

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W-4244  
C-118

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: Barnhardt Farms, Incorporated #4 Mailing Address: Urbanna, Virginia 23175

TENANT: Brill Farm Mailing Address: \_\_\_\_\_

DRILLER: Sydnor Hydrodynamics, Incorporated Mailing Address: P.O. Box 27186, Richmond, Virginia

WELL LOCATION: County Middlesex Approx. 1100 <sup>feet</sup>/<sub>miles</sub> west (direction) of  
State Route 619 and 3 <sup>feet</sup>/<sub>miles</sub> north (direction) of U.S. Highway 33

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

DATE STARTED: April 3, 1974 DATE COMPLETED: June 3, 1974

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 742' feet  
(completed at 730')

WATER LEVEL: Stands 85'6 1/2" feet below surface OR  
has NATURAL flow of \_\_\_\_\_ gallons per minute.

YIELD TEST: Method Turbine  
Drawdown 26 feet  
Rate 1200 gal. per min.  
Duration 24 hrs., \_\_\_\_\_ min.

HOLE SIZE: 22 1/2 inches from 0 to 742 feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

WATER ZONES: from 507 to 725 feet  
from \_\_\_\_\_ to \_\_\_\_\_ feet  
from \_\_\_\_\_ to \_\_\_\_\_ feet

SCREEN SIZE: 8 inches from 507 to 725 feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

CASE SIZE: 14 inches from +2 to 400 feet  
8 inches from 400 to 507 feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

WATER: Color \_\_\_\_\_ Taste \_\_\_\_\_  
Odor \_\_\_\_\_ Temp. \_\_\_\_\_ °F

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

GROUTING: Method Pressure  
Material Cement & water Depth 100 feet

WATER ANALYSIS AVAILABLE: Yes  No \_\_\_\_\_  
DRILL CUTTINGS SAVED: Yes  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 logs run by driller.

# LOG

FURNISHED BY: Sydnor Hydrodynamics, Incorporated DATE: \_\_\_\_\_

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
FROM	TO		
0	1	Top soil	
1	4	Yellow sandy clay	
4	16	Brown and yellow sand	
16	18	Yellow clay	
18	27	Blue clay	
27	52	Hard silty blue marl with shells	
52	95	Fine gray sand, shells with some silty clay	
95	170	Gray sticky clay	
170	275	Gray and green clay	
275	315	Shells and fine silty sand	
315	360	Shells, fine sand, and clay streaks	
360	395	Streaks of shell rock and sandy, some clay	
395	420	Silty black sand and clay	
420	430	Silty clay	
430	493	Tough gray clay	
493	517	Gray sand	
517	535	Gray clay and sand streaks	
535	588	Gray sand	
588	607	Tough hard brown clay	
607	620	Mixed colors of clay	
620	645	Silty fine gray sand, some mica.	
645	648	Silty gray sand	
648	660	Gray sand	
660	678	Sand and clay streaks	
678	705	Gray sand	
705	742	Gray sand and clay streaks	

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

INTERVAL SHEET

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Well Repository No.: W-4244

Date rec'd: 7/18/74 Date Processed: 8/22/75

Sample Interval: from 0 to: 740

PROPERTY: Barnhardt Farms, Incorporated  
 (Brill Farm)

Number of samples: 74

COMPANY: Sydnor

Total Depth: 742'

COUNTY: Middlesex (Burhans Wharf)

Oil or Gas: Water:x Exploratory:

From-To	From-To	From-To	From-To	From-To
0-10	50-60	700-10	-	-
10-20	60-70	10-20	-	-
20-30	70-80	20-30	-	-
30-40	80-90	30-40	-	-
40-50	90-400	-	-	-
50-60	400-10	-	All intervals have both washed and unwashed samples	
60-70	10-20	-	-	-
70-80	20-30	-	-	-
80-90	30-40	-	-	-
90-100	40-50	-	-	-
100-10	50-60	-	-	-
10-20	60-70	-	-	-
20-30	70-80	-	-	-
30-40	80-90	-	-	-
40-50	90-500	-	-	-
50-60	500-10	-	-	-
60-70	10-20	-	-	-
70-80	20-30	-	-	-
80-90	30-40	-	-	-
90-200	40-50	-	-	-
200-10	50-60	-	-	-
10-20	60-70	-	-	-
20-30	70-80	-	-	-
30-40	80-90	-	-	-
40-50	90-600	-	-	-
50-60	600-10	-	-	-
60-70	10-20	-	-	-
70-80	20-30	-	-	-
80-90	30-40	-	-	-
90-300	40-50	-	-	-
300-10	50-60	-	-	-
10-20	60-70	-	-	-
20-30	70-80	-	-	-
30-40	80-90	-	-	-
40-50	90-700	-	-	-

(Brill Farm)  
OWNER : Barnhardt Farms, Incorporated #4                   W# : 4244  
DRILLER: Sydnor Hydrodynamics                               C# : 118  
COUNTY : Middlesex   TOTAL DEPTH: 742'  
  QUAD : Saluda

GEOLOGIC LOG

Depth  
(feet)

0-10     Sand- grayish orange; fine to medium grained, some coarse grains; subangular to subrounded; moderately well sorted; quartz; feldspar; few grains of glauconite; few opaques.

