

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W-5832  
C-174

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: Chesapeake Corporation Mailing Address: Glenn Street 1A West Point, Virginia 20601

TENANT: \_\_\_\_\_ Mailing Address: \_\_\_\_\_

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

WELL LOCATION: County King William Approx. 50 <sup>feet</sup> ~~XXXX~~ Southwest (direction) of  
Rt. 1108 and 60 <sup>feet</sup> ~~XXXX~~ Southeast (direction) of Rt. 1024

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

DATE STARTED: 6/29/79 DATE COMPLETED: \_\_\_\_\_

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH \_\_\_\_\_ feet

WATER LEVEL: Stands 108 feet below surface OR  
has NATURAL flow of 281'-2-1/2' tons per minute.

YIELD TEST: Method \_\_\_\_\_ / HOLE SIZE: 23 inches from 0 to 900 feet  
Drawdown \_\_\_\_\_ feet 24 inches from 900 to 1,300 feet  
Rate \_\_\_\_\_ gal. per min. 11 inches from 1,300 to 1,314 feet  
Duration \_\_\_\_\_ hrs., \_\_\_\_\_ min. SCREEN SIZE: 10 inches from 897 to 900 feet

WATER ZONES: from 1,010 to 1,286 feet 10 inches from 1,010 to 1,276 feet  
from \_\_\_\_\_ to \_\_\_\_\_ feet \_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet  
from \_\_\_\_\_ to \_\_\_\_\_ feet CASE SIZE: 19 1/4 inches from +2 to 900 feet

WATER: Color \_\_\_\_\_ Taste \_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet  
Odor \_\_\_\_\_ Temp. \_\_\_\_\_ °F \_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

WELL TO SUPPLY: (check one) Home \_\_\_\_\_ GROUTING: Method Cement  
Farm \_\_\_\_\_ Town \_\_\_\_\_ School \_\_\_\_\_ Material 0 Depth 900 feet  
Industry X Other \_\_\_\_\_ PUMP: Type \_\_\_\_\_

WATER ANALYSIS AVAILABLE: Yes \_\_\_\_\_ No \_\_\_\_\_ Capacity \_\_\_\_\_ gal per min  
DRILL CUTTINGS SAVED: 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: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# LOG

FURNISHED BY: Chesapeake Corp.

DATE: May 29, 1981

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	Yellow & Gray Clay	
10	20	Gray Clay with Thin Streaks of Gray Sand	
20	30	Greenish Gray Clay and Silty Sand	
30	70	Greenish Gray Clay and Silty Sand & Shells	
70	100	Blue Clay	
100	110	Green Clay	
110	120	Green Clay & Shells	
120	140	Gray Sand & Shells	
140	160	Green Clay Sand & Shells	
160	184	Hard Sand & Shells with Some Trace of Gray Clay	
184	190	Hard Rock Like Shell and Sand	
190	200	Shells with Gray & Black Fine Sand	
200	250	Gray Clay, Fine Black Sand & Iron Deposit	
250	290	Tan Clay	
290	320	Gray Clay with Black Fine Sand	
320	330	Gray Sandy Clay	
330	380	Green Sandy Clay	
380	390	Gray Sand	
390	400	Gray Sand with Streaks of Gray Clay	
400	420	Gray Sand, Small Grave & Trace of Gray Clay	
420	440	Gray Sand Clay	
440	460	Gray Sand	
460	470	Gray Sandy Clay	
470	484	Tough Tan Clay	

(Use additional forms if necessary)

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

INTERVAL SHEET

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Well Repository No.: C-174  
 W-5832

Date rec'd: Date Processed: 3-28-80

Sample Interval: from 0 to: 1310

PROPERTY: Chesapeake Corporation

Number of samples: 130

COMPANY: Sydnor Hydrodynamics, Inc.

