

INTERVAL SHEET      WWCR 174

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VDMR Well No: 2107

Date rec'd: 2/12/68

Sample Interval: from 20    to: 540'

PROP: Sleepy Lake Water Corp., Well #2

Number of samples:    27

COMP: R. L. Magette Well Drilling Co.

Total Depth:    550'

COUNTY: Nansemond (Crittenden)

Oil or Gas:    Water: XExploratory:

From-To	From-To	From-To	From-To
20 -	-	-	-
40 -	-	-	-
60 -	-	-	-
80 -	-	-	-
100 -	-	-	-
120 -	-	-	-
140 -	-	-	-
160 -	-	-	-
180 -	-	-	-
200 -	-	-	-
220 -	-	-	-
240 -	-	-	-
260 -	-	-	-
280 -	-	-	-
300 -	-	-	-
320 -	-	-	-
340 -	-	-	-
360 -	-	-	-
380 -	-	-	-
400 -	-	-	-
420 -	-	-	-
440 -	-	-	-
460 -	-	-	-
480 -	-	-	-
500 -	-	-	-
520 -	-	-	-
540 -	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

All intervals have both washed and unwashed samples

OWNER: Sleepy Lake Water Corp., Well # 2  
DRILLER: R. L. Magette Well Drilling Co.  
COUNTY: Nansemond (Crittenden)

VDMR: 2107  
WWCR: 174  
TOTAL DEPTH: 550'

GEOLOGIC LOG

Depth in  
feet

YORKTOWN FORMATION (0-260')

- 20 Sand - moderately clayey, yellowish-brown; fine, well-sorted; angular; trace of shell fragments and echinoid spines; trace of glauconite
- 40 Sand and Shell - yellowish-brown to gray, slightly clayey; 60% coarse shell debris; 40% fine, well-sorted, angular sand; trace of glauconite
- 60 Sand and Shell - gray, locally yellowish-brown, slightly- to moderately clayey; 25% coarse shell fragments, 75% fine- to medium-grained, fairly well-sorted sand consisting of angular quartz and, subordinately, of bioclasts; foraminifers common
- 80 Sand and Shell - gray, speckled, moderately clayey; 25% coarse shell material; 75% fine, fairly well-sorted sand consisting of angular quartz, fresh glauconite, and bioclasts; foraminifers common
- 100 Sand - abundant matrix of greenish-gray clay; 10% shell fragments; medium-grained, well-sorted; angular, clear- to greenish quartz with 20-30% glauconite; a few ostracods and foraminifers
- 120 " "
- 140 " fine-grained; 10% glauconite
- 160 " fine-grained; 5% glauconite, 25% shell
- 180 Sand, Silt and Shell - grayish-green, moderately clayey; 50% coarse-shell fragments; 50% coarse-grained silt to fine-grained sand, well-sorted, angular; very slightly glauconitic; trace of muscovite; a very few foraminifers
- 200 Sand and Shell - abundant matrix of greenish-gray clay; 35-40% coarse shell fragments; 60-65% fine, fairly well-sorted, poorly rounded quartz sand with 10% glauconite; minor authigenic selenite; a few foraminifers
- 220 Sand, Silt and Shell - grayish-green, clayey; 25% shell fragments; 75% coarse-grained silt to fine-grained

- 220 sand, fairly well-sorted, poorly rounded; 15% glauconite; 5% authigenic selenite; a few foraminifers and ostracods  
(cont.)
- 240 Clay - greenish-gray, very sandy, 10% shell fragments; sand is fine- to very fine-grained, well-sorted, angular; very slightly glauconitic; authigenic selenite common; minor phosphorite; a few foraminifers (including Nonion)

## CALVERT FORMATION (260-435')

- 260 Clay - greenish gray, moderately sandy; 10% shell fragments; bone phosphorite common; pyrite common; selenite fairly abundant
- 280 " "
- 300 " "
- 320 Sand - abundant matrix of dark-brown and dark-gray clays, 5-10% shell fragments and a few granules; fine- to very coarse-grained, poorly sorted, variably rounded; 20% glauconite, 5% bone phosphorite; concretionary pyrite relatively abundant; a few fragments of sandy limestone; a few Siphogenerina, Uvigerina
- 340 " 25% glauconite
- 360 " 25% glauconite
- 380 Sand - moderately abundant matrix of drab clay; 5% shell fragments, 5% rock fragments (glauconitic limestone); fine- to very coarse-grained; 40-50% poorly sorted green glauconite; minor pyrite and phosphorite; a very few foraminifers
- 400 " "
- 420 " "

