

COMMONWEALTH OF VIRGINIA

W - 3599

C - 109

DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

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

The Tides Inn #3

OWNER: (Kings Land) or Green 12

Mailing Address: Irvington, VA

TENANT: ATTN: Mr. Robert Lee Stephens (owner)

Mailing Address:

DRILLER: Sydnor Hydrodynamics, Inc.

Mailing Address: P.O. Box 27186, Richmond, Va. 23261

WELL LOCATION: County Lancaster

Approx. 600 feet Southeast (direction) of

Rt. 222

and .4 miles Southwest (direction) of Rt. 709

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

DATE STARTED: 3/29/72

DATE COMPLETED: 6/10/72

TYPE OF DRILL RIG USED: Rotary

TOTAL DEPTH 744 feet

WATER LEVEL: Stands 56½ feet below surface OR

has NATURAL flow of _____ gallons per minute

YIELD TEST: Method Turbine

HOLE SIZE: 23 inches from 0 to 92 feet

Drawdown 120 feet

17½ inches from 92 to 735 feet

Rate 503 gal. per min.

9-7/8 inches from 735 to 744 feet

Duration 8 hrs., 0 min.

SCREEN SIZE: 8 ID inches from 536 to 546 feet

WATER ZONES: from 536 to 546 feet

8 ID inches from 552 to 562 feet

from 552 to 562 feet

8 ID inches from 588 to 608 feet

from 588 to 608 feet

8 ID inches from 712 to 722 feet

from 712 to 722 feet

CASE SIZE: 8 inches from +2 to 536 feet

WATER: Color Clear Taste _____

8 inches from 546 to 552 feet

Odor _____ Temp. _____ °F

8 inches from 562 to 588 feet

8 inches from 608 to 712 feet

8 inches from 722 to 727 feet

WELL TO SUPPLY: (check one) Home _____

GROUTING: Method Pressure

Farm _____ Town _____ School _____

Material Cement Water Depth 92 feet

Industry _____ Other Golf Course _____

PUMP: Type _____

WATER ANALYSIS AVAILABLE: Yes No _____

Capacity _____ gal per min

DRILL CUTTINGS SAVED: 90 Yes 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 log ran by driller.

(LOG OF WELL) OVER

LOG

FURNISHED BY: Sydnor Hydrodynamics

DATE: 6/10/72

| 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, brown, red clay | |
| 5 | 20 | Yellow Brown Clay | |
| 20 | 55 | Blue Clay and Shells | |
| 55 | 85 | Shells, and fine sand | |
| 85 | 90 | Blue Clay and Shells | |
| 90 | 130 | Gray Clay - Shells | |
| 130 | 140 | Gray Clay fine black sand, shells | |
| 140 | 160 | Gray Clay, hard streaks of shells | |
| 160 | 210 | Shells, Gray Clay | |
| 210 | 220 | Green Clay, Streaks of shell | |
| 220 | 280 | Green Clay, shells | |
| 280 | 290 | Green Clay | |
| 290 | 307 | Green Clay, Trace of Shells | |
| 307 | 309 | Shell Rock | |
| 309 | 328 | Sand and shells | |
| 328 | 347 | Sand, Shells, Streaks of clay | |
| 347 | 348 | Shell Rock | |
| 348 | 360 | Sand, Shells, Streaks of clay | |
| 360 | 370 | Fine Sand, Clay and shells | |
| 370 | 380 | Streaks of shell, sand clay | |
| 380 | 382 | Shell Rock | |
| 382 | 390 | Streaks of shell, sand clay | |
| 390 | 400 | Streaks of shell, Black and Gray sand Clay | |
| 400 | 420 | Black and Gray sand, clay, shells | |
| 420 | 520 | Black Sand Clay, Shells | |
| 520 | 540 | Black Sand, Clay | |
| 540 | 550 | Black sand, streaks of clay and shells | |
| 550 | 560 | Black sand, Green clay, shells | |
| 560 | 570 | Fine Black, Gray sand streaks of clay | |
| 570 | 590 | Black clay, sand, shells | |
| 590 | 600 | Clay with streaks of coarse sand-Gray | |
| 600 | 607 | Coarse Gray Sand | |
| 607 | 615 | Red Gray, Brown, Clay | |
| 615 | 630 | Hard Red, Yellow, Gray and brown clay | |
| 630 | 640 | Red, Brown, White Clay, Trace of shells | |
| 640 | 650 | Red, White clay, streaks of shells | |
| 650 | 660 | Red, brown, white clay | |
| 660 | 670 | Red, gray, brown clay, trace of shells | |
| 670 | 680 | Red, white, green clay | |
| 680 | 690 | Green, white, red clay, trace of black sand | |
| 690 | 710 | Green, Brown, Red and white clay | |
| 710 | 720 | Gray sand, trace of clay | |
| 720 | 730 | Gray, Black sand, streaks of clay | |
| 730 | 740 | Green Red Clay sand, streaks of shell | |
| 740 | 744 | Green sand clay | |

