

Camden Co

Sample interval depths in feet below land surface	St. Marys Lower Floridan test 33D073. Lithology, dominant clastic grain size or Folk (1974) carbonate classification, grain type or allochem, GSA color chart (1985), porosity estimated.	Drill penetration rate in feet per minute	Specific conductivity of reverse-air discharge in uS/cm @ 25oC (chloride/ sulfate mg/L)	Formation temperature of reverse-air discharge in degrees Celsius	Remarks	Hydrogeology	Porous/ permeable zones by cuttings
0-10	Landfill sand to depth of 3 ft, very fine- to fine-grained, subangular, 5-10 % organic, sampled from wall of mudpit; sand (wetland), very fine- to fine-grained, clayey, organic, dark gray (N3) to light olive gray (5Y6/1), intergranular porosity.	0.59			21-inch bit/16-inch (O.D.) casing mud rotary		
10-20	Sand, very fine- to fine-grained and silty clay, modern cypress roots, dark greenish gray (5G4/1).	0.59					
20-30	Sand, as above.	1.11					
30-40	Clay from 31-33 ft, silty, greenish gray (5G6/1) sampled from bit; sand, fine- to coarse-grained, clayey, abundant shell material, phosphate, greenish gray (5GY6/1) to light olive gray (5Y6/1).	0.05;0.6					
40-50	Sand, as above.	1.11					
50-60	Sand, as above.	2					
60-65	Sand, as above; limestone from 63-64 ft, micite, sandy (fine to coarse-grained), pelecypods, phosphate <5%, light gray (N7).	0.42					
65-70	Limestone, as above.	1					
70-80	Limestone, as above, to depth of 74 ft; sand, fine- to coarse-grained, silty, calcareous, light olive gray (5Y6/1).	0.11					
80-90	Dolomite and limestone, sandy and silty, pelecypods, phosphatic, light gray (N7) to greenish gray (5GY6/1).	1			15.25-inch bit/12-inch (I.D.) casing		
90-100	Limestone, as above, to depth of 93 ft; clay, silty, sandy (fine-grained), phosphatic, greenish gray (5GY5/1).	1					
100-110	Clay, as above.	0.4					

110-120	Clay, as above.	0.67
120-127	Clay, as above; hard, white clay nodules?	0.7
130-140	Clay, as above with hard gray clay?	0.7
140-150	Sand, medium- to coarse-grained, and clay, pelecypods, phosphatic, greenish gray (5GY5/1).	0.7
150-160	Clay, sandy (fine- to coarse-grained), pelecypods, phosphatic, greenish gray (5GY5/1).	0.7
160-170	Clay, as above.	0.5
170-180	Clay, as above.	0.33
180-190	Clay, as above.	0.32
190-200	Sand, clayey, fine- to coarse-grained, phosphatic, pelecypods, pale olive (10Y6/2).	0.67
200-210	Sand, as above, with clay, pale olive (10Y6/2).	0.4
210-220	Sand, silty, clayey, pelecypods, sharks teeth observed, phosphatic, greenish gray (5GY6/1).	0.4
220-230	Clayey sand to sandy clay, fine- to medium-grained, subrounded, pelecypods, phosphatic, greenish gray (5GY5/1).	1
230-240	Clay, sandy (fine- to coarse-grained), pelecypods, phosphatic, greenish gray (5GY5/1).	0.33
245-250	Clay, sandy (fine- to coarse-grained), and calcareous sandstone, pale olive (10Y6/2) to grayish olive (10Y4/2).	0.2
255-260	Clay, minor sand and phosphate, greenish gray (5GY6/1) to grayish olive green (5GY4/2).	0.2
265-270	Clay, as above, dusky yellow green (5GY5/2).	0.2
275-280	Clay, as above.	0.2
285-290	Clay, as above.	0.23
295-300	Clay, as above.	0.4
305-310	Clay, as above.	1.43
310-318	Clay, slightly silty, noncalcareous, dark greenish gray (5GY4/1).	0.44
318-324	Dolomite, sandy, phosphatic, pelecypods, yellow gray (5Y8/1).	0.35

