

OWNER: Union Bag Camp Paper Co., Well \#18 Mailing Address: Franklin, Va.
TENANT: Mailing Address:

DRILLER: Layne Atlantic Mailing Address: Norfolk, Va.

WELL LOCATION: County Southampton Approx._ feet $\quad \underset{\text { miles }}{\text { fet }}$ $\qquad$ (direction) of
$\qquad$ feet
miles $\qquad$ (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:_May 2, 1969
DATE COMPLETED: June 16, 1969
TYPE OF DRILL RIG USED: $\qquad$ TOTAL DEPTH_832 feer completed at 810
WATER LEVEL: Stands 140 feet below surface OR
has NATURAL flow of gallons per minute.
YIELD TEST: Method $\qquad$
Drawdown 55' 11" feet Rate 1400 gal. per min.

Duration__he_min.

WATER ZONES: from__ to____ feet
from from_feet

WATER: Color $\qquad$ Taste $\qquad$

Odor $\qquad$ Temp. $\qquad$

WELL TO SUPPLY: (check one) Home $\qquad$

Farm $\qquad$ Town $\qquad$ School $\qquad$ Industry $\qquad$ Other $\qquad$
WATER ANALYSIS AVAILABLE:Yes___
DRILL CUTTINGS SAVED:
Yes $\qquad$ No $\qquad$
HOLE SIZE: 20 inches from 0 to 370 feet 12 inches from 370 to 810 feet
$\qquad$ inches from $\qquad$ 10 $\qquad$ feet SCREEN SIZE: 12 inches from 375 to 445 feet

| 12 | 545 | 595 |
| :---: | :---: | :---: |
| 12 | 685 | 765 |
| 12 | 800 | 805 | CASE SIZE: 20 inches from_ 0 to 370 feet

 PUMP: Type

Capacity $\qquad$ gal per min Depth of intake 195' 11" feet. (DRILL CUTTINGS SHOULD BE COLLECTED AT IO FOOT INTERVALS. THESE SAMPLES MAY BE SHIPPED TO THIS OFFICE EXPRESS COLLECT. SAMPLE BAGS ARE FURNISHED FREE OF CHARGE UPON REQUEST.) R ARKS: Armco screens.

FURNISHED BY: $\qquad$


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

INTERVAL SHEET


All intervals have both washed \& unwashed samples.

| Owner: | Union Bag Camp Paper Co. \#18 W\# 2718 |
| :---: | :---: |
| Driller: | Layne Atlantic C\# 400 |
| County: | SouthamptonTotal Depth 832' <br> Quad: |
| Depth (feet) | WELL LOG |
| 0-68 | No sample. |
| 68-78 | Clay - light olive gray ( 5 Y 6/1); slight silt, abundant sand; very fine to medium, sub-angular; moderate sorting; quartz; 1\% glauconite; 10\% shell fragments; pelecypod \& gastropod (Turritella); forams (Robulus); wood bits. |
| 78-88 | ```Clay - as above, except: gastropod - T. Variabilis; 30% shell fragments; 5% glauconite; echinoderm spines; "glassy" nodules; 5% iron oxide; forams (Robulus; Textularia).``` |
| 88-99 | Clay - as above, except: moderate silt; medium-grained, some coarse; fewer "iron" nodules; ostracods, forams (Textularia 2 sp.$)$. |
| 99-110 | Clay - as above, except: $10 \%$ iron and glassy nodules; yellow, clear; brown with white frothy crust; $20 \%$ shell fragments. |
| 110-120 | Clay - as above; except: sand $50 \%$ quartz; $50 \%$ glauconite, light and dark green; 20\% shell fragments; few "iron" and "glassy" nodules. |
| 120-130 | Clay - light olive gray (5Y 6/1); some clay in clasts; moderate silt, abundant sand, of glauconite-quartz mixture; fine-grained sub-angular to sub-rounded quartz; moderate sorting; 65\% glauconite of light \& dark granules; 10\% shell fragments; wood bits; bone; "glassy" fragments; forams (Nonion, Textularia). |
| 130-140 | Clay - greenish gray (5GY 6/1); some clay in clasts, moderate silt; abundant sand of glauconite-quartz mixture; fine-grained, sub-angular quartz; moderate sorting; 50\% glauconite; quartz; 20\% shell fragments; forams (Nonion); few wood bits; few "iron-glassy" nodules. |
| 140-150 | Clay - as above, except: foram - (Textularia); garnet chips. |
| 150-159 | Clay - as above, except: fine- to coarse-grained quartz; poorly sorted; $30 \%$ shell fragments, of larger size; foram (Nodosaria, Robulus). |
| 159-169 | Clay - light olive gray (5y 6/1); some clay in clasts, slight sand; very fine- to medium-grained; sub-angular quartz; moderately well sorted; quartz; 40\% glauconite; sparse shell fragments; shark teeth; few "iron-glassy" nodules. |