(Use additional forms if necessary)

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT **W-3563**

VV 3563
C 109

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

OWNER: THE TIDES INN #3 Mailing Address: IRVINGTON, VA.

TENANT: ATTN: Mr. Robert Lee Stephens Mailing Address: _____

DRILLER: SYDNOR HYDRODYNAMICS, INC. Mailing Address: P. O. BOX 27186, Richmond, Va. 23261

WELL LOCATION: County Lancaster Approx. 600 ^{feet}~~miles~~ Southwest (direction) of
Rt. 222 and .4 ^{miles}~~miles~~ Southwest (direction) of Rt. 709

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

DATE STARTED: 3/29/72 DATE COMPLETED: 6/10/72

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 744 feet

WATER LEVEL: Stands 56' 56 1/2 feet below surface OR
has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method Turbine
Drawdown 120 feet
Rate 503 gal. per min.
Duration 8 hrs., 0 min.

HOLE SIZE: 23 inches from 0 to 92 feet
17-1/4 inches from 92 to 735 feet
9-7/8 inches from 735 to 744 feet
SCREEN SIZE: 8 ID inches from 536 to 546 feet
8 ID inches from 552 to 562 feet
8 ID inches from 588 to 608 feet
8 ID inches from 712 to 722 feet

WATER ZONES: from 536 to 546 feet
from 552 to 562 feet
from 588 to 608 feet
from 712 to 722 feet

CASE SIZE: 8 inches from +2 to 536 feet
8 inches from 546 to 552 feet
8 inches from 562 to 588 feet
8 inches from 608 to 712 feet
8 inches from 722 to 727 feet