10-20    Sand- yellowish gray; slightly silty; fine to coarse grained, 2% granules; subangular to subrounded; moderately sorted; quartz; feldspar; few grains of glauconite.

20-30    Sand- light olive gray; slightly silty; medium grained, some coarse grains, few granules; subangular to subrounded; moderately well sorted; quartz; 2% glauconite; some black phosphatic material; few fragments of ferricrete; muscovite.

30-40    Sand- light olive gray; medium grained; subangular to subrounded; well sorted; quartz; some black phosphatic material; some glauconite; few flakes of muscovite.

40-50    Sand- light olive gray; medium grained, some coarse grains; subangular to subrounded; well sorted; quartz; 7% shell fragments; 2% black phosphatic material; some glauconite; few fragments of ferricrete.

50-60    As above except 3% shell fragments; some black phosphatic material.

60-70    Sand- light olive gray; fine to medium grained; subangular to subrounded; well sorted; quartz; some shell fragments; some black phosphatic material; some glauconite.

70-80    Sand- light olive gray; slightly silty; fine to medium grained; subangular to subrounded; well sorted; quartz; 7% shell fragments; some black phosphatic material; some glauconite; few flakes of muscovite.

80-90    As above except 2% black phosphatic material; no muscovite.

90-100   As above except 10% shell fragments; some black phosphatic material.

100-110  As above except 7% shell fragments.

(Brill Farm)

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Depth  
(feet)

- 110-120 Clay and shell fragments- light olive gray; few grains of quartz sand; 50% shell fragments.
- 120-130 Sand- light olive gray; slightly silty; fine to medium grained; subangular to subrounded; well sorted; quartz; 3% shell fragments; some glauconite; few black phosphatic fragments; muscovite.
- 130-140 As above except 3% glauconite; no phosphatic material.
- 140-150 As above except some glauconite; few black phosphatic fragments.
- 150-160 Sand- light olive gray; slightly clayey; moderate silt; fine to medium grained; subangular to subrounded; moderately well sorted; quartz; 7% shell fragments; some glauconite; few flakes of muscovite.
- 160-170 As above except 5% shell fragments.
- 170-180 Clay and sand- light olive gray; moderate silt; fine to medium grained; subangular to subrounded; moderately well sorted; quartz; 7% shell fragments; some glauconite; few flakes of muscovite.
- 180-190 Sand- light olive gray; moderate silt; fine to medium grained; subangular to subrounded; moderately well sorted; quartz; some shell fragments; glauconite.
- 190-200 As above plus abundant clay.
- 200-210 As above except moderate clay.
- 210-220 Clay- yellowish-gray; slightly silty; some diatoms.
- 220-230 As above.
- 230-240 Sand- yellowish-gray; moderate silt; abundant clay; fine to medium grained; subangular to subrounded; moderately well sorted; quartz; few black phosphatic fragments; few diatoms.
- 240-250 Clay- yellowish-gray; moderate silt; few diatoms.
- 250-260 As above plus few grains of quartz.
- 260-270 Clay- yellowish-gray; moderate silt; some quartz; few shell fragments; bone fragments; forams rare (inc. Siphogenerina).

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Depth  
(feet)

- 270-280 Sand- light olive gray; abundant clay; slightly silty; medium to coarse grained; subangular to subrounded; moderately sorted; quartz; 15% shell fragments; some black phosphatic material inc. shark's tooth; few grains of glauconite; muscovite; forams (inc. Siphogenerina and Robulus).
- 280-290 Sand- yellowish-gray; coarse grained, some medium grains; subangular to subrounded; well sorted; quartz; 10% shell fragments; 2% black phosphatic material; some glauconite; few sandy limestone fragments; forams scarce (inc. Siphogenerina).
- 290-300 Sand- light olive gray; medium to coarse grained, some fine grains; subangular to subrounded; moderately sorted; quartz; 5% shell fragments; some black phosphatic material; few grains of glauconite; muscovite; gypsum; forams scarce (inc. Siphogenerina).
- 300-310 As above plus few echinoid spines; no forams.
- 310-320 As above except some shell fragments; some glauconite.
- 320-330 Sand- light olive gray; slightly clayey; slightly silty; coarse grained, some medium grains; subangular to subrounded; well sorted; quartz; 7% shell fragments; some black phosphatic material; some glauconite; forams rare.
- 330-340 As above except forams rare (inc. Siphogenerina).
- 340-350 Sand- light olive gray; moderate clay; slightly silty; coarse grained, some medium grains; subangular to subrounded; well sorted; quartz; 3% glauconite; some shell fragments; few black phosphatic fragments; muscovite; forams (inc. Siphogenerina and Robulus).
- 350-360 As above except 2% shell fragments; forams (inc. Siphogenerina, Dentalina, and Nonion).
- 360-370 Sand- light olive gray; coarse grained, few granules; subangular to rounded; well sorted; quartz; 40% glauconite; 15% limestone, sandy limestone, and shell fragments; few flakes of muscovite; forams rare (inc. Robulus).
- 370-380 Sand- light olive brown; some moderately to heavily stained grains; coarse to very coarse grained, few granules; subrounded to rounded; moderately well sorted; quartz; 40% glauconite (brown, black, green); 15% sandy limestone and shell fragments; forams (inc. Buccella and Globigerina).

