W#: 5222
C#: 214

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

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: Robert A. Altwater, General Contractor Mailing Address: Rt. 1, Box 287-A1 Prince George, VA. 23875

TENANT: _____ Mailing Address: _____

DRILLER: J. J. Mitchell, Jr. (Mitchell's Well & Pump Co., Inc.) Mailing Address: 16815 Happy Hill Rd. Colonial Heights, VA. 23834

WELL LOCATION: County Prince George Approx. _____ feet/miles _____ (direction) of
Newstead Farms Rt. 674
Lot 9, Block C, Section 2 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: March 1978 DATE COMPLETED: March 1978

TYPE OF DRILL RIG USED: Cable tool TOTAL DEPTH 195 feet

WATER LEVEL: Stands 82 feet below surface OR

has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method Pumped
Drawdown 132 feet of test pipe used took no air
Rate 12 gal. per min.
Duration 5 hrs., _____ min.

WATER ZONES: from _____ to _____ feet
from _____ to _____ feet
from _____ to _____ feet

WATER: Color _____ Taste _____
Odor _____ Temp. _____ °F

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

WATER ANALYSIS AVAILABLE: Yes _____ No X

DRILL CUTTINGS SAVED: 20 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.)

HOLE SIZE: 7½ inches from 0 to 15 feet
4 inches from 15 to 195 feet
_____ inches from _____ to _____ feet

SCREEN SIZE: _____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

CASE SIZE: 4 inches from +1 to 191'10" feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

GROUTING: Method Poured in
Material Cement, sand and gravel Depth 15 feet

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

REMARKS: _____

(LOG OF WELL) OVER

LOG

FURNISHED BY: Mitchell's Well & Pump DATE: _____

DEPTH (feet) FROM	TO	TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
0	10	Orange earth	
10	30	Orange earth	
30	60	Gray mud-shell fragments	
60	130	Gray shell fragments	
130	140	Light gray	
140	160	Sand & gravel	
160	170	Brown mud	
170	180	Gray	
180	195	Sand & gravel	

(Use additional forms if necessary)

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

INTERVAL SHEET

Page 1 of 1

Well Repository No: W#: 5222
C#: 214

Date rec'd: 7/6/78 Date Processed: 7/8/78

Sample Interval: from: 0 to: 200

PROPERTY: Robert Atwater

Number of samples: 20

COMPANY: Mitchell

Total Depth: 195'

COUNTY: Prince George (Pr. George CH)

Oil or Gas: Water: X Exploratory:

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 - 110	-	-	-
110 - 120	-	-	-
120 - 130	-	-	-
130 - 140	-	-	-
140 - 150	-	-	-
150 - 160	-	-	-
160 - 170	-	-	-
170 - 180	-	-	-
180 - 190	-	-	-
190 - 195	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Washed and unwashed samples.

OWNER: Robert Atwater
DRILLER: Mitchell W & P Co.
COUNTY: Prince George

W#: 5222
C#: 204
TOTAL DEPTH: 195'
QUAD: Prince George

GEOLOGIC LOG

Depth (feet)	
0-10	Sand — grayish orange; moderate clay; medium to very coarse grained, 5% granules; subangular to subrounded; moderately sorted; quartz; feldspar; few opaques.
10-20	Sand — dark yellowish orange; moderately stained; moderate clay; fine to medium grained; subangular to subrounded; well sorted; quartz; feldspar; some opaques.
20-30	Sand — dark yellowish orange; moderate clay; medium to very coarse grained, some fine grains, 5% granules, some pebbles; subangular to subrounded; poorly sorted; quartz; feldspar; 3% ferricrete; few opaques.
30-40	Clay — olive light gray; moderate sand; medium to coarse grained, some granules; subangular to subrounded; moderately sorted; quartz; 10% marl and sandy limestone fragments; few spines; few grains of feldspar; ferricrete.
40-50	Clay — olive light gray; moderate sand; fine to coarse grained, some granules; subangular to subrounded; moderately sorted; quartz; 15% marl and sandy limestone fragments; some black phosphatic material; few grains of glauconite; feldspar; few spines.
50-60	Sand — olive light gray; abundant clay; fine grained, some medium grains; subangular to subrounded; well sorted; quartz; 2% black phosphatic material; some shell fragments; few grains of glauconite.
60-70	Sand — greenish gray; abundant clay; very fine to medium grained; subangular to rounded; moderately well sorted; quartz; 35% glauconite (black, green); some shell fragments; some black phosphatic material.
70-80	As above except 25% glauconite; forams (inc. Nodesaria and Robulus).
80-90	Sand — olive light gray; moderate clay; fine to coarse grained; subangular to subrounded; moderately sorted; quartz; 3% black phosphatic material; 2% glauconite; 2% shell fragments.
90-100	Sand — greenish gray; abundant clay; fine to medium grained; subangular to rounded; moderately well sorted; quartz; 20% glauconite; 2% black phosphatic material; 2% shell fragments; few spines; ostracode.

Depth (feet)	
100-110	Sand —dark greenish gray; moderate clay; fine to medium grained; subangular to rounded; moderately well sorted; quartz; 45% glauconite; few shell fragments; pyrite.
110-120	Clay and sand — medium gray; abundant clay; moderate sand; fine to medium grained; subangular to rounded; moderately well sorted; glauconite 60% of sand sized fraction; quartz; 20% shell fragments; 3% sandy limestone fragments; ostracodes; forams (inc. Robulus).
120-130	Sand — light gray; slightly clayey; medium to coarse grained, some granules; subangular to subrounded; moderately sorted; quartz; feldspar; 2% glauconite; muscovite; few grains of garnet.
130-140	Sand — light gray; slightly clayey; fine to coarse grained, 15% granules, some pebbles; subangular to subrounded; poorly sorted; quartz; feldspar; 7% glauconite; some shell fragments; muscovite.
140-150	Sand — off white; medium to coarse grained, 10% granules, few pebbles; subangular to subrounded; moderately sorted; quartz; feldspar; 2% glauconite.
150-160	As above except 3% glauconite; few grains of garnet.
160-170	Clay — light brown; moderate sand; medium to coarse grained; subangular to rounded; moderately well sorted; quartz; glauconite 40% of sand sized fraction; feldspar; muscovite; few shell fragments.
170-180	Clay — olive light gray, light brown; some quartz; some feldspar; some glauconite; muscovite.
180-190	Sand — white; coarse to very coarse grained, some medium grains, some granules, few pebbles; subrounded; moderately sorted; quartz; feldspar; few grains of glauconite.
190-195	As above except medium to coarse grained, few granules; few grains of garnet.

Logged by: Michael T. Currie

GEOLOGIC SUMMARY

Depth (feet)	Thickness (feet)	Rock Unit	Time Rock Unit
0-30	30	Moorings "Unit"	Pleistocene
30-60	30	Calvert Formation	Miocene-Eocene
60-120	60	Nanjemoy-Mattaponi Formation	Eocene-Cretaceous
120-195	75+	Patuxent Formation	Cretaceous

VIRGINIA DIVISION OF MINERAL RESOURCES
David A. Hubbard, Jr., Geologist
September 21, 1978