

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

MAILING ADDRESS:
Box 3667
Charlottesville, VA 22903

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

OFFICE ADDRESS:
McCormick Road
Charlottesville, Virginia

OWNER: Prince George County Mailing Address: Prince George Court House, Virginia

TENANT: _____ Mailing Address: P. O. Box 27186

DRILLER: Sydnor Hydordynamics, Inc. Mailing Address: Richmond, Va. 23261

WELL LOCATION: County Prince George Approx. 100 ^{feet}~~miles~~ Northeast (direction) of
Route 709 Prince George Court House and 400 ^{feet}~~miles~~ Northwest (direction) of 106

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

DATE STARTED: 8/31/71 DATE COMPLETED: 9/9/71

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 300 feet

WATER LEVEL: Stands 69 feet below surface OR
has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method Submersible Pump
Drawdown 103 feet
Rate 120 gal. per min.
Duration 14 hrs., _____ min.

HOLE SIZE: 11 inches from 0 to 50 feet
10 inches from 50 to 300 feet
_____ inches from _____ to _____ feet

WATER ZONES: from 190 to 228 feet
from 236 to 278 feet
from _____ to _____ feet

SCREEN SIZE: 6 inches from 216 to 226 feet
6 inches from 240 to 260 feet
_____ inches from _____ to _____ feet

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

CASE SIZE: 6 inches from +1' 6" to 216 feet
6 inches from 226 to 240 feet
6 inches from 260 to 264 feet

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

GROUTING: Method Pressure
Material Cement & water Depth 50 feet

WATER ANALYSIS AVAILABLE: Yes X No _____
31
DRILL CUTTINGS SAVED: Yes X No _____

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

(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.)

REMARKS: Electric Log and Gamma Log Ran.

LOG

FURNISHED BY: SYDNOR HYDRODYNAMICS, INC.

DATE: 9/8/71

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
FROM	TO		
0	5	Yellow and red clay	
25	40	Yellow sand	
40	70	Sand-gray sand clay	
70	101	Blue clay-shells	
101	111	Clay and hard shell rock	
111	160	Tough white and gray clay, some green sand	
160	206	Gravel and clay	
206	232	Shells and white gray clay	
232	276	Hard coarse gravel and clay	
276	300	Gravel-sand-some clay	

(Use additional forms if necessary)

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INTERVAL SHEET

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Well Repository No: W-3278
C- 173

Date rec'd: 9/20/71 Date Processed: 10/14/71 Sample Interval: from:0to:300

PROPERTY: Prince George County

Number of samples: 30

COMPANY: Sydnor

Total Depth: 300'

COUNTY: Prince George (P. G. C. H.)

Oil or Gas: Water:XExploratory:

From-To	From-To	From-To	From-To
0 - 10	250 - 260	-	-
10 - 20	260 - 270	-	-
20 - 30	270 - 280	-	-
30 - 40	280 - 290	-	-
40 - 50	290 - 300	-	-
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	-	-	-
220 - 230	-	-	-
230 - 240	-	-	-
240 - 250	-	-	-

All intervals have both washed & unwashed samples.

OWNER: Prince George County
DRILLER: Sydnor Hydrodynamics
COUNTY: Prince George
(P.G.C.H.)

W#: 3278
C#: 173
TOTAL DEPTH: 300'

GEOLOGIC LOG

Depth (feet)

MOORINGS "UNIT" (0-70')

- 0-10 Sand and clay — grayish orange; moderate clay — gray, orange; abundant sand; fine to medium grained, some granules, some pebbles; subangular to subrounded; poorly sorted; quartz; feldspar; few opaques.
- 10-20 Sand — dark yellowish orange; moderate staining; moderate clay; medium grained; subangular to subrounded; well sorted; quartz; feldspar; some opaques; muscovite.
- 20-30 As above plus some granules.
- 30-40 Sand — dark yellowish orange; moderate staining; slightly clayey; coarse grained to granular; subangular to subrounded; moderately well sorted; quartz; feldspar.
- 40-50 As above except very coarse grained to granular, 15% pebbles.
- 50-60 Sand and gravel — dark yellowish orange; moderate staining; slightly clayey; fine to medium grained, 35% pebbles; subangular to subrounded; poorly sorted; quartz; feldspar.
- 60-70 Sand — dark yellowish orange; moderate clay — orange, gray; fine to medium grained, some granules, few pebbles; subangular to subrounded; poorly sorted; quartz; feldspar; few shell fragments.