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

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

GROUTING: Method Pressure
Material Cement Water Depth 92 feet

WATER ANALYSIS AVAILABLE: Yes X No _____

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 Log Ran by driller

LOG

W - 3563

C-109

FURNISHED BY: SYDNOR HYDRODYNAMICS

DATE: 6/10/72

| DEPTH (feet) | | TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.) | REMARKS (water, caving, shot, screen, sample, etc.) |
|-----------------|-----|--|--|
| OM | TO | | |
| 0 | 5 | Yellow, brown, red clay | |
| 5 | 20 | Yellow Brown Clay | |
| 20 | 55 | Blue Clay and Shells | |
| 55 | 85 | Shells, and fine sand | |
| 85 | 90 | Blue Clay and Shells | |
| 90 | 130 | Gray Clay - Shells | |
| 130 | 140 | Gray Clay fine black sand, shells | |
| 140 | 160 | Gray Clay, hard streaks of shells | |
| 160 | 210 | Shells, Gray Clay | |
| 210 | 220 | Green Clay, Streaks of shell | |
| 220 | 280 | Green Clay, shells | |
| 280 | 290 | Green Clay | |
| 290 | 307 | Green Clay, Trace of Shells | |
| 307 | 309 | Shell Rock | |
| 309 | 328 | Sand and shells | |
| 328 | 347 | Sand, Shells, Streaks of clay | |
| 347 | 348 | Shell Rock | |
| 348 | 360 | Sand, Shells, Streaks of clay | |
| 360 | 370 | Fine Sand, Clay and shells | |
| 370 | 380 | Streaks of shell, sand clay | |
| 380 | 382 | Shell Rock | |
| 382 | 390 | Streaks of shell, sand clay | |
| 390 | 400 | Streaks of shell, Black and Gray sand Clay | |
| 400 | 420 | Black and Gray sand, clay, shells | |
| 420 | 520 | Black Sand Clay, Shells | |
| 520 | 540 | Black Sand, Clay | |
| 540 | 550 | Black sand, streaks of clay and shells | |
| 550 | 560 | Black sand, Green clay, shells | |
| 560 | 570 | Fine Black, Gray sand streaks of clay | |
| 570 | 590 | Black clay, sand, shells | |
| 590 | 600 | Clay with streaks of coarse sand-Gray | |
| 600 | 607 | Coarse Gray Sand | |
| 607 | 615 | Red Gray, Brown, Clay | |
| 615 | 630 | Hard Red, Yellow, Gray and brown clay | |
| 630 | 640 | Red, Brown, White Clay, Trace of shells | |
| 640 | 650 | Red, White clay, streaks of shells | |
| 650 | 660 | Red, brown, white clay | |
| 660 | 670 | Red, gray, brown clay, trace of shells | |
| 670 | 680 | Red, white, green clay | |
| 680 | 690 | Green, white, red clay, trace of black sand | |
| 690 | 710 | Green, Brown, Red and white clay | |
| 710 | 720 | Graysand, trace of clay | |
| 720 | 730 | Gray, Black sand, streaks of clay | |
| 730 | 740 | Green Red Clay sand, streaks of shell | |
| 740 | 744 | Green sand clay | |

(Use additional forms if necessary)

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

INTERVAL SHEET

Page 1 of 1

C-109
Well Repository No.: W- 3599

Date rec'd: 6/19/72 Date Processed: 10/12/72

Sample Interval: from 0 to: 740'

PROPERTY: Tides Inn #3

Number of samples: 75

COMPANY: Sydnor Hydrodynamics, Inc.

Total Depth: 744'

COUNTY: Lancaster (Irvington)

Oil or Gas: Water: X Exploratory:

| From-To | From-To | From-To | From-To | From-To |
|---------|---------|---------|---------|---------|
| 0-5 | 290-300 | 590-600 | - | - |
| 5-15 | 300-310 | 600-610 | - | - |
| 15-20 | 310-320 | 610-620 | - | - |
| 20-30 | 320-330 | 620-630 | - | - |
| 30-40 | 330-340 | 630-640 | - | - |
| 40-50 | 340-350 | 640-650 | - | - |
| 50-60 | 350-360 | 650-660 | - | - |
| 60-70 | 360-370 | 660-670 | - | - |
| 70-80 | 370-380 | 670-680 | - | - |
| 80-90 | 380-390 | 680-690 | - | - |
| 90-100 | 390-400 | 690-700 | - | - |
| 100-110 | 400-410 | 700-710 | - | - |
| 110-120 | 410-420 | 710-720 | - | - |
| 120-130 | 420-430 | 720-730 | - | - |
| 130-140 | 430-440 | 730-740 | - | - |
| 140-150 | 440-450 | - | - | - |
| 150-160 | 450-460 | - | - | - |
| 160-170 | 460-470 | - | - | - |
| 170-180 | 470-480 | - | - | - |
| 180-190 | 480-490 | - | - | - |
| 190-200 | 490-500 | - | - | - |
| 200-210 | 500-510 | - | - | - |
| 210-220 | 510-520 | - | - | - |
| 220-230 | 520-530 | - | - | - |
| 230-240 | 530-540 | - | - | - |
| 240-250 | 540-550 | - | - | - |
| 250-260 | 550-560 | - | - | - |
| 260-270 | 560-570 | - | - | - |
| 270-280 | 570-580 | - | - | - |
| 280-290 | 580-590 | - | - | - |

All intervals have both washed and unwashed samples.

