INTERVAL SHEET

Page 1 of 1

Date rec'd:

PROP: C-168

COMP:

COUNTY: Southampton

VDMR Well No: 2049

Sample Interval: from 0 to: 220

Number of samples: 22

Total Depth: 220

Oil or Gas: Water: Exploratory: X

From-To	From-To	From-To	From-To
0 - 10	-	-	-
10 - 20	-	-	-
20 - 30	-	-	-
30 - 40	-	-	-
40 - 50	-	-	-
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	-	-	-
180 - 190	-	-	-
190 - 200	-	-	-
200 - 210	-	-	-
210 - 220	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

All intervals have both washed and unwashed samples

Drilled 6/66
Continental

SO-T-7
C-168

CONFIDENTIAL

INTERVAL SHEET

Geologic Log
Strip Log
ELEV.: 30'

Page 1 of 1

VDMR Well No: WELL NO. 2049

Date rec'd: 7/19/67

Sample Interval: from 0 to 220

PROP:

COMP:

at W. city limit Franklin, on SAL R.R. (HOLLAND (15') SHEET)

Number of samples: 22

COUNTY: Southampton

Total Depth: 220'

Oil or Gas: Water: Exploratory: ✓

LIN W

From-To	From-To	From-To	From-To
0 - 10	-	-	-
10 - 20	-	-	-
20 - 30	-	-	-
30 - 40	-	-	-
40 - 50	-	-	-
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	-	-	-
180 - 190	-	-	-
190 - 200	-	-	-
200 - 210	-	-	-
210 - 220	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

CONFIDENTIAL

VDMR Well No. 2049
County: Southampton

Well: C-168
Property: Seaborad Air Line Railway
Driller: Norfolk and Western Railway
Location: Southampton at western city limit of Franklin, on railroad right-of-way; 76°56'00" W, 36°40'00"N
Elevation: 30 feet
Total Depth: 220 feet
Started drilling: June, 1966 Completed drilling: June, 1966
Sample description by: R. H. Teifke, Virginia Division of Mineral Resources, August, 1968

GEOLOGIC LOG *

Depth in feet	
COLUMBIA GROUP (0-20')	
0-10	Sand and gravel — abundant matrix of tan and light-gray clays; 50% fine- to very fine-grained, very well-sorted, angular sand, consisting of clear and yellowish quartz, with subordinate feldspar and minor amounts of glauconite and muscovite; 30% fine (5-15 mm), quartzo-feldspathic gravel, including numerous composite grains (rock fragments)
10-20	Clay — tan and light-gray, sandy, a few small (5-15 mm) pebbles; sand is fine- to very fine-grained, very well-sorted, angular; slightly feldspathic; very slightly micaceous and glauconitic; a few diatoms
YORKTOWN FORMATION (20-80')	
20-30	Clay — light-gray, locally orange-brown, slightly to moderately sandy; sand is fine- to very fine-grained, well-sorted, angular; slightly feldspathic; abundant selenite; traces of muscovite and glauconite; a few diatoms and foraminifers

VDMR Well No. 2049

30-40 Clay and shell — light-gray, sandy; 20% pelecypod shell fragments; sand fraction is fine- to coarse-grained, moderately sorted (skewed fine), angular to subangular; clear quartz, moderately feldspathic in coarsest grade; very slightly glauconitic; traces of phosphorite, muscovite, and garnet

40-50 Sand and shell — moderately abundant matrix of dark greenish-gray clay; 25% pelecypod and Turritella shell fragments; 65% fine- to medium-grained, well sorted, angular quartz sand, with 2-3% fresh glauconite and traces of muscovite and pelleted phosphorite; a few bone fragments

50-60 " sand is fine-grained, very well-sorted

60-70 " sand is fine-grained, very well-sorted

70-80 Sand and shell — very abundant matrix of greenish-gray clay; 25% pelecypod shell fragments; 60% fine- to very fine-grained, very well-sorted sand; sand is 75% angular quartz, 25% fresh glauconite; a few phosphatic bone fragments and foraminifers

MATTAPONI FORMATION (80-130')

80-90 Sand — grass-green, slightly to moderately clayey, a few shell fragments; 55% fine- to very fine-grained, angular, clear quartz; 35% very fine- to medium-grained, dark- to light-green, autochthonous glauconite; well-sorted; clay matrix is locally dolomitic; a few phosphatic bone fragments, foraminifers and ostracods

