

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W#: 3285

C#: 143

MAILING ADDRESS:

DIVISION OF MINERAL RESOURCES

OFFICE ADDRESS:

Box 3667

JAMES L. CALVER, COMMISSIONER

McCormick Road

Charlottesville, VA 22903

WATER WELL COMPLETION REPORT

Charlottesville, Virginia

OWNER: Mr. Douglas Fleet Mailing Address: Rt. 1 Mechanicsville, VA

TENANT: Retreat Farm Mailing Address: \_\_\_\_\_

DRILLER: Sydnor Hydrodynamics, Inc. Mailing Address: P.O. Box 27186 Richmond, VA 23261

WELL LOCATION: County Hanover County Approx. 1 1/2 <sup>feet</sup> miles North (direction) of Eastview on St. Rd 606 and .7 <sup>feet</sup> miles East (direction) of St. Rd. 629

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

DATE STARTED: 9/1/71 DATE COMPLETED: 9/20/71

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 372 feet

WATER LEVEL: Stands 18'9" feet below surface OR  
has NATURAL flow of \_\_\_\_\_ gallons per minute

YIELD TEST: Method Submersible pump HOLE SIZE: 12 inches from 0 to 372 feet

Drawdown 73'4" feet \_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

Rate 140 gal. per min. \_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

Duration 7 hrs., 30 min. \_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

WATER ZONES: from 285 to 330 feet \_\_\_\_\_ 4 inches from 310 to 330 feet

from \_\_\_\_\_ to \_\_\_\_\_ feet \_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

from \_\_\_\_\_ to \_\_\_\_\_ feet \_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

WATER: Color Clear Taste \_\_\_\_\_ \_\_\_\_\_ 4 inches from 252 to 285 feet

Odor \_\_\_\_\_ Temp. \_\_\_\_\_ °F \_\_\_\_\_ 4 inches from 295 to 310 feet

WELL TO SUPPLY: (check one) Home \_\_\_\_\_ GROUTING: Method Pressure

Farm xxx Town \_\_\_\_\_ School \_\_\_\_\_ Material Cement & water Depth 50 feet

Industry \_\_\_\_\_ Other \_\_\_\_\_ PUMP: Type \_\_\_\_\_

WATER ANALYSIS AVAILABLE: Yes xx No \_\_\_\_\_ Capacity \_\_\_\_\_ gal per min

DRILL CUTTINGS SAVED: 37 Yes xx No \_\_\_\_\_ 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 logs ran by driller.

# LOG

FURNISHED BY: Sydnor Hydrodynamics, Inc.

DATE: 9/20/71

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	Sand gravel	
15	20	Blue clay	
20	40	Sand, clay and shells	
40	70	Fine black sand and shells	
70	110	Blue clay, shell	
110	120	Red clay and shells	
120	130	Gray, red, white clay and black sand	
130	140	Gray, pink clay and black sand	
140	160	Gray clay, black sand and shells	
160	185	Gray clay - black sand	
185	187	White sand clay, streaks of coarse sand	
187	200	Green sand clay	
200	210	Green sand clay with black sand and shells	
210	220	Black sand - green clay	
220	230	Gray coarse sand - streaks of clay	
230	240	Mixed clay	
240	250	Mixed clay - streaks of black sand	
250	260	Green sand clay	
260	270	Green clay - streaks of black sand	
270	280	Green sand clay	
280	290	Green - white sand clay	
290	300	Coarse sand - some clay	
300	310	Green sand clay	
310	320	Green sand - gravel streaks of clay	
320	330	Coarse sand -- streaks of clay	
330	335	Hard coarse sand - gravel	
335	340	Coarse sand - gravel with clay	
340	345	Red clay	
345	350	Green sand clay	
350	369	Coarse sand - gravel	
369	372	Green sand clay	

(Use additional forms if necessary)

W-3285  
C-143

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W-3285

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: Mr. Douglas Fleet Mailing Address: Rt. 1, Mechanicsville, Va.

TENANT: Retreat Farm Mailing Address:

DRILLER: SYDNOR HYDRODYNAMICS, INC. Mailing Address: P. O. BOX 27186, Richmond, Va. 232

WELL LOCATION: County Hanover County Approx. 1 1/2 miles North (direction) of  
Easturew on Route 606 and .7 miles East (direction) of Route 629

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

DATE STARTED: 9/1/71 DATE COMPLETED: 9/20/71

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 372 feet

WATER LEVEL: Stands 18 3/4 feet below surface OR  
has NATURAL flow of gallons per minute.

