic, silty shale
2808	2813	5	Limestone, olive-gray to medium dark gray, some light-to medium-gray; oolitic in part, somewhat silty
2813	2816	3	Limestone, medium dark gray, some light-gray, dolomitic
2816	2833	17	Limestone, olive-black to grayish-black, some dark-gray, very shaly with some calcareous shale, silty
2833	2843	10	Limestone, brownish-black to black, very shaly, silty in the lower part
2843	2849	6	Limestone, brownish-black to black, very shaly, silty in the lower part
2849	2874	25	Limestone, brownish- and grayish-black to black with some medium-gray spots, very silty in the upper part and shaly in the upper part, silty and somewhat shaly in the lower part
2874	2874		
2874	2889	15	Limestone, brownish- to grayish-black, very silty at the top to very shaly at the bottom
2889	2904	15	Limestone, grayish-black, silty and shaly, highly oolitic at the bottom
2904	2916	12	Limestone, medium dark gray to brownish-black, slightly silty at the top to slightly shaly at the bottom
2916	2941	25	Limestone, olive-gray to medium dark gray, some dark-gray at the bottom; some dark greenish gray and a little grayish-brown, highly calcareous to dolomitic, silty shale
2941	2947	6	Limestone, olive-gray to dark-gray; a moderate amount of dark greenish gray and some pale-brown, calcareous and dolomitic, silty shale
2947	2954	7	Limestone, brownish-black, some medium to medium dark gray, slightly silty, slightly cherty; a large amount of dark greenish gray to olive-gray and pale-brown to grayish red, highly calcareous, silty shale at the bottom
2954	2964	10	Shale (highly calcareous) with some limestone, (very shaly grayish-red to very dusky red, some olive-gray; a large amount of dark greenish gray at the bottom; dolomitic
2964	2968	4	Limestone, medium- to dark-gray, oolite
2968	2973	5	Limestone, medium to medium dark gray, grayish-black, silty, somewhat shaly
2973	2978	5	Limestone, medium-dark to dark-gray, some medium-gray, oolitic in part, silty, somewhat shaly; trace of chert
2978	2988	10	Limestone, dark-gray, very shaly in part
2988	2995	7	Limestone, brownish-black to dark-gray and grayish-black, mostly oolite, somewhat shaly
2995	3032	37	Limestone, brownish-gray to medium dark gray to brownish-black, oolite, slightly silty; some brownish-black to black, very shaly limestone in the lower part

3042	3044	12	Shale, grayish-black to black, highly calcareous, silty; a large amount of brownish-black limestone, oolitic in part
3044	3054	10	Limestone, dark-gray to brownish-gray and brownish-black, very fine to subcrystalline; a large amount of grayish-black to black, silty, highly calcareous shale
3054	3063	9 (mostly	Limestone, brownish-gray to dark-gray, oolitic, silty euhedral quartz)
3063	3068	5	No sample
3068	3071	3	Limestone, brownish-gray to medium dark gray
3071	3086	15	Limestone, medium dark to dark-gray, silty, dolomitic, somewhat shaly; a large amount of brownish gray limestone in the middle and lower parts
3086	3092	6	Limestone, brownish-gray to dark-gray; limestone to dolomite, medium dark to dark-gray and dark greenish gray, very shaly, silty
3092	3112	20	Limestone, brownish-black to olive-black, some brownish-gray, somewhat shaly, silty, very silty at the bottom
3112	3131	19	Siltstone, dark-gray to olive-black, some dark greenish gray in the lower part; a large amount of brownish-black to grayish-black oolitic limestone at the bottom
3131	3133	7	Limestone, brownish-gray to brownish-black and olive-black, very shaly silty
3133	3157	19	Limestone, grayish-black at the top to brownish-black at the bottom, very finely crystalline, somewhat shaly; trace of chert
3157	3173	16	Limestone, dark-gray to brownish-black; a very large amount of grayish-black to black, highly calcareous shale at the top and bottom, somewhat silty
3173	3178	5	Limestone, medium dark gray to brownish-black, very silty, some grayish-black to black (shaly)
3173	3183	5	Shale, dark greenish gray to medium dark gray, some light-gray and some dark-gray, highly calcareous, dolomitic; trace of chert (chalcedonic)
3183	3188	5	Limestone, medium dark gray to grayish-black; shaly, cherty (chalcedonic), somewhat fossiliferous
3188	3194	6	Limestone, medium- to dark-gray, very shaly; trace of chert
3194	3200	6	Dolomite, olive-gray to medium dark gray, highly argillaceous (extremely fine to colloidal), highly calcareous
3200	3215	15	Dolomite (very shaly) to shale (highly dolomitic), olive-gray and dark greenish gray to medium dark gray, calcareous; some brownish-black to black, shaly limestone in the upper part; a large amount of brownish-gray to grayish-black and black, somewhat shaly, cherty limestone in the lower part
3215	3230	15	Dolomite (very shaly) to shale (highly dolomitic), medium to medium dark gray, some medium dark gray to dark greenish gray at the top and bottom, some grayish-red at the top, a large amount of dark-gray to olive-black at the bottom; small amount of white anhydrite

