

C 1 04858 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED AFTER WELL IS COMPLETED.

1 2 3 6

FILL IN THIS FORM COMPLETELY PLEASE TYPE

COUNTY NUMBER

ST/CO USE ONLY DATE Received

DATE WELL COMPLETED 12-2-14

Depth of Well 320

PERMIT NO. FROM "PERMIT TO DRILL WELL" 110-14-0142

OWNER: Yamoto, Futoshi + Reiko STREET OR RFD: 11703 Wagner Road TOWN: Fulton MD. SUBDIVISION: SECTION: LOT: 5

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries like Top Soil, Red Clay, Red Brn Clay, Hard Brn Rock, W. R. Rock, Gray Rock.

GROUTING RECORD

WELL HAS BEEN GROUTED (Y/N) TYPE OF GROUTING MATERIAL (CM, BC) NO. OF BAGS, NO. OF POUNDS, GALLONS OF WATER, DEPTH OF GROUT SEAL

CASING RECORD

MAIN CASING TYPE, Nominal diameter, Total depth of main casing

OTHER CASING (if used) diameter, depth

SCREEN RECORD

screen type or open hole (S, B, H, P, O)

DEPTH (nearest ft.)

Table with columns: E, A, C, H, S, C, R, E, E, N and depth intervals (1-21, 23-36, 38-51)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

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

TELESCOPE CASING LOG INDICATOR OTHER DATA

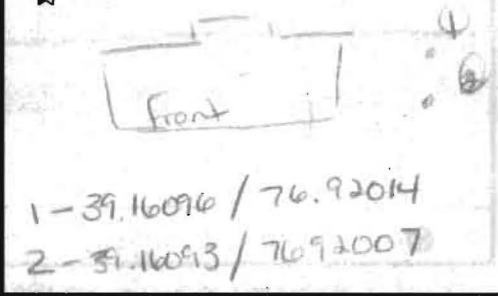
PUMPING TEST

HOURS PUMPED, PUMPING RATE, METHOD USED TO MEASURE PUMPING RATE, WATER LEVEL, TYPE OF PUMP USED

PUMP INSTALLED

DRILLER INSTALLED PUMP (YES/NO), TYPE OF PUMP INSTALLED PLACE, CAPACITY, PUMP HORSE POWER, PUMP COLUMN LENGTH, CASING HEIGHT

LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURES AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



NUMBER OF UNSUCCESSFUL WELLS:

WELL HYDROFRACTURED (Y/N)

CIRCLE APPROPRIATE LETTER A, E, P

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04

DRILLERS LIC. NO. M WD 553

DRILLERS SIGNATURE

LIC. NO. 1 WRD 097

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)




Bureau of Environmental Health  
7178 Columbia Gateway Drive, Columbia, MD 21046-2147  
Main: 410-313-2640 | Fax: 410-313-2648  
TDD 410-313-2323 | Toll Free 1-866-313-6300  
[www.hchealth.org](http://www.hchealth.org)  
Facebook: [www.facebook.com/hocohealth](http://www.facebook.com/hocohealth)  
Twitter: HowardCoHealthDep

Maura J. Rossman, M.D., Health Officer

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**MEMORANDUM**

TO: C. John Hess, MWD 553  
Allied Environmental Services

FROM: Ryan Rappaport, *L.E.H.S.*   
Well & Septic Program

CC: Jeff Williams, Program Supervisor  
Well & Septic Program

RE: Geothermal Well Permit Application, 11703 Wayneridge Ct.

DATE: November 7, 2014

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The Health Department is in receipt of a well permit application for the above listed address. It has been reviewed and is currently on hold. The following requirements are needed in order to issue the permit.

1. A revised and legible site plan on an 8 ½" by 11" paper with a 1" to 30' to 1" = 100' scaled drawing of the property showing additional information including the property lines, the existing septic components and septic reserve area and the potable well location. Include setback distances.
2. Show well and septic component information for the neighboring properties (11718 Wayneridge Street and 11709 Wayneridge Ct.). Geothermal well setbacks must be met.
3. A cross-sectional diagram of the proposed geothermal well construction including a statement of the intended grout mix.