Total Depth: 1314

COUNTY: King William (West Point)

Oil or Gas: Water: X Exploratory:

From-To	From-To	From-To	From-To	From-To
0-10	300-310	600-610	900-910	1200-1210
10-20	310-320	610-620	910-920	1210-1220
20-30	320-330	620-630	920-930	1220-1230
30-40	330-340	630-640	930-940	1230-1240
40-50	340-350	640-650	940-950	1240-1250
50-60	350-360	650-660	950-960	1250-1260
60-70	360-370	660-670	960-970	1260-1270
70-80	370-380	670-680	970-980	1270-1280
80-90	380-390	680-690	980-990	1280-1290
90-100	390-400	690-700	990-1000	1290-1300
100-110	400-410	700-710	1000-1010	1300-1310
110-120	410-420	710-720	1010-1020	-
120-130	420-430	720-730	1020-1030	-
130-140	430-440	730-740	1030-1040	-
140-150	440-450	740-750	1040-1050	-
150-160	450-460	750-760	1050-1060	-
160-170	460-470	760-770	1060-1070	-
170-180	470-480	770-780	1070-1080	-
180-190	480-490	780-790	1080-1090	-
190-200	490-500	790-800	1090-1100	-
200-210	500-510	800-810	1100-1110	-
210-220	510-520	810-820	1110-1120	-
220-230	520-530	820-830	1120-1130	-
230-240	530-540	830-840	1130-1140	-
240-250	540-550	840-850	1140-1150	-
	5			
250-260	550-560	850-860	1150-1160	-
260-270	560-570	860-870	1160-1170	-
270-280	570-580	870-880	1170-1180	-
280-290	580-590	880-890	1180-1190	-
290-300	590-600	890-900	1190-1200	-

Split-Wash

Owner: Chesapeake Corporation  
Driller: Sydnor Hydrodynamics, Inc.  
County: King William (West Point)

W# 5832  
C# 174  
Total Depth: 1314'  
Quad: West Point  
Elev: 29'

Depth  
(feet)

WELL LOG

- 0-20 Clay - pale yellowish brown (10 YR 7/2); abundant sand; very fine to fine, subangular, well sorted; mica at 10-20'.
- 20-60 Sand - light olive gray (5 Y 5/2); abundant clay; fine and medium to granule, subangular and angular, moderate sorting; 10% fine glauconite; shell fragments - rare at 30-40', very rare at 40-50' and 10% fine at 50-60'; pebble at 40-50'.
- 60-90 Clay - light olive gray (5 Y 6/1); abundant sand; fine to medium, subangular, well sorted; very rare glauconite; diatom at 70-90'; mica.
- 90-120 Clay - light olive gray (5 Y 5/2); abundant sand; fine to medium with some larger, subangular, well sorted; diatoms; 5% finely ground shell fragments at 110-120'; coral fragments.
- 120-140 Gravel, shell - light olive gray (5 Y 6/1); 50% shell fragments - Chione, pecten, sparse clay; fine to coarse, subangular, moderate sorting.
- 140-150 Sand - light olive gray (5 Y 6/1); very sparse clay; fine to very coarse, subangular, moderate sorting; 40% glauconite.
- 150-160 Sand - olive gray (5 Y 4/1); moderately abundant clay; fine to very coarse, angular, moderate sorting; 5% glauconite - green, in dark gray clasts; coral; 40% shell fragments; echinoderm spines; garnet.
- 160-180 Coquina - greenish gray (5 GY 6/1); shell fragments cemented by calcium carbonate with crystal druse, very sparse sand; up to 5% glauconite; shell fragments; pyrite crystals and some phosphate fragments and bone fragments also.
- 180-200 Coquina, broken - light and dark gray; 60% glauconite medium, green; moderately abundant sand; medium to granule, angular to rounded, poorly sorted; abundant shell fragments cemented into coquina and free; forams, ostracods; iron stained clasts.
- 200-210 Clay - light olive gray (5 Y 5/2); abundant sand; fine, subangular, well sorted; 10% glauconite; forams, ostracods, iron oxide staining on clay clasts; mica.
- 210-220 Clay, glauconitic - olive gray (5 Y 3/2); 80% glauconite; sparse sand; fine to very coarse, subangular, poorly sorted; forams.
- 220-230 Clay, glauconitic - olive gray (5 Y 5/1); 50% glauconite; abundant sand; granules, subangular and rounded, poorly sorted; forams; mica.
- 230-240 Clay, glauconitic - olive gray (5 Y 3/2); 80% glauconite; abundant sand; granules, subangular and rounded; poorly sorted; forams; mica.

