

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

VDMR: 2307
WWCR: 609

MAILING ADDRESS:
B-3667
Charlottesville, VA 22903

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

OFFICE ADDRESS:
McCormick Road
Charlottesville, Virginia

Department of Interior

OWNER: U. S. Geological Survey Mailing Address: Washington, D. C.

TENANT: Test Well #1 Mailing Address: P. O. Box 1476

DRILLER: Sydnor Hydrodynamics, Inc. Mailing Address: 1305 Brook Rd., Richmond, Va.

WELL LOCATION: County Loudoun Approx. 3/4 ~~feet~~ ^{miles} west (direction) of

U. S. Hwy. 15 and 50 ~~feet~~ ^{feet} south (direction) of U. S. Hwy. 50

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

DATE STARTED: 7/1/68 DATE COMPLETED: 7/9/68

TYPE OF DRILL RIG USED: air rotary TOTAL DEPTH 210 feet

WATER LEVEL: Stands 6 feet below surface OR

has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method pump

Drawdown 32 feet

Rate 22 gal. per min.

Duration 3 hrs., 17 min.

WATER ZONES: from 42 to 45 feet

from 67 to 75 feet

from _____ to _____ feet

WATER: Color _____ Taste _____

Odor _____ Temp. _____ °F

WELL TO SUPPLY: (check one) Home _____

Farm _____ Town _____ School _____

Industry _____ Other test well

WATER ANALYSIS AVAILABLE: Yes _____ No X

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: * Casing pulled out after pump test: well abandoned and hole back-filled.

HOLE SIZE: 8 3/4 inches from 0 to 17 feet

6 1/2 inches from 17 to 210 feet

_____ inches from _____ to _____ feet

SCREEN SIZE: _____ inches from _____ to _____ feet

_____ inches from _____ to _____ feet

_____ inches from _____ to _____ feet

CASE SIZE: *7 inches from 0 to 17 feet

_____ inches from _____ to _____ feet

_____ inches from _____ to _____ feet

GROUTING: Method none

Material _____ Depth _____ feet

PUMP: Type submersible

Capacity _____ gal. per min

Depth of intake _____ feet

LOG

FURNISHED BY: Sydnor Hydrodynamics, Inc. DATE: 8/26/68

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
FROM	TO		
0	1	Topsoil	
1	9	Clay	
9	42	Solid gray limestone	
42	45	Weathered rock	Water
45	50	Solid gray limestone	
50	51	Sandstone	
51	56	Solid gray limestone	
56	57	Sandstone	
57	67	Greenstone and sandstone mixed	
67	75	Red sandstone	Water
75	101	Sandstone and greenstone	
101	104	Rotten mica-schist	
104	204	Schist	
204	210	Schist and greenstone	

INTERVAL SHEET

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WWCR: 609
VDMR Well No: 2307

Date rec'd: 11/6/68

Sample Interval: from 0 to: 205'

PROP: U. S. Geological Survey Test Well #1

Number of samples: 23

COMP: Sydnor Hydrodynamics, Inc.

Total Depth: 210'

COUNTY: Loudoun (Aldie)

Oil or Gas: Water: ~~X~~Exploratory:

From-To	From-To	From-To	From-To
0 - 9	-	-	-
9 - 20	-	-	-
20 - 30	-	-	-
30 - 40	-	-	-
42 - 45	-	-	-
45 - 50	-	-	-
"	-	-	-
56 - 57	-	-	-
57 - 67	-	-	-
67 - 75	-	-	-
75 - 85	-	-	-
85 - 95	-	-	-
95 - 101	-	-	-
101 - 105	-	-	-
105 - 115	-	-	-
-	-	-	-
120 - 125	-	-	-
125 - 130	-	-	-
"	-	-	-
135 - 145	-	-	-
145 - 155	-	-	-
155 - 165	-	-	-
165 - 175	-	-	-
175 - 185	-	-	-
185 - 195	-	-	-
195 - 205	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

All intervals have both washed and unwashed samples.

OWNER: U. S. Geological Survey, Test Well #1
DRILLER: Sydnor Hydrodynamics, Inc.
COUNTY: Loudoun (Aldie)

VDMR: 2307
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TOTAL DEPTH: 210'

GEOLOGIC LOG

Depth
in feet

SAPROLITE (0-9')

0-9 Saprolite — medium tan, weathered and iron-oxide stained; vein quartz, feldspar, clay, mica, pyroxene, and magnetite

NEWARK GROUP [9-95' (?)]

9-20 Metamorphosed basalt — medium gray, aphanitic, non-foliated; (X-ray analysis: plagioclase feldspar and chlorite, with minor amount of calcite; trace of pyrite)

20-30 "

30-40 "

40-42 No sample

42-45 Metamorphosed basalt — dark brown, weathered and iron-oxide stained, aphanitic, non-foliated; plagioclase feldspar and chlorite, with trace of calcite

45-50 " approximately 60% of sample is weathered

50-56 No sample

56-57 Metamorphosed basalt — medium gray, aphanitic, non-foliated; plagioclase feldspar and chlorite, with minor amount of calcite

57-67 "

67-75 " with fragments of dark brown, weathered, and iron-oxide stained basalt

75-85 " with fragments of coarse-grained, crystalline basalt

OWNER: U. S. Geological Survey, Test Well #1

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85-95 Metamorphosed diabase (?) — medium gray, fine grained, non-foliated; feldspar, pyroxene or amphibole, chlorite, and calcite

FAULT ZONE: NEWARK GROUP OR EVINGTON GROUP [95 (?) - 115']

95-101 Siliceous dolomite and dolomitic ankerite — gray and tan, many weathered and iron-oxide stained fragments, crystalline; minor amount of brecciation; ankerite, dolomite, and quartz, with minor amount of secondary calcite (veins and crusts); a few calcite-cemented, fine-grained sandstone fragments

101-105 Siliceous, dolomitic ankerite — gray, crystalline; minor amount of brecciation; (X-ray analysis: dolomitic ankerite and quartz, with trace of muscovite; minor amount of vein dolomite or calcite)

105-115 "

115-120 No sample

EVINGTON GROUP (120-205')

120-125 Quartz-muscovite schist — light gray, phaneritic, well-foliated and micaceous, sheared; (X-ray analysis: muscovite and quartz)

125-130 "

130-135 No sample

135-145 Quartz-muscovite schist — light gray, phaneritic, well-foliated and micaceous, sheared; muscovite, quartz

145-155 "

155-165 "

165-175 "

175-185 "

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185-195	Quartz-muscovite schist — light gray, phaneritic, well-foliated and micaceous, sheared; muscovite, quartz
195-205	"
205-210	No sample

GEOLOGIC SUMMARY

	<u>Rock Unit</u>	<u>Age</u>
0-9'	Saprolite	—
9-95' (?)	Newark Group	Early Triassic
95 (?) - 115'	Newark or Evington Group (?)	Triassic or Cambrian (?)
115-120'	No sample	—
120-205'	Evington Group	Early Cambrian
205-210'	No sample	—

Virginia Division of Mineral Resources
Robert G. Willson, Geologist
November 13, 1968