

C1 26372

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

FILL IN THIS FORM COMPLETELY PLEASE TYPE

COUNTY NUMBER

ST/CO USE ONLY DATE RECEIVED

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER, WELL SITE ADDRESS, TOWN, SUBDIVISION, SECTION, LOT

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, Bittern Soil, Bin Orange Soil, Weathered Rock, Gray Rock, Mud Rock.

GROUTING RECORD

WELL HAS BEEN GROUDED (Circle Appropriate Box) YES NO, TYPE OF GROUING MATERIAL (Circle one) CEMENT, BENTONITE CLAY, NO. OF BAGS, NO. OF POUNDS, GALLONS OF WATER, DEPTH OF GROUT SEAL

CASING RECORD

MAIN CASING TYPE, Nominal diameter top (main) casing, Total depth of main casing, OTHER CASING (if used) diameter, depth

SCREEN RECORD

screen type or open hole, insert appropriate code below, STEEL, BRASS, OPEN HOLE, PLASTIC, OTHER

C3

PUMPING TEST

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

PUMP INSTALLED

DRILLER INSTALLED PUMP, TYPE OF PUMP INSTALLED PLACE, CAPACITY: GALLONS PER MINUTE, PUMP HORSE POWER, PUMP COLUMN LENGTH, CASING HEIGHT

NUMBER OF UNSUCCESSFUL WELLS:

WELL HYDROFRACTURED YES NO

CIRCLE APPROPRIATE LETTER A WELL WAS ABANDONED AND SEALED, E ELECTRIC LOG OBTAINED, P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT...

DRILLERS LIC. NO. M W D 5513

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. WRD 497

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

C2 DEPTH (nearest ft.)

Table with columns: E A C H S R E E N, 1-24, 26-36, 38-41, 45-47, 51. Includes SLOT SIZE, DIAMETER OF SCREEN

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

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q

TELESCOPE CASING, LOG INDICATOR, OTHER DATA

LATITUDE 39.19029, LONGITUDE 76.80426 (DEFAULT COORD. WGS 84) NOTES: Front x 2, x 1

06-434541

**B 1** SEQUENCE NO. (MDE USE ONLY) **45132** STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type **556598** STATE PERMIT NUMBER **HO-15-0131**  
70 **fill in this form completely** 79

**OWNER INFORMATION**  
 Date Received (APA) **08/26/15**  
 8 MM DD YY 13  
 15 Last Name **Blakslee** Owner **Jinhee** First Name 34  
 36 Street or RFD **6600 Allen lane** 55  
 57 Town **Columbia** MD 70 State 72 Zip **21045** 76

**B 3** LOCATION OF WELL  
**Howard** COUNTY 21  
**Annetta Gardens** SUBDIVISION 42  
 SECTION **5** LOT **5**  
 44 46 48 50  
**Columbia** NEAREST TOWN 52 71

**DRILLER INFORMATION**  
**C. John Hess** MW D 553 License No. 76 81  
**Allied Environmental Services** Firm Name  
**PO Box 129 Annapolis Junction MD 20701** Address  
**C. John Hess** Signature **08/24/15** Date

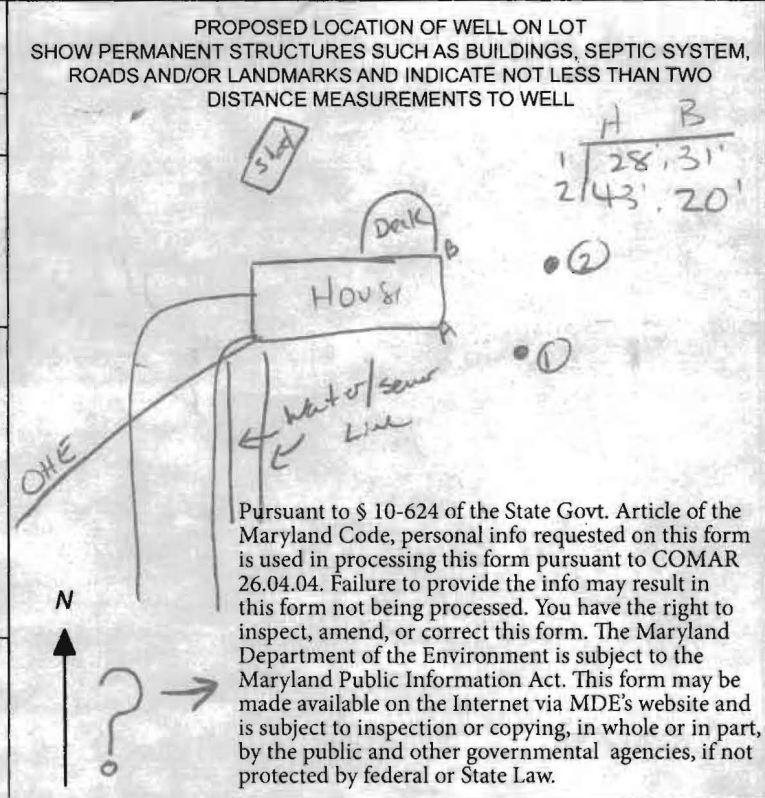
**B 4** SOURCES OF DRILLING WATER  
 1. **Public**  
 2.  
 3.  
**6600 Allen lane** STREET ADDRESS 11 30  
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
 NORTH N  
 WEST W 32 EAST E  
 SOUTH S  
 34 37  
 DISTANCE FROM ROAD ENTER FT OR MI 38 39  
 TAX MAP: **0037** BLK: \_\_\_\_\_ PARCEL **0185**