YIELD TEST: Method Submersible pump HOLE SIZE: 12 inches from 0 to 372 feet  
Drawdown 73 1/3 feet  
Rate 140 gal. per min.  
Duration 7 hrs., 30 min.  
SCREEN SIZE: 4 inches from 285 to 295 feet  
4 inches from 310 to 330 feet

WATER ZONES: from 285 to 330 feet  
from feet  
from feet  
CASE SIZE: 6 inches from +1 to 252 feet  
4 inches from 252 to 285 feet  
4 inches from 295 to 310 feet  
4 inches from 330 to 334 feet

WATER: Color Clear Taste  
Odor Temp. °F

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

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 ran by driller  
MANQUIN ?  
ELEV. :

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

INTERVAL SHEET

Page 1 of 1

Well Repository No: W#: 3285

C#: 143

Date rec'd: 10/8/72 Date Processed: 10/21/71 Sample Interval: from: 0 to: 370'

PROPERTY: D. Fleet  
 (Retreat Farm)  
 COMPANY: Sydnor Hydrodynamics, Inc.

Number of samples: 37

Total Depth: 372'

COUNTY: Hanover  
 (Eastview)

Oil or Gas: Water: Exploratory:

From-To	From-To	From-To	From-To
0 - 10	250 - 60	-	-
10 - 20	260 - 70	-	-
20 - 30	270 - 80	-	-
30 - 40	280 - 90	-	-
40 - 50	290 - 300	-	-
50 - 60	300 - 10	-	-
60 - 70	310 - 20	-	-
70 - 80	320 - 30	-	-
80 - 90	330 - 40	-	-
90 - 100	340 - 50	-	-
100 - 10	350 - 60	-	-
110 - 20	360 - 70	-	-
120 - 30	-	-	-
130 - 40	-	-	-
140 - 50	-	-	-
150 - 60	-	-	-
160 - 70	-	-	-
170 - 80	-	-	-
180 - 90	-	-	-
190 - 200	-	-	-
200 - 10	-	-	-
210 - 20	-	-	-
220 - 30	-	-	-
230 - 40	-	-	-
240 - 50	-	-	-

All intervals have both washed & unwashed samples.

OWNER: D. Fleet  
(Retreat Farm)  
DRILLER: Sydnor Hydrodynamics  
COUNTY: Hanover  
(Eastview)

W#: 3285  
C#: 143  
TOTAL DEPTH: 372'  
QUAD: Manquin

GEOLOGIC LOG

Depth  
(feet)

- 0 - 10 Sand -- grayish orange; slightly clayey; medium to coarse grained, some fine grains; some very coarse grains, 5% granules, some pebbles; subangular to subrounded; poorly sorted; quartz; feldspar; some opaques; few grains of glauconite; muscovite.
- 10 - 20 Sand -- grayish olive; slightly clayey; medium to coarse grained, 5% granules, 3% pebbles; subangular to rounded; moderately sorted; quartz; 25% glauconite; 7% ferricrete; feldspar.
- 20 - 30 As above except few pebbles; 15% glauconite; few fragments of ferricrete.
- 30 - 40 As above except 20% glauconite.
- 40 - 50 Sand -- medium light gray; slightly clayey; medium grained to granular (well rounded, 25%); subangular to rounded; poorly sorted; quartz; 20% glauconite; 10% shell fragments; forams abundant (inc. Buccella, Robulus, Discorbis, Globulina, and Dentalina?); some garnet; some limestone fragments; few grains of pyrite; ostracode.
- 50 - 60 As above except forams (inc. Buccella and Robulus); few grains of garnet.
- 60 - 70 As above except 7% shell fragments; no ostracode.
- 70 - 80 Sand -- olive light gray; moderate clay; medium grained to granular (well rounded, 15%); subangular to rounded; poorly sorted; quartz; 40% glauconite; 15% shell fragments; forams (inc. Buccella and Robulus); few grains of pyrite; garnet; muscovite; ostracode.
- 80 - 90 Granules and gravel -- olive light gray; moderate clay; abundant fine to coarse grained sand; subangular to rounded; poorly sorted; quartz; 25% shell fragments; 15% glauconite; some muscovite; some sandy limestone fragments (glauconite, quartz); forams scarce (inc. Robulus and Buccella); few echinoid spines; few grains of pyrite; garnet; ostracode.
- 90 - 100 Clay and sand -- olive light gray; abundant clay; moderate sand; medium grained, some fine grains, some pebbles; subangular to rounded; moderately well sorted; glauconite, 50% of sand sized fraction; quartz; 10% shell fragments; some muscovite; forams (inc. Robulus, Buccella, and Globulina); few grains of feldspar; ostracodes.

Depth  
(feet)

