

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W-2354
C- 168

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DIVISION OF MINERAL RESOURCES
JAMES L. CALVER, COMMISSIONER
WATER WELL COMPLETION REPORT

OFFICE ADDRESS:
McCormick Road
Charlottesville, Virginia

OWNER: City of Portsmouth Mailing Address: Portsmouth, Va.

TENANT: Piners Point Sewage Disposal Plant Mailing Address: " "

DRILLER: Layne-Atlantic Company Mailing Address: Norfolk, Va.

WELL LOCATION: County Norfolk Approx. feet miles (direction) of
at northern city limits and feet miles S. Shore (direction) of Elizabeth River

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

DATE STARTED: June 7, 1968 DATE COMPLETED: July 25, 1968

TYPE OF DRILL RIG USED: hydraulic rotary TOTAL DEPTH 855 feet
(pilot hole to 1459')

WATER LEVEL: Stands 22 1/2 feet below surface OR
has NATURAL flow of gallons per minute.

YIELD TEST: Method pumped
Drawdown 71 1/3 feet
Rate 750 gal. per min.
Duration 24 hrs., 0 min.

HOLE SIZE: 24 inches from 0 to 855 feet
18 (?) inches from 855 to 1459 feet

SCREEN SIZE: 8 inches from 750 to 850 feet

WATER ZONES: from 750 to 850 feet
from to feet
from to feet

CASE SIZE: 18 inches from 0 to 745 feet
8 inches from 700 to 750 feet
8 inches from 850 to 855 feet

WATER: Color Taste
Odor Temp. °F

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

GROUTING: Method
Material cement Depth 745 feet

WATER ANALYSIS AVAILABLE: Yes No

DRILL CUTTINGS SAVED: Yes 54 No

PUMP: Type 100 H. P. turbine
Capacity 750 gal. per min.
Depth of intake 130 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: Hole gravel-packed from 706 to 855', and plugged at 855'

VIRGINIA DIVISION OF MINERAL RESOURCES
INTERVAL SHEET

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Well Repository No: W-2354

Date rec'd: 12/19/68

Sample Interval: from 35 to: 1372'

PROP: City of Portsmouth
(Pinners Pt. Disposal Plant)

Number of samples: 27

COMP: Layne-Atlantic Co.

Total Depth: 1459'

COUNTY: Norfolk (Portsmouth)

Oil or Gas: Water: XExploratory:

From-To	From-To	From-To	From-To
-	1322 - 1372	-	-
35 - 96	-	-	-
96 - 140	-	-	-
140 - 185	-	-	-
185 - 220	-	-	-
220 - 239	-	-	-
-	-	-	-
242 - 261	-	-	-
261 - 315	-	-	-
315 - 469	-	-	-
469 - 500	-	-	-
500 - 525	-	-	-
525 - 540	-	-	-
540 - 566	-	-	-
566 - 621	-	-	-
621 - 640	-	-	-
640 - 660	-	-	-
660 - 865	-	-	-
865 - 906	-	-	-
906 - 921	-	-	-
921 - 975	-	-	-
-	-	-	-
1008 - 1033	-	-	-
-	-	-	-
1064 - 1080	-	-	-
1080 - 1106	-	-	-
1106 - 1210	-	-	-
1210 - 1233	-	-	-
1233 - 1285	-	-	-
1285 - 1322	-	-	-

All intervals have both washed and unwashed samples.

OWNER: City of Portsmouth
(Piners Pt. disposal plant)
DRILLER: Layne-Atlantic Company
COUNTY: Norfolk (Portsmouth)

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TOTAL DEPTH: 1459'

