INTERVAL SHEET WWCR: 209

Page 1 of 1

VDMR Well No: 2218

Date rec'd: 8/13/68

Sample Interval: from 0 to: 410'

PROP: Smithfield Apartments

Number of samples: 41

COMP: Pittman Wood & Metal Prod.

Total Depth: 412'

COUNTY: Isle of Wight (Smithfield)

Oil or Gas: Water: X Exploratory:

From-To	From-To	From-To	From-To
0 - 10	300 - 310	-	-
10 - 20	310 - 320	-	-
20 - 30	320 - 330	-	-
30 - 40	330 - 340	-	-
40 - 50	340 - 350	-	-
50 - 60	350 - 360	-	-
60 - 70	360 - 370	-	-
70 - 80	370 - 380	-	-
80 - 90	380 - 390	-	-
90 - 100	390 - 400	-	-
100 - 110	400 - 410	-	-
110 - 120	-	-	-
120 - 130	-	-	-
130 - 140	-	-	-
140 - 150	-	-	-
150 - 160	-	-	-
160 - 170	-	-	-
170 - 180	-	-	-
180 - 190	-	-	-
190 - 200	-	-	-
200 - 210	-	-	-
210 - 220	-	-	-
220 - 230	-	-	-
230 - 240	-	-	-
240 - 250	-	-	-
250 - 260	-	-	-
260 - 270	-	-	-
270 - 280	-	-	-
280 - 290	-	-	-
290 - 300	-	-	-

All intervals have both washed and unwashed samples.

OWNER: Smithfield Apartments Corp. VDMR: 2218
DRILLER: Pittman Wood & Metal Products WWCR: 209
COUNTY: Isle of Wight TOTAL DEPTH: 412'

GEOLOGIC LOG

Depth in feet	
COLUMBIA GROUP (0-10')	
0-10	Sand - slightly to moderately clayey, yellowish brown; fine to coarse-grained, fairly well-sorted, skewed fine, angular to rounded; clear and yellow tinted quartz, with minor amounts of feldspar and blue quartz
YORKTOWN FORMATION (10-170')	
10-20	Shell - clean, brown; well-sorted, rounded, and decomposed pelecypod and bryozoan shell fragments, 1-4 mm (80 percent), medium-grained, fairly well-sorted, sub-angular to subrounded quartz sand (20 percent); a few echinoid spines
20-30	"
30-40	Shell - slightly to moderately clayey, trace of sand; gray coarse pelecypod shells and angular shell fragments, and a few gastropods (including Turritella), bryozoans, and echinoderms
40-50	Clay - very little sand or coarse-grained silt; greenish-gray; 15 percent coarse shell material (pelecypods and Turritella); a few foraminifers
50-60	Clay - silty, moderately sandy; gray; sand is fine- to very fine-grained, well-sorted, angular; clear quartz (70 percent), and shell material (30 percent) echinoid spines, foraminifers (predominantly Nonion), and small shell fragments; small amounts of mica and glauconite; a very few large shell fragments
60-70	Shell and Sand - binder of gray clay; coarse, angular pelecypod shell debris (70 percent), and fine- to coarse-grained, moderately sorted, angular to subangular clear quartz sand (30 percent); very slightly glauconitic; echinoid spines and foraminifers common

OWNER: Smithfield Apartments Corp.

70-80	Shell and Sand - binder of gray clay; coarse, angular pelecypod shell debris (70 percent), and fine- to coarse-grained, moderately sorted, angular to subangular clear quartz sand (30 percent); very slightly glauconitic; echinoid spines and foraminifers common
80-90	" , except: sand is fine- to medium-grained, fairly well sorted
90-100	"
100-110	Shell and Sand - sparse binder of gray clay; coarse pelecypod (-gastropod - scaphopod) shell debris (50 percent), and fine- to coarse-grained, moderately sorted, angular to subrounded clear quartz sand (50 percent); very slightly glauconitic; a few echinoid spines and foraminifers
110-120	" , except: moderately abundant matrix of greenish-gray clay
120-130	" , except: abundant matrix of greenish-gray clay
130-140	Sand and Shell - clayey, dark-greenish-gray; fine- to very fine- grained, very well sorted, angular, clear quartz sand (60 percent), and pelecypod shell fragments (40 percent); very slightly glauconitic; traces of fragmental phosphorite and muscovite; a very few bone fragments
140-150	"
150-160	" , except: 30 percent small shell fragments, 70 percent sand
160-170	"

CALVERT FORMATION (170-280')

170-180	Clay - silty and sandy, greenish-gray; sand is very fine- to medium-grained, well sorted, angular to subangular; clear quartz, with small amounts of glauconite and fine-grained phosphorite; 15 percent pelecypod shell fragments and a few echinoid spines and foraminifers
180-190	"
190-200	Clay - fairly compact, silty, moderately sandy, greenish-gray; sand is fine- to coarse-grained, rather poorly sorted, angular to subrounded; very slightly glauconitic; traces of pyrite and phosphorite; 5-10 percent pelecypod shell fragments and a few foraminifers

OWNER: Smithfield Apartments Corp.