Top of Upper
Brunswick/A-point

324-334	Clay, silty, dark greenish gray 5GY4/1).	0.72
334-344	Clay, as above.	0.67
344-354	Clay, as above.	0.73
354-364	Clay, sandy (fine- to medium-grained), phosphatic, dark greenish gray (5GY4/1); limestone nodules or thin beds at 360 and 361.5 ft.	0.26
364-374	Clay, as above, sand content increasing downward to sand at 372 ft, very fine- to medium-grained; no limestone.	0.4
374-384	Clay silty, dense, dark greenish gray (5GY4/1).	0.38
384-394	Clay, as above.	0.3
394-404	Clay, as above.	0.25
404-414	Clay, as above.	0.3
414-424	Clay, as above; sand starting at 418 ft, very fine- to fine-grained, clayey, phosphate 2-3%, light olive gray (5Y6/1) to dark greenish gray (5GY6/1).	0.39
424-432	Sand, as above.	0.31
432-438	Limestone and dolomite, nodules or thin beds from 432-434 ft; sand, clayey, very fine- to medium-grained, light olive gray (5Y6/1), subrounded; silty clay, dark greenish gray (5GY4/1).	0.42
438-448	Sand, very fine- to coarse-grained, clayey, subrounded to rounded, phosphate up to 20 %, dark greenish gray (5GY4/1); thin interbeds of dolomite and limestone, sandy, fossiliferous, yellow gray (5Y5/2).	0.4
448-458	Sand, as above from 448-454 ft; limestone, sandy (very fine- to medium grained quartz), phosphate 20 %, pelecypods <5%.	0.25
458-463	Limestone, as above, phosphate 20-30%.	0.45
463-468	Limestone, as above, plus bryozoans.	1.25
468-473	Clay, calcareous, minor sandy, very fine-grained, minor phosphate, light olive gray (5Y5/2).	1.25
473-483	Clay, minor sandy, very fine-grained, minor phosphate, light olive gray (5Y5/2).	0.26

Top of Lower
Brunswick/B-point

483-493	Clay, as above.	0.45				
493-503	Clay, as above.	0.8				
503-513	Clay, as above.	0.5				
513-523	Limestone, biosparite/biomicrite with bryozoans, echinoids, pelecypods, oysters, subrounded granules of phosphate, light gray (N7) to light olive gray (5Y6/1), intra/interparticle porosity <5%.	0.4				Low Top of Upper Floridan/C-point/Oligocene
523-533	Limestone, as above.	0.67				Low
533-543	Limestone, as above, yellow gray (5Y8/1), phosphate <1%.	0.18	410	24		Low Top of D-point/Eocene
543-553	Limestone, as above.	0.24				Low
553-563	Limestone, as above.	0.17				Low
565-575	Limestone, as above.	1.25			11-inch bit /8-inch (I.D.) casing	Low
575-585	Limestone, as above.	0.63				Low
585-594	Limestone, biosparite/biomicrite with bryozoans, echinoids, foraminifera, oysters, yellow gray (5Y7/2), intra/interparticle porosity 5-10%.	0.71				Low
594-603	Limestone, biosparite/biomicrite with bryozoans, echinoids, plicated pelecypods, foraminifera, yellow gray (5Y8/1), intra/interparticle pores 5-10%, biomoldic pores <5%.	0.47	706	26	air rotary begins	Low
603-613	Limestone, as above, no biomoldic pores; clay, yellow green at depth 604 ft.	0.42				Low
613-623	Limestone, biopelsparite, as above, yellow gray (5Y7/2) with intra/interparticle pores 10-20%, biopelmicrite with pores <5%.	0.29	727 (624/175.2)	24.5		Moderate
627-637	Limestone, as above, intra/interparticle pores 10-15%.	0.35				Moderate
637-647	Limestone, as above, intra/interparticle pores <10%.	0.32				Moderate

647-654	Limestone, biopelsparite/biopelmicrite, bryozoans, echinoids, foraminifera, pelecypods, yellow gray (5Y8/1), intra/interparticle pores 5-15%.	0.27	727	24.5		Moderate
654-663	Limestone, as above.	0.5				Moderate
663-673	Limestone, as above, biopelsparite with intra/interparticle pores 5-15%, biopelmicrite, very light gray (N8), vuggy pore <5%.	0.4				Moderate
673-683	Limestone, as above.	0.29				Moderate
683-693	Limestone, as above.	0.34	717	24.5	Water level below land surface = 13.56 ft 10-20-99, 7:18 A.M.	Moderate
695-705	Limestone, biopelmicrite, pelecypods, foraminifera, yellow gray (5Y8/1) and very light gray (N8), interparticle pores <5%..	0.29				Moderate
705-715	Limestone, as above.	0.29				Moderate
715-725	Limestone, biopelsparite with abundant foraminifera, pelecypods, echinoids, yellow gray (5Y8/1), interparticle pore 5-15%, and biopelmicrite, yellow gray (5Y8/1), interparticle pores <5%.	0.33	717	24.5		Moderate
725-735	Limestone, biopelmicrite, pores <5%, glauconite <1%; biopelsparite, fine-grained with foraminifera, pelecypods, minor echinoids, yellow gray (5Y8/1), interparticle pores 10-15%.	0.33				Moderate
735-745	Limestone, primarily biopelmicrite, as above.	0.33				Moderate
745-757	Limestone, premarily biopelmicrite, as above, interparticle pores <5%.	0.29	717 (34/172.8)	24.5		Low
757-767	Limestone, primarily biopelmicrite, as above; biopelsparite, fine-grained, foraminifera, pelecypods, minor echinoids, yellow gray (5Y8/1), interparticle pores 5-10%, .	0.24				Moderate
767-777	Limestone, biopelmicrite/biopelsparite as above.	0.29				Moderate