OWNER: Tides Inn
DRILLER: Sydnor
COUNTY: Lancaster

W # 3599
C # 109
TOTAL DEPTH - 744'
QUAD - Irvington
ELEV. - 24'

DEPTH
(FEET)

WELL LOG

| | | |
|---------|-------------------|--|
| 0-5 | Sand | - dusky yellow; abundant clay; very fine to medium, subangular, moderately sorted; iron oxide fragments and crusts. |
| 5-15 | Clay | - yellow-gray; abundant sand; very fine to very coarse, subangular, poor sorting; limonite crusts. |
| 15-20 | Sand | - yellowish gray; moderate clay; very fine to very coarse, subangular, poor sorting; limonite crusts. |
| 20-30 | Sand | - light olive gray; abundant clay; fine to coarse, subangular, moderately well sorted; 3% fine shell fragments; echinoid spines; vertebrae; limonite crusts and tubes; forams; ostracods; mica. |
| 30-40 | Sand | - light olive gray; fine to coarse and very coarse, subangular, moderately well sorted; 20% fine shell fragments; forams; ostracods; abundant clay. |
| 40-50 | Clay | - light olive gray; abundant sand; fine to coarse and very coarse, subangular, poorly sorted; mica. |
| 50-80 | Gravel, shelly | - light and dark gray; 70-95% shells - <u>Yoldia</u> , <u>Mulinia</u> , <u>Dentalium</u> , <u>Turritella</u> , <u>Pecten sp.</u> , bryozoa; moderate clay at 50-60'; sparse sand at 60-80'; fine to very coarse, subangular, moderately sorted; phosphate fragments and mica schist at 50-60'. |
| 80-100 | Gravel, shelly | - light and dark gray; 85% shell - as above; moderate sand; medium grained, subangular, well sorted. |
| 100-110 | Gravel, shelly | - light brownish gray; moderate clay; sparse sand; 95% shells as above; medium grained, subangular, well sorted. |

DEPTH
(FEET)

WELL LOG

| | | |
|---------|-------------------|--|
| 110-120 | Gravel, shelly | - light brownish gray; abundant clay; moderate sand; 80% shells as above; medium grained, subangular, well sorted. |
| 120-130 | Sand, shelly | - light and dark gray; 85% fine shell fragments; moderate clay; fine to pebble, subangular, poor sorting; limonite. |
| 130-170 | Sand, shelly | - light and dark gray; 85% fine shell fragments; moderate clay in clasts; fine to granule, subangular, moderately sorted; limonite. |
| 170-210 | Sand, shelly | - light and dark gray; 85% fine shell fragments; very sparse to sparse clay; fine to medium, subangular, moderately sorted; limonite. |
| 210-220 | Sand, shelly | - light and dark gray; 80% shell fragments; abundant clay; fine to medium, subangular, moderately sorted; phosphate fragments; diatoms. |
| 220-230 | Sand, shelly | - light and dark gray; 95% shell fragments; sparse clay; fine to pebble, subangular, poor sorting; phosphate fragments; diatoms. |
| 230-240 | Sand | - light and dark gray; abundant clay; fine to coarse, subangular, moderately sorted; 45% shell fragments; diatoms. |
| 240-260 | Sand | - light olive gray; abundant clay; fine to very coarse, subangular, moderately sorted; 5-10% very fine shell fragments; limonite; diatoms; forams - <u>Robulus</u> , <u>Nonion</u> , <u>Uvigerina</u> , <u>Marginulina</u> ; mica. |
| 260-280 | Sand | - light olive gray; abundant clay; fine to granule, subangular, moderate sorting; 1-10% very fine shell fragments; limonite; abundant diatoms; forams - <u>Bolivina</u> , <u>Dentalina</u> ; mica. |

DEPTH
(FEET)

