#### INTERVAL SHEET

Page 1 of 1 VDMR Well No: 2014

Date rec'd: 10-10-67 Sample Interval: from 0 to: 140

PROP: N & W RR+ Well # 215 Number of samples: 14

COMP: Total Depth: 140

COUNTY: Sussex 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	- - - -		- - - -
	= = - -	-	
-	- - - -	-	
-			

All intervals have both washed and unwashed samples

Well: N. & W. RR. Well # 215

Property: Norfolk and Western Railway Driller: Norfolk and Western Railway

Location: 1.8 miles SE of Prince George Co. line on NWRR

right-of-way; 77° 09' 30" W, 37° 04' 45" N

Elevation: 120 feet Total Depth: 140 feet

Started drilling: October, 1966 Completed drilling: October, 1966 Sample description by: R. H. Teifke, Virginia Division of Mineral

Resources, September, 1968

#### GEOLOGIC LOG \*

# Depthin feet

## COLUMBIA GROUP (0-20')

- 0-10 Sand yellowish-brown, clear; coarse-to very coarse-grained, well-sorted, angular; clear and iron-stained quartz, with appreciable intensely decomposed feldspar and some blue quartz; traces of garnet and chert
- Sand and gravel brown, clayey; 50% fine (2-12 mm)
  rounded, quartzo-feldspathic gravel; 50% fineto very coarse-grained, poorly sorted, angular
  to rounded sand; clear and iron-stained quartz,
  with subordinate decomposed feldspar, minor
  decomposed glauconite, and traces of magnetite
  and chert

## YORKTOWN FORMATION (20-100')

Shell and sand - binder of gray clay, locally orange-brown;
60% coarse abraded shells and shell fragments of
pelecypods, gastropods, echinoderms and bryozoans;
40% fine-to coarse-grained, rather poorly sorted
sand composed of quartz, rounded bioclasts and a
small amount of glauconite; a few foraminifers and
ostracods

30 - 40		<b>†1</b>	70% shell, 30% sand; foram ostracods common; a few b	
40-50		11	60% shell, 40% medium-to grained angular quartz sand common; a very few foram	d; ostracods
50-60	Sand -	abundant matrix of dark greenish-gray clay; 5% pelecypod shell fragments; fine—to medium-grained, well-sorted, angular; clear and greenish quartz, with 5% dark-green glauconite and relatively abundant selenite; Cibicides and ostracods common, but not abundant		
60-70		11		
70-80	•	ti		
80-90		Ħ	with 10% shell fragments	. · · .
90-100	Sand -	- abundant matrix of greenish-gray clay, a few shell fragments and phosphate nodules; very fine-to medium-grained, fairly well-sorted; 80% angular quartz, 15% dark-green glauconite, 5% selenite; a very few foraminifers and ostracods		
MATTAPOI	NI FOR	MATION ( 1	00-130')	navit
100-110	Sand — binder of brown and dark-gray clays, a very few shell fragments and phosphate nodules; medium-grained, fairly well-sorted; 65% dark-and medium-green glauconite, 30% clear, angular quartz, and 5% selenite			
110-120		ti	fine-to coarse-grained, m sorted; 85% dark-green gla clear, angular quartz; min a very few foraminifers	uconite, 15%
120-130	Sand a	gravel frac rounded pel feldspar; s sorted, gla micaceous,	binder of dark brownish-gation (30%) consists of smale bles of greenish quartz, an and is predominantly fine-gation conitic, and subordinately with a subordinate admixtunded quartz sand; a few fora	l (2-8:mm) d a few of rained, well- bioclastic and ire of coarse,

ostracods; trace of garnet

## PATUXENT FORMATION (130-140')

130-140 Gravel and sand — gray, slightly clayey; 70% fine (2-20 mm), subangular to subrounded gravel, 30% coarse-to very coarse-grained, angular to subangular sand; clear and greenish-quartz, fresh feldspar, and a few fragments of quartzitic rock; minor garnet

#### **GEOLOGIC SUMMARY**

	Rock Unit	Age
0-20	Columbia Group	Pleistocene
20-100	Yorktown Formation	Late Miocene
100-130	Mattaponi Formation	Paleocene - Late Cretaceous
130-140	Patuxent Formation	Early Cretaceous

\* The use of the lithologic term, "clay" includes all size ranges of particles less than 1/32 mm.