	3235	5	Dolomite, dark-gray to black, shaly, trace of white anhydrite
3235	3250	15	Dolomite (very shaly) to shale (dolomitic), dark-gray, some grayish-black
3250	3255	5	Shale, olive-gray to grayish-olive, dolomitic; small amount of dark yellowish brown, sideritic shale; some white anhydrite with greenish-black spots of chlorite
3255	3265	10	Sandstone, light olive gray to greenish-gray, very fine grained in the upper part, rounded; the sand grains are clear and glassy; anhydrite, highly argillaceous, dolomitic, with larger pieces of crystalline anhydrite, a very large amount of clear and glassy anhydrite that is broken into fine to medium grains in the lower part; a large amount of highly dolomitic shale, medium dark to dark-gray, olive-gray to dark greenish gray, some olive-gray to dark yellowish brown and a large amount of grayish-red shale in the lower part
3265	3267	2	Shale (highly dolomitic) and some dolomite, medium dark gray to grayish-black, olive-gray to dark yellowish brown; small amount of anhydrite
<u>MacCrady Facies of Pocono, 20 Feet.</u>			
3267	3270	3	Shale, grayish-red, with a little anhydrite
3270	3279	9	Siltstone and silty shale, dark greenish gray to medium dark gray, a large amount of grayish-red to very dusky red and grayish-brown (glauconitic in part), sandy in part
3279	3287	8	Siltstone, dark greenish gray to medium dark gray; some grayish-red to very dusky red shale; small amount of pyrite
<u>Pocono Formation, 641 Feet.</u>			
3287	3312	25	Shale, dark-gray to grayish-black, silty; some of the shale is highly glauconitic in the middle and lower parts; some medium dark gray, calcareous siltstone to olive-gray limestone from 3300 to 3312
3312	3403	91	Siltstone, medium-dark to dark-gray, calcareous and dolomitic; glauconitic in part, highly glauconitic at the top; a large amount of dark-gray to grayish-black silty shale; mostly shale at 3365 to 3385
3393	3413	10	Siltstone, greenish-gray to medium-gray, pale-brown to grayish-red, slightly dolomitic
3413	3437	24	Siltstone, medium- to medium dark gray, some medium-gray to grayish-brown; some dark-gray to black, silty shale
3437	3447	10	Siltstone, medium to medium dark gray
3447	3472	25	Siltstone, medium to medium dark gray; shale, dark-gray to grayish-black, mostly shale at 3458 to 3468
3472	3488	16	Siltstone, medium-gray, some medium dark gray
3488	3505	17	Shale, dark-gray, some grayish-black; siltstone, medium dark gray, sandy in part at the bottom with a small amount of grayish-red shaly material
3505	3516	11	Shale, dark-gray to grayish-black; a small amount of conglomeratic sandstone, fine to very coarse grained, light-gray to dark-gray with some grayish-red; some medium dark gray siltstone

