

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W# 3374
C# 174

MAILING ADDRESS:

DIVISION OF MINERAL RESOURCES

OFFICE ADDRESS:

B-3667
Charlottesville, VA 22903

JAMES L. CALVER, COMMISSIONER

McCormick Road
Charlottesville, Virginia

WATER WELL COMPLETION REPORT

OWNER: H. W. Robertson & Associates, Inc. Mailing Address: c/o Chewning Britt & Hoggard
P.O. Box 2125 Va. Beach, Va.

TENANT: Berkeley Manor Subdivision Mailing Address: Prince George Co. Va.

DRILLER: Sydnor Hydrodynamics Inc. Mailing Address: P.O. Box 27186 Richmond, Va. 23223

WELL LOCATION: County Prince George Co. Approx. .5 ^{miles} South (direction) of
Route 632 and .5 ^{miles} East (direction) of I-95

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

DATE STARTED: 9-22-71 DATE COMPLETED: 11-5-71

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 327 feet

WATER LEVEL: Stands 25'4" feet below surface OR
has NATURAL flow of _____ gallons per minute

YIELD TEST: Method Submersible
Drawdown 45 feet
Rate 20 gal. per min.
Duration 4 hrs., 25 min.

HOLE SIZE: 12 inches from 0 to 327 feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

WATER ZONES: from 55 to 70 feet
from 88 to 103 feet
from _____ to _____ feet

SCREEN SIZE: 6 inches from 55 to 70 feet
6 inches from 88 to 103 feet
_____ inches from _____ to _____ feet

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

CASE SIZE: 6 inches from 18" to 55 feet
6 inches from 70 to 88 feet
6 inches from 103 to 110 feet

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

GROUTING: Method Pressure
Material Cement & Water Depth 50 feet

WATER ANALYSIS AVAILABLE: Yes X No _____
33

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

DRILL CUTTINGS SAVED: Yes X No _____

(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 and gamma log ray

LOG

FURNISHED BY: Sydnor Hydrodynamics, Inc.

DATE: 11/5/71

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	Top Soil - yellow clay	
5	10	Brown, pink, white clay - streaks of gravel	
10	30	Mixed clay	
30	54	Gray clay - shells	
54	70	Coarse sand shells	
70	72	Hand shells	
72	80	Green clay, shells	
80	90	Medium green sand clay and shells	
90	100	Green sand clay, streak of gray sand	
100	110	Coarse sand	
110	120	Red, gray clay	
120	125	Mixed clay	
125	145	Hard red clay	
145	185	Hard red sand-clay	
185	197	Red sand clay, gravel, shells	
197	205	Red sand, clay, shell rock	
205	210	Red sand, clay gravel	
210	230	Red sand, clay, streaks of gravel	
230	240	Red clay, coarse sand	
240	260	Coarse sand, red clay gravel	
260	270	Red sand clay	
270	290	Coarse red sand clay, gravels	
290	300	Coarse red sand clay	
300	305	Red sand clay, hard streaks	
305	327	Red clay, sand, rock	

(Use additional forms if necessary)

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W-3374
C-194

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has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method Submersible
Drawdown 45 feet
Rate 20 gal. per min.
Duration 4 hrs., 25 min.

HOLE SIZE: 12 inches from 0 to 327 feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

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from 88 to 103 feet
from _____ to _____ feet

SCREEN SIZE: 6 inches from 55 to 70 feet

6 inches from 88 to 103 feet
_____ inches from _____ to _____ feet

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

CASE SIZE: 6 inches from +18" to 55 feet
6 inches from 70 to 88 feet
6 inches from 103 to 110 feet

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

GROUTING: Method Pressure
Material Cement & Water Depth 50 feet

WATER ANALYSIS AVAILABLE: Yes X No _____
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 and gamma log ray

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

INTERVAL SHEET

Page 1 of 1

Well Repository No: W# 3374

Date rec'd: 11/18/71 Date Processed: 2/9/72

C# 174
 Sample Interval: from 0 to 325

PROPERTY: H. W. Robertson
 (Berkeley Manor)

Number of samples: 32

COMPANY: Sydnor

Total Depth: 327'

COUNTY: Prince George (Petersburg)

Oil or Gas: Water: Exploratory:

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	300 - 310	-	-
60 - 70	310 - 325	-	-
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	-	-	-

Intervals have washed and unwashed samples.

OWNER: H. W. Robertson (Berkley Manor)
DRILLER: Sydnor Hydrodynamics
COUNTY: Prince George (Petersburg)

W# 3374
C# 174
Total Depth: 325'

GEOLOGIC LOG

Depth (feet)

MOORINGS "UNIT" (0-20)

- 0-10 Clay - gray, yellow, red; moderate sand; medium to coarse grained some granules; subangular to subrounded; moderately sorted; quartz; some feldspar.
- 10-20 Sand and gravel - yellowish brown; moderate clay; medium grained to gravel; subrounded; moderately sorted; quartz; feldspar; few opaques.