200-210 Clay - sandy, gray; sand is fine- to medium-grained, well-sorted, angular to subangular; clear quartz with minor amounts of bone and pelletal phosphorite, nodular pyrite, and fine-grained glauconite; 5-10 percent pelecypod shell fragments and a few foraminifers

210-220 " , except: moderately sandy

220-230 "

230-240 Clay - moderately silty and sandy, dark greenish-gray; sand is fine- to medium-grained, fairly well-sorted, angular; clear quartz, with minor amounts of phosphorite, glauconite, muscovite, and nodular pyrite; 5 percent shell fragments

240-250 " , except: very silty, with 10 percent shell fragments

250-260 " , except: very silty, with 5 percent shell fragments

260-270 Sand and Shell - abundant matrix of dark, greenish-gray clay; pelecypod, gastropod, and bryozoan shell fragments (30 percent); medium- to coarse-grained, moderately sorted, subangular to subrounded; clear quartz (60 percent); bone, nodular, and shell phosphorite (10 percent); locally, a dolomitic sandstone; pyrite nodules common; a few foraminifers, mostly Siphogenerina

270-280 " , except: moderately clayey, with 60 percent shell, 40 percent fine- to coarse-grained sand

NANJEMOY FORMATION (280-300')

280-290 Sand and Shell - abundant matrix of dark greenish-gray clay; medium- to coarse-grained, moderately sorted, subangular to subrounded clear quartz (50 percent), yellowish brown to light-green glauconite (10 percent), fragmental phosphorite (10 percent); molluscau shell fragments (30 percent) and a few foraminifers

290-300 Sand - slightly clayey, brownish-gray, medium- to coarse-grained, fairly well-sorted; black, green, yellowish-green, and yellowish-brown glauconite (60 percent), and clear and orange tinted, angular to rounded quartz 40 percent); a few pelecypod shell fragments

MATTAPONI FORMATION (300-370')

300-310 Sand - trace of clay, dark-gray; medium- to coarse-grained, fairly well-sorted black glauconite (75 percent), fine to coarse- grained, rather poorly sorted clear quartz (25 percent); trace of bone and shell phosphorite; a few worn pelecypod shell fragments and a very few foraminifers

OWNER: Smithfield Apartments Corp.

310-320	Sand - abundant quartz silt, gray; very fine- to medium-grained, moderately sorted, angular, clear quartz and fine- to coarse-grained, greenish- black glauconite (50 percent); a few bryozoans, foraminifers, ostracods, and echinoid spines, and molluse shell fragments
320-330	Sand - slightly silty, dark-gray; medium- to coarse-grained, well-sorted black glauconite (90 percent); quartz (10 percent); trace of shells
330-340	" , except: moderately silty; glauconite is medium- to very coarse-grained; 5 percent shell fragments
340-350	Sand - trace of clay, dark-gray; medium-grained, well-sorted, dark-, medium-, and light-green glauconite
350-360	" , except: medium- to coarse-grained; dark-green glauconite is predominant
360-370	" , except: medium- to coarse-grained; predominantly dark-green glauconite (75 percent), clear, angular quartz (25 percent), and a trace of feldspar

PATUXENT FORMATION (370-410')

370-380	Sand - trace of clay, gray; coarse-grained, well-sorted, subangular to subrounded; moderately feldspathic; 5-10 percent coarse-grained, black glauconite; accessory garnet and muscovite
380-390	" , except: with 5 percent glauconite
390-400	" , except: with 5 percent glauconite; feldspathic
400-410	"
410-412	No sample

GEOLOGIC SUMMARY

	Rock Unit	Age
0-10'	Columbia Group	post-Miocene
10-170'	Yorktown Formation	Miocene
170-280'	Calvert Formation	Miocene
280-300'	Nanjemoy Formation	Eocene
300-370'	Mattaponi Formation	Paleocene - Late Cretaceous
370-410'	Patuxent Formation	Early Cretaceous
410-412	No sample	

Virginia Division of Mineral Resources
Robert H. Teifke, Geologist
September 18, 1968

Robert H. Teifke
March 7, 1972