			Siltstone to sandstone (very fine), light- to medium dark gray, sideritic in part; shale, dark-gray in the upper part, dark-gray to grayish-black in the lower part; mostly shale in the lower part with some highly sideritic siltstone
3532	3596	64	Shale, dark-gray; some medium dark gray siltstone at the top
3596	3855	259	Shale, dark-gray, some dusky yellowish brown (highly sideritic); a moderate amount of medium- to medium dark gray siltstone; a large amount at 3646 to 3664, a very large amount from 3790 to 3855
3855	3870	15	Shale, dark-gray to grayish-black; siltstone, medium dark gray, some dark-gray
3870	3880	10	Shale, grayish-black to black, carbonaceous
3880	3892	12	Shale, black and grayish-black to black, highly carbonaceous
3892	3899	7	Shale, black and grayish-black to black, highly carbonaceous; siltstone, dark-gray to grayish-black, somewhat carbonaceous, pyritic (Sunbury 3800-3899)
3899	3904½	5½	Siltstone, very light to light-gray, coarse, kaolinitic; a very large amount of dark-gray to black shale (probably mostly cavings)
3904½	3913	8½	Siltstone, light gray, coarse, some sand grains (very fine), kaolinitic; a very large amount of dark-gray and some grayish-black to black shale
3913	3918	5	Sandstone, light-gray, conglomeratic, very fine to fine-grained, with many coarse to very coarse grains at the top to medium and coarse at the bottom; a moderate amount of dark-gray shale; some light-gray siltstone
3918	3922	4	Sandstone, very light gray, very fine to fine-grained, some medium to coarse grains at the bottom; a very large amount of dark-gray shale in the upper part; some in the lower part
3922	3928	6	Sandstone, light-gray, very fine grained, some fine grains; a very large amount of dark-gray shale in the lower part (Berca 3902 to 3928 - from drillers' log)
<u>Devonian Shales, 2464 Feet.</u>			
3928	3965	37	Shale, dark-gray, some grayish-black, very silty; some light-to medium dark gray siltstone
3965	4006	41	Shale, dark-gray to grayish-black, silty; a moderate to large amount of medium- to medium dark gray, slightly dolomitic siltstone
4006	4011	5	Shale, dark-gray, some grayish-black; some medium to medium dark gray siltstone
4011	4035	24	Shale (very silty) to siltstone, grayish-black to black, some medium-dark to dark-gray
4035	4110	75	Shale, dark-gray to grayish-black, silty; siltstone, medium to medium dark gray
4110	4173	63	Siltstone, medium- to dark-gray, slightly dolomitic; some shale, dark-gray to grayish-black
4173	4305	132	Shale, dark-gray to grayish-black; a moderate to large amount of medium to medium dark gray siltstone

4974	4977	103	Siltstone, medium dark gray, somewhat dolomitic in part, large amount of dark-gray to grayish-black shale
4974	4977	103	Shale to siltstone, dark-gray to black (carbonaceous); some medium dark gray to brownish-gray siltstone (a large amount from 4926 to 4938)
4977	5108	131	Siltstone, medium- to medium dark gray, small amount is dolomitic; a large amount of dark-gray to grayish-black, silty shale; mostly shale at 5037 to 5051 and in the lower part
5108	5138	30	Shale, dark-gray, some grayish-black to black; a moderate amount of medium dark gray siltstone
5138	5285	147	Shale, dark-gray to grayish-black, some grayish-black to black; some medium dark gray to olive-gray siltstone; a large amount of grayish-black to black shale at 5202-5227 and 5250 to 52552
5/85	5394	109	Shale, grayish-black to black (somewhat carbonaceous), some dark-gray to grayish-black, very silty, pyritic in part; trace of white, vein dolomite
5394	5740	346	Siltstone and shale (silty), olive-gray to medium dark and dark-gray, dolomitic in part; some grayish-black shale in the upper part; some grayish-black to black shale from 5533 to 5602 and 5716 to bottom
5740	5787	47	Siltstone, grayish-black, very shaly, somewhat dolomitic; some dark-gray shale and siltstone, a large amount at 5758 to 5770; some medium- to medium dark gray siltstone at 5764 to 5770
5787	5840	53	Siltstone and shale, medium dark to dark-gray; some grayish-black shale, mostly dark-gray shale at 5822 to 5840
5840	5848	8	Siltstone, medium dark gray, dolomitic in part
5848	5913	65	Shale, dark-gray; a small amount of grayish-black to black; some medium dark gray siltstone
5913	6008	95	Shale, dark-gray; a large amount of grayish black to black (carbonaceous); trace of calcite
6008	6123	115	Shale, grayish-black to black (carbonaceous); a large amount of dark-gray to brownish-black; pyritic in part; a very small amount of dolomite; mostly grayish-black to black at 6081 to bottom
6123	6256	133	Shale, dark-gray to grayish-black interbedded with grayish-black to black (carbonaceous), contains traces of white to light-gray (vein) dolomite
6256	6320	64	Shale, dark-gray; some grayish-black
6320	6356	36	Shale, grayish-black to black (carbonaceous); some black (highly carbonaceous) in the lower part
6356	6374	18	Shale, black, some grayish-black to black, highly carbonaceous; a large amount of dark-gray shale and a trace of brownish-black, metabentonite at the bottom
6374	6392	18	Shale, grayish-black to black, highly carbonaceous, slightly calcareous, moderately pyritic; some white, vein calcite in the upper part
6592			<u>Huntersville Chert, 80 Feet.</u>
6392	6397	5	Limestone, brownish- and grayish-black to black, and some dark-gray with light to medium-gray spots; very shaly; some white to light-gray chert