CALVERT FORMATION (20-60')

- 20-30 Sand - light olive gray; moderate clay-gray, yellow; medium grained with some fine grains; subangular to subrounded; well sorted; quartz; feldspar.
- 30-40 Sand - light olive gray; moderate clay - gray; yellow; medium to very coarse grained, few granules; subrounded; moderately sorted; quartz; 20% shell fragments; few spines; few black phosphatic fragments.
- 40-50 Shell hash and sand-medium gray; moderate clay; fine to medium grained with some coarse grains; subangular to subrounded; moderately well sorted; 50% shell fragments; quartz; some black phosphatic material; spines; forams (inc. Amphistegina and Quinqueloculina).
- 50-60 Sand - light olive gray; abundant clay; very coarse grained to granular; subrounded; well sorted; quartz; 15% shell fragments; few black phosphatic fragments; bone fragment; forams rare (inc. Amphistegina).

PATUXENT FORMATION (60-100')

- 60-70 Sand - off white; slightly clayey; coarse grained to granular; subrounded; moderately well sorted; quartz; feldspar; few shell fragments; few grains of garnet.
- 70-80 Sand - yellowish gray; moderate clay; medium to coarse grained; subangular to subrounded; moderately sorted; quartz; some feldspar; few shell fragments.
- 80-90 As above except coarse grained to granular.
- 90-100 Sand - off white; slightly clayey; coarse to very coarse grained; subrounded; moderately well sorted; quartz; feldspar; few shell fragments.

Depth
(feet)

NEWARK GROUP (100-325')

- 100-110 Sand - light reddish brown; abundant clay; granular; subrounded; well sorted; quartz; feldspar; 10% shell fragments.
- 110-120 Clay and sand - reddish brown; coarse grained to granular; subrounded; moderately well sorted; quartz; feldspar.
- 120-130 Clay - reddish brown; abundant sand; medium to very coarse grained, some granules; subangular to subrounded; moderately sorted; quartz; feldspar; few shell fragments; magnetite.
- 130-140 Sand - reddish brown; moderate clay; medium to very coarse grained with some fine grains; subangular to subrounded; moderately sorted; quartz; feldspar; some shell fragments.
- 140-150 Clay - reddish brown; moderate sand; coarse to very coarse grained, some granules; subrounded; moderately sorted; quartz; feldspar; few shell fragments.
- 150-160 Sand - reddish brown; moderate clay; coarse grained to granular; subrounded; moderately well sorted; quartz; some shell fragments; opaques; pyrite.
- 160-170 Sand - reddish brown; slightly clayey; coarse grained to granular; subrounded; moderately well sorted; quartz; some shell fragments; some opaques.
- 170-180 As above except granular; well sorted.
- 180-190 As above plus 10% pebbles.
- 190-200 Gravel - reddish brown; moderate clay; moderate sand; coarse grained to gravel; subrounded; moderately sorted; quartz; feldspar; some shell fragments; opaques; muscovite; pyrite.
- 200-210 Sand - reddish brown; slightly clayey; medium to coarse grained, 10% granules; subangular to subrounded; moderately sorted; quartz; feldspar; few shell fragments; opaques; muscovite; pyrite.
- 210-220 As above except moderate clay.
- 220-230 As above except medium grained to granular, some pebbles; poorly sorted.
- 230-240 As above.

Depth
(feet)

- 240-250 As above except medium to very coarse grained; 15% granules.
- 250-260 Sand - reddish brown; slightly clayey; coarse grained to granular (20%), some medium grains, some pebbles; subangular to subrounded; poorly sorted; quartz; feldspar; some opaques.
- 260-270 Sand and gravel - reddish brown; slightly clayey; coarse grained to gravel, some medium grains; subrounded; moderately sorted; quartz; feldspar; some opaques, muscovite.
- 270-280 Sand - reddish brown; slightly clayey; medium to coarse grained, some granules, some pebbles; subangular to subrounded; moderately sorted; quartz; feldspar; some opaques.
- 280-290 As above except coarse grained to granular, 15% pebbles; subrounded.
- 290-300 As above except 10% pebbles.
- 300-310 As above except 15% pebbles.
- 310-325 As above except medium grained to granular, 10% pebbles.

Logged by: Michael T. Currie

GEOLOGIC SUMMARY

<u>Thickness (feet)</u>	<u>Rock Unit</u>	<u>Time Rock Unit</u>
20	Moorings "Unit"	Pleistocene
40	Calvert Formation	Miocene - Eocene
40	Patuxent Foramtion	Cretaceous
225	Newark Group	Triassic

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