

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

MAILING ADDRESS:
B 3667
C Charlottesville, VA 22903

DIVISION OF MINERAL RESOURCES
JAMES L. CALVER, COMMISSIONER

OFFICE ADDRESS:
McCormick Road
Charlottesville, Virginia

WATER WELL COMPLETION REPORT

OWNER: Jeter Brothers (S.P. & R.R., Jr.) Mailing Address: Hanover, Virginia

TENANT: Aspen Hill Farm Subdivision Mailing Address: Hanover, Virginia

DRILLER: Mitchell's Well & Pump Company Mailing Address: R #1, Bx 110, Col. Hgts., Va. 23834

WELL LOCATION: County Hanover Approx. 2 1/4 ~~xxx~~ miles Northeast (direction) of
Mechanicsville on State Road #643 and 1/2 ^{feet} miles mile North (direction) of St. Rd. 360

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

DATE STARTED: February 1972 DATE COMPLETED: February 1972

TYPE OF DRILL RIG USED: cable tool TOTAL DEPTH 330 feet

WATER LEVEL: Stands 175 feet below surface OR
has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method pumped HOLE SIZE: 12 inches from 0 to 50 feet
Drawdown 73 feet 6 inches from 50 to 330 feet
Rate 120 gal. per min. _____ inches from _____ to _____ feet
Duration 72 hrs., 40 min. not continuous SCREEN SIZE: 5 inches from 307 to 327 feet

WATER ZONES: from 307 to 327 feet _____ inches from _____ to _____ feet
from _____ to _____ feet _____ inches from _____ to _____ feet
from _____ to _____ feet

WATER: Color clear Taste good
Odor none Temp. _____ °F

WELL TO SUPPLY: (check one) Home _____ GROUTING: Method pumped in
Farm _____ Town _____ School _____ cement &
Industry _____ Other subdivision Material water Depth 50 feet

WATER ANALYSIS AVAILABLE: Yes _____ No _____ PUMP: Type unknown
Capacity _____ gal. per min
DRILL CUTTINGS SAVED: Yes 33 No _____ Depth of intake * _____ 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: * SUGGESTED DEPTH SETTING FOR PUMP 280'.

LOG

FURNISHED BY: Mitchell's Well & Pump Company DATE: February 1972

| DEPTH (feet) | | TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.) | REMARKS (water, caving, shot, screen, sample, etc.) |
|--------------|-----|--|--|
| FROM | TO | | |
| 0 | 10 | red clay sand | |
| 10 | 20 | " " " | |
| 20 | 30 | " " " | |
| 30 | 40 | " " " | |
| 40 | 50 | " " " | |
| 50 | 60 | " " " | |
| 60 | 70 | " " " | |
| 70 | 80 | " " " | |
| 80 | 90 | yellow sand | |
| 90 | 100 | white sand | |
| 100 | 110 | red clay | |
| 110 | 120 | gray mud | |
| 120 | 130 | " " " | |
| 130 | 140 | " " " | |
| 140 | 150 | white clay | |
| 150 | 160 | " " " | |
| 160 | 170 | " " " | |
| 170 | 180 | " " " | |
| 180 | 190 | black mud | |
| 190 | 200 | " " " | |
| 200 | 210 | " " " | |
| 210 | 220 | gray mud | |
| 220 | 230 | white clay | |
| 230 | 240 | gray gravel | |
| 240 | 250 | " " " | |
| 250 | 260 | " " " | |
| 260 | 270 | red and white sand | |
| 270 | 280 | white and red sand | |
| 280 | 290 | gray sand | |
| 290 | 300 | " " " | |
| 300 | 310 | " " " | |
| 310 | 320 | " " " | |
| 320 | 330 | " " " | |

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DIVISION OF MINERAL RESOURCES

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WATER WELL COMPLETION REPORT

W-3401
OFFICE ADDRESS:

McCormick Road
Charlottesville, Virginia

OWNER: Jeter Brothers (S. P. & R. R., Jr.) Mailing Address: Hanover, Virginia

TENANT: Aspen Hill Farm Subdivision Mailing Address: Hanover, Virginia

DRILLER: Mitchell's Well & Pump Company Mailing Address: R #1, Bx 110, Col. Hgts., Va. 238

WELL LOCATION: County Hanover Approx. 2 1/4 ^{feet}/_{miles} Northeast (direction) of Mechanicsville on State Road #643 and 1/2 ^{feet}/_{miles} mile North (direction) of St. Rd. 360

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

DATE STARTED: February 1972 DATE COMPLETED: February 1972

TYPE OF DRILL RIG USED: cable tool TOTAL DEPTH 330 feet

WATER LEVEL: Stands 175 feet below surface OR
has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method pumped
Drawdown 73 feet
Rate 120 gal. per min.
Duration 72 hrs., 40 min not continuous

HOLE SIZE: 12 inches from 0 to 50 feet
6 inches from 50 to 330 feet
_____ inches from _____ to _____ feet
SCREEN SIZE: 5 inches from 307 to 327 feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

WATER ZONES: from 307 to 327 feet
from _____ to _____ feet
from _____ to _____ feet

CASE SIZE: 6 inches from 0 to 295 1/2 feet
_____ inches from 295 1/2 to 307 feet
_____ inches from 327 to 330 feet

WATER: Color clear Taste good
Odor none Temp. _____ °F

GROUTING: Method pumped in
cement &
Material water Depth 50 feet

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

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

WATER ANALYSIS AVAILABLE: Yes _____ No _____

DRILL CUTTINGS SAVED: Yes 33 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: * SUGGESTED DEPTH SETTING FOR PUMP 280'.

SEVEN PINES QUADRANGLE

ELEV. : 170'

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

INTERVAL SHEET

Page 1 of 1

C - 146
Well Repository No: 3401

Date rec'd: 3/20/72 ; processed 3/22/72

Sample Interval; from 0 to: 330'

PROPERTY: Jeter Brothers
(Aspen Hill Farm)
COMPANY: Mitchell's W & P Co.

Number of samples: 33

Total Depth: 330'

COUNTY: Hanover (Mechanicsville)

Oil or Gas: Water: Exploratory:

| From-To | From-To | From-To | From-To |
|----------|----------|---------|---------|
| 0 - 10 | 250 -260 | - | - |
| 10 - 20 | 260 -270 | - | - |
| 20 - 30 | 270 -280 | - | - |
| 30 - 40 | 280 -290 | - | - |
| 40 - 50 | 290 -300 | - | - |
| 50 - 60 | 300 -310 | - | - |
| 60 - 70 | 310 -320 | - | - |
| 70 - 80 | 320 -330 | - | - |
| 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 | - | - | - |

All intervals have both washed and unwashed samples.

OWNER: Aspen Hill Farm (Jeter Bros.)
DRILLER: Mitchell's Well & Pump Co.
COUNTY: Hanover (Mechanicsville)

W-3401
C-146
TOTAL DEPTH : 330'

GEOLOGIC LOG

Depth
(feet)

COLUMBIA GROUP (0-110')

| | |
|-------|---|
| 0-10 | Sand - orange, slightly clayey; fine- to medium-grained, moderately sorted; iron-stained quartz with some feldspar |
| 10-20 | " except: fine- to coarse-grained, with 10 percent granule gravel |
| 20-30 | Sand - tan, very slightly clayey, with 10-15 percent fine-grained gravel (2-8 mm); fine- to coarse-grained, poorly sorted; slightly feldspathic; accessory magnetite |
| 30-40 | " except: medium- to very coarse-grained, moderately sorted |
| 40-50 | Sand - orange, very slightly clayey, a few small pebbles; medium- to coarse-grained, fairly well sorted; blue quartz common, feldspar rare |
| 50-60 | Sand - dark orange, very slightly clayey, with 25-30 percent fine-grained gravel; medium- to very coarse-grained, moderately sorted (skewed coarse); slightly feldspathic |
| 60-70 | Sand - light reddish-brown, trace of clay, trace of fine-grained gravel; fine- to coarse-grained, fairly well sorted; abundant blue quartz; moderately feldspathic |
| 70-80 | Sand - light greenish-yellow, clean; medium-grained, well sorted; very slightly feldspathic |
| 80-90 | Sand - light tan, very slightly clayey; medium- to coarse-grained, well sorted; quartz |