(shaly), very cherty

- 6400 6426 26 No sample
- 6426 6436 10 Limestone to calcareous shale, medium-gray to grayish-black, cherty (too highly contaminated with steel chips and cavings for good description)
- 6436 6442 6 Limestone, medium dark gray to calcareous shale, grayish-black to black, cherty
- 6442 6444 2 Limestone, medium dark gray to brownish-black in the upper part, grayish-black to black with some dark-gray in the lower part, very shaly to a calcareous shale, very cherty and sandy
- 6444 6449 5 Limestone (shaly) to a highly calcareous shale, dark-gray to grayish-black; a moderate amount (at the top) to a large amount (at the bottom) of light- to medium-gray chert
- 6449 6451 2 Chert, white to light-gray, some medium-gray, chalcedonic, somewhat calcareous; some medium- to dark-gray limestone
- 6451 6452 1 Chert, light- to dark-gray, calcareous to a dark-gray to greenish-black, shaly limestone
- 6452 6458 6 Chert, light- to medium-gray, slightly calcareous to a dark-gray to grayish-black, calcareous, silicified shale
- 6458 6461 3 Sandstone, medium- to dark-gray, some light-gray, very fine grained, calcareous, somewhat dolomitic in the lower part, glauconitic in the lower part (collophane?)
- 6461 6464 3 Sandstone (very fine) to siltstone, medium- to dark-gray, calcareous and phosphatic to a grayish-black, sandy and silty, dolomitic shale
- 6464 6467 3 Sandstone, medium- to medium dark gray, some grayish-black (shaly), very fine grained, silty, somewhat dolomitic, glauconitic, and phosphatic
- 6467 6469 2 Sandstone, medium-gray, very fine grained with fine to medium (rounded) grains, silty, glauconitic, some phosphatic material, somewhat dolomitic

Oriskany Sandstone, 8 Feet.

- 6469 6471 2 Sandstone, light-gray, very fine grained, some fine to medium rounded grains in the upper part, somewhat dolomitic glauconitic and somewhat phosphatic (?) in the upper part
- 6471 6472 1 Sandstone, very light to light-gray, very fine grained, somewhat dolomitic; some black, shaly material
- 6472 6477 5 Sandstone, very light gray, fine- to medium-grained, sub-rounded; a few coarse, rounded grains at the top

Helderberg Formation, 127 Feet.

- 6477 6478 1 Limestone, light- to dark-gray, very cherty, silty
- 6478 6483 5 Chert, medium to medium dark gray, some grayish-black (shaly), calcareous to a sandy (very fine) and silty limestone
- 6483 6490 7 Limestone, medium- to dark-gray (with some grayish-black), shaly) at the top to medium-gray at the bottom, cherty, very cherty in the upper part, very silty and very sandy (very fine; some fine, rounded grains in the lower part), shaly in part

