

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W-2850
C-142

MAILING ADDRESS:
B-3667
Charlottesville, VA 22903

DIVISION OF MINERAL RESOURCES

JAMES L. CALVER, COMMISSIONER

OFFICE ADDRESS:
McCormick Road
Charlottesville, Virginia

WATER WELL COMPLETION REPORT

OWNER: Everett L. Goddard Mailing Address: Callao, Virginia

TENANT: Lodge Road well (Balls Cove) Mailing Address: _____

DRILLER: Douglas & Dickinson, Inc. Mailing Address: Box 498, Warsaw, VA

WELL LOCATION: County Northumberland Approx. 1 ^{feet}/_{miles} north (direction) of
Callao and 1 ^{feet}/_{miles} southwest (direction) of Lodge

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

DATE STARTED: _____ DATE COMPLETED: March 23, 1968

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 400 feet

WATER LEVEL: Stands 100 feet below surface OR
has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method _____
Drawdown 40 feet
Rate 40 gal. per min.
Duration _____ hrs., _____ min.

HOLE SIZE: 6 inches from 0 to 231 feet
5 7/8 inches from 231 to 400 feet
_____ inches from _____ to _____ feet

SCREEN SIZE: 2 inches from 375 to 395 feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

WATER ZONES: from 375' to 395' feet
from _____ to _____ feet
from _____ to _____ feet

CASE SIZE: 4 inches from 0 to 231 feet
2 inches from 231 to 375 feet
2 inches from 395 to 400 feet

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

GROUTING: Method _____
Material _____ Depth _____ feet

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

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

WATER ANALYSIS AVAILABLE: Yes _____ No X
DRILL CUTTINGS SAVED: Yes 37 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: _____

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

INTERVAL SHEET

C-142

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Well Repository No: 2850

Date rec'd: 4/10/70 Date Processed: 6/9/70

Sample Interval: from 0 to: 389'

PROPERTY: E. L. Goddard
 (Balls Cove)

Number of samples: 36

COMPANY: Douglas & Dickenson, Inc.

Total Depth: 400'

COUNTY: Northumberland (Callao)

Oil or Gas: Water: X Exploratory:

| From-To | From-To | From-To | From-To |
|-----------|------------|---------|---------|
| 0 - 10 | 273 - 283 | - | - |
| 10 - 21 | 283 - 294 | - | - |
| 21 - 31 | 294 - 304 | - | - |
| 31 - 42 | 304 - 315 | - | - |
| 42 - 52 | 315 - 325 | - | - |
| 52 - 63* | 325 - 336 | - | - |
| 63 - 73 | 336 - 346* | - | - |
| 73 - 84 | 346 - 357 | - | - |
| 84 - 94 | 357 - 368 | - | - |
| 94 - 105 | 368 - 379 | - | - |
| 105 - 115 | 379 - 389 | - | - |
| - | - | - | - |
| 126 - 136 | - | - | - |
| 136 - 147 | - | - | - |
| 147 - 157 | - | - | - |
| 157 - 168 | - | - | - |
| 168 - 178 | - | - | - |
| 178 - 189 | - | - | - |
| 189 - 199 | - | - | - |
| 199 - 210 | - | - | - |
| 210 - 220 | - | - | - |
| 220 - 231 | - | - | - |
| 231 - 241 | - | - | - |
| 241 - 252 | - | - | - |
| 252 - 262 | - | - | - |
| 262 - 273 | - | - | - |

*Unwashed only

OWNER: Everett L. Goddard (Ball Cove)
DRILLER: Douglas & Dickinson, Inc.
COUNTY: Northumberland (Callao)

W-2850
C-142
TOTAL DEPTH: 400'

GEOLOGIC LOG

Depth
(ft.)

| | |
|---------|---|
| 0-10 | Clay — buff; silty. |
| 10-21 | Sand — orange-brown; medium; slightly clayey. |
| 21-31 | Sand — tan; fine to medium; slightly clayey. |
| 31-42 | As above, except: with lenses of white and orange clay. |
| 42-52 | As above. |
| 52-63 | Sand — orange-brown; coarse. |
| 63-73 | Sand — reddish-orange, fine to medium; slightly clayey. |
| 73-84 | As above, except: grayish-brown. |
| 84-94 | Sand — grayish-brown; fine, well sorted. |
| 94-105 | Clay — pinkish-brown; silty, micaceous. |
| 105-115 | As above. |
| 115-126 | No sample. |
| 126-136 | Silt — pinkish-brown; with shell fragments. |
| 136-147 | As above. |
| 147-157 | Silt — gray, clayey. |
| 157-168 | Silt — gray, very clayey. |
| 168-178 | Sand — brownish-gray; fine to medium; shells. |
| 178-189 | Sand — gray; fine to medium; abundant shell. |
| 189-199 | As above. |
| 199-315 | Clay — tan to pale-gray, locally sandy, some shell. |

| Depth (ft.) | |
|----------------|---|
| 315-325 | Shell — coarse, white; matrix of coarse quartz sand. |
| 325-336 | Sand — coarse quartz, with abundant coarse shell. |
| 336-346 | Sand — brown, coarse, slightly glauconitic. |
| 346-357 | Shell and shell limestone. |
| 357-368 | As above. |
| 368-379 | As above, except: glauconitic. |
| 379-389 | Sand — tan, moderately clayey; coarse-grained; quartz and glauconite; shell and sandy limestone common. |
| 389-400 | No sample. |

