INTERVAL SHEET

WWCR - 101

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VDMR Well No: 1800

Date rec'd: January 27, 1967

Sample Interval: from 0 to 700

PROP: Richmond Food Stores Well #2

Number of samples: 69

COMP: Sydnor Hydrodynamics Inc.

Total Depth: 708'

COUNTY: Hanover (Ellerson)

Oil or Gas: Water:X Exploratory:

From-To	From-To	From-To	From-To
0 - 10	300 - 310 *	-	-
10 - 20	310 - 320	610 - 620	-
20 - 30	320 - 330	620 - 630	-
30 - 40	330 - 340	630 - 640	-
40 - 50	340 - 350	640 - 650	-
50 - 60	350 - 360	650 - 660	-
60 - 70	360 - 370	660 - 670	-
70 - 80	370 - 380	670 - 680	-
80 - 90	380 - 390	680 - 690	-
90 - 100	390 - 400 *	690 - 700	-
100 - 110	400 - 410	-	-
110 - 120	410 - 420	-	-
120 - 130	420 - 430	-	-
130 - 140	430 - 440	-	-
140 - 150	440 - 450	-	-
150 - 160	450 - 460	-	-
160 - 170	460 - 470	-	-
170 - 180	470 - 480	-	-
180 - 190	480 - 490	-	-
190 - 200	490 - 500	-	-
200 - 210	500 - 510	-	-
210 - 220	510 - 520	-	-
220 - 230	520 - 530	-	-
230 - 240	530 - 540	-	-
240 - 250	540 - 550	-	-
250 - 260	550 - 560	-	-
260 - 270	560 - 570	-	-
270 - 280	570 - 580	-	-
280 - 290	580 - 590	-	-
290 - 300 *	590 - 600	-	-

* unwashed samples only

OWNER: Richmond Food Stores, Well #2 VDMR: 1800
DRILLER: Sydnor Hydrodynamics, Inc. WWCR: 101
COUNTY: Hanover (Ellerson) TOTAL DEPTH: 708'

GEOLOGIC LOG

Depth in feet

COLUMBIA GROUP (0 - 30)

0 - 10	Sand —	orange, slightly clayey; medium- to coarse-grained, fairly well-sorted, subangular to subrounded; white, weathered feldspar fairly abundant; trace of magnetite.
10 - 20	Sand —	orange-brown, slightly clayey, 2-3% granules and very small pebbles; coarse-grained, well sorted, subrounded to rounded; moderately feldspathic; some chert; scattered plant fragments.
20 - 30	Sand —	brown, clean, about 10% granule gravel; medium- to very coarse-grained, moderately sorted, subrounded to rounded; slightly feldspathic; minor magnetite and garnet; clay concentration and ferricretion at base.

CALVERT FORMATION AND PAMUNKEY GROUP (30 - 150)

30 - 40	Sand —	gray, clayey (gray clay), silty; fine- to coarse-grained, poorly sorted; traces of pyrite and phosphorite; about 5% pelecypod shell fragments.
40 - 50	Clay —	gray, silty, slightly sandy, about 10% fine-grained (4-10 mm.) well-rounded gravel; traces of pyrite, phosphorite, carbonaceous material; scattered pelecypod shell fragments.
50 - 60	Sand —	gray, very clayey, silty, about 10% fine-grained(4-10 mm) gravel; very fine- to fine-grained, well sorted, angular; traces of glauconite and phosphorite; scattered pelecypod and gastopod shell fragments, and a very few foraminifers.
60 - 70	"	15-20% fine-grained gravel
70 - 80	"	about 10% fine-grained gravel
80 - 90	"	15-20% fine-grained gravel
90 - 100	"	"
100 - 110	"	about 10% fine-grained gravel

110 - 120 Clay — gray, very sandy and slightly pebbly (5-10% fine-grained gravel; scattered pelecypod and gastrpod shell fragments; minor fine-grained, platey phosphorite.