777-784	Limestone, as above, pyrite <1%.	0.5	710	25		Moderate
784-794	Limestone, biopelmicrite, foraminifera, bryozoan, pellets, pyrite <1%, yellow gray (5Y8/1), pores <5%.	0.26				Low
794-804	Limestone, as above, biopelsparite, interparticle pore 5-15%, biopelmicrite, pore <5%.	0.21				Low
804-812	Limestone, pelsparite/pelmicrite, foraminifera less common than above, yellow gray (5Y8/1), interparticle pore 5-10%.	0.16	710	25	Water level below land surface = 13.16 ft 10-21-99 7:30 A.M.	Low
812-818	Limestone, pelmicrite with foraminifera, yellow gray (5Y8/1), biomoldic pore <5%, B125 with dolomite from 814-815 ft, moderate yellow brown (10YR5/4), intercrystalline pores 10-20%, vuggy/biomoldic pores 5%.	0.13				High
818-829	Dolomite, as above, vuggy pores 5-10%; and limestone, pelmicrite, very pale orange (10YR8/2), pores <2%.	0.13				High
829-839	Dolomite and limestone, as above.	0.2				High
839-849	Dolomite, as above.	0.09	710	25		High
849-859	Dolomite and limestone, as above. Dolomite, as above.	0.24 0.08			Water level below land surface = 12.86 ft. 10-22-99 7:20 A.M.	High High
869-879	Limestone, biopelmicrite/biopelsparite, with pellets and foraminifera (flattened disks), yellow gray (5Y8/1), pores <2%.	0.42	710 (35.0/174.8)	25	Spechler, 1994 would pick the top of the middle semi confining unit at 869 ft.	Low
879-889	Limestone, as above.	0.25				Low
889-899	Limestone, biopelsparite with pellets and pelecypods, yellow gray (5Y8/1), porosity <5%.	0.18				Low

899-909	Limestone, biopelsparite with pellets, bryozoans, echinoids, pelecypods, foraminifera, white (N9) to yellow gray (5Y8/1), interparticle pores 5-10%.	0.2	670 (34.8/173.2)	28		Low
909-919	Limestone, biopelsparite, as above; pelbiomicrite, very light gray (N8), pores <2%.	0.29				Low
919-929	Dolomitic limestone and calcareous dolomite, biopelmicrite with pellets, echinoids, bryozoans, yellow gray (5Y8/1), intercrystalline porosity 5-10%.	0.19				Low
929-939	Limestone, biopelmicrite, foraminifera, bryozoan, pellets, spicules, yellow gray (5Y8/1), pores <2%.	0.19	686	26	Water level below land surface = 15.04 ft. 10-25-99 7:18 A.M.	Low
939-949	Limestone, dolomitic, micrite; and dolomite, gray orange (10YR7/4), intercrystalline pores <5%.	0.33				Low
949-959	Limestone, biopelsparite, foraminifera, echinoids, bryozoans, yellow gray (5Y8/1), interparticle pores 5-10%.	0.33	684	26		Low
959-969	Limestone, as above.	0.36	683	26		Low
969-979	Limestone, as above, abundant echinoid spines, yellow gray (5Y8/1), interparticle pores 5-15%.	0.4				Low /moderate
979-989	Limestone, as above.	0.26	684	26		Low /moderate
989-999	Limestone, as above, plus biopelmicrite.	0.22				Low
999-1,009	Limestone, as above; plus calcareous dolomite, moderate yellow brown (10YR5/4), intercrystalline pores 10-15%.	0.36				High
1,009-1,019	Limestone, as above to a depth of 1,018 ft; then dolomite, moderate yellow brown (10YR5/4), intercrystalline pores 15-25%, vuggy/biomoldic pores 5-10%.	0.17	686 (32.4/164.8)	26		High

