

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

VDMR #1343  
WWCR #152

MAILING ADDRESS:  
Box 3667, University Sta.  
Charlottesville, Virginia

DIVISION OF MINERAL RESOURCES

JAMES L. CALVER, COMMISSIONER

OFFICE ADDRESS:  
McCormick Road  
Charlottesville, Virginia

WATER WELL COMPLETION REPORT

OWNER: Sydnor Pump & Well Co., Inc. Mailing Address: 1305 Brook Rd., Richmond, Va.

TENANT: Old Stage Manor Mailing Address: Ewell, Virginia

DRILLER: Sydnor Pump & Well Co., Inc. Mailing Address: 1305 Brook Rd., Richmond, Va.

WELL LOCATION: County James City Approx. 2 ~~feet~~ miles northwest (direction) of  
Williamsburg, Virginia and 1000 ~~feet~~ miles east (direction) of Rt. 60

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

DATE STARTED: 7/9/65 DATE COMPLETED: 7/23/65

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 430 feet

WATER LEVEL: Stands 110 feet below surface OR  
has NATURAL flow of \_\_\_\_\_ gallons per minute.

YIELD TEST: Method \_\_\_\_\_

Drawdown 10 feet

Rate 100 gal. per min.

Duration 12 hrs., \_\_\_\_\_ min.

WATER ZONES: from 240 to 285 feet

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

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

WATER: Color Clear Taste OK

Odor \_\_\_\_\_ Temp. \_\_\_\_\_ °F

WELL TO SUPPLY: (check one) Home \_\_\_\_\_

Farm \_\_\_\_\_ Town \_\_\_\_\_ School \_\_\_\_\_

Industry \_\_\_\_\_ Other Public

WATER ANALYSIS AVAILABLE: Yes \_\_\_\_\_ No \_\_\_\_\_

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: No bedrock. Electric log run.

HOLE SIZE: 9-7/8 inches from 0 to 430 feet

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

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

SCREEN SIZE: 6 inches from 240 to 285 feet

#30 slot - staincliff

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

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

CASE SIZE: 6 inches from 0 to 305 feet

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

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

GROUTING: Method Gravity

Material cement/water Depth 50 feet

PUMP: Type \_\_\_\_\_

Capacity \_\_\_\_\_ gal. per min

Depth of intake \_\_\_\_\_ feet

LOG

FURNISHED BY: Sydnor Pump & Well Co., Inc. DATE: July 23, 1965

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
FROM	TO		
0	10	Sand - red clay	
10	20	Yellow clay	
20	27	Red sand	
27	35	Yellow sandy clay	
35	41	Shell and clay	
41	50	Brown and gray sand with some shell	
50	102	Shell	
102	127	Shell with blue clay	
127	177	Sand with clay	
177	279	Blue marl	
279	290	Shell with some clay	
290	302	Black sand and gray clay	
302	340	Clay	
340	360	Shell and clay	
360	398	Black sand	
398	430	Clay	

INTERVAL SHEET

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VDMR Well No.: Well No. 1343

Date 7/29/65

Sample Interval: from 0 to 420

PROP: Old Stage Manor (Sydnor)

Total depth 430

COMP: Sydnor Pump & Well Co.

Oil  Gas  Water  Exploratory

COUNTY: James City (Williamsburg)

Cuttings  Core  Other

VDMR Well No: W-1343

From-To	From-To	From-To	From-To	From-To
-	0 - 10	300 - 310	-	-
-	10 - 20	310 - 320	-	-
-	20 - 30 *	320 - 330	-	-
-	30 - 40	330 - 340	-	-
-	40 - 50 *	340 - 350	-	-
-	50 - 60	350 - 360	-	-
-	60 - 70	360 - 370	-	-
-	70 - 80	370 - 380	-	-
-	80 - 90	380 - 390	-	-
-	90 - 100	390 - 400	-	-
-	100 - 110	400 - 410	-	-
-	110 - 120	410 - 420	-	-
-	120 - 130	420 - 430 *	-	-
-	130 - 140	-	-	-
-	140 - 150	-	-	-
-	150 - 160	-	-	-
-	160 - 170	-	-	-
-	170 - 180	-	-	-
-	180 - 190	-	-	-
-	190 - 200	-	-	-
-	200 - 210	-	-	-
-	210 - 220	-	-	-
-	220 - 230	-	-	-
-	230 - 240	-	-	-
-	240 - 250	-	-	-
-	250 - 260	-	-	-
-	260 - 270	-	-	-
-	270 - 280	-	-	-
-	280 - 290	-	-	-
-	290 - 300	-	-	-