WELL LOG

| | | |
|---------|-----------------------|---|
| 280-300 | Sand | - light olive gray; abundant clay; fine to granule, subangular, moderate sorting; few shell fragments at 290-300'; diatoms and mica at 280-290'; forams - <u>Siphogenerina</u> . |
| 300-320 | Sand | - light olive gray; very fine and granule, subangular, poor sorting; 10% phosphate fragments; 10-45% shell fragments; forams - <u>Siphogenerina</u> , <u>Dentalina</u> ; teeth; limonite tube. |
| 320-350 | Sand | - light olive gray; very fine to very coarse, subangular, poor to moderate sorting; 5-10% phosphate fragments; 5-10% shell fragments, <u>Astarte</u> ; garnet. |
| 350-360 | Sand | - light olive gray; sparse clay; fine to very coarse, subangular, poor sorting; 5% phosphate fragments; 30% shell fragments; limestone; limonite worm tube. |
| 360-390 | Sand | - light olive gray; sparse clay at 370-390; medium to very coarse, subangular, moderate to moderately well sorted; 10% phosphate fragments at 360-370'; 40% glauconite at 370-390; 1-8% shell fragments; limestone fragments at 380-390'; garnet at 360-370'. |
| 390-410 | Sand | - light olive gray; medium to pebble, subangular, moderately sorted; 50% glauconite; 8% shell fragments at 390-400'; 40% limestone fragments. |
| 410-450 | Sand, glauconitic- | light and dark brown; 60-80% glauconite; very sparse clay at 440-450'; medium to pebble, subangular, moderately sorted; coquina fragments at 410-440'; bone fragments at 410-420'. |
| 450-470 | Sand, glauconitic- | light and dark green; 80% glauconite; very sparse clay; medium to pebble, subangular, moderately sorted; few coquina fragments. |
| 470-520 | Sand, glauconitic- | light and dark green; 90% glauconite; sparse to moderate clay; medium to granule, subangular, poor sorting; few to 3% shell fragments; limonite. |
| 520-530 | Clay | - light and dark gray; 50% glauconitic sand; medium to granule, subangular, poor sorting. |

DEPTH
(FEET)

WELL LOG

| | | |
|---------|-----------------------|--|
| 530-540 | Sand, glaucopitic- | light and dark green; 95% glaucopite; medium to granule, subangular, poor sorting. |
| 540-550 | Sand, glaucopitic- | light and dark green; 90% glaucopite; medium to granule, angular and subangular, poor sorting; rose quartz. |
| 550-570 | Sand, glaucopitic- | light and dark green; 60% glaucopite; medium to granule, subangular, poor sorting; rose quartz. |
| 570-580 | Sand, glaucopitic- | light and dark green; 50% glaucopite; sparse clay; medium to granule, subangular, poor sorting; rose quartz; feldspar; garnet. |
| 580-590 | Sand | - yellow-gray; moderate clay; fine to very coarse, subangular, moderately sorted; 10% glaucopite; garnet; 10% mica. |
| 590-610 | Sand | - light olive gray; sparse clay; fine to granule, subangular, poor sorting; 10% glaucopite. |
| 610-620 | Clay | - moderate brown; moderate sand; fine to very coarse, subangular, poor sorting; 10% glaucopite; rose quartz; 10% mica. |
| 620-640 | Sand | - light and dark gray; sparse to moderate clay; very fine to very coarse, angular and subangular, poor sorting; 50% glaucopite at 620-630'; 5-10% shell fragments; limonite/ochre; mica. |
| 640-670 | Sand | - pale yellow-brown; abundant clay; very fine to granule, angular and subangular, poor sorting; 10-20% glaucopite; few to 10% shell fragments; mica. |
| 670-680 | Clay | - moderate yellowish brown; abundant sand; very fine to coarse, subangular, poor sorting; 10% glaucopite; few shell fragments; mica. |
| 680-700 | Sand | - pale yellowish brown; abundant clay; very fine to very coarse, angular and subangular, poor sorting; 5-40% glaucopite; few shell fragments at 680-690'; ochre at 690-700'; mica. |

DEPTH
(FEET)

WELL LOG

- | | | |
|---------|------|--|
| 700-710 | Sand | - light olive gray; sparse clay; fine to very coarse, angular and subangular, moderately sorted; 8% glauconite; mica. |
| 710-730 | Sand | - light olive gray; medium to very coarse, angular and subangular, moderately sorted; few to 20% glauconite; feldspar and few shell fragments at 710-720'; garnet at 720-730'; mica. |
| 730-740 | Sand | - light olive gray; moderate clay; fine to granule, angular and subangular, moderately sorted; 5% glauconite; feldspar; mica. |

Logged by:
J. K. Polzin
Jan. 6, 7, 1981