R. H. Teefle 3/3/12

VDMR Well No. 2014 County: Sussex

Well: N. & W. RR. Well # 215

Property: Norfolk and Western Railway Driller: Norfolk and Western Railway

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right-of-way; 77° 09' 30" W, 37° 04' 45" N

Elevation: 120 feet Total Depth: 140 feet

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Depth in feet

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- 10-20 Sand and gravel brown, clayey; 50% fine (2-12 mm)
  rounded, quartzo-feldspathic gravel; 50% fine to very coarse-grained, poorly sorted, angular
  to rounded sand; clear and iron-stained quartz,
  with subordinate decomposed feldspar, minor
  decomposed glauconite, and traces of magnetite
  and chert

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Shell and sand - binder of gray clay, locally orange-brown;
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40% fine- to coarse-grained, rather poorly sorted
sand composed of quartz, rounded bioclasts and a
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ostracods

30 - 40		II	70% shell, 30% sand; foraminifers and ostracods common; a few bone fragments
40-50		п	60% shell, 40% medium- to coarse- grained angular quartz sand; ostracods common; a very few foraminifers
50-60	Sand –	pelecypod s well-sorted with 5% da:	natrix of dark greenish-gray clay; 5% shell fragments; fine- to medium-grained, d, angular; clear and greenish quartz, rk-green glauconite and relatively elenite; Cibicides and ostracods common, andant
60-70		п	
70-80		n	
80-90		11	with 10% shell fragments
90-100	Sand -	fragments medium-gr quartz, 15	natrix of greenish-gray clay, a few shell and phosphate nodules; very fine-to rained, fairly well-sorted; 80% angular % dark-green glauconite, 5% selenite; foraminifers and ostracods
MATTAPO	NI FOR	MATION ( 1	00-130')
100-110	Sand —	shell fragn grained, fa medium-gr	rown and dark-gray clays, a very few nents and phosphate nodules; medium- airly well-sorted; 65% dark- and seen glauconite, 30% clear, angular d 5% selenite
110-120		II .	fine-to coarse-grained, moderately sorted; 85% dark-green glauconite, 15% clear, angular quartz; minor selenite;
			a very few foraminifers
120-130	Sand a	gravel frac rounded pe feldspar; s	binder of dark brownish-gray clay; ction (30%) consists of small (2-8 mm) bbles of greenish quartz, and a few of and is predominantly fine-grained, well- auconitic, and subordinately bioclastic and
-			with a subordinate admixture of coarse,

poorly rounded quartz sand; a few foraminifers and

ostracods; trace of garnet

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			County: Sussex		
		<del>-1</del>	VOMP Well No. 2014		
	we!	: 545-7	T-4 (USGS)		
	Property	: Norfolk	and Western Paileand 4		
	Driller	: Continer	and Western Paileond Y  !k and western Railway		
	Location	: 1.8 mile.	s SE of Prince George Co. line, on		
	11		ight-of-way ; 71°09'30" W, 37°04'45" N.		
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	Total Depth	_			
			1966 Campleted drilling: October, 1966		
	11		C. H. Teifke , Virginia Division of		
	j		Mineral Leseurces		
	Ceferences: no specific reference				
		GEOLOG	IC SUMMARY		
	Depth thick (feet) (fee	Kuess t)	Formation (and remorks)		
	0-20 20	o	Columbia Group		
+100-	20-100 80	ò	Yorktown Formation		
•	100-130 30	0	Mattapani Farmatian		
	130-146	0	Patuxent Formation		
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