**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 **2 loops**

**NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL**  
**Howard** COUNTY NAME (13) COUNTY NO.  
 STATE SIGNATURE \_\_\_\_\_ INSERT S → 41  
 DATE ISSUED **9/1/15** **K. M. Hess** CO SIGNATURE **9/1/15** EXP. DATE  
 43 MM DD YY 48

APPROXIMATE DEPTH OF WELL **300** FEET 24 28  
 APPROXIMATE DIAMETER OF WELL **6** INCH NEAREST INCH



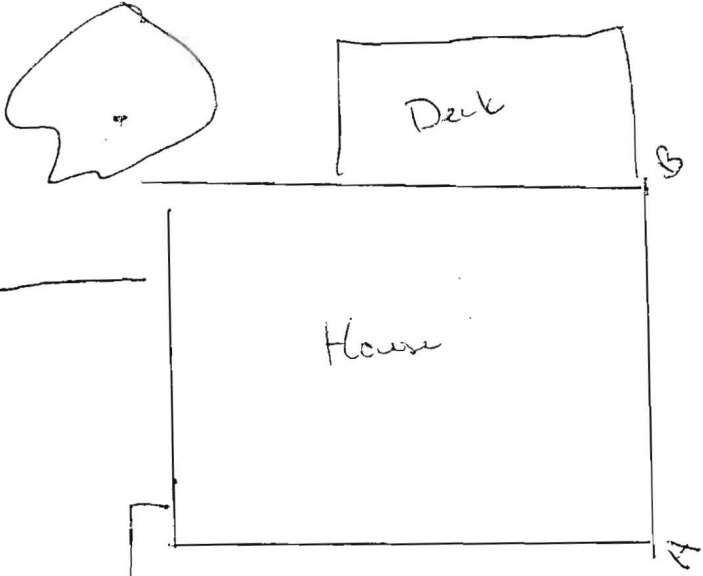
**METHOD OF DRILLING (circle one)**  
 BORED (or Augered) JETTED Jetted & DRIVEN  
 30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)  
 37 CABLE REVERSE-ROTary DRIVE-POINT  
 other \_\_\_\_\_

**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  
 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-15-0131**  
 70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS **Grant bores completely bottom to top.**  
 NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED.

9/1/15  
well site  
Approved  
-Kaw



Distances  
A, B

① (28, 31)

② (43, 28)