1,019-1,029	Dolomite, as above to a depth of 1,026 ft, intercrystalline pores 15-30%; then limestone, dolomitic matrix 10-15%, biopelmicrite, yellow gray (5Y8/1), pores <2%.	0.1	686	26	Water level below land surface = 14.92 ft. 10-26-99 7:05 A.M.	High
1,029-1,039	Limestone, biopelsparite/micrite, and calcareous dolomite, pores <5%.	0.28				Low
1,039-1,048	Limestone, as above, no dolomite.	0.31	660 (33.8/168.8)	28		Low
1,049-1,061	Limestone, micrite, minor fossils, mainly foraminifera, yellow gray (5Y8/1), pores <2%.	0.17	686	28		Low
1,061-1,069	Dolomite, yellow gray (5Y7/2), intercrystalline pores 20%, vuggy pores 5%.	0.27				High
1,069-1,079	Dolomite, no observed porosity.	0.23	670 (31.4/162.2)	28		Low
1,079-1,089	Limestone, micrite, sparsely fossiliferous, gastropods and foraminifera, pellets, yellow gray (5Y8/1), pores <2%.	0.24				Low
1,089-1,099	Limestone, biopelsparite, calcareous algal grains (?) and foraminifera, yellow gray (5Y8/1), interparticle porosity <5%.	0.21				Low
1,099-1,109	Limestone, micrite, sparsely fossiliferous, foraminifera, yellow gray (5Y8/1); dolomite from 1,103-1,105 ft, intercrystalline pores 10-20%.	0.2	735 (31.0/165.4)	26		Low/high
1,109-1,119	Limestone, micrite, very sparsely fossiliferous, echinoid spines, yellow gray (5Y8/1), vugs <2%.	0.22	696	26	Falls would pick to of middle semi-confining unit at 1,115 ft.	Low
1,119-1,129	Limestone, oobiosparite with echinoid fragments and spines, foraminifera, pellets and ooids, very pale orange (10YR8/2), interparticle pores 5-10%.	0.21				Low
1,129-1,139	Limestone, as above.	0.19	696	26		Low

1,139-1,149	Limestone, as above.	0.22	686 (35.8/165.4)	27.5	Water level below land surface = 13.52 ft. 10-27-99 7:15 A.M.	Clarke and others, 1990, has bottom of lower permeable zone, the top of the middle semi-confining unit, at roughly 1,150 ft.	Low	
1,149-1,159	Limestone, as above, interparticle pores 10-15%.	0.26					Low/mod	
1,159-1,169	Limestone, as above.	0.23					Low/mod	
1,169-1,179	Limestone, biopelsparite/micrite, echinoids, foraminiferas, calcareous algal grains (?), pellets, yellow gray (5Y8/1), interparticle pores <10%.	0.13	670	28			Low	
1,179-1,189	Limestone as above from 1,179-1,185 ft; then dolomite, calcareous (5-15%), minor calcite fossils including echinoids, olive black (5Y8/1) to moderate yellow brown (10YR5/4), intercrystalline pores 15-25%.	0.1				Falls picks 1,185 ft as top of Lower Floridan aquifer	Low/high	
1,189-1,199	Dolomite, slightly calcareous, moderate yellow brown (10YR5/4), intercrystalline pores 10-20%.	0.05	689	26.5	Water level below land surface = 13.10 ft. 10-28-99 7:05 A.M.		High	
1,199-1,209	Dolomite, slightly calcareous, dark yellow brown (10YR4/2), intercrystalline pores 15-25%, vuggy pores 2-5%, to a depth of 1,204; then limestone, biopelsparite/micrite, foraminifera, calcareous algal grains (?), pellets, echinoids, yellow gray (5Y8/1), intragranular pores 5-10%.	0.13	708	28			High	
1,209-1,219	Limestone, as above.	0.4					Low	
1,219-1,229	Limestone as above, echinoids, gastropods, bryozoans, foraminifera.	0.26	708 (40.2/163.2)	28			Low	
1,229-1,239	Limestone, biomicrite, sparse to common fossils, echinoids, foraminifera, yellow gray (5Y8/1) to very light gray (N8), pores <2%.	0.23	708	28			Low	High