- 90-100 Sand - light tan, very slightly clayey; medium- to coarse-grained, well sorted; quartz
- 100-110 Sand - light tan with abundant matrix of bright orange-brown clay, a few fragments of ferricrete

CALVERT FORMATION (110-140')

- 110-120 Clay - gray, with orange mottles, slightly sandy; sand fraction consists of medium- to coarse-grained, subrounded clear quartz
- 120-130 Clay - gray, with orange mottles, moderately sandy; sand fraction consists of fine- to coarse-grained, angular to rounded clear quartz with minor amount of fragmental phosphorite; some very fine-grained glauconite
- 130-140 "

NANJEMOY FORMATION (140-180')

- 140-150 Clay - light greenish-gray, with trace of quartz sand; abundant dark- to light-green glauconite; fine-grained muscovite common; a few rounded nodules of phosphorite
- 150-160 " except: with lenses and pockets of greenish-brown clayey silt
- 160-170 "
- 170-180 Clay - light gray, with sparse quartz sand; 10 to 20 percent gray, silty, slightly-glauconitic limestone; porous bone (fragments ?) common, appear not to have been reworked; a few pyrite concretions and plant remains

MATTAPONI FORMATION (180-220')

180-190 Sand — dark greenish-gray, moderately clayey; fine- to very fine-grained, very well sorted; angular quartz with about 20 percent green glauconite, about 2 percent white mica and a few nodules of phosphorite; 5 percent chalky shell fragments; foraminifers (mainly Robulus and Nodosaria), ostracods and otoliths common

190-200 " except: abundant otoliths, and some pyrite

200-210 "

210-220 "

PATUXENT FORMATION (220-330')

220-230 Sand — yellowish-gray, clayey, a few pebbles of quartz and quartzite (up to 20 mm); mainly fine- to very fine-grained, well sorted; feldspathic (decomposed); muscovite common; traces of glauconite and garnet

230-240 Gravel — fine-grained, fairly well sorted, angular; subordinate amount of poorly sorted glauconite-bearing sand; gravel comprises too great a diversity of rock types and is too angular and shard-like to be considered a natural deposit

240-250 "

250-260 "

260-270 Sand — tan, clean, with 10 to 20 percent fine-grained gravel; medium- to very coarse-grained, moderately sorted, poorly rounded; coarse-grained sand and gravel are stained orange; slightly to moderately feldspathic (feldspar content increases with grain size)

270-280 "

| | |
|---------|---|
| 280-290 | Sand - tan, clean, with 10 percent granule gravel; medium-grained, fairly well sorted; moderately feldspathic |
| 290-300 | Sand - tan, clean, with trace of granule gravel; fine- to very coarse-grained, poorly sorted, poorly rounded; moderately feldspathic and lithic |
| 300-310 | Sand - tan, clean, trace of granule gravel; medium- to very coarse-grained, moderately sorted, poorly rounded; moderately feldspathic |
| 310-320 | " except: with 20 percent fine-grained (2-8 mm) quartzo-lithic gravel |
| 320-330 | " |

GEOLOGIC SUMMARY

| <u>Depth (feet)</u> | <u>Rock Unit</u> | <u>Age</u> |
|-------------------------|---------------------|-----------------------------|
| 0-110 | Columbia Group | post-Miocene |
| 110-140 | Calvert Formation | Miocene |
| 140-180 | Nanjemoy Formation | Eocene |
| 180-220 | Mattaponi Formation | Paleocene - Late Cretaceous |
| 220-330 | Patuxent Formation | Early Cretaceous |

Virginia Division of Mineral Resources
Robert H. Teifke - Geologist
April 5, 1972