W# 2618
C#168

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

MAILING ADDRESS:
B[illegible]3667
C[illegible]lottesville, VA 22903

DIVISION OF MINERAL RESOURCES
JAMES L. CALVER, COMMISSIONER
WATER WELL COMPLETION REPORT

OFFICE ADDRESS:
McCormick Road
Charlottesville, Virginia

OWNER: Perrin & Esposito, Inc. Mailing Address: 2500 Birtchett Dr., Pr. George, Va.

TENANT: Birtchett Estates # 2 Mailing Address: 2500 Birtchett Dr., Pr. George, Va.

DRILLER: Sydnor Hydrodynamics, Inc. Mailing Address: 1305 Brook Road, Richmond, Va.

WELL LOCATION: County Prince George Approx. 1/2 feet miles South (direction) of Route 646 and 60 feet miles East (direction) of Route # 156

(GIVE DIRECTION AND DISTANCE IN FEET OR MILES FROM TWO REFERENCE POINTS - ROADS, TOWNS, RIVERS, ETC. - ON COUNTY HIGHWAY OR OTHER MAP.)

DATE STARTED: 4/16/69 DATE COMPLETED: 5/5/69

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 234 feet

WATER LEVEL: Stands 68'2" feet below surface OR has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method Turbine
Drawdown 79'3" feet
Rate 154 gal. per min.
Duration 12 hrs., _____ min.

WATER ZONES: from 170 to 190 feet
from 198 to 208 feet
from _____ to _____ feet

WATER: Color Clear Taste _____
Odor _____ Temp. _____ °F

WELL TO SUPPLY: (check one) Home _____
Farm _____ Town _____ School _____
Industry _____ Other Subdivision

WATER ANALYSIS AVAILABLE: Yes X No _____

DRILL CUTTINGS SAVED: Yes X No _____ 25

(DRILL CUTTINGS SHOULD BE COLLECTED AT 10 FOOT INTERVALS. THESE SAMPLES MAY BE SHIPPED TO THIS OFFICE EXPRESS COLLECT. SAMPLE BAGS ARE FURNISHED FREE OF CHARGE UPON REQUEST.)

HOLE SIZE: 12 inches from 0 to 220 feet
9-7/8 inches from 220 to 234 feet
_____ inches from _____ to _____ feet

SCREEN SIZE: 6 inches from 170 to 190 feet
6 inches from 198 to 208 feet
_____ inches from _____ to _____ feet

CASE SIZE: 6 inches from +2 to 170 feet
6 inches from 190 to 198 feet
6 inches from 208 to 213 feet

GROUTING: Method Pressure
Material Cement & Water Depth 50 feet

PUMP: Type _____
Capacity _____ gal. per min
Depth of intake _____ feet

REMARKS: Electric Log Ran by driller

(LOG OF WELL) OVER

LOG

FURNISHED BY: Sydnor Hydrodynamics, Inc. DATE: 5/5/69

DEPTH (feet) FROM	TO	TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
0	10	Red Clay - Sand	
10	20	Brown Clay - Sand - Gravel	
20	40	Blue Clay	
40	57	Blue Clay - Shells	
57	58	Shells	
58	65	Fine Black Sand - Shell	
65	95	Black Sand with Streaks of Shell & Clay	
95	113	Gray, Green and White Clay Some Black Sand - Shells	
113	125	Gray Sand	
125	135	Coarse Gray Sand	
135	162	Green, Red and White Clay	
162	200	Coarse Gray Sand	
200	220	Coarse Sand and Gravel	
220	234	Green, Red and White Clay	

(Use additional forms if necessary)

VIRGINIA DIVISION OF MINERAL RESOURCES
Box 3667, Charlottesville, VA 22903

INTERVAL SHEET

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Date rec'd 8/11/69 Date Processed:

PROPERTY: Birchett Estates #2

COMPANY: Sydnor Hydrodynamics Inc.

