

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

MAILING ADDRESS:

DIVISION OF MINERAL RESOURCES

OFFICE ADDRESS:

Box 3667
Charlottesville, VA 22903

JAMES L. CALVER, COMMISSIONER

McCormick Road
Charlottesville, Virginia

WATER WELL COMPLETION REPORT

P.O. Box 27186

OWNER: Sydnor Hydrodynamics Inc. Mailing Address: Richmond, VA 23261

TENANT: Meadowgate Sub. Well #2 Mailing Address: _____

DRILLER: Sydnor Hydrodynamics Inc. Mailing Address: Same as above.

WELL LOCATION: County Hanover Approx. 50 ^{feet}/_{miles} East (direction) of
Greenview Rd. and 225 ^{feet}/_{miles} North (direction) of Mayette Dr.

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

DATE STARTED: 9/12/73 DATE COMPLETED: 10/4/73

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 355 feet

WATER LEVEL: Stands 171 feet below surface OR
has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method Test pump
Drawdown * 36 3/4 feet
Rate 100 gal. per min.
Duration 24 hrs., _____ min.

HOLE SIZE: 12 inches from 0 to 355 feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

WATER ZONES: from 230 to 260 feet
from 298 to 308 feet
from 328 to 333 feet

SCREEN SIZE: 6 inches from 230 to 260 feet
6 inches from 298 to 308 feet
6 inches from 328 to 333 feet
CASE SIZE: 6 inches from +2 to 230 feet
6 inches from 260 to 298 feet
6 inches from 308 to 328 feet
6 inches from 333 to 338 feet

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

GROUTING: Method Pressure
Material Cement Water Depth 50 feet

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

Test PUMP: Type 15 H.P. Sub.
Capacity _____ gal per min
Depth of intake 231 feet

WATER ANALYSIS AVAILABLE: Yes XX No _____
34
DRILL CUTTINGS SAVED: Yes XX 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: gravel packed 50 - 333 * 1 2/3 ft. short of complete recovery 7 1/4 hrs. after test.

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

INTERVAL SHEET

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Well Repository No: W#: 4056

Date rec'd: 1/17/74 Date Processed: 10/30/74

C#: 169
Sample Interval: from: 0 to: 350'

PROPERTY: Sydnor Hydrodynamics
(Meadowgate Sub. #2)

Number of samples: 35

COMPANY: Sydnor Hydrodynamics

Total Depth: 355'

COUNTY: Hanover
(Ellerson)

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	-	-	-
110 - 20	-	-	-
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	-	-	-

Both washed and unwashed samples.

OWNER: Sydnor Hydrodynamics
(Meadowgate Sub. #2
DRILLER: Sydnor Hydrodynamics
COUNTY: Hanover
(Ellerson)

W#: 4056
C#: 169
TOTAL DEPTH: 355'
QUAD: Studley

GEOLOGIC LOG

Depth
(feet)

- 0 - 10 Sand -- dark yellowish orange; slightly clayey; medium to coarse grained, few granules; subangular to subrounded; moderately well sorted; quartz; feldspar; few opaques.
- 10 - 20 As above plus some fine grains.
- 20 - 30 Sand -- dark yellowish orange; some heavily stained grains; slightly clayey; medium to coarse grained, some granules; subangular to subrounded; moderately well sorted; quartz; feldspar; few opaques.
- 30 - 40 Sand -- dark yellowish orange; 60% very heavily stained grains; slightly clayey; coarse grained, some medium grains; subangular to subrounded; well sorted; quartz; feldspar.
- 40 - 50 Sand - grayish orange; 25% heavily stained grains; slightly clayey; coarse to very coarse grained, few granules; subangular to subrounded; moderately well sorted; quartz; feldspar.
- 50 - 60 Sand -- light olive gray; moderate clay; fine to medium grained, 30% granules; subangular to subrounded; poorly sorted; quartz; feldspar (granules); some ferricrete; few grains of glauconite.
- 60 - 70 Sand -- light olive gray; slightly clayey; fine to medium grained, some granules; subangular to subrounded; moderately well sorted; quartz; few fragments of ferricrete; muscovite; few opaques.
- 70 - 80 As above.
- 80 - 90 Granules -- light olive gray; slightly clayey; moderate sand; fine to medium grained; subangular to subrounded; moderately sorted; quartz; feldspar; few opaques; few fragments of ferricrete; muscovite; glauconite.
- 90 - 100 Sand -- light olive gray; moderate clay; fine to medium grained, some coarse grains, 10% granules; 10% pebbles; subangular to subrounded; poorly sorted; quartz; feldspar; 3% glauconite.
- 100 - 110 As above except 3% granules; 5% pebbles; few black phosphatic fragments.