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- 240-250 Clay, kaolinic - pale red (10 R 7/3); sparse sand; fine, subangular, poorly sorted; 5%+ glauconite; mica.
- 250-270 Clay - grayish orange pink (5 YR 7/2); sparse sand; fine, subangular, poorly sorted; 5% glauconite; mica.
- 270-280 Clay - grayish orange pink and light olive gray (5 Y 4/1); sparse sand in darker gray clasts; fine, subangular, poor sorting; 20% glauconite in dark clasts only; mica.
- 280-290 Sand, glauconitic - olive gray (5 Y 3/2); 99+% glauconite; very sparse clay; few mixed grains of quartz sand; forams - Nodosaria, Nonion, Quinqueloculina.
- 290-300 Sand, glauconitic - olive gray (5 Y 3/2); 90% glauconite; moderate clay; fine to very coarse, subangular, poor sorting; forams; diatoms?
- 300-310 Clay, glauconitic - olive gray (5 Y 4/1); 80% glauconite; abundant sand; fine to very coarse, subangular, poorly sorted; interbedded with kaolinite (?) pinkish gray (5 YR 8/1) clay; forams - Robulus; diatoms; mica; garnet.
- 310-320 Sand - light olive gray (5 Y 7/1); abundant clay; fine to very coarse, subangular, poor sorting; 20% glauconite; abundant feldspar; mica.
- 320-330 Clay - yellowish gray (5 Y 6/2); abundant sand; fine to very coarse, subangular, poor sorting; mica.
- 330-340 Clay - dusky yellow (5 Y 6/4); abundant sand; fine to very coarse, subangular, poor sorting; 1-2% glauconite; worm tubes - iron oxide rich; muscovite and fuschite.
- 340-350 Clay - light olive gray (5 Y 6/2); abundant sand; fine to very coarse, subangular, poor sorting; iron rich worm tubes; micas.
- 350-380 Sand - light olive gray (5 Y 6/2); abundant clay decreasing at 370-380' to moderate clay; fine to very coarse, subangular, poorly sorted; 3% glauconite to 2% at 360-370' and none at 370-380; iron oxide rich worm tubes; micas; garnet.
- 380-390 Clay - olive gray (5 Y 4/1); abundant sand; medium to granule, subangular, poorly sorted; mica.
- 390-410 Sand - light olive gray (5 Y 6/1); sparse olive gray clay in clasts with few grains glauconite, then at 400-410', very sparse clay in sand clasts; medium to granule, subangular, poorly sorted; feldspar; very rare mica; garnet - only at 390-400'; few glauconite grains at 400'.

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- 410-460 Sand - light olive gray (5 Y 6/1); very sparse clay in sand clasts until 450-460' where it's sparse, dark gray clasts; fine to granule, subangular, poorly sorted; few glauconite grains; mica.
- 460-470 Clay - moderate yellowish brown (10 YR 6/4); abundant sand; fine to medium, subangular, well sorted; few grains glauconite; mica.
- 470-490 Clay - pale yellowish brown (10 YR 6/2); abundant sand; fine to medium, subangular, well sorted; few grains glauconite, mica.
- 490-510 Clay - moderate yellowish brown (10 YR 6/4); abundant sand; fine to medium, subangular, well sorted.
- 510-530 Clay - pale yellowish brown (10 YR 7/2); abundant sand; fine to medium, subangular, well sorted; few glauconite at 520-530'; mica at 520-530'.
- 530-540 Sand - pale yellowish brown (10 YR 7/2); moderate clay in clasts; fine to very coarse, some larger grains, subangular and angular, well sorted; few grains glauconite; mica.
- 540-570 Clay - pale yellowish brown (10 YR 7/2); abundant sand; fine to medium, subangular to angular, well sorted; few grains glauconite; mica.
- 570-590 Clay - pale yellowish brown (10 YR 6/2 and 7/2 at 580-590'); abundant sand; fine to granule, angular to subangular, well sorted; few grains glauconite; mica.
- 590-630 Sand - pale yellowish brown (10 YR 7/2); abundant clay; fine to granule with almost all granules at 620-630', angular to subangular, well sorted; few grains glauconite; mica; feldspar at 620-630'; iron rich worm tubes at 600-610'.
- 630-760 Sand - pale yellowish brown (10 YR 7/2); moderate clay - in red, gray, yellow brown clasts at 690-700'; moderately abundant at 710-720' and sparse at 750-760'; medium to granule with pebbles at 670-690' and 750-760', angular to subangular, moderately sorted; few glauconite at 630-640' only; iron rich worm tubes at 750-760'; feldspar; mica until 710-720'; garnet at 630-640'.
- 760-770 Clay - pale yellowish brown (10 YR 7/2); few medium to granule, angular and subangular; feldspar.
- 770-800 Sand - pale yellowish brown (10 YR 7/2); abundant clay at 770-780', sparse at 780-790' and very sparse at 790-800'; medium to granule, pebbles at 780-790'; subangular and angular, moderate sorting; feldspar.