90-100 Sand — sparse matrix of green (glauconitic) and tan (dolomitic) clays, locally a calcitic or dolomitic sandstone, a very few pelecypod shell fragments; fine- to coarse-grained, moderately sorted; 65% dark- to light-green, autochthonous glauconite, 35% clear, angular quartz; a few bone fragments and pyrite concretions, a very few foraminifers and ostracods

VDMR Well No. 2049

100-110 Sand — sparse matrix of green (glauconitic) and tan (dolomitic) clays, locally a calcitic or dolomitic sandstone, a very few pelecypod shell fragments; fine- to coarse-grained, moderately sorted; 65% dark- to light-green, autochthonous glauconite, 20% clear, angular quartz; a few bone fragments and pyrite concretions, a very few foraminifers and ostracods

110-120 "

120-130 Sand — gray, slightly clayey, a few shell fragments and fragments of calcitic, glauconitic sandstone; fine- to coarse-grained, moderately sorted; 40% clear, angular quartz, 35% dark-green glauconite, 5% fresh feldspar (concentrated in coarse grade); minor phosphorite (mostly bone fragments) and muscovite; trace of garnet; a few foraminifers and ostracods

TRANSITIONAL BEDS
~~TUSCALOOSA FORMATION~~ (130-220')

130-140 Sand — gray, very slightly clayey, 10% quartzo-feldspathic granule gravel, 5% fragments of calcitic, glauconitic sandstone; sand is medium- to coarse-grained, moderately sorted, angular to subrounded, and consists of fresh and weathered feldspar (20%), dark-green glauconite (10%), and quartz (55%); muscovite common, garnet relatively abundant; a few bone fragments and foraminifers

140-150 Sand and gravel — gray, slightly clayey, 10% fragments of calcitic, glauconite-bearing sandstone, a very few shell fragments; 20% quartzo-feldspathic granule gravel; 70% fine- to very coarse-grained, poorly sorted, variably rounded sand; moderately feldspathic; slightly glauconitic; garnet relatively abundant; minor muscovite and phosphorite

150-160 " brown, clayey; sand is fine, well-sorted, slightly feldspathic

VDMR Well No. 2049

160-170	Sand and gravel — brown, clayey; sand is fine, well-sorted, slightly feldspathic; 10% fragments of calcitic, glauconite-bearing sandstone, 10% quartzo-feldspathic granule gravel; 60% fine- to very coarse-grained, poorly sorted, variably rounded sand; moderately feldspathic; slightly glauconitic; garnet relatively abundant; minor muscovite and phosphorite
170-180	Clay — grayish-brown, fairly compact, moderately silty (silt is micaceous and slightly glauconitic); a few fragments of shell and carbonaceous material
180-190	" silty
190-200	" very silty and sandy (very fine-grained sand)
200-210	" "
210-220	" "

GEOLOGIC SUMMARY

	Rock Unit	Age
0-20'	Columbia Group	Pleistocene
20-80'	Yorktown Formation	~~Late~~ Miocene
80-130'	Mattaponi Formation	Paleocene-Late Cretaceous
130-220'	~~Tuscaloosa Formation~~ Transitional beds	Late Cretaceous

*The use of the lithologic term, "clay" includes all size ranges of particles less than 1/16 mm.

R. H. Taylor
3/7/72

VDMR Well No. 2049
County: Southampton

Well: C-168
Property: Seaborad Air Line Railway 50-F-7
Driller: Norfolk and Western Railway
Location: Southampton at western city limit of Franklin, on railroad right-of-way; 76°56'00" W, 36°40'00"N
Elevation: 30 feet
Total Depth: 220 feet
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10-20	Clay — tan and light-gray, sandy, a few small (5-15 mm) pebbles; sand is fine- to very fine-grained, very well-sorted, angular; slightly feldspathic; very slightly micaceous and glauconitic; a few diatoms
YORKTOWN FORMATION (20-80')	
20-30	Clay — light-gray, locally orange-brown, slightly to moderately sandy; sand is fine- to very fine-grained, well-sorted, angular; slightly feldspathic; abundant selenite; traces of muscovite and glauconite; a few diatoms and foraminifers

VDMR Well No. 2049

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VDMR Well No. 2049

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110-120 "

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VDMR Well No. 2049

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