\* No sample

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(Old Stage Manor)  
DRILLER: Sydnor Pump and Well Co., Inc.  
COUNTY: James City (Williamsburg)

VDMR: #1343  
WWCR: #152  
TOTAL DEPTH: 430'

GEOLOGIC LOG

COLUMBIA GROUP (0-50')

- 0-10 Sand -- orange, slightly argillaceous; medium-grained, well-sorted, subangular to subrounded; slightly arkosic quartz sand
- 10-20 Sand -- orange traces of clay and granules; medium- to very-coarse-grained, moderately sorted, subrounded; quartz sand with about 10% white feldspar (microcline and plagioclase)
- 20-30 No Sample
- 30-40 Sand -- orange, argillaceous (orange clay); very-fine- to medium-grained, moderately sorted, subangular to subrounded; quartz, small amounts of white feldspar and green glauconite; traces of magnetite and muscovite
- 40-50 No Sample

YORKTOWN FORMATION (50-170')

- 50-60 Sand and Shells -- brownish; sand medium- to very coarse-grained, moderately sorted, subangular to subrounded; clear to yellow-stained quartz with small amount of green glauconite and less of brown and black phosphorite; abundant comminuted and abraded shell material in sand fraction; fossil assemblage consists of pelecypods (several genera), echinoid spines, gastropods, bryozoa, and a few corals, ostracods (Aurila, Murrayina) and foraminifera (Quinqueloculina, Textularia, Guttulina)
- 60-70 Sand and Shells -- brown; medium- to coarse-grained, fairly-well-sorted, subangular to subrounded with a small percent of well-rounded grains; clear quartz with small amounts of slightly oxidized glauconite and brown and black phosphorite; traces of green epidote and pink garnet; fossil assemblage consists mostly of abraded pelecypod fragments and echinoid spines and plates and a few bryozoa, gastropods, scaphopods, ostracods, and foraminifera (Textularia)

- 70-80 Sand - Clay - Shells -- brown; poorly sorted quartz sand, with a trace of partially oxidized green glauconite; flaky, drab-brown clay; coarse shell fragments, pelecypods, and a few gastropods, echinoid spines, and foraminifera
- 80-90 Sand and Shells -- brown, moderately argillaceous; fine- to medium-grained, fairly-well-sorted, subangular; quartz with traces of oxidized green glauconite, phosphorite, and magnetite; shell material coarse, mostly pelecypods with some scaphopods, gastropods, and echinoid spines, and a few ostracods and foraminifera
- 90-100 "
- 100-110 "
- 110-120 Sand and Shells -- greenish-gray, slightly argillaceous; fine-grained, well-sorted, angular to subangular; clear quartz with traces of glauconite magnetite, muscovite, and phosphorite; shell material coarse, mostly pelecypods, with some echinoid spines, bryozoa
- 120-130 Sand and Shells -- brownish-gray; fine-grained, well-sorted, angular to subangular; clear quartz with traces of glauconite, magnetite, brown and green epidote, and garnet; shell material coarse, mostly pelecypods, with some echinoid spines, gastropods, bryozoa, scaphopods, oysters, and a trace of foraminifera
- 130-140 Sand -- brownish-gray; fine-grained, well-sorted, angular to subangular; clear quartz with small amounts glauconite, phosphorite, magnetite, and coarse, yellowish white feldspar; trace of muscovite; shell material abundant, mostly pelecypods, but some echinoid spines, scaphopods, gastropods, bryozoa, and a few foraminifera
- 140-150 "
- 150-160 "
- 160-170 "
- CALVERT FORMATION (170-270')
- 170-180 Sand -- gray, moderately argillaceous; fine-grained, well-sorted, angular to subangular; clear quartz with small amount glauconite and traces of magnetite and muscovite; shell material abundant, mostly pelecypods, but some bryozoa and a few foraminifera
- 180-190 "
- 190-200 "