120 - 130 Clay — gray, very sandy, a few very small pebbles; sand is fine- to very fine-grained, well sorted, angular; very slightly phosphatic (fine-grained, platey) and glauconitic; traces of pyrite and garnet; 2-5% shell fragments

130 - 140 "

140 - 150 "

PATUXENT FORMATION (150 - 250)

150 - 160 Sand — brownish-gray, very slightly-clayey; medium- to very coarse-grained, moderately sorted, angular to rounded; slightly arkosic, slightly glauconitic; small amounts of phosphorite and garnet; a few shell and plant fragments.

160 - 170 "

170 - 180 "

180 - 190 "

190 - 200 "

200 - 210 "

210 - 220 "

220 - 230 Sand — grayish-brown, very slightly-clayey, about 15% granule gravel; medium- to very coarse-grained, fairly well-sorted, angular to subrounded; moderately arkosic; slightly glauconitic.

230 - 240 Sand — brownish-gray, slightly clayey, 5% granule-gravel; medium- to coarse-grained, fairly well-sorted, subangular to rounded; moderately arkosic; trace of glauconite.

240 - 250 "

250 - 260 Biotite Granite — pink; microcline 65%, quartz 25%, biotite 7%, muscovite 3%, traces of zircon and magnetite; grain size 0.5 - 2 mm (average about 1 mm); pulverized sample.

260 - 270 "

270 - 280 "

280 - 290 "

290 - 300 "

300 - 310	Biotite Granite — pink; microcline 65%, quartz 25%, biotite 7%, muscovite 3%, traces of zircon and magnetite; grain size 0.5 - 2 mm (average about 1 mm); pulverized sample.	
310 - 320	"	some chlorite - alteration of biotite
320 - 330	"	
330 - 340	"	with one fragment of vuggy rust-colored aplite
340 - 350	"	
350 - 360	"	
360 - 370	"	with one fragment of pink biotite - granite with traces of azvrite.
370 - 380	"	
380 - 390	"	with epidote
390 - 400	"	
400 - 410	Diabase — greenish-black, aphanitic- to fine-grained; ophitic texture; with some caved biotite granite.	
410 - 420	"	
420 - 430	"	
430 - 440	Biotite-Muscovite Granite — pink; microcline 65%, quartz 22%, biotite 7%, muscovite 6%, traces of zircon and magnetite; grain size 0.5-2 mm (average about 1 mm); pulverized sample.	
440 - 450	"	
450 - 460	"	
460 - 470	"	
470 - 480	"	
480 - 490	"	
490 - 500	"	
500 - 510	"	
510 - 520	"	white sample not pulverized
520 - 530	"	"

530 - 540	Biotite - Muscovite Granite — pink microcline 65%, quartz 22%, biotite 7%, muscovite 6%, traces of zircon and magnetite; grain size 0.5 - 2 mm (average about 1 mm); pulverized sample.
540 - 550	"
550 - 560	"
560 - 570	"
570 - 580	"
580 - 590	"
590 - 600	"
600 - 610	No sample
610 - 620	Biotite-Muscovite Granite — white; microcline 65%, quartz 22%, biotite 7%, muscovite 6%, traces of zircon and magnetite; grain size 0.5 - 2 mm (average about 1 mm); sample not pulverized.
620 - 630	"
630 - 640	" pink
640 - 650	" "
650 - 660	" "
660 - 670	" "
670 - 680	" "
680 - 690	" "
690 - 700	Diabase — light-green, black green and black; aphanitic to fine-grained with ophitic texture.
700 - 708	No sample

#1800

GEOLOGIC SUMMARY

	Rock Unit	Age
0 - 30	Columbia Group	Pleistocene
30 - 150	Calvert Formation and Pamunkey Group	Miocene and Eocene
150 - 250	Patuxent Formation	Early Cretaceous
250 - 700	Petersburg Granite	Late Paleozoic
700 - 708	No sample	

Note: Diabase (Triassic?) intrusions at 400-430 and 690-700 foot intervals.

Virginia Division of Mineral Resources
R. Tiefke and R. Good - Geologist
February 17, 1967

OWNER: Richmond Food Stores, Well #2 — VDMR: 1800
DRILLER: Sydnor Hydrodynamics, Inc. — WWCR: 101
COUNTY: Hanover (Ellerson) — TOTAL DEPTH: 708'

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Depth in feet

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w/ polished abund. TMB ; 6' thick acc. to E-log W-1799.

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