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Date rec'd: April 3, 1967

PROP: Mr. R. W. Lowe

COMP: Mitchell's Well & Pump Co.

COUNTY: Hanover (Mechanicsville)

VDMR Well No: 1842

Sample Interval: from 0 to 249

Number of samples: 25

Total Depth: 249

Oil or Gas: Water: X Exploratory:

From-To	From-To	From-To	From-To
0 - 10 10 - 20	-		-
20 - 30		_	-
30 - 40	-	was .	_
40 - 50	_	ess.	-
50 _ 60	-	_	-
60 - 70	_	-	=
70 - 80	_	-	
80 - 90	_	-	_
90 - 100	-	_	-
100 _ 110	_	_	_
110 - 120	-	_	_
120 - 130	_	_	
130 - 140	•	— ,:	-
140 - 150	-	-	-
150 _ 160	_		
160 _ 170		_	_
170 - 180		-	nie.
180 - 190	·—·	·	_
190 - 200	=	-	-
200 _ 210			
210 _ 220		_	_
220 _ 230	_	5008	92.43
230 - 240		<u> </u>	
240 - 249		N70743	
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-	chann	_	-
_	nos.	-	_
		-	_
	_	_	_
		<u> </u>	_

Mr. R. W. Lowe OWNER:

DRILLER: Mitchell's Well & Pump Company

COUNTY: Hanover (Mechanicsville)

VDMR: 1842

103

WWCR: TOTAL DEPTH: 2491

GEOLOGIC LOG

Depth in feet

COLUMBIA GROUP (0-30)

0 - 10Sand - reddish-brown, slightly clayey; fine-tocoarse-grained, moderately sorted, subangular to subrounded; slightly feldspathic; a few plant fragments.

11 10- 20

11 20- 30

CHESAPEAKE GROUP (30-70)

30- 40 Clay - gray, silty; a very few sand grains and small pebbles; trace of glauconite, nodular phosphorite, nodular goethite.

11 40- 50

50- 60 11

11 60- 70

PAMUNKEY GROUP (70-150)

70- 80 Clay - gray, sandy; sand consists of a fine-to medium-grained highly-glauconitic fraction, and a coarse-grained sand to fine-grained gravel quartzose fraction with numerous yellow-brown to dark-gray phosphatic nodules irregular fragments, pelecypod shell fragments, bone fragments, and teeth.

80- 90 Clay - light-gray, slightly sandy; sand is mostly glauconitic; a very few phosphate nodules.

90-100 Clay - dark-gray, sandy; sand is fine- to very fine-grained, very well sorted; quartz, glauconite, and muscovite in subequal amounts, with some finely-divided shell material.

100-110	Silt — gray, clayey; angular quartz (65-70%), glauconite (25-30%), muscovite (5%); trace of phosphorite.			
110-120	Silt — gray, clayey; angular quartz (90%), glauconite, muscovite, and phosphorite (10%); fish scales.			
120-130	Silt-Sand — dark-gray, slightly- to moderately-clayey; coarse-grained silt to fine-grained sand, well sorted; 65% clear to greenish, angular quartz, and 35% glauconite; a few shell fragments, fragments of phosphorites, and a very few foraminifers and ostracods.			
130-140	Silt-Sand — medium-gray, moderately clayey to clayey; coarse-grained silt to very fine-grained sand, very well sorted; 80% clear to greenish, angular quartz, and 20% glauconite; a few shell fragments, fragments of phosphorites, and a few foraminifers and ostracods.			
140-150	Sand — medium-gray, clayey; very fine- to medium-grained, fairly well sorted; 60% clear to greenish, angular to subangular quartz, and 30% glauconite; about 10% shell fragments; traces of muscovite, phosphorite, and feldspar.			
POTOMAC GROUP (150-249)				
150-160	Sand — light-gray, slightly clayey, a few small pebbles; very fine- to very coarse-grained, poorly sorted and rounded; slightly feldspathic and glauconitic; traces of pyrite; small amount pelecypod shell debris, and a few lenticulinid foraminifers.			
160-170	11			
170-180	- brown, sandy, a few small pebbles; sand is coarse, poorly sorted, poorly rounded; moderately feldspathic; trace of glauconite; trace of shell debris.			
180-190	Sand — light yellowish-gray, clayey, a few small pebbles; fine- to coarse-grained, poorly sorted, variably rounded; very feldspathic; with trace of glauconite.			
190-200	TI .			
200-210	. II			
210-220	with greenish cast (change in clay composition).			

AND HERE

220-230	Sand — brown, with greenish-yellow cast, clayey, a few small pebbles; medium- to very coarse-grained, moderately sorted; feldspathic; small amount glauconite and derived oxidation products; trace of shell fragments.
230-240	Sand — white, clean, 10-20% granules and small pebbles; medium-to very coarse-grained, fairly well sorted; very feldspathic; traces glauconite, epidote, pyrite.
240-249	н

GEOLOGIC SUMMARY

	Rock Unit	Age
0- 30	Columbia Group	Pleistocene
30- 70	Chesapeake Group	Miocene
70-150	Pamunkey Group	Eocene
150-249	Potomac Group	Early Cretaceous

Virginia Division of Mineral Resources Robert H. Teifke - Geologist April 25, 1967