

OWNER: YMCA, Camp Weyanoke Branch
DRILLER: Sydnor Hydrodynamics, Inc.
COUNTY: Charles City (Roland Mills)

VDMR: 2223
WWCR: 109
TOTAL DEPTH: 215'

GEOLOGIC LOG

Depth in
feet

COLUMBIA GROUP (0-50')

0-10 Sand - brown (iron-stained), clean; coarse- to very coarse-grained, fairly well-sorted, subangular to subrounded; slightly feldspathic; blue quartz and rock fragments common, but not abundant; accessory magnetite, and traces of garnet and kyanite

10-20 "

20-30 "

30-40 "

40-50 "

NANJEMOY FORMATION (50-70')

50-60 Clay - light-gray, tan, and yellow-brown, sandy, abundant plant material; sand fraction is fine- to medium-grained, fairly well-sorted, angular; primarily clear and yellowish quartz; minor amounts of feldspar, decomposed glauconite, magnetite, epidote, and kyanite

60-70 Gravel - brown (iron-stained), clean; fine (5-15 mm), well-sorted, rounded; quartz and quartzite

MATTAPONI FORMATION (70-130')

70-80 Sand - binder of gray clay, small amount of decomposed pelecypod shell material; fine-grained, well-sorted; 60 percent clear and greenish, angular quartz, 40 percent dark-green glauconite; moderately micaceous; foraminifers (mostly Robulus) and ostracods common, but not abundant

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- 80-90 Sand - abundant matrix of dark-gray clay, a few shell and plant fragments; 40 percent clear and greenish, very well-sorted, angular quartz; 60 percent fine- to coarse-grained, fairly well-sorted, dark-green glauconite; slightly micaceous; trace of bone phosphorite; a few foraminifers (Robulus and Nodasaria)
- 90-100 Sand and Shell- abundant matrix of gray clay; 35 percent decomposed pelecypod shells and shell fragments; 65 percent fine- to medium-grained, well-sorted sand; sand consists of 40 percent clear and greenish, angular quartz, and 60 percent dark-green glauconite; slightly micaceous; a few foraminifers and ostracods
- 100-110 Sand and Shell - binder of dark-gray clay; 20 percent decomposed pelecypod shells and shell fragments; 80 percent fine- to medium-grained, fairly well-sorted sand; sand consists of 90 percent dark-green glauconite, and 10 percent angular quartz; a few foraminifers and bone fragments
- 110-120 Sand and Shell - abundant matrix of medium-gray clay; 25 percent decomposed pelecypod shell fragments; 75 percent fine- to medium-grained, well-sorted sand; sand consists of 60 percent clear and greenish, angular to subangular quartz, and 40 percent dark to medium green glauconite; slightly micaceous; small foraminifers moderately abundant
- 120-130 Sand - abundant matrix of greenish-gray and brownish-gray clays, a few shell fragments; fine-grained, well-sorted; 65-70 percent angular, clear quartz, and 30-35 percent dark-green glauconite; muscovite common; small foraminifers common, but not abundant

PATUXENT FORMATION (130-215')

- 130-140 Clay - variegated, with brown aspect, sandy, a few shell fragments; sand is fine- to medium-grained, fairly well-sorted; 75 percent clear and yellowish, angular quartz, 25 percent slightly decomposed glauconite; moderately micaceous
- 140-150 " with 15-20 percent glauconite
- 150-160 Sand - brownish-gray, clayey; fine- to medium-grained, fairly well-sorted, angular to subangular; clear quartz; with minor feldspar and muscovite, and 5 percent dark-green glauconite; trace of garnet

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- 160-170 Sand - tan, slightly to moderately clayey, medium- to coarse-grained, fairly well-sorted (skewed coarse), subangular to subrounded; slightly to moderately feldspathic, clear quartz sand; traces of muscovite, glauconite, and garnet
- 170-180 Sand - gray, slightly clayey, 15-20 percent subrounded, quartzo-feldspathic granule gravel; medium- to very coarse-grained, rather poorly sorted, angular to subrounded; feldspathic; traces of garnet and tourmaline
- 180-190 "
- 190-200 " very coarse-grained, with 25 percent granule gravel and a few small pebbles up to 10 mm
- 200-210 Sand - light-brown, very slightly clayey, 2-3 percent granule gravel; coarse- to very coarse-grained, well-sorted, subangular to subrounded; feldspathic; accessory garnet, tourmaline, and glauconite
- 210-215 No sample

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-50'	Columbia Group	post-Miocene
50-70'	Nanjemoy Formation	Eocene
70-130'	Mattaponi Formation	Paleocene - Late Cretaceous
130-215'	Patuxent Formation	Early Cretaceous

Virginia Division of Mineral Resources
Robert H. Teifke, Geologist
September 10, 1968

Robert H. Teifke
March 7, 1972