## MATTAPONI FORMATION (435-490')

- 440 Sand - slightly clayey (brownish-gray clay), a few shell fragments; fine- to coarse-grained, moderately sorted; 50% clear, angular quartz, and 50% green glauconite; slightly feldspathic; minor amounts of hematite, phosphorite, and pyrite; a few fragments of glauconitic limestone
- 460 Sand - slightly clayey (brownish-gray clay), a few shell fragments; fine- to coarse-grained, moderately sorted; 50% clear angular quartz, and 50% green glauconite; slightly feldspathic; minor amounts of hematite, phosphorite, and pyrite; a few fragments of glauconitic limestone
- 480 " earthy hematite common

## TRANSITIONAL BEDS (490-540')

500	Sand - binder of reddish-brown clay; coarse- to very coarse-grained, moderately sorted; very feldspathic; slightly glauconitic; accessory garnet
520	" "
540	" silty and micaceous

GEOLOGIC SUMMARY

	<u>ROCK UNIT</u>	<u>AGE</u>
0-260'	Yorktown Formation	Miocene
260-435'	Calvert Formation	Miocene
435-490'	Mattaponi Formation	Paleocene-Late Cretaceous
490-540'	Transitional beds	Late Cretaceous

Virginia Division of Mineral Resources  
Robert H. Teifke  
March 11, 1968

Robert H. Teifke  
March 6, 1972

COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

VDMR -2107  
WWCR - 174  
W-2107

MAILING ADDRESS:

DIVISION OF MINERAL RESOURCES

OFFICE ADDRESS:

B 3667  
Charlottesville, VA 22903

JAMES L. CALVER, COMMISSIONER

McCormick Road  
Charlottesville, Virginia

WATER WELL COMPLETION REPORT

OWNER: Sleepy Lake Water Corp. Mailing Address: Crittenden, Va.

TENANT: Well #2 Mailing Address: \_\_\_\_\_

DRILLER: R. L. Magette Well Drilling Co. Mailing Address: Smithfield, Va.

WELL LOCATION: County Nansemond Approx. \_\_\_\_\_ feet  
near Crittenden and \_\_\_\_\_ miles (direction) of \_\_\_\_\_  
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: February 17, 1967 DATE COMPLETED: February 28, 1967

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 550 feet

WATER LEVEL: Stands 37 feet below surface OR  
has NATURAL flow of \_\_\_\_\_ gallons per minute.

YIELD TEST: Method Pump  
Drawdown 89 feet  
Rate 150 gal. per min.  
Duration 24 hrs., \_\_\_\_\_ min.

HOLE SIZE: 14 inches from 0 to 50 feet  
9 inches from 50 to 550 feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

WATER ZONES: from 530 to 550 feet  
from \_\_\_\_\_ to \_\_\_\_\_ feet  
from \_\_\_\_\_ to \_\_\_\_\_ feet

SCREEN SIZE: 6 inches from 530 to 550 feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet  
CASE SIZE: 6 inches from 0 to 530 feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet  
\_\_\_\_\_ inches from \_\_\_\_\_ to \_\_\_\_\_ feet

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

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

GROUTING: Method Poured  
Material Cement Depth 50 (?) feet

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

PUMP: Type 7 1/2 HP Sub., 3600 RPM  
Capacity 108 gal. per min.  
Depth of intake 126 feet

DRILL CUTTINGS SAVED: 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.)

REMARKS: Electric logs run by driller

ELEV. : 20'

## LOG

W-2107

FURNISHED BY: R. L. Magette Well Drilling Co. DATE: 2/9/68

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
FROM	TO		
0	8	Top soil and red clay	530' - 6 in STD T & C pipe 20' - Johnson #16 slot screen
8	20	Red clay w/fine sand	
20	30	Red coarse sand	
30	55	Coarse shell w/fine sand	
55	72	Coarse shell w/fine blue sand	
72	85	Blue clay w/coarse sand	
85	225	Blue clay (Gumbo)	
225	265	White fine sand	
265	315	Brown clay	
315	365	Fine sand w/limestone stringers	
365	391	Black sand (Glauconite)	
391	440	Red clay (black creek)	
440	475	Blue clay w/fine sand	
475	530	Fine sand w/stringers of clay	
530	550	Medium sand w/mica Good producer	

(Use additional forms if necessary)