

C13057

SEQUENCE NO.
(WRA USE ONLY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MD. 21401
WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 30 DAYS AFTER WELL COMPLETION

FILL IN THIS FORM COMPLETELY

COUNTY
NUMBER

DATE RECEIVED
(WRA USE ONLY)

DEPTH OF WELL
22 (TO NEAREST FOOT) 26

PERMIT NO. FROM "PERMIT TO DRILL WELL"

DRILLERS IDENTIFICATION NO. 70

OWNER
LAST NAME
STREET OR RFD
POST OFFICE

WELL LOG		
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		
DESCRIPTION (USE ADDITIONAL SHEETS IF NECESSARY)	FEET FROM TO	CHECK IF WATER BEARING
topsoil	0 1	
shale	1 8	
Red clay	8 20	
SAND	20 30	
Red clay	30 45	
white sand	45 70	
CRANSE SAND	70 110	
gray clay	110 160	
shale	160 170	
granite	170 255	
opening	255 256	
granite	256 280	

GROUTING RECORD

WELL HAS BEEN GROUTED
(CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE BOX)

CEMENT BENTONITE CLAY

NO. OF BAGS NO. OF POUNDS

GALLONS OF WATER

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM FT. TO FT.

CASING RECORD

INSERT APPROPRIATE CODE BELOW

STEEL CONCRETE PLASTIC OTHER

MAIN CASING TYPE

NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)

TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)

OTHER CASING (IF USED)

DIAMETER (INCH) DEPTH (FEET) FROM TO

SCREEN RECORD

INSERT APPROPRIATE CODE BELOW

STEEL BRASS OR BRONZE OPEN HOLE PLASTIC OTHER

PUMPING TEST

HOURS PUMPED (TO NEAREST HOUR)

PUMPING RATE
(GALLONS PER MINUTE TO NEAREST GALLON)

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL: (DISTANCE FROM LAND SURFACE)

BEFORE PUMPING

WHEN PUMPING

TYPE OF PUMP USED (CIRCLE APPROPRIATE BOX)
(FOR PUMPING TEST)

PISTON TURBINE CENTRIFUGAL ROTARY OTHER (DESCRIBE BELOW) JET SUBMERSIBLE

PUMP INSTALLED

TYPE OF PUMP (WRITE APPROPRIATE LETTER IN BOX - SEE ABOVE: A, C, J, P, R, S, T, O)

DRILLER WILL INSTALL PUMP
(CIRCLE APPROPRIATE BOX)

CAPACITY:

GALLONS PER MINUTE (TO NEAREST GALLON)

PUMP HORSE POWER

PUMP COLUMN LENGTH
(NEAREST FOOT)

CASING HEIGHT (CIRCLE APPROPRIATE BOX AND ENTER CASING HEIGHT)

ABOVE BELOW LAND SURFACE (NEAREST FOOT)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

CIRCLE APPROPRIATE BOXES

A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLERS NAME

(PLEASE PRINT)

SIGNATURE

DEPTH (NEAREST WHOLE FOOT)

FROM TO

SLOT SIZE 1, 2, 3,

DIAMETER OF SCREEN (NEAREST INCH)

FROM TO

GRAVEL PACK

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

TELESCOPE CASING LOG INDICATOR

well 45' House

ORIGINALLY

EMERGENCY NO. (If any) -

4451

SEQUENCE NO. (WRA USE ONLY)

STATE OF MARYLAND
WATER RESOURCES ADMINISTRATION
TAWES STATE OFFICE BLDG., ANNAPOLIS, MARYLAND 21401
APPLICATION FOR PERMIT TO DRILL WELL

WRA PERMIT NUMBER

FILL IN THIS FORM COMPLETELY

DATE RECEIVED (WRA USE ONLY)
11/9/78
10:00am

OWNER
COL 15 LAST NAME
FIRST NAME
COL. 34

STREET OR RFD
COL 36
COL. 55

POST OFFICE
COL 57
COL. 76

6-13

B 1 CONTINUED
1 2 3 (SEQ. NO.) 6

DRILLER INFORMATION

DATE
COL 15
COL. 16

LICENSE NUMBER
COL 17
COL. 18

FIRST NAME
COL 19
COL. 20

DRILLER
COL 21
COL. 22

LAST NAME
COL 23
COL. 24

SIGNATURE
COL 25
COL. 26

B 2
1 2 3 (SEQ. NO.) 6

WELL INFORMATION

MAXIMUM PUMPING RATE (GALLONS PER MINUTE)
COL 27
COL. 28

AVERAGE DAILY QUANTITY NEEDED (GALLONS PER DAY)
COL 29
COL. 30

USE FOR WATER (CIRCLE APPROPRIATE BOX)

D HOME (SINGLE OR DOUBLE HOUSEHOLD UNIT ONLY)

F FARMING, AGRICULTURE, IRRIGATION

I INDUSTRIAL, COMMERCIAL, STATE AND FEDERAL GOVERNMENT.