| Owner : | Union Bag Camp Paper Co. \#18 W\# 2718 |
| :---: | :---: |
| $\begin{aligned} & \text { Depth } \\ & \text { (feet) } \end{aligned}$ |  |
| 169-179 | Clay - light olive gray (5Y 6/1); clay in clasts, sparse sand; fine- to medium-grained; sub-angular; well-sorted; quartz; $15 \%$ glauconite; few shell fragments; muscovite mica. |
| 180-190 | Clay - as above, except: sand - sparse to moderate, mediumto coarse-grained; poorly sorted; 25\% glauconite; wood bits; mica. |
| 190-200 | ```Clay - as above, except: moderate sand, very fine- to medium-grained; well sorted; few granules quartz and iron; 12% glauconite; 3% muscovite mica; few shell fragments.``` |
| 200-210 | Clay - as above, except: some sand in clasts; medium-grained with some very coarse; $8 \%$ glauconite; some shell fragments. |
| 210-220 | ```Clay - as above, except: no sand clasts; very fine- to medium-grained; poorly sorted; 15% glauconite; 3% shells; forams (Nonion); 5% iron; some wood bits; garnet chips; 1%+ muscovite mica.``` |
| 220-230 | Clay - moderate yellowish brown (lOYR 5/4); clay in clasts, moderate sand; also in clasts; medium-grained, some coarse, sub-angular; moderately sorted; quartz; 15\% glauconite; 5\% iron; 1\%+ muscovite mica; wood chips; some shell fragments. |
| 230-240 | Clay - light olive gray (5Y 6/1); clay in clasts, slight silt; moderate sand; medium, with some very coarse-grained, sub-angular; moderately well sorted; quartz; 10\% glauconite; 10\% shell fragments; 1\%+ muscovite mica; wood bits; garnet chips; some iron. |
| 240-250 | Clay - as above, except: no clay clasts; moderate sand, fineto very coarse-grained; 5\% glauconite; no shell fragments; $3 \%$ muscovite mica. |
| 250-260 | Sand - light olive gray (5y 6/1); moderate clay in clasts; slight silt; very coarse-grained \& some very fine; subangular to sub-rounded; well sorted; quartz; sparse glauconite; mica; shell fragments. |
| 260-270 | ```Sand - light olive gray (5Y 6/l); sparse clay in clasts; very sparse silt; very coarse-grained, sub-angular, well sorted; quartz; very sparse glauconite.``` |
| 270-280 | Sand - as above, except: some pebbles; medium to very coarse. |
| 281-291 | ```Sand - light olive gray (5Y 6/l); moderate clay in clasts; moderate silt; coarse to very coarse; sub-angular; moderately well sorted; quartz; very sparse glauconite; mica.``` |


| Owner: | Union Bag Camp Paper Co. \#18 W\# 2718 |
| :---: | :---: |
| Depth (feet) |  |
| 283-293 | Sand - as above, except: abundant clay - loose \& in clasts; fine-ground sand; well sorted. |
| 291-312 | Sand - as above, except: slight clay in clasts; very coarsegrained to granule size sand; well sorted. |
| 312-322 | Sand - as above, except: very sparse glauconite \& mica; poorly sorted. |
| 322-332 | Sand - as above, except: moderate clay in clasts; very sparse shell fragments. |
| 332-341 | ```Sand - as above, except: abundant clay clasts; slight silt; medium to very coarse; sub-angular; poorly sorted; quartz; 1% glauconite; some muscovite.``` |
| 341-351 | Sand - as above, except: few shell fragments; wood bits. |
| 351-361 | Sand - as above, except: medium grained; well sorted; some granules; 1\% glauconite; minor muscovite; wood bits. |
| 361-373 | Sand - as above, except: medium to very coarse; poorly sorted; $3 \%$ glauconite. |
| 373-383 | Sand - as above. |
| 383-393 | No sample. |
| 393-404 | Sand - as above, except: medium-grained; well sorted sand; some muscovite mica. |
| 404-414 | Sand and Clay (color as above) - abundant clay, some in clasts; moderate silt; sand, medium to very coarse; subangular; moderately sorted; quartz; some granules; minor mica and glauconite. |
| 414-424 | Sand - as above, except: garnets chips; iron. |
| 424-435 | Sand - as above, except: 4\% glauconite; shell fragments. |
| 435-445 | Sand - as above, except: slight clay, minor clasts. |
| 445-455 | Sand - as above, except: no glauconite, shell or mica; wood bits present. |
| 455-466 | Sand and Clay - as above, except: abundant clay in clasts; 5\% glauconite; 1\% muscovite mica. |
| 466-476 | Sand - light olive gray (5Y 5/2); moderate clay, few clasts; slight silt; very fine to very coarse; sub-angular; some granules, poorly sorted; quartz; 5\% glauconite; some mica; garnet chips; few shell fragments. |