- 200-210 Clay -- gray, with greenish cast; sandy; some yellow-brown phosphorite; small amount shell fragments
- 210-220 "
- 220-230 Sand -- gray, with greenish cast, very argillaceous; fine-grained, well-sorted, angular; clear quartz with minor black phosphorite; scattered pelecypod shell fragments, foraminifera moderately abundant (Guttulina, Lagena, Siphogenerina, Uvigerina, Bolivina, Bulimina, Robulus, Nonion, Siphogenerina)
- 230-240 "
- 240-250 Sand - abundant matrix of brown clay; medium- to coarse-grained, fairly-well-sorted, angular to subangular; quartz with minor black phosphorite; scattered pelecypod shell fragments; foraminifera moderately abundant (Robulus, Nonion, Siphogenerina)
- 250-260 "
- 260-270 Sand -- gray, moderately argillaceous; coarse-grained, fairly-well-sorted, subangular to subrounded; clear quartz with minor, platy phosphorite; abundant comminuted shall "hash" and a few foraminifera

NANJEMOY FORMATION (270-300')

- 270-280 Limestone -- shell ls., arenaceous, cavernous, drusy (carbonate, sulfides), glauconitic, sulfide-bearing; a few small rounded pebbles; fine- to coarse-grained, poorly sorted, angular to subrounded; quartz (75%), black glauconite (25%), small amounts of phosphorite and limonite after glauconite; incipient hematitization of goethite-glauconite; sulfide replaces glauconite locally
- 280-290 Sand -- dark-brownish-gray, moderately argillaceous (dark-gray clay); medium- to coarse-grained, moderately sorted, subangular to subrounded; clear to brown-stained quartz, and glauconite, most of which is oxidized and includes abundant pelletal goethite after glauconite; small amounts of phosphorite and muscovite; some of the sand in this interval is firmly cemented with yellowish carbonate\*, and some is cemented by friable, light-gray calcareous clay; a few chalky pelecypod shell fragments, echinoid spines, and poorly preserved foraminifera.

290-300 Sand -- gray, argillaceous; fine- to medium-grained, moderately sorted; quartz, and glauconite (less oxidized than in 280-290' interval); trace of muscovite; abundant chalky shell "hash", a few shell fragments and echinoid spines, and some foraminifera

MATTAPONI FORMATION (300-420')

300-310 Sand -- black, slightly to moderately argillaceous; medium-grained, fairly-well-sorted; stained quartz (20-25%) and glauconite in various stages of alteration to limonite (75%-80%); small amounts muscovite and phosphorite; a few foraminifera

310-320 "

320-330 "

330-340 "

340-350 Sand -- gray, argillaceous; medium- to coarse-grained, moderately sorted; quartz (60-65%) and greenish-black glauconite (35-40%); small amount muscovite; a few foraminifera

350-360 Clay and Sand -- pink sandy clay, and gray, argillaceous glauconitic sand; small amount of shell fragments

360-370 "

370-380 Sand -- black; coarse-grained, fairly-well-sorted; greenish-black well-sorted glauconite (70%-75%) and subangular to subrounded, more poorly sorted quartz; a few echinoid spines

380-390 "

390-400 Sand -- gray, speckled; medium- to coarse-grained, fairly well-sorted; angular to subangular, rather poorly sorted, clear quartz (about 50%), and greenish-black, well-sorted, glauconite (about 50%); a very few echinoid spines, ostracods, foraminifera

400-410 Sand -- grayish-brown, argillaceous; coarse, poorly sorted, variably rounded quartz; and greenish-black glauconite; scattered shell fragments; some of sand is cemented by yellowish-white carbonate; abundant fragments of glauconitic limestone, phosphorite

410-420 "

420-430 No Sample

GEOLOGIC SUMMARY

<u>Thickness</u>	<u>Rock Name</u>	<u>Age</u>
0-40'	Columbia Group	Pleistocene
40-50'	No Sample	
50-170'	Yorktown Formation	Late Miocene
170-270'	Calvert Formation	Middle Miocene
270-300'	Nanjemoy Formation	Middle Eocene
300-420'	Mattaponi Formation	Paleocene

