VDMR: 2310
WWCR: 612

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

MAILING ADDRESS:
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DIVISION OF MINERAL RESOURCES

JAMES L. CALVER, COMMISSIONER

WATER WELL COMPLETION REPORT

OFFICE ADDRESS:
McCormick Road
Charlottesville, Virginia

OWNER: U. S. Geological Survey — Mailing Address: Department of Interior, Washington, D. C.

TENANT: Test Well #4 — Mailing Address:

DRILLER: Sydnor Hydrodynamics, Inc. — Mailing Address: P. O. Box 1476, 1305 Brook Rd. Richmond, Virginia

WELL LOCATION: County Loudoun — Approx. ____ feet ~~miles~~ miles south (direction) of Leesburg City Limits and 2400 feet ~~miles~~ west (direction) of U.S. Hwy. 15

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

DATE STARTED: 7/17/68 — DATE COMPLETED: 8/5/68

TYPE OF DRILL RIG USED: air rotary — TOTAL DEPTH 350 feet

WATER LEVEL: Stands 28 feet below surface OR

has NATURAL flow of ____ gallons per minute.

YIELD TEST: Method See remarks below

Drawdown ____ feet

Rate ____ gal. per min.

Duration ____ hrs., ____ min.

WATER ZONES: from 61 to 64 feet

from 124 to 126 feet

from 311 to 312 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 ____

HOLE SIZE: 11 inches from 0 to 49 feet

6 1/2 inches from 49 to 350 feet

____ inches from ____ to ____ feet

SCREEN SIZE: ____ inches from ____ to ____ feet

____ inches from ____ to ____ feet

____ inches from ____ to ____ feet

CASE SIZE: 7 inches from +2 3/4 to 49 feet

____ inches from ____ to ____ feet

____ inches from ____ to ____ feet

GROUTING: Method ____

Material ____ Depth ____ feet

PUMP: Type See remarks below

Capacity ____ gal. per min

Depth of intake see remarks below 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: Depth 120' - Test 2 hrs. @ 118 GPM w/3 2/3 D' (Submersible pump)

Depth 195' - Test 7 hrs. 20 min. @250 GPM w/9' D' (Turbine pump)

Depth 120' - Test 8 hrs. 5 min. @ 250 GPM w/15' D' (Turbine pump)

(LOG OF WELL) OVER

LOG

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

DEPTH (feet) FROM	DEPTH (feet) TO	TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
0	1	Topsoil	
1	47	Clay	
47	61	Sandstone, quartz, greenstone and limestone	
61	62	Broken rock	Water
62	64	Open	Water
64	120	Sandstone, limestone, greenstone and quartz, mixed	
120	124	Sandstone and greenstone	
124	126	Soft quartz and sandstone	
126	311	Greenstone, sandstone and some quartz	
311	312	Broken formation	Water
312	350	Quartz, shale, greenstone and sandstone	

(Use additional forms if necessary)

INTERVAL SHEET

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WWCR: 612
VDMR Well No: 2310

Date rec'd: 11/8/68

Sample Interval: from 0 to: 350'

PROP: U.S. Geological Survey
(Test Well #4)

Number of samples: 35

COMP: Sydnor Hydrodynamics, Inc.

Total Depth: 350'

COUNTY: Loudoun (Leesburg)

Oil or Gas: Water: X Exploratory:

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	-	-	-
60 - 70	-	-	-
70 - 80	-	-	-
80 - 90	-	-	-
90 - 100	-	-	-
100 - 110	-	-	-
110 - 120	-	-	-
120 - 130	-	-	-
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	-	-	-

All intervals have both washed and unwashed samples.

OWNER: U. S. Geological Survey, Test Well #4 VDMR: 2310
DRILLER: Sydnor Hydrodynamics, Inc. WWCR: 612
COUNTY: Loudoun (Leesburg) TOTAL DEPTH: 350'

GEOLOGIC LOG

Depth in feet	
SAPROLITE (0-40')	
0-10	Saprolite — dark red-brown; weathered and iron-oxide stained quartz sand, clay and vein quartz
10-20	"
20-30	" medium brown
30-40	" " with a few fragments of weathered siltstone
NEWARK GROUP (40-350')	
40-50	Conglomerate — light to medium brown, iron-oxide stained, calcareous sandy siltstone matrix with fragments of quartzite, limestone, metamorphosed basalt, gneiss or granite gneiss, and vein quartz; minor amounts of clay and calcite cement
50-60	"
60-70	"
70-80	"
80-90	"
90-100	"
100-110	"
110-120	"
120-130	"
130-140	"
140-150	" with slightly increase in amount of sandstone matrix

OWNER: U. S. Geological Survey, Test Well #4 VDMR: 2310

150-160	Conglomerate — light to medium brown, iron-oxide stained, calcareous sandy siltstone matrix with fragments of quartzite, limestone, metamorphosed basalt, gneiss or granite gneiss, and vein quartz; minor amounts of clay and calcite cement	
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	"	
300-310	"	
310-320	"	with several fragments of weathered conglomerate
320-330	"	
330-340	"	
340-350	"	very little calcareous material

OWNER: U. S. Geological Survey, Test Well #4 VDMR: 2310

GEOLOGIC SUMMARY

	Rock Unit	Age
0-40'	Saprolite	—
40-350'	Newark Group	Early Triassic

Virginia Division of Mineral Resources
Robert G. Willson, Geologist
November 18, 1968