- 100 - 110 Clay -- olive light gray; abundant sand; fine to medium grained, some pebbles; subangular to rounded; moderately sorted; glauconite; 50% of sand sized fraction; quartz; 7% shell fragments; 2% muscovite; few sandy limestone fragments; few grains of pyrite; forams (inc. Robulus).
- 110 - 120 As above plus Dentalina; no limestone fragments.
- 120 - 130 Clay -- olive light gray, moderate orange pink; abundant sand; fine to coarse grained, some granules, some pebbles; subangular to rounded; poorly sorted; quartz; glauconite 40% of sand sized fraction; 10% shell fragments; some muscovite; some sandy limestone fragments; forams (inc. Robulus); few grains of pyrite.
- 130 - 140 Sand and clay -- olive gray; moderate clay - olive gray, moderate orange pink, very light gray; abundant sand; medium grained; rounded; well sorted; 75% glauconite; quartz; 5% shell fragments; some black phosphatic material; few flakes of muscovite; bone fragments.
- 140 - 150 As above plus some pebbles; moderately well sorted; 65% glauconite; no bone fragments.
- 150 - 160 Sand -- olive gray; moderate clay; medium grained, some coarse grains; subrounded; well sorted; 65% glauconite; quartz; 7% shell fragments; bone fragments.
- 160 - 170 Sand -- olive gray; moderate clay; medium grained, 5% granules, 5% pebbles; subangular to rounded; moderately sorted; 60% glauconite; quartz; 10% shell fragments; some black phosphatic material; few flakes of muscovite; forams scarce (inc. Robulus and Nodosaria); ostracode.
- 170 - 180 Sand -- olive gray; moderate clay; fine to medium grained, few pebbles; rounded; well sorted; 65% glauconite; quartz; 15% shell fragments; some black phosphatic material; few flakes of muscovite; few sandy limestone fragment.
- 180 - 190 Sand -- olive gray; moderate clay; medium grained, 3% granules; rounded; well sorted; 60% glauconite; quartz; 2% shell fragments.
- 190 - 200 Sand and granules -- light olive gray; slightly clayey; medium to very coarse grained, 40% granules, some pebbles; subangular to rounded; quartz; 30% glauconite; feldspar; few grains of garnet; muscovite; few shell fragments; bone fragments; pyrite.
- 200 - 210 As above except 30% granules; 20% glauconite; no bone fragments; no pyrite.
- 210 - 220 Sand -- light olive gray; slightly clayey; medium to very coarse grained, 7% granules, some pebbles; subangular to subrounded; moderately sorted;

Depth  
(feet)

- quartz; feldspar; 15% glauconite; few grains of garnet; few shell fragments.
- 220 - 230 As above except 10% pebbles; 10% glauconite; no shell fragments.
- 230 - 240 As above plus few flakes of muscovite; few shell fragments.
- 240 - 250 Sand -- pale yellowish brown; moderate clay; fine to coarse grained, some granules, few pebbles; subangular to subrounded; moderately sorted; quartz; feldspar; 7% glauconite; some muscovite; few grains of garnet.
- 250 - 260 As above except some fine grains.
- 260 - 270 Sand -- yellowish gray; slightly clayey; medium grained, 20% granules, some pebbles; subangular to subrounded; moderately sorted; quartz; feldspar; 5% glauconite; some muscovite; few grains of garnet.
- 270 - 280 As above except 10% granules; large black phosphatic fragment.
- 280 - 290 As above except 3% glauconite; 2% muscovite; no phosphatic material.
- 290 - 300 Sand and granules -- off white; medium to coarse grained, 60% granules; subangular to subrounded; poorly sorted; quartz; feldspar; 3% glauconite; 2% muscovite; few grains of garnet.
- 300 - 310 As above except light olive gray; slightly clayey; few flakes of muscovite.
- 310 - 320 Sand -- off white; medium grained to granular, 5% pebbles; subangular to subrounded, poorly sorted; quartz; feldspar; some glauconite; few flakes of muscovite.
- 320 - 330 Granules -- off white; abundant medium to very coarse grained sand; subangular to subrounded; moderately sorted; quartz; feldspar; 2% glauconite; few flakes of muscovite.
- 330 - 340 Gravel -- off white; abundant coarse to very coarse grained sand, 5% granules; subrounded; moderately sorted; quartz; feldspar; 3% glauconite; few grains of garnet; muscovite.
- 340 - 350 Sand -- light olive gray; moderate clay; medium grained to granular, few pebbles; subangular to subrounded; poorly sorted; quartz; feldspar; some glauconite; few flakes of muscovite.
- 350 - 360 Sand and gravel -- light olive gray; slightly clayey; coarse grained to granular, 40% pebbles; subrounded; moderately sorted; quartz; feldspar; some glauconite; few flakes of muscovite.

OWNER: D. Fleet

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W#: 3285

Depth  
(feet)

360 - 370 As above except gravel; 70% pebbles.

370 - 372 No sample.

Logged by: Michael T. Currie  
Jan. 23, 1979



OWNER: D. Fleet  
(Retreat Farm)

W# 3285

## GEOLOGIC SUMMARY

<u>Depth</u> (feet)	<u>Thickness</u> (feet)	<u>Rock Unit</u>	<u>Time</u>	<u>Rock Unit</u>
0-10	10	Columbia Group		Pleistocene
10-90	80	Nanjemoy Formation		Eocene
90-140	50	Marlboro Clay		Eocene
140-190	50	Mattaponi Formation		Eocene-Cretaceous
190-290	100	Transition Beds?		
290-370	80	Patuxent Formation		Cretaceous
370-372	2	No Sample		

VIRGINIA DIVISION OF MINERAL RESOURCES  
David A. Hubbard, Jr., Geologist  
February 2, 1979.