Virginia Division of Mineral Resources  
Robert H. Teifke, Geologist  
September 9, 1965  
Revised March, 1972



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VDMR: 1343  
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TOTAL DEPTH: 430'

GEOLOGIC LOG

Depth in feet

COLUMBIA GROUP (0-<sup>50'</sup>40')

- 0-10 Sand - orange, slightly argillaceous; medium-grained, well-sorted, subangular to subrounded; slightly arkosic quartz sand
- 10-20 Sand - orange traces of clay and granules; medium- to very-coarse-grained, moderately sorted, subrounded; quartz sand with about 10% white feldspar (microcline and plagioclase)
- 20-30 No sample
- 30-40 Sand - orange, argillaceous (orange clay); very-fine- to medium-grained, moderately sorted, subangular to subrounded; quartz, small amounts of white feldspar and green glauconite; traces of magnetite and muscovite
- 40-50 No sample

YORKTOWN FORMATION (50-<sup>200'</sup>170')

- 50-60 Sand and Shells - brownish; sand medium- to very-coarse-grained, moderately sorted, subangular to subrounded; clear to yellow-stained quartz with small amount of green glauconite and less of brown and black phosphorite; abundant comminuted and abraded shell material in sand fraction; fossil assemblage consists of pelecypods (several genera), echinoid spines, gastropods, bryozoa, and a few corals, ostracods (Aurila, Murraytina), and foraminifera (Quinqueloculina, Textularia, Guttulina)
- 60-70 Sand and Shells - brown; medium- to coarse-grained, fairly-well-sorted, subangular to subrounded with a small percent of well-rounded grains; clear quartz with small amounts of slightly oxidized glauconite and brown and black phosphorite; traces of green epidote and pink garnet; fossil assemblage consists mostly of abraded pelecypod fragments and echinoid spines and plates and a few bryozoa, gastropods, scaphopods, ostracods and foraminifera (Textularia)

- 70-80 Sand - Clay - Shells - brown; poorly sorted quartz sand, with a trace of partially oxidized green glauconite; flaky, drab-brown clay; coarse shell fragments, pelecypods, and a few gastropods, echinoid spines, and foraminifera
- 80-90 Sand and Shells - brown, moderately argillaceous; fine- to medium-grained, fairly-well-sorted, subangular; quartz with traces of oxidized green glauconite, phosphorite, and magnetite; shell material coarse, mostly pelecypods with some scaphopods, gastropods, and echinoid spines, and a few ostracods and foraminifera
- 90-100 "
- 100-110 "
- 110-120 Sand and Shells - greenish-gray, slightly argillaceous; fine-grained, well-sorted, angular to subangular; clear quartz with traces of glauconite magnetite, muscovite, and phosphorite; shell material coarse, mostly pelecypods, with some echinoid spines, bryozoa
- 120-130 Sand and Shells - brownish-gray; fine-grained, well-sorted, angular to subangular, clear quartz with traces of glauconite, magnetite, brown and green epidote, and garnet; shell material coarse, mostly pelecypods, with some echinoid spines, gastropods, bryozoa, scaphopods, oysters, and a trace of foraminifera
- 130-140 Sand - brownish-gray; fine-grained, well-sorted, angular to subangular; clear quartz with small amounts glauconite, phosphorite, magnetite, and coarse, yellowish white feldspar; trace of muscovite; shell material abundant, mostly pelecypods, but some echinoid spines, scaphopods, gastropods, bryozoa, and a few foraminifera
- 140-150 "
- 150-160 "
- 160-170 "

~~CALVERT FORMATION (170-240')~~

170-180 Sand - gray, moderately argillaceous; fine-grained, well-sorted, angular to subangular; clear quartz with small amount glauconite and traces of magnetite and muscovite; shell material abundant, mostly pelecypods, but some bryozoa and a few foraminifera

180-190 "

190-200 "

CALVERT FORMATION (200-270')

200-210 Clay - gray, with greenish cast; sandy; some yellow-brown phosphorite; small amount shell fragments

210-220 "

220-230 Sand - gray, with greenish cast, very-argillaceous; fine-grained, well-sorted, angular; clear quartz with minor black phosphorite; scattered pelecypod shell fragments, foraminifera moderately abundant (Guttulina, Lagena, Siphogenerina, Uvigerina, Bolivina, Bulimina, Robulus, Nonion), and a few ostracods