②

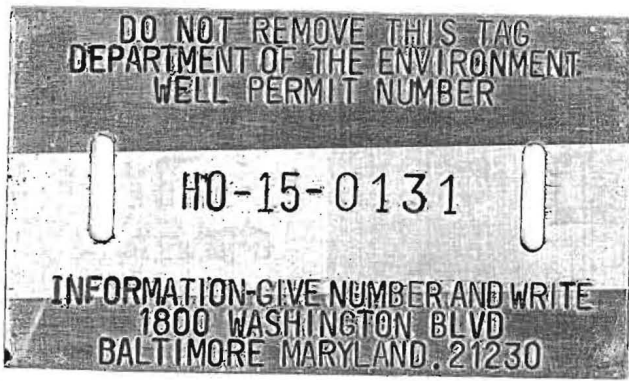
①



Sewer line

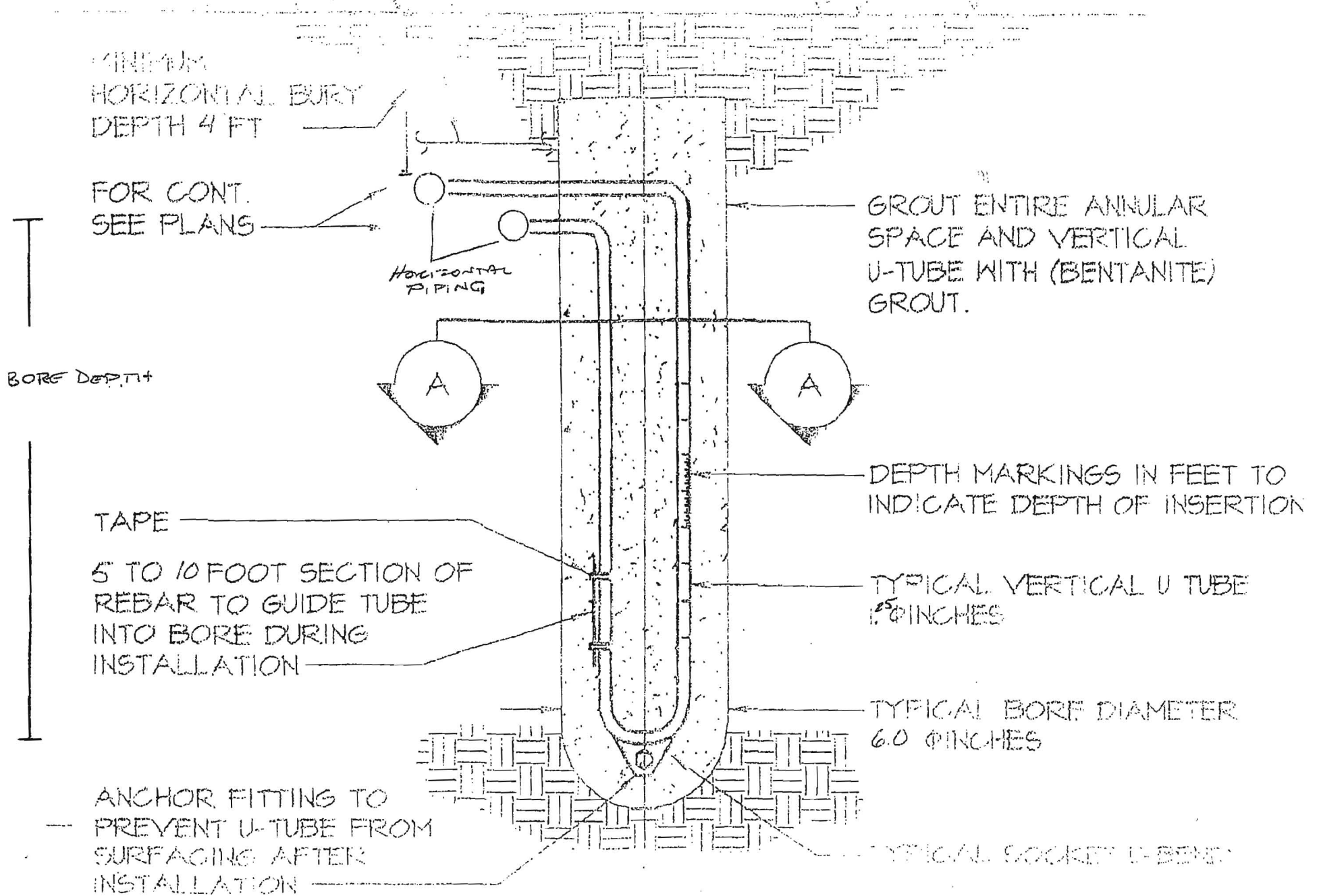
H<sub>2</sub>O line

\* Newest gas well  
to water line is  
greater than 50'



GRADE

EACH BORE HOLE (TYP.)



MINIMUM  
HORIZONTAL BURY  
DEPTH 4 FT

FOR CONT.  
SEE PLANS

HORIZONTAL  
PIPING

GROUT ENTIRE ANNULAR  
SPACE AND VERTICAL  
U-TUBE WITH (BENTANITE)  
GROUT.

BORE DEPTH

TAPE

5 TO 10 FOOT SECTION OF  
REBAR TO GUIDE TUBE  
INTO BORE DURING  
INSTALLATION

DEPTH MARKINGS IN FEET TO  
INDICATE DEPTH OF INSERTION

TYPICAL VERTICAL U TUBE  
1.5 INCHES

TYPICAL BORE DIAMETER  
6.0 INCHES

ANCHOR FITTING TO  
PREVENT U-TUBE FROM  
SURFACING AFTER  
INSTALLATION

TYPICAL SOCKET U-BEND

## 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.





# HOWARD COUNTY HEALTH DEPARTMENT

56598

DATE  
8 / 26 / 15

105

Received From

Allied Environmental

PHONE #

301-976-8370

For

Well Permit App - 66000 Allen Lane

CASH

CHECK

NO.

11908

one hundred sixty 00/100 Dollars

\$

160 | 00

Received By

[Signature]