

INTERVAL SHEET WWCR: 82

Page 1 of 1

VDMR Well No: 2239

Date rec'd: 9/16/68

Sample Interval: from 0 to 417'

PROP: Bowling Green Motel (W. J. Brouddus)

Number of samples: 42

COMP: Mitchell's Well & Pump Co.

Total Depth: 417'

COUNTY: Caroline (Bowling Green)

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	410 - 417	-	-
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: Mr. W. J. Brouddus (Bowling Green Motel)

VDMR: 2239

DRILLER: Mitchell's Well & Pump Co.

WWCR: 82

COUNTY: Caroline (Bowling Green)

TOTAL DEPTH: 417'

### GEOLOGIC LOG

Depth in  
feet

#### COLUMBIA GROUP (0-30')

- 0-10 Sand and gravel -- orange-brown, moderately clayey; 30% poorly-rounded granule gravel with abundant blue quartz; 70% fine-to very coarse, poorly-sorted, slightly-feldspathic sand; trace of glauconite
- 10-20 Sand -- orange-brown, slightly clayey, 5% granule gravel; medium-to very coarse, moderately sorted; blue quartz and weathered feldspar common in coarser fractions; accessory magnetite
- 20-30 " bright brownish-orange; quartz is pale yellow; slightly feldspathic

#### CALVERT FORMATION (30-120')

- 30-40 Sand -- bright brownish-orange, moderately clayey; fine-to very fine, well-sorted; small amounts of muscovite and magnetite
- 40-50 Clay -- medium greenish-gray, sandy; sand is fine-to very fine, well-sorted, angular; trace of glauconite
- 50-60 Clay -- light bluish-gray, moderately sandy; sand is fine, fairly well-sorted, angular; clear and greenish quartz; 5% lignitic fragments; 2-3% glauconite; small amount of pyrite
- 60-70 Sand -- greenish-gray, moderately clayey, 3-5% shell fragments, and a few plant fragments; clear-and greenish quartz, with a few small fragments of phosphatic bone and shell
- 70-80 Sand -- brownish-gray, clayey; fine, well-sorted, angular; very slightly glauconitic and micaceous; foraminifers rare

OWNER: Mr. W. J. Brouddus (Bowling Green Motel)

#2239

- 80-90 Sand — brownish-gray, very clayey; fine, well-sorted, angular; very slightly glauconitic and micaceous; foraminifers rare
- 90-100 "
- 100-110 " fine-to very fine, well-sorted
- 110-120 Sand — brownish-gray, very sandy, 2-3% phosphatic nodules, bone fragments, and shell fragments, a few plant fragments; fine-to very fine, well-sorted, angular; trace of glauconite; foraminifers and echinoid spines rare

NANJEMOY FORMATION (120-140')

- 120-130 Sand — black, moderately clayey, a few large fragments of concretionary pyrite, and a few phosphatic bone fragments; fine-to very fine, well-sorted; slightly glauconitic and micaceous
- 130-140 Sand — dark-gray, clayey, 5% shell fragments; fine-to very fine, well-sorted; 5% glauconite, abundant muscovite; a very few foraminifers and ostracods

MATTAPONI FORMATION (140-200')

- 140-150 Sand — very dark-gray, clayey, 10% pelecypod and gastropod shell fragments; very-fine to medium, fairly well-sorted; 65% clear-and greenish quartz, 35% dark-green glauconite; muscovite common; a few foraminifers (Robulus)
- 150-160 " a few foraminifers (Robulus and Dentalina)
- 160-170 Sand — black, clayey, a few shell fragments; fine-to very fine, very well-sorted; 70% clear-and greenish quartz, 30% dark-green glauconite; muscovite common; foraminifers rare
- 170-180 " 85% quartz, 15% glauconite
- 180-190 Sand — medium-gray, moderately clayey, 5% small shell fragments; fine-to medium, fairly well-sorted; 95% clear-and pale-green quartz, 5% glauconite; very slightly micaceous

OWNER: Mr. W. J. Brouddus (Bowling Green Motel)

#2239

190-200 Sand — dark-gray, slightly-to moderately clayey, a few shell fragments; fine, well-sorted; 80% quartz, 20% glauconite; very slightly micaceous

PATAPSCO FORMATION (200-417')

200-210 Sand — slightly clayey (pale greenish-gray), 5% fine, subrounded, quartzo-feldspathic gravel; fine-to very coarse, rather poorly-sorted; abundant fresh feldspar in coarser fractions; trace of glauconite in fine fraction

210-220 Clay — orange-brown, silty, slightly-to moderately sandy, 5% fine, quartzo-feldspathic gravel; sand is very-fine to coarse, poorly sorted; fine fraction is iron-stained, moderately-glauconitic and micaceous

220-230 Clay — mottled brick-red and greenish-gray, slightly sandy, compact; sand is fine-to coarse, poorly sorted; 50% quartz, 45% pelletal hematite, 5% feldspar; a few schistose rock fragments

230-240 Clay — mottled yellow, gray, and brick-red, compact; trace of poorly-sorted, quartzo-hematitic sand

240-250 "

250-260 Clay — brown, very compact; trace of fine quartz sand; hematite pellets common

260-270 Clay — brown, mottled gray, slightly sandy; sand is coarse, fairly well-sorted, slightly feldspathic

270-280 Clay — brown and gray, compact, moderately sandy; sand is fine, well sorted, angular; a few pellets of hematite

280-290 Clay — pale greenish-gray, mottled reddish-brown, sandy; sand is fine-to very fine, very well-sorted; hematite pellets common; trace of muscovite

290-300 "

OWNER: Mr. W. J. Brouddus (Bowling Green Motel)

#2239

- 300-310 Sand — light-gray, clean; fine to coarse, moderately sorted, subangular to subrounded; moderately feldspathic
- 310-320 Clay — dark-gray, sectile, slightly sandy; sand is fine to coarse, poorly sorted; 70% quartz, 25% hematite, 5% feldspar
- 320-330 Clay — pale greenish-gray, slightly sandy; sand is fine to coarse, moderately sorted; moderately feldspathic and micaceous; pelletal hematite common
- 330-340 Clay — reddish-brown and greenish-gray, locally sandy; sand is fine to coarse, moderately sorted; slightly feldspathic; pelletal hematite common
- 340-350 Clay — gray, sectile, locally sandy
- 350-360 Sand — gray, with greenish cast, clean; medium, fairly well-sorted; weathered feldspar common
- 360-370 Clay — orange-brown and pale greenish-gray, locally sandy; sand is fine, well-sorted, micaceous; hematite pellets common
- 370-380 Clay — orange-brown and gray, subordinately white and pink, trace of sand
- 380-390 Clay — pale greenish-gray, mottled orange-brown; compact, slightly sandy; sand is very-fine to medium, fairly well-sorted; very slightly feldspathic
- 390-400 Sand — light-gray, clean; very-fine to medium, fairly well-sorted, angular; slightly feldspathic; trace of muscovite
- 400-410 "
- 410-417 " medium to coarse, fairly well-sorted

OWNER: Mr. W. J. Brouddus (Bowling Green Motel)

#2239

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-30'	Columbia Group	Pleistocene
30-120'	Calvert Formation	Middle Miocene
120-140'	Nanjemoy Formation	Middle Eocene
140-200'	Mattaponi Formation	Paleocene
200-417'	Patapsco Formation	Early Cretaceous

Virginia Division of Mineral Resources  
Robert H. Teifke, Geologist  
October 11, 1968