GEOLOGIC LOG

Depth
in feet

0-35	No sample
YORKTOWN FORMATION (35-315')	
35-96	Shell and sand — gray, slightly clayey; 60% predominantly molluscan shell fragments, and 40% fine to coarse, moderately sorted, subangular to subrounded quartz sand
96-140	Sand and shell — greenish-gray, moderately clayey; 60% fine to coarse, moderately sorted, slightly glauconitic quartz sand, and 40% pelecypod and gastropod shells and shell fragments; locally a greenish-gray calcitic sandstone
140-185	Clay — gray, slightly sandy (15%), 25% molluscan shells and shell fragments; sand is fine to coarse, rather poorly sorted, angular to subangular; trace of glauconite
185-220	Sand — greenish-gray, moderately clayey (20%), 10% shell fragments; fine to medium, fairly well-sorted, angular; slightly glauconitic
220-239	"
239-242	No sample
242-261	Sand — greenish-gray, moderately clayey (15%), a few shell fragments; fine to coarse, rather poorly sorted, angular to subrounded; very slightly glauconitic
261-315	" with 10% shell fragments and 5% fragments of greenish-gray, fine-grained limestone

OWNER: City of Portsmouth (Piners Pt. disposal plant)

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YORKTOWN AND CALVERT FORMATIONS (315-469')

315-469 Sand — dark brownish-gray, moderately clayey (20%),
5-10% shell fragments; fine to very coarse, poorly
sorted, angular to well-rounded; glauconitic in
finer grades; basal Calvert-foraminifers common

CALVERT AND MATTAPONI FORMATIONS (469-500')

469-500 Sand — grayish-brown, moderately clayey (15%), 5%
shell fragments; fine to very coarse, moderately
sorted (skewed fine); moderately glauconitic; a
few foraminifers

MATTAPONI FORMATION (500-660')

500-525 Sand — gray, clayey (30%), 5% shell fragments, 5%
fragments of sandy glauconitic limestone; fine to
very coarse, poorly sorted, angular to well-
rounded; moderately glauconitic

525-540 Sand — gray, slightly clayey (10%), a few shell fragments;
fine to very coarse, moderately sorted (skewed
coarse), angular to rounded; moderately glauconitic,
pyrite common, trace of garnet

540-566 " fine to very coarse, poorly sorted

566-621 Sand — gray, with abundant matrix of silty micaceous
clay (40%), 10% fragments of shell and limestone;
fine to very coarse, poorly sorted, angular to
well-rounded; moderately glauconitic; pyrite
common

621-640 "

640-660 " moderately sorted (skewed fine)

MATTAPONI AND PATUXENT FORMATIONS (660-865')

660-865 Sand — gray, 5% granule gravel, a few shell fragments;
fine to very coarse, poorly sorted, angular to
rounded; glauconitic in finer grades, feldspathic
in coarser grades; minor garnet

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PATUXENT FORMATION (865-1372')

- 865-906 Clay — gray, moderately sandy; sand is fine, well-sorted, angular, moderately feldspathic; carbonaceous fragments common, muscovite and biotite common
- 906-921 Sand — gray, trace of clay; medium to very coarse, fairly well-sorted, subangular to subrounded; moderately feldspathic, slightly glauconitic
- 921-975 "
- 975-1008 No sample
- 1008-1033 Sand — gray, trace of clay; medium to very coarse, fairly well-sorted, subangular to subrounded; moderately feldspathic, slightly glauconitic, minor garnet and pyrite
- 1033-1064 No sample
- 1064-1080 Sand — tan, clean; fine to very coarse, poorly sorted, angular to subangular; iron-stained in part, slightly feldspathic, slightly glauconitic; minor garnet, muscovite, and magnetite
- 1080-1106 Sand — tan, clean; medium to coarse, fairly well-sorted, angular to subangular; slightly feldspathic, very slightly glauconitic; minor garnet and pyrite
- 1106-1210 Sand and gravel — brown, very slightly clayey; sand (60%) is medium to very coarse, moderately sorted, subrounded; gravel (40%) is fine (2-10 mm), subrounded; both fractions are feldspathic
- 1210-1233 Sand — gray, moderately clayey (20%), 5% fine gravel; fine to very coarse, poorly sorted, subangular; moderately feldspathic, very slightly glauconitic; minor garnet
- 1233-1285 Sand — gray, trace of clay; fine to coarse, moderately sorted, angular to subangular; moderately feldspathic; very slightly glauconitic; minor garnet
- 1285-1322 " with 5% fine gravel