COUNTY: Prince George (Hopewell)

Well Repository No.: C-168
W-2618

Sample Interval: from 0 to: 23

Number of samples: 23

Total Depth: 234

Oil or Gas: Water: x Exploratory:

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	-	-	-
215 - 230	-	-	-
230 - 234	-	-	-
-	-	-	-
-	-	-	-

All intervals have both washed and unwashed samples

OWNER: Birtchett Estates # 2 W# 2618
DRILLER: Sydnor Hydrodynamics C# 168
COUNTY: Prince George TOTAL DEPTH: 234 '
(Hopewell)

GEOLOGIC LOG

Depth
(feet)

MOORINGS "UNIT" (0-20')

0-10 Sand - dark yellowish orange; moderate clay; fine to granular grained; subangular to subrounded; poorly sorted; quartz; feldspar

10-20 Sand - dark yellowish orange; moderate clay; very fine to medium with some coarse grains, few granules; subangular to rounded; moderately sorted; quartz; some feldspar; some glauconite; fine opaques; few fragments of ferricrete

CALVERT FORMATION (20'-50')

20-30 Sand - light olive brown; moderate clay; fine with some medium grains; subangular to subrounded; moderately well sorted; quartz; black phosphatic material; 3% shell fragments; some galuconite

30-40 Sand - light olive gray; abundant clay; very fine to fine grained; subangular to subrounded; moderately well sorted; quartz; 8% rounded phosphatic grain; 5% shell fragments; some glauconite; few spines; forams rare; sharks tooth

40-50 As above except olive light gray; 8% shell fragments; no tooth; no forams

NANJEMOY - MATTAPONI FORMATION (50'-110')

50-60 Sand - grayish olive; abundant clay; very fine to medium grained; subangular to rounded; moderately well sorted; quartz; 45% glauconite; 3% sandy limestone fragments; some black phosphatic material; few shell fragments; forams (inc. Robulus and Nonion)

60-70 Sand - grayish olive; abundant clay; silty; very fine to coarse gravel; rounded; poorly sorted; 50% glauconite; quartz; 4% sandy limestone fragments; some black phosphatic material; few shell fragments; forams (inc. Robulus, Dentalina? and Pyrulina?)

70-80 As above except no forams observed; ostracode

80-90 Sand and limestone - olive light gray; abundant clay (yellow and gray); fine with some medium grains, 35% granules and pebbles; subangular to rounded; moderately sorted; quartz; glauconite 45% of sand fraction; 35% limestone fragments; forams abundant; ostracodes abundant; few shell fragments; pyrite rare

90-100 As above except no pyrite observed

100-110 Sand and clay - olive light gray, locally yellow; abundant clay, and clay clasts; slightly sandy; fine to medium grained, 25% pebbles; subangular to rounded; moderately sorted; quartz; 45% glauconite in sand fraction; 25% limestone fragments; ostracodes abundant; forams; few shell fragments

PATUXENT FORMATION (110'-234')

110-120 Sand - light olive gray, slightly clayey, few gray clay clasts; coarse to very coarse grained; subangular to subrounded; moderately well sorted; quartz; feldspar; few shell fragments; few grains of glauconite

120-130 Sand - light olive gray; moderate clay, few gray clay clasts; coarse to granular, some pebbles; subangular to subrounded; moderately sorted; quartz; feldspar

130-140 Clay and sand - pale yellowish brown; abundant clay, (clasts reddish brown); slightly sandy; very fine to very coarse grained; subangular to subrounded; poorly sorted; quartz; feldspar; 7% glauconite; some muscovite

140-150 Clay - light olive gray; moderately sandy; fine to coarse grained; subangular to subrounded; poorly sorted; quartz; feldspar; muscovite; some glauconite

150-160 As above except 2% glauconite

160-170 Sand - off white; slightly clayey; medium to very coarse, few granules; subrounded; moderately sorted; quartz; feldspar; few glauconite grains

170-180 As above except no glauconite

180-190 As above except moderately clayey

190-200 Sand - off white; slightly clayey; medium to granular grained; subangular to subrounded; moderately sorted; quartz; feldspar

200-210 As above plus a few grains of glauconite

210-215 No Sample

215-230 Gravel - off white; angular to rounded; quartz; feldspar

230-234 Clay - light olive gray; moderate sand; fine to very coarse grained with some granules and pebbles; subangular to subrounded; poorly sorted; quartz; feldspar; some glauconite

W# 2618
C# 168

GEOLOGIC SUMMARY

Thickness (feet)	ROCK UNIT	TIME ROCK UNIT
20	Moorings"Unit"	Pleistocene
30	Calvert Formation	Miocene - Eocene
60	Nanjemoy - Mattiponi Formation	Eocene - Cretaceous
124	Patuxent Formation	Cretaceous

VIRGINIA DIVISION OF MINERAL RESOURCES
David A. Hubbard, Jr., Geologist
July 27, 1978