GEOLOGIC SUMMARY

| <u>Depth (ft.)</u> | <u>Rock Unit</u> | <u>Age</u> |
|--------------------|-------------------------|-------------|
| 0-73 | Columbia Group | Pleistocene |
| 73-315 | Yorktown & Calvert fms. | Miocene |
| 315-389 | Chickahominy Formation | Eocene |
| 389-400 | No sample | _____ |

Virginia Division of Mineral Resources
Robert H. Teifke, Geologist
October 29, 1974

Owner: E. L. Goddard (Lodge Rd. Dev't)
Driller: Douglas & Dickenson
County: Northumberland

W# 2850
C# 142
Total Depth: 389'
Quad: Lottsburg
Elev: 100'

Depth
(feet)

WELL LOG

0-10 Sand - moderate grayish orange (10YR 6/4); very sparse clay; medium, few coarse, subangular, well sorted; plant debris.

10-21 Sand - moderate grayish orange (10YR 6/4); very sparse clay (pink); medium to very coarse, subangular, well sorted; 10% glauconite.

21-31 Sand - moderate grayish orange (10YR 6/4); moderate clay; yellow, white; medium to very coarse, subangular, well sorted; 5% glauconite; iron oxide and staining.

31-42 Sand - grayish orange (10YR 7/4); abundant clay in various colored clasts; medium to granule, subangular, rounded; poorly sorted; 1% iron stained granules and iron oxide particles, graphite crystals.

42-52 Sand - grayish orange (10YR 7/4); very sparse clay; medium to very coarse, subangular, moderately well sorted; 1% phosphate fragments; mica; iron oxide.

52-63 No Sample.

63-75 Sand - dark yellow orange (10YR 6/6); medium, few coarse, subangular, well sorted; few phosphate fragments, mica; iron oxide.

73-84 Sand - moderate grayish orange (10YR 6/4); very sparse clay; medium, subangular, well sorted; 1% phosphatic fragments, mica; feldspar.

84-94 Sand - moderate grayish orange (10YR 6/4); very sparse clay; medium and very coarse, subangular, poor sorting; 1% phosphatic fragments, iron oxide; mica.

94-105 Clay - pale yellowish brown (10YR 6/2); pebbles, rounded, no sorting; 8% mica.

105-115 Clay - pale yellowish brown (10YR 6/2); moderate sand, fine to pebble, subangular and rounded, poor sorting; rare phosphate fragments; 8% mica.

Owner: E. L. Goddard (Lodge Rd. Dev't)

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C# 142

Depth
(feet)

- 115-126 No Sample.
- 126-136 Clay - pale yellowish brown (10YR 6/2); abundant sand, fine to pebble, subangular, poor sorting; 7% shell fragments - Dentalium, Turritella; phosphate fragments; wood fragments.
- 137-147 Clay - pale yellowish brown (10YR 6/2); abundant sand, fine to pebble, subangular, poor sorting; 5% shell fragments; 3% phosphatic fragments; very rare mica.
- 147-157 Sand - pale yellowish brown (10YR 6/2); abundant clay; fine to pebble, subangular, poor sorting; 20% shell fragments; few phosphatic fragments; iron oxide concretion.
- 157-168 Sand - pale yellowish brown (10YR 6/2); abundant clay, medium to coarse, subangular, well sorted; 10% shell fragments; few phosphatic fragments.
- 168-178 Sand - pale yellowish brown (10YR 6/2); moderate clay; medium, few coarse; subangular, moderately well sorted; 20% shell fragments; 3% phosphate fragments; iron staining.
- 178-189 Gravel, Shell - light olive gray (5Y 6/1); abundant clay; medium to very coarse, mostly medium, subangular, moderately well sorted; 50% shell fragments; 3% phosphate fragments.
- 189-210 Sand - light olive gray (5Y 6/1); moderate clay; fine to medium, mostly medium, subangular, well sorted; 25% shell fragments; few phosphate fragments; iron staining.
- 210-231 Clay - light olive gray (5Y 6/1); few grains of sand; mixed sizes; wood chips.
- 231-241 Clay - moderate yellow brown (10YR 5/2); very sparse sand; medium to very coarse, subangular, poor sorting; 5% shell fragments.
- 241-273 Clay - light olive gray (5Y 6/1); very sparse sand; fine to very coarse, subangular, poor sorting; 1-2% shell fragments; iron staining; wood fragments.
- 273-315 Clay - light olive gray (5Y 5/2); very sparse sand; fine to very coarse, subangular, poor sorting; forams - Nonion, Robulus L; Diatoms; wood fragments; 304-315 - abundant Diatoms.

Owner: E. L. Goddard (Lodge Rd. Dev't)

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Depth
(feet)

315-336 Gravel, Shell - light olive gray (5Y 5/2); very sparse clay in large clasts; fine to very coarse, subangular, moderate sorting; 50% shell fragments; very rare phosphate fragments; bone fragment; plant debris; 325-336 - granules, poor sorting.

336-346 No Sample.

346-389 Coquina - yellowish gray (5Y 7/2); moderate to sparse sand; medium to coarse, subangular within coquina; coquina - calcium carbonate cemented shell debris, with sand as above and 2-3% glauconite; 357-368 - 50% loose shell fragments; contamination glauconite and loose shell fragments at all intervals; 368-389 - finely crushed coquina with 30% shell fragments and 20% coquina fragments (rest is loose sand and glauconite contamination).

Logged by: J. K. Polzin
August 13, 1980