230-240 "

~~CHICKAHOMINY FORMATION (240-270')~~

240-250 Sand - abundant matrix of brown clay; medium- to coarse-grained, fairly-well-sorted, angular to subangular; quartz with minor black phosphorite; scattered pelecypod shell fragments; foraminifera moderately abundant (Robulus, Nonion, Siphogenerina)

250-260 "

260-270 Sand - gray, moderately argillaceous; coarse-grained, fairly-well-sorted, subangular to subrounded; clear quartz with minor, platy phosphorite; abundant comminuted shell "hash" and a few foraminifera

✓ NANJEMOY FORMATION (270-300')

270-280 Limestone - shell limestone, arenaceous, cavernous, drusy (CO<sub>3</sub>, sulfides) glauconitic, sulfide-bearing, a few small rounded pebbles; fine- to coarse-grained, poorly sorted, angular to subrounded; quartz (75%), black glauconite (25%), small amounts of phosphorite and limonite after glauconite; incipient hematitization of goethite-glauconite; sulfide replaces glauconite locally

280-290 Sand - dark-brownish-gray, moderately argillaceous (dark-gray clay); medium- to coarse-grained, moderately sorted, subangular to subrounded; clear to brown-stained quartz, and glauconite, most of which is oxidized and includes abundant pelletal goethite after glauconite; small amounts of phosphorite and muscovite; some of the sand in this interval is firmly cemented with yellowish carbonate, and some is cemented by friable, light-gray calcareous clay; a few chalky pelecypod shell fragments, echinoid spines, and poorly preserved foraminifera

290-300 Sand - gray, argillaceous; fine- to medium-grained, moderately sorted; quartz, and glauconite (less oxidized than in 280-290' interval); trace of muscovite; abundant chalky shell "hash", a few shell fragments and echinoid spines, and some foraminifera

MATTAPONI FORMATION (300-420'<sup>430'</sup>)

300-310 Sand - black, slightly to moderately argillaceous; medium-grained, fairly-well-sorted; stained quartz (20-25%) and glauconite in various stages of alteration to limonite (75-80%); small amounts muscovite and phosphorite; a few foraminifera

310-320 "

320-330 "

330-340 "

340-350 Sand - gray, argillaceous; medium- to coarse-grained, moderately sorted; quartz (60-65%) and greenish-black glauconite (35-40%); small amount muscovite; a few foraminifera

350-360	Clay and Sand - pink sandy clay, and gray, argillaceous glauconitic sand; small amount of shell fragments
360-370	"
370-380	Sand - black; coarse-grained, fairly-well sorted; greenish-black well-sorted glauconite (70-75%) and subangular to subrounded; more poorly sorted quartz; a few echinoid spines
380-390	"
390-400	Sand - gray, speckled; medium- to coarse-grained, fairly-well-sorted; angular to subangular, rather poorly sorted, clear quartz (about 50%), and greenish-black, well-sorted, glauconite (about 50%); a very few echinoid spines, ostracods, foraminifera
400-410	Sand - grayish-brown, argillaceous; coarse, poorly sorted, variably rounded quartz; and greenish-black glauconite; scattered shell fragments; some of sand is cemented by yellowish-white carbonate; abundant fragments of glauconitic limestone, phosphorite
410-420	"
420-430	No sample

GEOLOGIC SUMMARY

	<u>Rock Name</u>	<u>Age</u>
0-40 <sup>50</sup> '	Columbia Group	Pleistocene
<del>40-50'</del>	<del>No sample</del>	-
50-170 <sup>200</sup> '	Yorktown Formation	<del>Late</del> Miocene
200 170-240 <sup>270</sup> '	Calvert Formation	<del>Middle</del> Miocene
<del>240-270'</del>	<del>Chickahominy Formation</del>	<del>Late</del> Eocene
270-300'	Nanjemoy Formation	<del>Middle</del> Eocene
300-420 <sup>430</sup> '	Mattaponi Formation	Paleocene - <i>Late Cretaceous</i>
<del>420-430'</del>	<del>No sample</del>	-

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