M MUNICIPAL WATER SUPPLY

P PRIVATE WATER COMPANY

T TEST

MUST HAVE STATE HEALTH DEPT. APPROVAL

APPROXIMATE DEPTH OF WELL
COL 31
COL. 32

APPROXIMATE DIAMETER OF WELL
COL 33
COL. 34

METHOD OF DRILLING USED (CIRCLE APPROPRIATE METHOD)

BORED (OR AUGERED) JETTED DRIVEN

AIR-ROTARY AIR-PERCUSSION ROTARY (HYDRAULIC ROTARY)

CABLE REVERSE-ROTARY DRIVE-POINT

OTHER (DESCRIBE)

REPLACEMENT OR DEEPEENED WELLS (CIRCLE APPROPRIATE BOX)

N THIS WELL WILL NOT REPLACE AN EXISTING WELL

Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY

D THIS WELL WILL DEEPEEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEENED (IF AVAILABLE)

COL 35
COL. 36

NOT TO BE FILLED IN BY DRILLER (WRA USE ONLY)

APPROPRIATION PERMIT NUMBER
COL 37
COL. 38

ENGINEER REVIEW DISTRICT NO.
COL 39
COL. 40

FORCE
COL 41
COL. 42

WRITE INITIALS IN BOX
COL 43
COL. 44

CONDITIONS
COL 45
COL. 46

B 4 CONTINUED
1 2 3 (SEQ. NO.) 6

HEALTH DEPARTMENT APPROVAL

STATE HEALTH (CIRCLE BOX)
COL 47
COL. 48

COUNTY NAME
COL 49
COL. 50

COUNTY NO.
COL 51
COL. 52

DATE
COL 53
COL. 54

APPROVED BY
COL 55
COL. 56

B 5
1 2 3 (SEQ. NO.) 6

SPECIAL CONDITIONS 8-63 (WRA USE ONLY)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

LOCATION OF WELL

1 2 3 (SEQ. NO.) 6

COUNTY
COL 57
COL. 58

SUBDIVISION
COL 59
COL. 60

SECTION
COL 61
COL. 62

LOT
COL 63
COL. 64

NEAREST TOWN
COL 65
COL. 66

MILES FROM TOWN (ENTER 0 IF IN TOWN)
COL 67
COL. 68

B 4
1 2 3 (SEQ. NO.) 6

DIRECTION FROM TOWN (CIRCLE APPROPRIATE BOX)

N NORTH E EAST NE NORTHEAST SE SOUTHEAST

S SOUTH W WEST NW NORTHWEST SW SOUTHWEST

NEAR WHAT ROAD
COL 69
COL. 70

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
COL 71
COL. 72

DISTANCE FROM ROAD (ENTER DISTANCE AND CIRCLE APPROPRIATE BOX)
COL 73
COL. 74

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS, ROADS AND STREAMS WITH NORTH IN THE DIRECTION OF THE ARROW, AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION OR STREAM CROSSING SHOWN ON THE SKETCH. ALSO SHOW, BY MEANS OF AN "X", THE WELL LOCATION IN THE BOX BELOW, AND THE BOX NUMBER FROM THE WELL LOCATION MAP.

