

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W# 4501  
C# 188

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: Lewis E. Kirkland, Mailing Address: Rt. 1, Box 148 Carson, VA. 23830  
TENANT: same Mailing Address: Rt. 1, Box 148, Carson, VA. 23830  
DRILLER: J. J. Mitchell, Jr. Mailing Address: 16815 Happy Hill Rd. Col. Hgts. Va. 23834  
WELL LOCATION: County Prince George Approx. 1/8 <sup>feet</sup> miles south (direction) of # 623 on # 30, in Carson area. and \_\_\_\_\_ feet miles \_\_\_\_\_ (direction) of \_\_\_\_\_  
(GIVE DIRECTION AND DISTANCE IN FEET OR MILES FROM TWO REFERENCE POINTS - ROADS, TOWNS, RIVERS, ETC. - ON COUNTY HIGHWAY OR OTHER MAP.)  
DATE STARTED: August 1975 DATE COMPLETED: August 1975

TYPE OF DRILL RIG USED: cable tool TOTAL DEPTH 146 feet

WATER LEVEL: Stands 45 feet below surface OR 110' test pipe - took no air  
has NATURAL flow of 18 gallons per minute.

YIELD TEST: Method pumped  
Drawdown took no air <sup>in 110' test pipe</sup> feet  
Rate 18 gal. per min. not continuous  
Duration 7 hrs., \_\_\_\_\_ min.

HOLE SIZE: 7 inches from 0 to 12 feet  
4 inches from 12 to 146 feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

SCREEN SIZE: 4 inches from 136 to 146 feet

WATER ZONES: from \_\_\_\_\_ to \_\_\_\_\_ feet  
from \_\_\_\_\_ to \_\_\_\_\_ feet  
from \_\_\_\_\_ to \_\_\_\_\_ feet

CASE SIZE: 4 inches from 0 to 137-4" feet

WATER: Color \_\_\_\_\_ Taste \_\_\_\_\_  
Odor \_\_\_\_\_ Temp. \_\_\_\_\_ °F

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

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

GROUTING: Method sand & gravel poured in.  
cement  
Material sand & gravel Depth 12 feet

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

PUMP: Type \_\_\_\_\_  
Capacity \_\_\_\_\_ gal. per min  
Depth of intake \_\_\_\_\_ feet

DRILL CUTTINGS SAVED: Yes

(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: \_\_\_\_\_ DATE: \_\_\_\_\_

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
FROM	TO		SAMPLE #
0	10	tan dirt	1
10	20	orange dirt	2
20	30	red mud	3
30	70	gray mud	4,5,6,7
70	90	gray sand	8 & 9
90	100	tan and gray sand	10
100	110	gray sand	11
110	120	gray mud	12
120	146	gray sand and gravel	13 & 14

(Use additional forms if necessary)

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INTERVAL SHEET

Page 1 of 1

Well Repository No: W- 4501  
C- 188

Date rec'd: 11/18/75 Date Processed: 11/9/76

Sample Interval: from:0 to:146

PROPERTY: Lewis E.Kirkland

Number of samples: 14

COMPANY: Mitchell's Well & Pump Co.

Total Depth: 146'

COUNTY: Prince George (Carson)

Oil or Gas: Water:XExploratory:

From-To	From-To	From-To	From-To
0 - 10	-	-	-
10 - 20	-	-	-
20 - 30	-	-	-
30 - 40	-	-	-
40 - 50	-	-	-
50 - 60	-	-	-
60 - 70	-	-	-
70 - 80	-	-	-
80 - 90	-	-	-
90 -100	-	-	-
100 - 10	-	-	-
10 - 20	-	-	-
20 - 30	-	-	-
30 - 46'	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

ashed & unwashed samples

OWNER: Lewis E. Kirkland  
DRILLER: Mitchell's  
COUNTY: Prince George  
(Carson)

W#: 4501  
C#: 188  
TOTAL DEPTH: 146'

GEOLOGIC LOG

Depth  
(feet)

- 0-10 Clay — grayish yellow; moderate sand; fine to coarse grained; subangular to subrounded; moderately sorted; quartz; feldspar; few grains of glauconite.
- 10-20 Clay — dark yellowish orange; abundant sand; fine to coarse grained; subangular to subrounded; moderately sorted; quartz; feldspar; few grains of glauconite; few opaques.
- 20-30 Clay — moderate reddish orange, light gray, dark yellowish orange; moderate sand; very fine to medium grained, some coarse grains; subangular to subrounded; moderately sorted; quartz; some feldspar; few grains of glauconite.
- 30-40 Clay — very light gray, dark yellowish orange, moderate reddish orange; slightly sandy; fine to coarse grained; subangular to subrounded; moderately sorted; quartz; few grains of glauconite.
- 40-50 Clay — light gray, moderate reddish orange, dark yellowish orange; moderate sand; fine to medium grained, some coarse grains; subangular to subrounded; moderately well sorted; quartz; few grains of glauconite.
- 50-60 Clay — light gray, dark yellowish orange; few grains of glauconite; few grains of quartz.
- 60-70 Clay — light gray; slightly sandy; fine to medium grained; subangular to rounded; moderately well sorted; glauconite 60% of sand sized fraction; quartz.
- 70-80 Sand — salt and pepper; fine to coarse grained; subangular to subrounded; moderately sorted; quartz; feldspar; 3% black phosphatic material; few grains of garnet.
- 80-90 As above plus some iron staining; 2% black phosphatic material.
- 90-100 Sand — white; medium to coarse grained; subangular to subrounded; moderately well sorted; quartz; feldspar; some black phosphatic material; pyrite.
- 100-110 Sand — white; medium to coarse grained; subangular to subrounded; moderately well sorted; quartz; feldspar.
- 110-120 Clay — medium gray; moderate sand; coarse grained; subrounded; well sorted; quartz; feldspar; few grains of glauconite.
- 120-130 Sand — white; coarse grained to granular (50%), few pebbles; angular to subrounded; moderately sorted; quartz; feldspar; some pyrite; few grains of glauconite; few grains of garnet.

Depth  
(feet)

130-146 As 120-130' except 20% granules; subangular to subrounded;  
few pyrite grains.

Logged by: Michael T. Currie

GEOLOGIC SUMMARY

<u>Depth (feet)</u>	<u>Thickness (feet)</u>	<u>Rock Unit</u>	<u>Time Rock Unit</u>
0-30	30	Moorings "Unit"	Pleistocene
30-60	30	Calvert Formation	Miocene-Eocene
60-70	10	Nanjemoy-Mattaponi Formation	Eocene-Cretaceous
70-146	76 †	Patuxent Formation	Cretaceous

NOTE: Last 26 feet may represent Basement contact  
(Petersburg Granite).

VIRGINIA DIVISION OF MINERAL RESOURCES  
David A. Hubbard, Jr., Geologist  
August 17, 1978