

OWNER: Taylorwood Eastates, Well # 1
DRILLER: R. L. Magette Well Drilling Co.
COUNTY: Norfolk (Chesapeake)

VDMR: 2110
WWCR: 164
TOTAL DEPTH: 640'

GEOLOGIC LOG

Depth in
feet

YORKTOWN FORMATION (20-300')

20	Shell and Sand - moderate amount of orange-brown clay; 50 percent coarse pelecypod (gastropod) shells and shell fragments, and 50 percent fine- to coarse-grained sand composed of generally angular quartz and abraded bioclasts; traces of feldspar and magnetite
40	" "
60	Sand - medium-gray, very clayey; medium, fairly well-sorted; subequal amounts of angular quartz and bioclasts; foraminifers common
80	" "
100	Sand - gray, very clayey, a few large shell fragments; fine- to coarse-grained, moderately sorted; 60 percent clear, angular quartz, and 40 percent blackish-green glauconite; a few foraminifers
120	Clay - gray, moderately sandy, trace of shell; sand is medium-grained, well-sorted; 60 percent subangular to subrounded, clear to greenish quartz, and 40 percent dark green glauconite
140	" 75 percent quartz, 25 percent glauconite
160	Sand - greenish-gray, slightly clayey, trace of shell; fine-grained, well-sorted, angular; slightly glauconitic; clear to greenish quartz
180	" with about 10 percent shell material; foraminifers and ostracods common
200	Sand - greenish-gray, slightly clayey; very fine-grained, very well-sorted, angular; slightly glauconitic; trace of muscovite
220	" very clayey; a few foraminifers (<u>Nonion</u>), (<u>Textularia</u>)

240 Clay - greenish-gray, very sandy, 5 percent shell fragments; sand is fine, well-sorted, angular; 5 percent glauconite; a few foraminifers

260 " "

280 " "

CALVERT FORMATION (300-380')

300 Clay - greenish-gray, slightly to moderately sandy, a few shell and plant fragments; sand is fine, fairly well-sorted, angular; 5 percent glauconite; slightly micaceous; foraminifers common, but not abundant

320 " "

340 Clay - gray, sandy; sand is fine- to very fine-grained, well-sorted, angular; 5 percent bone and nodular phosphorite; slightly glauconitic; minor pyrite; foraminifers common, but not abundant

360 Sand - brown, very slightly clayey; medium- to coarse-grained, well-sorted, subangular to subrounded; very clear quartz, with 5 percent bone and shell phosphorite

MATTAPONI FORMATION (380-510')

380 Sand - gray, moderately clayey; medium- to coarse-grained, moderately sorted; subequal amounts of dark-green glauconite and clear, subangular to subrounded quartz; minor phosphorite and pyrite; trace of shell

400 Sand - dark-gray, moderately clayey; medium- to coarse-grained, fairly well-sorted; 80 percent dark to medium-green glauconite, 20 percent clear, variably rounded quartz; minor phosphorite and pyrite

420 Clay - gray, very sandy, 10 percent coarser material includes fragments of glauconitic limestone, quartz pebbles, phosphorite nodules, pyrite concretions, and a few shell and bone fragments; sand is fine- to coarse-grained, poorly sorted, very glauconitic (75%); a very few foraminifers

440 " sand fraction is 50-60 percent glauconite

460 Clay - gray, very silty, slightly sandy; silt and fine sand are quartzose and somewhat micaceous; medium- to coarse sand fraction is predominantly green glauconite; pyritic; traces of shell and phosphorite

- 480 Clay - gray, moderately sandy; 15 percent coarser material includes abraded shell fragments, quartz pebbles, phosphorite nodules, pyrite concretions, and a few fragments of glauconitic limestone; sand is 70 percent coarse, green glauconite and 30 percent fine, angular quartz; pyritic; a few foraminifers
- 500 Sand - abundant matrix of silty, gray clay, 10 percent abraded shell fragments; fine- to very coarse-grained, poorly sorted; 50 percent green glauconite and 50 percent fine quartz; minor pyrite, phosphorite, and glauconitic limestone

TRANSITIONAL BEDS (510-605') Top of formation defined on basis of other information.

- 520 Sand - abundant matrix of silty gray clay; 20 percent abraded shell fragments; fine- to very coarse-grained, poorly sorted; 50 percent green glauconite and 50 percent fine-grained quartz; slightly feldspathic; minor pyrite, phosphorite, and fragments of glauconite-bearing limestone
- 540 Clay - variegated, with reddish-brown aspect, sandy, 10 percent coarse material includes shell fragments, fragments of glauconitic limestone, and a few small pebbles of quartz; sand is fine- to very coarse-grained, poorly sorted; 40 percent green glauconite, 60 percent angular quartz; slightly feldspathic; pyrite common; minor phosphorite and mica; a few foraminifers
- 560 " "
- 580 Sand - moderately abundant matrix of reddish-brown, variegated clay; very fine- to coarse-grained, poorly sorted, poorly rounded; clear quartz with 5-10 percent each of glauconite and feldspar; minor pyrite

PATUXENT FORMATION (605-640') Top of formation defined on basis of other information.

- 600 Sand - brown, slightly clayey; coarse- to very coarse-grained, fairly well-sorted, subangular to sub-rounded; moderately feldspathic
- 620 " feldspathic, trace of glauconite
- 640 " "

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
20-300'	Yorktown Formation	Miocene
300-380'	Calvert Formation	Miocene
380-510'	Mattaponi Formation	Paleocene
510-605'	Transitional Beds	Late Cretaceous
605-640'	Patuxent Formation	Early Cretaceous

Virginia Division of Mineral Resources
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March 19, 1968

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March 6, 1972