N

190' casing
58' open hole
2' above grade

see back for additional info.
no other papers available
20 bags cement

GLK 9 Nov. 78 approved

BOX NUMBER
COL 75
COL. 76

NORTH COORDINATE
COL 77
COL. 78

EAST COORDINATE
COL 79
COL. 80

ELEVATION AT WELL HEAD (FEET)
COL 81
COL. 82

0/5 5/5

0/0 8/0

W514904-B



Parris N. Glendening
Governor

Maryland Department of Natural Resources
MARYLAND GEOLOGICAL SURVEY

The Kenneth N. Weaver Building
2300 St. Paul Street
Baltimore, MD 21218-5210

Phone: 410/554-5554 Fax: 410/554-5502
email: mtduigon@mgs.dnr.md.gov

John R. Griffin
Secretary

Stanley K. Arthur
Deputy Secretary

14 June 1999

Mr. Samuel Redd, Jr.
6015 Shady Lane
Hanover, MD 21076

Dear Mr. Redd,

I was able to find the information you requested the other day regarding your water well, and I have enclosed copies of the water-level data and the well permit and completion report. Water levels measured during January, 1989 through April, 1990, were all about 124 to 128 feet below land surface; that is somewhat deeper than usual, and likely is due to the position of the well up the hill, well above Deep Run. The well appears to be an artesian well, in that the water level is above the top of the water-bearing formation (which is the Relay Gneiss Member of the James Run Formation), and the water level did not closely respond to precipitation.

I hope this information is helpful. If I can be of any further assistance, please call.

Sincerely,

Mark T. Duigon
Hydrogeologist

**Table 3.—Periodic water levels measured in observation wells in Howard County—
Continued**

Well number: HO Cg 6 (continued)

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jan 03, 1989	2.51	May 03, 1989	2.10	Aug 30, 1989	3.96	Jan 02, 1990	2.24
Feb 02	2.89	31	3.01	Sep 28	3.67	31	2.03
Mar 03	2.68	Jul 03	3.33	Nov 02	3.05	Mar 02	2.70
Apr 10	2.35	Aug 02	2.88	Dec 01	2.90	Apr 02	2.27

Well number: HO Cg 23

Owner: Danny Nolan's Irish Saloon.

Geologic unit: James Run Formation, Relay Gneiss Member.

Altitude: 160 feet.

Well characteristics: Drilled unused water-table well, depth 200 feet, diameter 6 inches.

Period of record: May 1988 to April 1990.

Extremes for period of record: Highest water level measured, 25.51 feet, January 31, 1990;
Lowest water level measured, 31.61 feet, November 4, 1988.

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
May 09, 1988	26.42	Nov 04, 1988	31.61	May 03, 1989	26.06	Nov 02, 1989	28.77
Jun 03	28.45	Dec 05	29.05	30	26.82	Dec 01	29.06
30	29.93	Jan 03, 1989	29.85	Jul 03	27.79	Jan 02, 1990	28.33
Aug 02	29.65	Feb 02	29.06	Aug 02	27.13	31	25.51
Sep 01	29.77	Mar 03	28.00	30	29.54	Mar 01	27.36
30	31.00	Apr 10	26.76	Sep 28	28.70	Apr 02	26.58

Well number: HO Cg 24

Owner: Samuel Redd.

Geologic unit: James Run Formation, Relay Gneiss Member.

Altitude: 150 feet.

Well characteristics: Drilled unused well,² depth 280 feet, diameter 6 inches.

Period of record: January 1989 to April 1990.

Extremes for period of record: Highest water level measured, 123.94 feet, April 2, 1990;
Lowest water level measured, 127.92 feet, January 23, 1989.

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Jan 23, 1989	127.92	May 03, 1989	125.72	Aug 30, 1989	124.73	Jan 02, 1990	124.37
Feb 02	127.57	31	125.54	Sep 28	124.82	31	124.33
Mar 03	126.90	Jul 03	125.49	Nov 02	124.49	Mar 01	124.43
Apr 10	126.03	Aug 02	125.02	Dec 01	124.40	Apr 02	123.94

Well number: HO Dd 25

Owner: Lee Lane.

Geologic unit: Loch Raven Schist.

Altitude: 485 feet.

Well characteristics: Drilled unused water-table well, depth 121 feet, diameter 6 inches.

Period of record: March 1988 to March 1989.

Extremes for period of record: Highest water level measured, 21.85 feet, June 2, 1988;
Lowest water level measured, 26.74 feet, September 1, 1988.

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Mar 16, 1988	23.47	Jul 01, 1988	22.47	Sep 28, 1988	25.30	Jan 02, 1989	26.62
May 02	22.79	Aug 03	23.72	Nov 03	26.25	Feb 01	26.25
Jun 02	21.85	Sep 01	26.74	Dec 02	26.54	Mar 01	25.56

Well number: HO Dd 80

Owner: Theodore Mayernick.

Geologic unit: Loch Raven Schist.

Altitude: 400 feet.

Well characteristics: Drilled unused water-table well, depth 160 feet, diameter 6 inches.

Period of record: April 1988 to April 1990.