6491	6501	1	Limestone, medium-gray, very cherty, very sandy (very fine to fine grained, some medium grains), contains a little dark shale
6491	6501	10	Sandstone, probably very light gray (highly stained with iron rust), calcareous, very fine to fine grained, subrounded to rounded, very fine to medium-grained at 6491 to 6493
6501	6502	1	Sandstone (highly calcareous) with some limestone (very sandy), light- to medium-gray, very fine to medium-grained (the large grains are rounded)
6502	6511	9	Sandstone, light-gray (with medium gray spots), very fine to medium-grained, subrounded to rounded, mostly fine- to medium-grained with some coarse grains at 6505 to 6509, highly calcareous, very highly calcareous at the top, some medium-gray, silty, glauconitic sandstone and some grayish-black shale at the bottom
6511	6517	6	Sandstone, light-gray, very fine to fine-grained, subrounded to rounded, some fine to medium grains, calcareous, somewhat shaly and cherty at the bottom
6517	6522	5	Limestone (very cherty) to chert (highly calcareous), dark-gray to grayish-black, some medium dark gray at the top, very shaly, sandy in the upper part
6522	6540	18	Limestone (highly argillaceous) to shale (silicified), dark-gray to grayish-black, very cherty, dolomitic, silty
6540	6542	2	Limestone, medium dark to dark-gray (with white to light-gray spots), very cherty (lacy to spongy), argillaceous, some fossil fragments
6542	6550	8	Limestone, medium-gray with dark-gray, argillaceous streak and white to light-gray calcite and calcareous chert (lacy to spongy)
6550	6564	14	Limestone, light- to medium-gray, very sandy (fine, rounded), very cherty (chalcedonic to ordinary)
6564	6570	6	Shale and chert, dark-gray to grayish-black, calcareous to a light- and medium-gray, very cherty (chalcedonic) limestone
6570	6597	27	Shale, dark-gray to grayish-black (with light- to medium-gray, porcellaneous chert), highly calcareous, fossiliferous
6597	6606	9	Limestone, dark-gray to grayish-black, very shaly, very silty and sandy (very fine) and cherty at the top to silty and very cherty at the bottom, somewhat pyritic
<u>Transitional Helderberg to Salina? 24 Feet.</u>			
6606	6608	2	No sample
6608	6616	8	Limestone, grayish-black to black, highly dolomitic, shaly in the upper part, cherty
6616	6620	4	No sample
6620	6627	7	Limestone, grayish-black to black (slightly dolomitic), some dark-gray (highly dolomitic), somewhat argillaceous
6627	6630	3	Limestone, dark-gray to grayish-black, highly dolomitic, (dolomized oolite), slightly argillaceous and slightly sandy

6633	6438	5	Dolomite, grayish-black, some of light-gray to grayish-black, highly calcareous; much of this sample is a dolomitized oolite, somewhat sandy (some of the sand is anhydrite), slightly argillaceous
6635	6443	8	Dolomite (highly calcareous) to limestone (highly dolomitic), grayish-black and dark-gray to grayish-black, shaly, some anhydrite sand (fine to coarse)
6443	6649	6	Shale, grayish-black to black, highly calcareous to a calcareous, dark-gray to grayish-black dolomite, some practically dolomitized oolite(?), pyritic in part
6649	6659	10	Dolomite, dark-gray to grayish-black and brownish-black, calcareous, with some dolomitic limestone, somewhat shaly; small amount of anhydrite
6659	6669	10	Limestone (highly dolomitic) to dolomite (highly calcareous); grayish-black, slightly shaly; small amount of anhydrite
6669	6671	2	Dolomite, medium dark to dark-gray, some grayish-black (shaly in part), highly calcareous; small amount of anhydrite
6671	6676	5	Limestone, brownish-black to black, partially dolomitized oolite (dolomized part is medium- to dark-gray), somewhat argillaceous, silty to sandy (very fine, anhydrite in part)
6676	6679	3	Dolomite, medium dark gray to brownish-black, sandy to a highly dolomitic, medium-gray, very fine to fine-grained sandstone, highly calcareous
6679	6685	6	Sandstone, light-gray (with some dark-gray, shaly streaks very fine grained, some fine grains, dolomitic
6685	6688	3	Sandstone, light-gray, very fine grained, some very fine to fine grains at the bottom
6688	6721	33	Dolomite-anhydrite rock, grayish-black to black with some medium- to dark gray, contains a large amount of white anhydrite, very shaly in part, contains much dark colloidal material (insoluble residue), subcrystalline to very fine
6721	6763	42	As above but less shaly and brownish-black to black with some medium-gray to brownish-gray; a large amount of white anhydrite in the upper part, very fine crystalline
6763	6791	28	Dolomite, brownish-gray to brownish-black, mostly brownish-gray to dark-gray at 6780 to 6782, very finely crystalline; a moderate amount of anhydrite
6791	6795	4	Dolomite-anhydrite rock, mottled light- to medium-gray and dark-gray to grayish-black
6795	6799	4	As above but mostly grayish-black to black
6799	6805	6	Dolomite, medium dark to dark-gray with medium-gray spots (dolomized oolite in part), slightly shaly, a moderate amount of anhydrite
6805	6822	17	Dolomite, brownish-gray to dark-gray and brownish-black, very fine to finely crystalline, very shaly in part, some anhydrite
6822	6837	15	Dolomite, brownish-gray to grayish-black, finely crystalline in the upper part, very finely crystalline in the lower part; all of the samples contain some anhydrite; a large amount of white to light-gray, anhydritic dolomite in the lower part