CC: File

05-370175

EMERGENCY/TEMP NO. IF ANY

B 1	25668	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 555281-2 please type	STATE PERMIT NUMBER HO - 14 - 0142 fill in this form completely
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Date Received (APA) 10/22/14

**OWNER INFORMATION**

8 MM DD YY 13  
Yumoto Futoshi + Reiko  
15 Last Name Owner First Name 34  
11703 Wayneridge Ct  
36 Fulton MD 20759  
57 Town 70 State 72 Zip 76

**B 3 LOCATION OF WELL**

Howard  
8 COUNTY 21  
Mooresfield  
23 SUBDIVISION 42  
SECTION 44 46 LOT 5 48 50  
Fulton  
52 NEAREST TOWN 71

**DRILLER INFORMATION**

C John Hess MWD 553  
76 Driller's Name License No. 81  
Allied Environmental Services  
20 Box 129 Annapolis Junction MD 20701  
Address  
C John Hess 10/08/14  
Signature Date

**B 4 SOURCES OF DRILLING WATER**

11 1703 Wayneridge Ct 30  
STREET ADDRESS  
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
90' DISTANCE FROM ROAD  
ENTER FT OR MI 38 39  
TAX MAP: 0011 BLK 0014 PARCEL 0093

**B 2 WELL INFORMATION**

APPROX. PUMPING RATE (GAL. PER MIN.) 8 12  
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

**USE FOR WATER (CIRCLE APPROPRIATE BOX)**

DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION  
 FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)  
 INDUSTRIAL, COMMERCIAL, DEWATERING  
 PUBLIC WATER SUPPLY WELL  
 TEST, OBSERVATION, MONITORING  
 OPEN LOOP GEOTHERMAL  
 CLOSED LOOP GEOTHERMAL

22

**NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL**

Howard 13  
COUNTY NAME COUNTY NO.  
STATE SIGNATURE INSERT S → 41  
DATE ISSUED 11/20/14 CO SIGNATURE 11/20/15  
43 MM DD YY 48 EXP. DATE

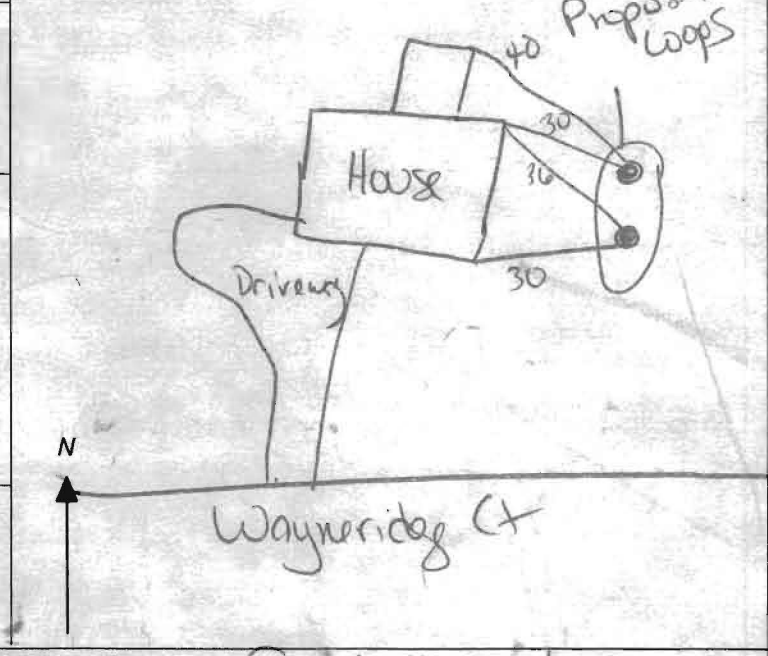
APPROXIMATE DEPTH OF WELL 320 FEET  
24 28

APPROXIMATE DIAMETER OF WELL 6 INCH  
NEAREST INCH

PROPOSED LOCATION OF WELL ON LOT  
SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL

**METHOD OF DRILLING (circle one)**

BORED (or Augered) JETTED Jetted & DRIVEN  
30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)  
37 CABLE REVERSE-ROTary Drive-POINT  
other



**REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)**

THIS WELL WILL NOT REPLACE AN EXISTING WELL  
 THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED  
39  THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS  
 THIS WELL WILL DEEPEM AN EXISTING WELL  
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 52

**Not to be filled in by driller (MDE OR COUNTY USE ONLY)**

APPROX. PERMIT NUMBER G  
PERMIT No. HO - 14 - 0142  
70 71 72 73 74 75 76 77 78 79

**SPECIAL CONDITIONS**  
NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED.  
wells must be grouted from bottom to top and grouting must be called into Health Dept. prior to start. (at least 24 hours)  
© COUNTY



## HOWARD COUNTY GROUTING PROCEDURE

Boreholes will be grouted from the bottom to the top via a tremie pipe and positive displacement pump. Bentonite grout, known as Quik-Grout will be used according to the manufacturer's specifications to achieve a consistency of at least 20% solids (24 gallons potable water/50 lb. sack of grout) and a permeability no more than  $2.5 \text{ E}(-08) \text{ cm/sec}$ . Grouting will be completed immediately after installing the geothermal loop and no later than twenty-four (24) hours after installing the geothermal loop. Open boreholes/annular space will be protected as necessary to prevent the entry of surface water or pollutants.

EACH BORE HOLE (TYP.)