Extremes for period of record: Highest water level measured, 27.07 feet, August 2, 1989;
Lowest water levels measured, 37.15 feet, Jan. 2, 1989, Feb. 1, 1989.

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Apr 20, 1988	31.49	Sep 28, 1988	34.45	Apr 07, 1989	35.44	Sep 28, 1989	29.72
May 02	31.62	Nov 03	35.79	May 04	34.22	Nov 02	30.61
Jun 02	30.82	Dec 02	36.47	31	29.40	Dec 01	31.36
30	30.86	Jan 02, 1989	37.15	Jul 03	27.17	Jan 02, 1990	32.21
Aug 03	32.12	Feb 01	37.15	Aug 02	27.07	31	32.36
Sep 01	33.40	Mar 01	36.87	Sep 01	28.13	Mar 02	31.90
						Apr 02	31.82

² Well drilled through Coastal Plain sediments and ends in crystalline rock.

3057

SEQUENCE NO. (WRA USE ONLY)

STATE OF MARYLAND
WATER RESOURCE ADMINISTRATION

TAVES STATE OFFICE BUILDING, ANNAPOLIS, MD 21401

WELL COMPLETION REPORT

IN 30 DAYS
FILE IN THIS FORM COMPLETEDDATE RECEIVED
(WRA USE ONLY)

DEPTH OF WELL

UNIT NO. FROM PERMIT TO DRILL WELL

DATE WELL COMPLETED

22 TO NEAREST FOOT

28 29 30 31 32 33 34 35 36 37

WELL IDENTIFICATION NO.

40

OWNER

REDD

LAST NAME

SHIMMEL

STREET OR RFD

6015

SHADY LAKE

POST OFFICE

FIRST NAME

HANOVER

WELL LOG

WELL DESCRIPTION

GROUTING RECORD

WELL HAS BEEN GROUTED

(CIRCLE APPROPRIATE BOX)

TYPE OF GROUTING MATERIAL (CIRCLE ONE)

CEMENT (CM) BENTONITE CLAY (BC)

NO. OF BAGS 20 NO. OF POUNDS 2000

GALLONS OF WATER 100

DEPTH OF GROUT SEAL (TO NEAREST FOOT)

FROM 0 FT. TO 58

(ENTER 0 IF FROM SURFACE)

CASING RECORD

CASING TYPES

(INSERT APPROPRIATE CODE BELOW)

STEEL (ST) CONCRETE (CO)

PLASTIC (PL) OTHER (OT)

MAIN CASING TYPE

NOMINAL DIAMETER TOP (MAIN) CASING (NEAREST INCH)

TOTAL DEPTH OF MAIN CASING (NEAREST FOOT)

S+ 6 190

60 61 63 64 66 68 70 72

OTHER CASING (IF USED)

DIAMETER (INCH)

DEPTH (FEET)

FROM TO

FROM TO

FROM TO

FROM TO

FROM TO

FROM TO

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SCREEN TYPE OR OPEN HOLE

SCREEN RECORD

(INSERT APPROPRIATE CODE BELOW)

STEEL (ST) BRASS (BR) OPEN HOLE (HO)

PLASTIC (PL) OTHER (OT)

C 2

1 2 3 (SEQ. NO.) 6

DEPTH (NEAREST WHOLE FOOT)

188 280

8 9 11 13 15 17 21

23 24 26 30 32 36

38 39 41 45 47 51

SLOT SIZE 1. 2. 3.

DIAMETER OF SCREEN 56 (NEAREST INCH)

FROM TO

GRAVEL PACK

IF WELL DRILLED WAS A FLOWING WELL CIRCLE BOX

WRA USE ONLY (NOT TO BE FILLED IN BY DRILLER)

(E.R.O.S.)

70 72 74 76 78

TELESCOPE CAGING

LOG INDICATOR

OTHER DATA AVAILABLE

CIRCLE APPROPRIATE BOXES

A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

E ELECTRIC LOG OBTAINED

P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT I HAVE COMPLIED WITH ALL CONDITIONS STATED ON THE ABOVE-CAPTIONED "PERMIT TO DRILL WELL", AND THAT INFORMATION CONTAINED IN THIS REPORT IS TRUE, ACCURATE, AND COMPLETE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

DRILLER'S NAME

(PLEASE PRINT)

George F. Easterday

SIGNATURE

George F. Easterday

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDINGS, SEPTIC TANKS, AND/OR OTHER LAND MARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL).

well 45' 10'

House

DRIVEWAY