

OWNER: Prince George County School Board
(D. A. Harrison Elem. School)
DRILLER: Mitchell's Well & Pump Company
COUNTY: Prince George (Disputanta)

VDMR: 1873
WWCR: 163
TOTAL DEPTH: 168'

GEOLOGIC LOG

Depth in
feet

COLUMBIA GROUP (0-20')

- 0-10 Sand - abundant matrix of pale-yellow clay; very fine- to very coarse-grained, poorly sorted, angular to subangular; clear quartz, with trace of weathered feldspar
- 10-20 Sand - abundant matrix of yellow-orange clay, 5 percent granule gravel; very fine- to coarse-grained, rather poorly sorted (skewed fine), angular to subangular; feldspar common in coarse fraction; some ferricrete

YORKTOWN FORMATION (20-90')

- 20-30 Sand - abundant clay matrix, medium-gray, mottled yellowish-gray to yellowish brown (limonitic); fine- to medium-grained, moderately sorted; quartz, with 5 percent green glauconite, and minor feldspar; traces of muscovite and shell
- 30-40 Sandstone (ferricrete) - orange-brown and red-brown to brown; medium-grained, moderately sorted, variably rounded; clear to iron-oxide stained quartz, with 10 percent dark to yellowish-green glauconite; minor hematite; cement is locally manganic
- 40-50 Sand and Sandstone - bioclasts, moderately abundant matrix of light-brown clay, a few coarse shell fragments; 40 percent medium-grained, well-sorted, clear, angular quartz; 60 percent abraded, blue-gray shell fragments, including an abundance of echinoid spines and plates; bioclasts are 1/4 to 4 mm in size; locally a calcitic sandstone; foraminifers and ostracods common; a few Turritella
- 50-60 Sand and Shell - moderately abundant tan clay; 60 percent medium-grained, well-sorted, clear, subangular quartz sand; 40 percent pelecypod shells and coarse shell fragments; Turritella present; a few foraminifers and ostracods; some carbonate cementation of sand in association with coarse shell fragments; trace of glauconite

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- 60-70 Sand - brown clay binder; medium- to very fine-grained, well-sorted, angular to subangular; a few shell fragments, echinoid spines, and foraminifers; fine fragments of black carbon-phosphatic material common; trace of glauconite
- 70-80 " "
- 80-90 Sand - sparse matrix of light-brown clay; fine-grained, well sorted; 80 percent clear, angular quartz; 20 percent glauconite; a few foraminifers, shell fragments, and small phosphate nodules

MATTAPONI FORMATION (90-120')

- 90-100 Sand - dark-gray, moderately clayey; fine- to very fine-grained, very well-sorted; 60 percent clear to green-tinted, angular quartz; 40 percent fresh, greenish-black, very fine- to medium-grained glauconite; muscovite prominent; a very few shell fragments, foraminifers, and echinoid spines
- 100-110 Sand - black, moderately clayey, a few quartz pebbles, phosphate nodules, and large shell fragments; very fine- to medium-grained, fairly well-sorted; 60 percent greenish-black glauconite, 30 percent angular quartz; 10 percent molluscan shell fragments; a few foraminifers
- 110-120 Sand and Gravel - speckled, clayey; 25 percent fine (2-8 mm) quartz gravel; 75 percent fine-grained, fairly well-sorted sand; 60 percent glauconite, 40 percent quartz; a few shell and bone fragments; foraminifers common, but not abundant

PATUXENT FORMATION (120-168')

- 120-130 Sand - light-gray, clean, 20 percent granule gravel (quartz, feldspar, sandstone); coarse- to very coarse-grained, well-sorted, sub-angular to subrounded; clear quartz; feldspathic; minor garnet, pyrite, and glauconite
- 130-140 " "
- 140-150 " trace of gravel
- 150-168 " 15 percent gravel

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GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-20	Columbia Group	post-Miocene
20-90	Yorktown Formation	Miocene
90-120	Mattaponi Formation	Paleocene - Late Cretaceous
120-168	Patuxent Formation	Early Cretaceous

Virginia Division of Mineral Resources
Robert H. Teifke, Geologist
October 17, 1967

Robert H. Teifke
March 3, 1972