(Brill Farm)

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Depth  
(feet)

- 380-390 As above except 20% sandy limestone and shell fragments; no Globigerina.
- 390-400 Sand- light olive gray; some stained grains; medium to very coarse grained, some fine grains; subrounded to rounded; poorly sorted; quartz; 35% glauconite; 3% echinoid spines; some shell fragments; forams (inc. Buccella).
- 400-410 As above except 50% glauconite; 5% sandy limestone and shell fragments; few flakes of muscovite.
- 410-420 As above.
- 420-430 Sand- olive light gray; slightly clayey; medium to coarse grained; subrounded to rounded; moderately well sorted; 70% glauconite (black, brown); quartz; few shell fragments; muscovite; forams rare (inc. Robulus).
- 430-440 As above except 80% glauconite; some sandy limestone and shell fragments; no forams.
- 440-450 As above plus shark's tooth.
- 450-460 As above except 60% glauconite; few echinoid spines; no shark's tooth.
- 460-470 Sand- light olive gray; moderate clay; medium to coarse grained; subangular to rounded; moderately well sorted; quartz; 50% glauconite; few shell fragments; few echinoid spines; muscovite; forams rare (inc. Bolivina).
- 470-480 As above except no echinoid spines; no forams.
- 480-490 Sand- light olive gray; abundant clay; coarse grained, some medium grains; subangular to rounded; well sorted; quartz; 40% glauconite; few shell fragments; muscovite; forams (inc. Nodosaria and Robulus).
- 490-500 Sand- off white; coarse to very coarse grained, few granules; subrounded to rounded; moderately well sorted; quartz; feldspar; 15% glauconite; few shell fragments; garnet.
- 500-510 As above except 2% granules.
- 510-520 As above.

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Depth  
(feet)

- 520-530 Sand- off white; coarse grained; subrounded; well sorted; quartz; feldspar; 10% glauconite; few shell fragments; muscovite.
- 530-540 Sand- off white; coarse to very coarse grained, few granules; subrounded; moderately well sorted; quartz; feldspar; 5% glauconite; few shell fragments; muscovite; garnet.
- 540-550 Granules and sand- yellowish-gray; coarse to very coarse grained, 60% granules; subrounded; moderately sorted; few flakes of muscovite; garnet; few shell fragments.
- 550-560 Sand- yellowish-gray; coarse grained to granular (25%); subrounded; moderately sorted; quartz; 5% glauconite; few flakes of muscovite; garnet.
- 560-570 As above except coarse to very coarse grained, 10% granules; few shell fragments.
- 570-580 As above except some granules; moderately well sorted.
- 580-590 Sand- white; coarse grained, some medium grains; subangular to subrounded; well sorted; quartz; feldspar; 3% glauconite; few flakes of muscovite.
- 590-600 Sand- yellowish-gray; medium to coarse grained, some granules; subangular to rounded; moderately well sorted; quartz; feldspar; 10% glauconite; some shell fragments; few flakes of muscovite; garnet.
- 600-610 Sand- light olive gray; moderate clay; medium to coarse grained; subangular to subrounded; moderately well sorted; quartz; feldspar; 5% glauconite; some muscovite; few shell fragments.
- 610-620 Sand and granules- light olive gray; medium to coarse grained, 40% granules; subangular to subrounded; poorly sorted; quartz; feldspar; 3% glauconite; few flakes of muscovite.
- 620-630 Sand- yellowish-gray; medium to coarse grained; subangular to subrounded; well sorted; quartz; feldspar; 3% glauconite; few flakes of muscovite.
- 630-640 As above.
- 640-650 Sand- yellowish-gray; coarse grained; subrounded; well sorted; quartz; feldspar; 5% glauconite; few shell fragments; muscovite.



(Brill Farm)

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Depth  
(feet)

- 650-660 As above plus few grains of garnet.
- 660-670 As above.
- 670-680 Sand- salt and pepper; medium to coarse grained; subangular to rounded; moderately well sorted; quartz; feldspar; 10% glauconite; few flakes of muscovite.
- 680-690 Sand- yellowish-gray; coarse grained; subrounded; well sorted; quartz; feldspar; 2% glauconite; few flakes of muscovite.
- 690-700 As above plus 5% granules; 7% glauconite.
- 700-710 Sand- yellowish-gray; medium to coarse grained; subangular to subrounded; moderately well sorted; quartz; feldspar; 10% glauconite; few flakes of muscovite.
- 710-720 Sand- yellowish-gray; coarse grained; subrounded; well sorted; quartz; feldspar; 2% glauconite; few flakes of muscovite.
- 720-730 As above plus some medium grains.
- 730-742 As above except medium to coarse grained; moderately well sorted; 10% glauconite.

Logged by: Michael T. Currie  
July 27, 1979