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- 800-890 Sand - pale yellowish brown (10 YR 7/2); sparse clay, very sparse at 810-820'; medium to pebble, granule at 840-890', angular to subangular, moderate sorting; feldspar until 750-760'.
- 890-900 Clay - light brown (5 YR 6/4); moderate sand; fine to granule, angular to subangular, moderate sorting.
- 900-910 Clay - moderate brown (5 YR 4/4); moderate sand; fine to granule, angular to subangular, moderate sorting; mica.
- 910-920 Clay - light brown (5 YR 6/4); moderate sand; fine to granule, angular and subangular, moderate sorting.
- 920-930 Sand - yellowish gray (5 Y 8/1); medium to granule, angular to subangular, moderate sorting; garnets; feldspar; mica.
- 930-940 Sand - moderate brown (5 YR 5/4); medium to granule, subangular and angular, moderate sorting; feldspar; mica.
- 940-950 Clay - moderate brown (5 YR 5/4); abundant sand; fine with some granules, angular to subangular, moderate sorting.
- 950-960 Sand - moderate brown (5 YR 5/4); abundant clay; fine to very coarse, angular to subangular, moderate sorting.
- 960-1010 Sand - pale yellowish brown (10 YR 6/2); abundant clay; fine to very coarse with pebbles at 990-1010', angular to subangular with rounded pebbles, moderate sorting; (few glauconite grains at 960-980', wood in clay clasts and foram - Nodosaria - all contamination?); foram - 980-1010'; feldspar.
- 1010-1020 Gravel - mixed colors; few small clasts of clay; medium to pebble, rounded, poorly sorted.
- 1020-1040 Sand - pale yellowish brown (10 YR 6/2); sparse clay; fine to granule, subangular, moderate sorting; feldspar.
- 1040-1110 Sand - yellowish gray (5 Y 7/2); very sparse clay at 1040-1060', none until 1090-1110' - very few clasts of clay in red and gray; medium to granule with very coarse at 1040-1050' and 1060-1090'; angular to subangular, well sorted to 1090-1110', then moderate sorting; very rare grains glauconite/phosphatic fragments at 1060-1070'; feldspar; rose quartz at 1060-1070'; two kinds of garnet at 1090-1110'.
- 1110-1120 Gravel - mixed colors; sparse weathered red and gray clay clasts; medium to pebble, angular to rounded, poor sorting; feldspar.
- 1120-1130 Sand - yellow gray (5 Y 7/2); medium to granule, angular to subangular, moderate sorting; feldspar.

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1130-1140 Gravel - mixed colors; sparse weathered clay; medium to pebble, angular to rounded, poor sorting; feldspar.

1140-1150 Sand - yellowish gray (5 Y 7/2); medium to granule, angular to subangular, moderate sorting; feldspar; smoky quartz.

1150-1160 Gravel, fine - mixed colors; sparse clay; medium to large granules, angular to subangular, poor sorting; feldspar.

1160-1190 Sand - yellowish gray (5 Y 7/2); medium to granule with very coarse at 1170-1180'; angular to subangular, moderate sorting; feldspar; garnet.

1190-1200 Sand - yellowish gray (5 Y 7/2); medium to very coarse, few granules, subangular and angular, moderate sorting; feldspar; garnet.

1200-1210 Sand - yellowish gray (5 Y 7/2); fine to coarse, angular and subangular, moderately well sorted; feldspar; garnet.

1210-1260 Sand - yellowish gray (5 Y 7/2); fine to small granule, angular and subangular, poor sorting - moderate at 1220-1230'; feldspar; garnet; iron oxide and staining at 1250-1260'; few glauconite at 1230-1240'.

1260-1270 Gravel - mixed colors; coarse to granule, angular to subangular, well sorted; feldspar; garnet.

1270-1280 Sand - yellowish gray (5 Y 7/2); medium to small granule, angular to subangular, poorly sorted; feldspar; garnet; iron oxide staining.

1280-1290 Gravel - mixed colors; medium to granule, mostly granules, angular and subangular, well sorted; feldspar; pyrite; iron oxide staining.

1290-1310 Gravel - pale yellowish brown (10 YR 6/2); sparse clay; fine to medium and granules to small pebbles, subangular and subrounded, few angular grains at 1300-1310'; poorly sorted; sparse feldspar.

1310-1314 No sample.

Logged by: J. K. Polzin  
September 15/16, 1980