CALVERT FORMATION (70-90')

- 70-80 Sand — grayish orange; moderate clay — gray, orange; fine to medium grained, some granules, some pebbles; subangular to subrounded; poorly sorted; quartz; 5% shell fragments; few spines; few black phosphatic fragments.
- 80-90 Sand — light olive gray; abundant clay; fine to medium grained; subangular to subrounded; moderately well sorted; quartz; 25% shell fragments; spines; some black phosphatic material; forams (inc. Buccella and Lagena?); ostracode.

NANJEMOY-MATTAPONI FORMATION (90-120')

- 90-100 Sand — olive light gray; abundant clay; fine to medium grained, few pebbles; subangular to rounded; moderately sorted; quartz; 30% glauconite; 3% shell fragments; spines; forams (inc. Robulus).
- 100-110 Gravel — greenish gray; slightly clayey; abundant sand; medium to coarse grained, some granules; subangular to rounded; poorly sorted; quartz; glauconite 50% of sand sized fraction; some shell fragments; few grains of garnet; foram.

Depth (feet)

110-120 As (100-110') plus some fine grains; glauconite 10% of sand fraction; no foram.

PATUXENT FORMATION (120-300')

120-130 Sand — yellowish gray; moderate clay; medium to very coarse grained, 20% granules; some pebbles; subangular to subrounded; moderately sorted; quartz; feldspar; few grains of glauconite.

130-140 Clay — grayish yellow; moderate sand; medium to coarse grained with some fine grains, some granules, some pebbles; subangular to subrounded; poorly sorted; quartz; feldspar; forams rare (inc. Robulus).

140-150 Gravel — yellowish gray; abundant clay; moderate sand; medium grained to gravel; subangular to subrounded; poorly sorted; quartz; feldspar; few shell fragments; muscovite; pyrite.

150-160 Clay — yellowish gray; moderate sand; very coarse grained to gravel; subrounded; moderately sorted; quartz; feldspar; muscovite; few shell fragments; pyrite.

160-170 Gravel — grayish olive; abundant clay; moderate sand; medium grained to gravel; subangular to rounded; poorly sorted; quartz; feldspar; glauconite 15% of sand sized fraction; few shell fragments; muscovite.

170-180 Gravel — grayish olive; moderate clay; moderate sand; coarse grained to gravel; subrounded; moderately sorted; quartz; feldspar.

180-190 Sand — off white; slightly clayey; coarse grained to granular, 40% granules, some pebbles; subrounded; moderately well sorted; quartz; feldspar.

190-200 As above except 50% granules.

200-210 As above.

210-220 As above except 35% granules; few grains of garnet.

220-230 As above except moderate clay; 25% granules.

230-240 Sand and gravel — off white; slightly clayey; coarse grained to gravel; subrounded; moderately well sorted; quartz; feldspar; few grains of garnet.

240-250 As above except no garnet.

250-260 Sand — off white; moderate clay; coarse grained to granular with some medium grains; subrounded; moderately sorted; quartz; feldspar.

260-270 As above plus some pebbles.

Depth (feet)

- 270-280 Sand — off white; slightly clayey; coarse grained to granular, 50% granules, few pebbles; subrounded; moderately well sorted; quartz; feldspar; some garnet.
- 280-290 As above except moderate clay; 30% granules; no garnet.
- 290-300 Gravel — off white; slightly clayey; moderate sand; very coarse grained to gravel; subrounded; moderately sorted; quartz; feldspar.

Logged by: Michael T. Currie

GEOLOGIC SUMMARY

Thickness (feet)	<u>ROCK UNIT</u>	<u>TIME ROCK UNIT</u>
70	Moorings "Unit"	Pleistocene
20	Calvert Formation	Miocene-Eocene
30	Nanjemoy-Mattaponi Formation	Eocene-Cretaceous
180+	Patuxent Formation	Cretaceous

VIRGINIA DIVISION OF MINERAL RESOURCES
David A. Hubbard, Jr., Geologist
August 10, 1978