Depth
(feet)

- 110 - 120 Sand -- light olive gray; slightly clayey; fine to medium grained, few granules, some pebbles; subangular to rounded; moderately well sorted; quartz; 25% glauconite; some muscovite; some shell fragments; some black phosphatic material; some feldspar (pebbles); forams rare (inc. Buccella); ostracode.
- 120 - 130 Sand and clay -- light olive gray; moderate clay - light olive gray, light gray; abundant sand; fine to medium grained; subangular to rounded; moderately well sorted; quartz; glauconite, 40% of sand sized fraction; some muscovite; some shell fragments; few black phosphatic fragments; pyrite.
- 130 - 140 As above.
- 140 - 150 Sand -- light olive gray; moderate clay; fine to medium grained; subangular to rounded; moderately well sorted; quartz; 40% glauconite; some muscovite; some shell fragments; some black phosphatic material; few grains of pyrite.
- 150 - 160 Sand -- olive light gray; moderate clay; fine to coarse grained, few granules; subangular to rounded; moderately sorted; quartz; 20% glauconite; 3% black phosphatic material; some muscovite; few shell fragments.
- 160 - 170 As above.
- 170 - 180 Sand and clay -- light olive gray; moderate clay - light olive gray, very light gray; abundant sand; fine to coarse grained, some very coarse grains, few granules; subangular to rounded; moderately sorted; quartz; glauconite, 15% of sand sized fraction; 2% black phosphatic material; some shell fragments; some muscovite; few limestone fragments.
- 180 - 190 Sand -- olive light gray; moderate clay; fine to very coarse grained, 10% granules, few pebbles; subangular to rounded; poorly sorted; quartz; 30% glauconite (some granule size); 5% shell fragments; some muscovite; some black phosphatic material.
- 190 - 200 As above except 7% limestone and shell fragments.
- 200 - 210 As above.
- 210 - 220 As above except abundant clay; 12% limestone and shell fragments.
- 220 - 230 Sand -- yellowish gray; slightly clayey; coarse to very coarse grained; some medium grains, 15% granules; subrounded; moderately sorted; quartz; feldspar; 5% glauconite; some shell fragments; few grains of garnet.
- 230 - 240 Sand and granules -- yellowish gray; coarse to very coarse grained, 50%

Depth
(feet)

- granules, some pebbles; subrounded; moderately sorted; quartz; feldspar; 2% glauconite; few shell fragments.
- 240 - 250 Sand -- yellowish gray; medium to very coarse grained, 7% granules, 5% pebbles; subangular to subrounded; moderately sorted; quartz; feldspar; 5% glauconite; few shell fragments; muscovite.
- 250 - 260 Sand -- yellowish gray; coarse grained, some medium grains, some pebbles; subangular to subrounded; well sorted; quartz; feldspar; 7% glauconite; few shell fragments; muscovite; garnet.
- 260 - 270 Sand and gravel - yellowish gray; coarse to very coarse grained, 7% granules, 35% pebbles; subangular to subrounded; poorly sorted; quartz; feldspar; some glauconite; few shell fragments; muscovite.
- 270 - 280 Gravel -- yellowish gray; abundant sand; coarse grained to granular; subrounded; moderately well sorted; quartz; feldspar; some glauconite; few flakes of muscovite.
- 280 - 290 As above except few grains of glauconite.
- 290 - 300 As above except slightly sandy.
- 300 - 310 Sand -- yellowish gray; coarse grained to gravel (15%); subangular to subrounded; moderately sorted; quartz; feldspar; some glauconite; few flakes of muscovite.
- 310 - 320 As above except 25% gravel.
- 320 - 330 Sand -- yellowish gray; some heavily stained grains; slightly clayey; medium grained to granular, few pebbles; subangular to subrounded; poorly sorted; quartz; feldspar; some glauconite; few opaques; few flakes of muscovite.
- 330 - 340 Sand -- yellowish gray; coarse grained to granular, 10% pebbles; subangular to subrounded; moderately sorted; quartz; feldspar; some glauconite; few flakes of muscovite; garnet.
- 340 - 350 Gravel -- yellowish gray; moderate clay; moderate sand; coarse grained to granular; subangular to subrounded; moderately sorted; quartz; feldspar; few flakes of muscovite.
- 350 - 355 No sample.

Logged by: Michael T. Currie
Feb. 20, 1979

OWNER: Sydnor Hydrodynamics
(Meadowgate Sub, #2)

W# 4056

GEOLOGIC SUMMARY

<u>Depth</u> (feet)	<u>Thickness</u> (feet)	<u>Rock Unit</u>	<u>Time Rock Unit</u>
0-50	50	Columbia Group	Pleistocene
50-110	60	Eastover Formation	Miocene
110-220	110	Nanjerry, Mattaponi Formation	Eocene-Cretaceous
220-350	130	Patuxent Formation	Cretaceous
350-355	5	No Sample	

VIRGINIA DIVISION OF MINERAL RESOURCES

David A. Hubbard, Jr., Geologist

February 21, 1979