OWNER: Brenco, Inc. (Well \#2)
DRILLER: Sydnor Hydrodynamics, Inc.
COUNTY: Prince George (Petersburg)

VDMR: 1804
WWCR: 157
TOTAL DEPTH: 245'

## GEOLOGIC LOG

Depth (feet)

## COLUMBIA GROUP (0-10')

0-10 Sand - orange-brown, clayey, slightly silty; fine- to coarsegrained, poorly sorted, poorly rounded; brown sandy clay, and light-gray sand-free clay.

CHESAPEAKE GROUP ( $10-100^{1}$ )
10- 20 Clay, Sand, and Shell - gray and brown; medium - to moderatelysorted, poorly-rounded quartz sand (about $30 \%$ ) and coarse pelecypod shell debris (about 30\%) in matrix of brown and gray clay.

20-30 Shell, Clay, and Sand - gray; pelecypod shell debris (65-70\%) in matrix of medium-grained quartz sand (about $20 \%$ ) and gray clay (10-15\%); a few gastropod shells and shell fragments.

30-40
11
shell ( $50 \%$ ), sand ( $40 \%$ ), clay ( $10 \%$ ).
40-50 Sand and Shell - gray, clean; medium-grained, fairly well-sorted, poorly-rounded quartz sand (60-65\%), and pelecypod shell debris ( $35-40 \%$ ); a few echinoid spines and gastropod fragments.

50-60 it

60-70 Sand - gray, clean; fine-grained, well-sorted, angular; clear quartz, with accessory magnetite, muscovite, and green epidote; a very few pelecypod shell fragments.

70-80
"

80- 90
"

90-100 Silt - greenish-gray, clayey and sandy; well-sorted, angular; sand fraction (about $25 \%$ ) is poorly sorted, poorly rounded, slightly feldspathic; about $5 \%$ pelecypod shell debris.

| 100-110 | Sand - dark gray, moderately clayey, moderately pebbly (about $15 \%$ granule gravels); fine-to very coarse-grained, poorly sorted, -variably rounded; slightly glauconitic (about $10 \%$ fine- to medium-grained, fresh- to slightly decomposed glauconite); slightly arkosic (5-10\% fresh potassic feldspar); traces of muscovite, brown phosphorite, garnet; a few shell fragments. |
| :---: | :---: |
| 110-120 | 11 15-20\% feldspar. |
| 120-130 | Sand and Gravel - gray; sand ( $60 \%$ ) is very coarse-grained, well sorted, rounded to subrounded; gravel ( $40 \%$ ) is fine grained, well sorted ( $2-4 \mathrm{~mm}$ ), subrounded to rounded; both fractions are arkosic; sand fraction is slightly glauconitic; trace of shell fragments. |
| 130-140 | 1 |
| 140-150 | Gravel, Clay, and Sand - gravel (50\%) is fine-grained, fairly well sorted ( $2-10 \mathrm{~mm}$ ), rounded to subrounded; clay ( $30 \%$ ) is mottled brown, gray, and green; sand ( $20 \%$ ) is medium- to very coarse-grained, moderately sorted, rounded to subrounded; gravel and sand are arkosic (fresh potassic feldspar); slightly pyritic; trace of glauconite; trace of shell fragments. |
| 150-160 | " gravel (80\%), sand-clay (20\%). |
| 160-170 | $11$ |
| 170-180 | Sand and Gravel - gray, very slightly clayey; sand (60\%) is coarse- to very coarse-grained, fairly well-sorted, subrounded; gravel ( $40 \%$ ) is fine-grained, fairly well sorted ( $5-10 \mathrm{~mm}$ ), rounded; both fractions very arkosic (fresh potassic feldspar); trace of garnet, glauconite, and shell fragments. |
| 180-190 | Sand - gray, very slightly silty and clayey; medium- to very coarse-grained, fairly well sorted, subrounded; very arkosic; accessory garnet. |
| 190-200 | 11 |
| 200-210 | Sand - gray, trace of clay, $15 \%$ granule gravel; medium - to very coarse-grained, moderately sorted, subangular to rounded; very arkosic; trace of garnet. |


| 210-220 | Sand - brownish-gray, slightly clayey, a few granules; coarseto very coarse-grained, well-sorted, rounded to subrounded; arkosic; accessory garnet. |
| :---: | :---: |
| 220-230 | 1 |
| 230-240 | Gravel and Sand - brownish-gray; gravel (50\%) is fine-grained, well sorted ( $2-5 \mathrm{~mm}$ ), poorly rounded; sand ( $50 \%$ ) is medium- to very coarse-grained, well sorted (skewed coarse), poorly rounded; arkosic; moderately lithic (granitic fragments). Slightly worked granitic debris. |
| 240-245 | No Sample. |

GEOLOGIC SUMMARY

Rock Unit Age
0-1 $10 \quad$ Columbia Group
10-100 Chesapeake Group
100-240 Potomac Group

Pleistocene
Miocene
Early Cretaceous

Virginia Division of Mineral Resources Robert F. Teifke - Geologist
March 8, 1967


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GEOLOGIC SummARY
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