... Sandstone (very fine to medium-fine), highly dolomitic, grayish-black, some medium-to dark-gray

7029	7036	7	Sandstone (very fine) to siltstone, light- to medium-gray, calcareous and dolomitic; some dark-gray, highly calcareous shale and siltstone
7036	7055	19	Shale and siltstone (highly dolomitic) at top to siltstone and sandstone (very fine, highly calcareous, very shaly, dolomitic) in the middle and lower parts, grayish-black, some medium- to dark-gray
7055	7059	4	Siltstone to sandstone (very fine, some fine grains), dark-gray to grayish-black, very shaly, calcareous and dolomitic; highly calcareous at the top
7059	7064	5	Sandstone, medium- to dark-gray, very fine to medium-grained, rounded to well rounded, highly pyritic, calcareous, dolomitic at the top
7064	7072	8	Sandstone, light- to medium-gray, very fine to fine-grained, rounded to well rounded, some medium to coarse grains at 7068 to 7070, silty, a large amount of grayish-black to black shale at the bottom
7072	7079	7	Limestone, (very sandy) to sandstone (very highly calcareous, very fine), dark-gray to grayish-black; a very large amount of grayish-black to black shale at the top
7079	7086	7	Sandstone, light- to medium-gray (with dark-gray, shaly streaks), very fine grained to coarse silt, some fine to coarse grains, slightly dolomitic
7086	7090	4	Siltstone (coarse) to sandstone (very fine), mostly medium-gray, somewhat dolomitic; a large amount of medium dark gray to dark-gray shale at the bottom
7090			<u>Clinton Formation, 186, plus, Feet.</u>
7090	7106	16	Shale, medium dark gray; some siltstone, medium-gray to dark greenish gray, sandy in part
7106	7132	26	Siltstone, medium-gray to dark greenish gray, kaolinitic shale, medium to medium dark gray
7132	7133	6	Shale, brownish-gray to dusky-brown, silty; shale and siltstone, medium- to medium dark gray and dark greenish gray
7133	7162	24	Shale, and siltstone, medium dark gray to dark greenish gray; shale, brownish-gray, some brownish-gray to dusky-brown
7162	7179	17	Shale and some siltstone, medium dark gray to brownish-gray and dark greenish gray
7179	7202	23	Shale, brownish-gray to dusky-brown, some brownish-gray to medium dark gray; shale and siltstone, dark greenish gray to medium dark gray
7202	7213	11	Some sandstone, dusky-brown to very dusky red, very shaly siltstone and shale, greenish-gray to dark greenish gray, brownish-gray to medium dark gray, slightly dolomitic in the lower part
7213	7248	35	Siltstone and shale, greenish-gray to dark greenish gray and medium dark gray, some medium dark gray to brownish-gray
7248	7253	5	Siltstone and some shale, greenish-gray to medium dark gray to dusky-brown; some dusky-brown to very dusky red, very shaly sandstone

7263	7264	11	Sandstone (very fine) to siltstone (sandy), very dusky red to dusky-brown, very shaly, highly ferruginous; a large amount of greenish-gray to medium dark gray and dark dusky greenish gray shale and siltstone in the upper part
7264	7269	6	Siltstone and shale, greenish-gray to dark greenish gray, some medium dark gray
7269	7275	6	Sandstone, grayish-red to very dusky red, very fine to fine grained, fine to coarse at the top, ferruginous, very shaly; a large amount of greenish-gray to dark greenish gray in the upper part
7275	7276	1	Sandstone, pale-red to grayish red, fine- to coarse-grained, contains ferruginous interstitial material; some greenish-gray siltstone
7276			TOTAL DEPTH