| Owner: | Union Bag Camp Paper Co. \#18 w\# 2718 |
| :---: | :---: |
| Depth (feet) |  |
| 476-496 | Sand - as above, except: slight clay, some clasts; 7\% glauconite; some shell fragments. |
| 497-507 | Sand \& Clay - color as above; abundant clay in clasts; abundant sand; very fine to very coarse; sub-angular; few granules; poorly sorted; quartz; 1\% glauconite; few shell fragments. |
| 507-517 | Clay - light olive gray (5Y 6/1); clay in clasts; slight silt; abundant sand; fine- to very coarse-grained; subangular; few granules; poorly sorted; quartz; 1\% glauconite; some muscovite mica. |
| 517-527 | Clay - as above, except: coarse grained; well sorted; few shell fragments. |
| 527-537 | Sand and Clay - as above, except: abundant clay, and sand, fine- to very coarse-grained; poorly sorted. |
| 537-547 | Clay - color as above; abundant clay in clasts; slight silt; abundant sand; fine to very coarse; sub-angular; poorly sorted; few granules; quartz; $2 \%$ glauconite; muscovite mica; shell bits. |
| 547-552 | Clay - as above. |
| 552-558 | Clay - as above. |
| 558-570 | Clay - as above, except: coarse to granule grains; minor glauconite. |
| 570-580 | Sand and Clay - (color as above); abundant clay, some in clasts; moderate silt; coarse, sub-angular; well sorted; quartz; few glauconite; muscovite mica. |
| 580-589 | Sand and clay - as above. |
| 589-599 | ```Sand, with clay - (color as above); abundant clay, some in clasts; medium to granule; sub-angular; moderately sorted; quartz; few glauconite; few mica.``` |
| 599-609 | Sand - as above. |
| 609-618 | Sand - as above; moderate clay, some clasts. |
| 619-629 | ```Clay - color as above; clay in clasts; moderate sand; medium to granule size grains, sub-angular; some pebbles; poorly sorted; quartz.``` |


| Owner : | Union Bag Camp Paper Co. \#l8 W\# 2718 |
| :---: | :---: |
| $\begin{aligned} & \text { Depth } \\ & \text { (feet) } \end{aligned}$ |  |
| 629-639 | Clay - yellowish gray (5y 8/l); clay in clasts; moderate sand; medium to very coarse, sub-angular; some granules and pebbles; poorly sorted; quartz. |
| 639-647 | Clay - as above, except: few grains glauconite and muscovite mica. |
| 647-649 | ```Sand - yellowish gray (5Y 8/l); abundant clay in clasts; medium to very coarse, sub-angular; some granules; poorly sorted; quartz; shell fragments.``` |
| 649-659 | Sand - as above, except: coarse; well-sorted; no shell bits. |
| 659-669 | Sand - as above. |
| 669-679 | Sand - as above, except abundant clay. |
| 679-689 | ```Clay - yellowish gray (5Y 8/l); clay in clasts; abundant sand; medium to very coarse, sub-angular; moderately sorted; quartz; few shell fragments; muscovite.``` |
| 689-699 | Sand - as above, except: abundant clay in large clasts; pebbles. |
| 699-710 | Sand - as above; no pebbles. |
| 710-720 | Sand - as above. |
| 720-730 | Sand - as above. |
| 730-740 | Sand - as above; moderate to abundant clay in clasts. |
| 740-750 | Sand - as above, except: coarse- to very coarse-grained. |
| 750-760 | Sand - as above. |
| 760-771 | Sand - as above. |
| 771-781 | Sand - as above; fine to very coarse. |
| 781-791 | Sand - as above; shell fragments, pelecypod (Unio); few mica. |
| 791-802 | Sand \& clay - as above, except: clay of 799'; medium to very coarse; few pebbles; few shell fragments. |

```
Depth
(feet)
```

802-816 Sand - pale yellowish brown (10YR 6/2); moderate clay in
clasts, coarse to very coarse, sub-angular to sub-rounded;
10\% granules, some pebbles; poorly sorted; quartz.
816-826 Gravel - 50\% coarse sand; 50\% pebbles; some clay.
802-833 Clay - moderate yellowish brown (lOYR 5/4); slight sand;
50\% coarse grained; 50\% pebbles; sub-angular to sub-
rounded; poorly sorted; quartz.
826-833
Clay - pale yellowish brown (10YR 6/2); as above.

Logged by: J. K. Polzin

