

OWNER: Town of Varina (School) # 2
DRILLER: Sydnor Pump & Well Co.
COUNTY: Henrico (Varina)

W- 616
C- 325
TOTAL DEPTH: 712' *

GEOLOGIC LOG **

0-60 No samples

PATUXENT FORMATION (60-165')

60-77 Sand - light-gray; medium- to very coarse-grained, fairly well sorted (skewed coarse), angular to subrounded; arkosic; trace amounts of rock fragments, garnet, tourmaline, kyanite, and glauconite

77-87 No samples

87-98 Sand - light-gray; 90 percent medium- to very coarse-grained sand and 10 percent granule gravel; fairly well sorted (skewed coarse), angular to subrounded; arkosic; 5 percent angular fragments of dark bluish-gray crystalline rock; trace amounts of garnet, tourmaline, and kyanite

98-102 No samples

102-107 Sand and Gravel - gray; 50 percent medium- to very coarse-grained sand and 50 percent granule gravel; sediment is fairly well sorted, (skewed coarse) angular to rounded; arkosic; about 10 percent rock fragments of various types; trace amounts of garnet, tourmaline, sphene (?)

107-130 No samples

130-147 Sand and Gravel - orangeish-brown; 60-70 percent medium- to very coarse-grained sand and 30-40 percent granule gravel; moderately sorted, subangular to rounded; arkosic with feldspar more pitted and decomposed than in higher intervals; various quartzose types of lithic fragments are common but less abundant than in higher intervals; locally cemented by siderite; accessory garnet

147-152 No samples

152-165 Sand - tan (about half of the grains are iron-stained); coarse- to very coarse-grained, well-sorted, subangular to subrounded; arkosic, with most of the feldspar moderately to intensely decomposed; slightly lithic; accessory garnet and sphene (?)

165-249 No samples

NEWARK GROUP (249-253') ***

249-253 Sand and Gravel - yellowish-brown (limonite-goethite pigments) at 249' and red to pink (hematite pigments) at 253'; coarse- to very coarse-grained sand and fine-grained gravel; arkosic and lithic; many types of rock fragments, but mainly igneous and metamorphic types of granitic composition. All constituents, but especially the rock fragments and feldspars, are moderately to intensely decomposed and permeated with ferruginous compounds, and much of the material appears to have been cut (drilled) from larger fragments (pebbles) and from semi-consolidated beds; arkosic red sandstones and arkosic polymict conglomerates with numerous decomposed pebbles of granitic rock are the inferred lithologic types

* Washed samples from 60-77, 87-98, 102-107, 130-147, 152-165, @ 249, and @ 253 are the only materials available for examination. 4/25/73.

** 1962 Geologic Log by L. H. Gardner also is available.

*** Driller reports Triassic at 249'; moreover, oxidation state of the rock at 249' is such as to indicate the top of a succession of red beds

GEOLOGIC SUMMARY

<u>Depth</u> <u>(feet)</u>	<u>Rock Unit</u>	<u>Age</u>
0-60	No samples	---
60-165	Patuxent Formation	Early Cretaceous
165-249	No samples	---
249-253	Newark Group	Triassic

Virginia Division of Mineral Resources
Robert H. Teifke, Geologist
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