1,239-1,249	Limestone, biomicrite to biopelmicrite, fossiliferous, foraminifera, echinoids, calcareous algal grains (?), yellow gray (5Y8/1), pores <2%.	0.26				Low
1,249-1,259	Limestone, as above.	0.42	708	28		Low
1,259-1,269	Limestone, biopelsparite, foraminifera, echinoids, yellow gray (5Y8/1), interparticle pores 5%.	0.3			Miller (1986) maps top of Lower Floridan aquifer at roughly 1,250 ft below sea level.	Low
1,269-1,279	Dolomite, moderate yellow brown (10YR5/4), intercrystalline pores 15-25%.	0.1	673 (33.8/162.8)	27	Water level below land surface = 12.28 ft. 10-29-99 7:20 A.M.	High
1,279-1,289	Dolomite, as above.	0.07	708	28		High
1,289-1,299	Dolomite, as above.	0.1				High
1,299-1,309	Dolomite, as above.	0.13	708 (34.4/160.2)	28	Water level below land surface = 10.7 ft 11-1-99 11:30 A.M.	High
1,309-1,319	Dolomite, as above, plus vuggy pores 5%.	0.11	724 (35.4/158.8)	27.5		High
1,319-1,326	Dolomite, as above, plus vuggy pores 5-10%.	0.13				High
1,326-1,334	Dolomite, as above, with bryozoans, intercrystalline pores 15-25%, biomoldic pores 5%.	0.23	750 (34.2/162.4)	27	Water level below land surface = 9.18 ft. 11-2-99 7:04 A.M.	High

1,334-1,344	Limestone, biosparite/micrite, foraminifera, pelecypods, echinoids, yellow gray (5Y8/1) to very light gray (N8), interparticle pores <5%.	0.24				Low
1,344-1,354	Limestone, biomicrite/sparite with foraminifera, echinoids, yellow gray (5Y8/1) to very light gray (N8), interparticle pores <5%; dolomite, calcareous, moderate yellow brown (10YR5/4), intercrystalline pores <10%.	0.16	712 (35.0/164.0)	27		Low /moderate
1,354-1,365	Limestone, foraminifera, pelecypods, echinoids, bryozoans, pellets, yellow gray (5Y6/1), interparticle pores 5-15%.	0.26	705 (33.4/164.0)	28.5	Water level below land surface = 10.04 ft. 11-3-99 7:04 A.M.; = 9.86 ft 11-5-99 7:15 A.M.	Moderate
1,365-1,375	Limestone, as above.	0.26			7-inch bit/open hole 1,365 - 1,500 ft	Moderate
1,375-1,385	Limestone, as above.	0.37	759 (32.2/183.4)	26		Moderate
1,385-1,395	Limestone, as above; dolomite at 1,388 ft, moderate yellow brown (10YR5/4), intercrystalline pores 10-20%.	0.19				Moderate /high
1,395-1,405	Dolomite, calcareous, with echinoids and bryozoans, dark yellow brown (10YR4/2), intercrystalline pores 10-20%.	0.2	776 (32.4/183.0)	26.5		High
1,405-1,415	Limestone, biosparite/micrite, foraminifera, pyrite 1%, glauconite 1%, light olive gray (5Y6/1), pores <2%.	0.17			Water level below land surface = 0.56 ft 12-3-99 7:10 A.M.	Low

1,415-1,425	Limestone, biomicrite, gastropods, bryozoans, foraminifera, echinoid, light olive gray (5Y8/1), biomoldic pores 2%.	0.17				Low
1,425-1,435	Limestone, biomicrite, bryozoans, foraminifera, very light gray (N8), pores <2%; dolomite from 1,429-1,431 ft, medium gray (N5) to olive gray (5Y4/1), intercrystalline pores 10-20%, biomoldic pores <5%.	0.26	769 (33.2/194.4)	27		Low/High
1,435-1,445	Limestone, biosparite, bryozoans, foraminifera, pyrite 1-3%, yellow gray (5Y8/1), interparticle pores 10-15%.	0.31				Moderate
1,445-1,455	Limestone, biomicrite, bryozoans, foraminifera, dolimitic 5%, pyrite 1-3%, yellow gray (5Y8/1) to very light gray (N8), pores <5%.	0.22				Low
1,455-1,465	Limestone as above, pyrite 2-5%, plus echinoids.	0.25	745 (31.2/216.2)	29		Low
1,465-1,475	Limestone, as above, glauconite 1%, pores <5%	0.29				Low
1,475-1,485	Limestone, as above, biomicrite/sparite.	0.33				Low
1,485-1,500	Limestone, biosparite, foraminifera, bryozoans, echinoids, interparticle pores 5-15%.	0.32	850 (30.6/253.8) (28.8/249.6)	28.5	Water level above land surface = 0.74 ft 12-6-99 6:45 A.M.; 1.56 ft 12-7-99 7:00 A.M.	Moderate
					Total depth = 1,500.36 ft. below land surface	