

C1 19399 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND  
WELL COMPLETION REPORT  
FILL IN THIS FORM COMPLETELY  
PLEASE TYPETHIS REPORT MUST BE SUBMITTED WITHIN  
45 DAYS AFTER WELL IS COMPLETED.COUNTY  
NUMBER1 2 3 4 5 6  
(THIS NUMBER IS TO BE PUNCHED  
IN COLS. 3-6 ON ALL CARDS)

ST/CO USE ONLY

DATE Received

MM DD YY  
02 19 14

DATE WELL COMPLETED

MM DD YY  
1-7-14

Depth of Well

22 240 26  
(TO NEAREST FOOT)PERMIT NO.  
FROM "PERMIT TO DRILL WELL"

HD-95-2610

OWNER

WELL SITE ADDRESS

SECTION

LOT

## WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR  
COLOR, DEPTH, THICKNESS AND IF WATER BEARINGDESCRIPTION (Use  
additional sheets if needed)

FEET

FROM

TO

check  
if water  
bearing

Top Soil

Bm Clay

Gng Rock

0 1  
1 50  
50 240

## GROUTING RECORD

WELL HAS BEEN GROUTED  
(Circle Appropriate Box)

yes no

Y N

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT CM

BENTONITE CLAY BC

NO. OF BAGS 20 NO. OF POUNDS 1600

GALLONS OF WATER 500

DEPTH OF GROUT SEAL (to nearest foot)

from 48 TOP 52 ft. to 54 BOTTOM 58 ft.  
(enter 0 if from surface)

## CASING RECORD

casing  
types  
insert  
appropriate  
code  
belowST  
STEELCO  
CONCRETEPL  
PLASTICOT  
OTHERMAIN  
CASING  
TYPENominal diameter  
top (main) casing  
(nearest inch)!Total depth  
of main casing  
(nearest foot)

60 61

63 64

66 67

70

E  
A  
C  
H  
C  
A  
S  
I  
N  
G

OTHER CASING (if used)

diameter

depth (feet)

inch

from

to

screen type  
or open hole

SCREEN RECORD

(insert  
appropriate  
code  
below)ST  
STEELBR  
BRASSHO  
OPEN  
HOLEPL  
BRONZEOT  
HOLEPL  
PLASTICOT  
OTHER

C 2

DEPTH (nearest ft.)

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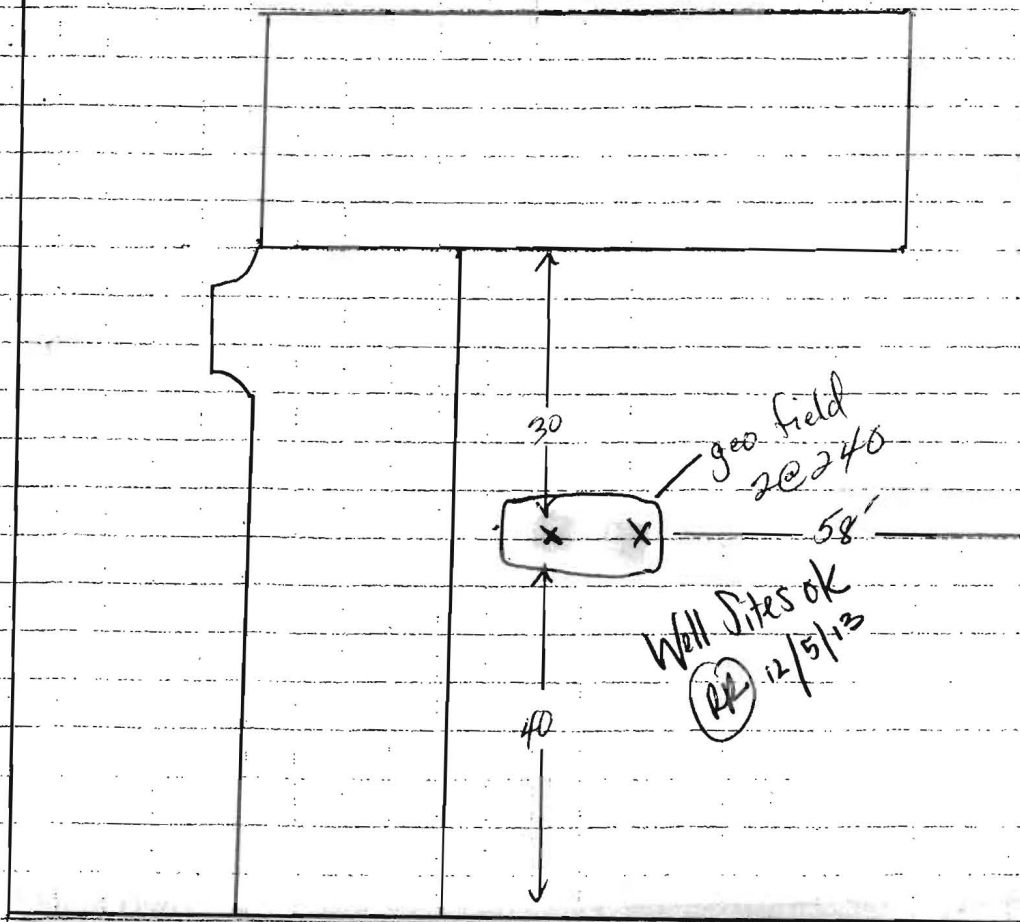
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<b>B 1</b> 1 2 3 6 <b>26043</b>	SEQUENCE NO. (MDE USE ONLY)	<b>STATE OF MARYLAND</b> <b>APPLICATION FOR PERMIT TO DRILL WELL</b> please type <b>545190</b>	STATE PERMIT NUMBER <b>H0-95-2610</b> 70 fill in this form completely 79
Date Received (APA) <b>11/14/13</b> 8 MM DD YY 13 <b>Carrera Eugenio Andraza</b> 15 Last Name Owner First Name 34 <b>3717 Saint Johns Ln</b> 36 Street or RFD 55 <b>Ellicott City MD 21043</b> 57 Town 70 State 72 Zip 76		<b>B 3</b> <b>LOCATION OF WELL</b> <b>Howard County</b> 8 COUNTY 21 <b>Meadowdale</b> 23 SUBDIVISION 42 SECTION <b>44</b> 46 LOT <b>5</b> 48 50 <b>Ellicott City</b> 52 NEAREST TOWN 71	
<b>DRILLER INFORMATION</b> <b>C John Hess</b> Driller's Name 76 <b>MWD 553</b> License No. 81 <b>Allied Environmental Services</b> Firm Name <b>P.O. Box 129, Annapolis Junction MD 20701</b> Address <b>C John Hess</b> Signature Date		<b>B 4</b> <b>SOURCES OF DRILLING WATER</b> 1. <b>Public</b> 2. 3. <b>3717 St. Johns Ln</b> 11 STREET ADDRESS 30 <b>ON WHICH SIDE OF ROAD</b> (CIRCLE APPROPRIATE BOX) NORTH WEST <input checked="" type="radio"/> EAST SOUTH 34 <b>40'</b> 37 DISTANCE FROM ROAD ENTER FT OR MI 38 39 TAX MAP: <b>0024</b> BLK: <b>0011</b> PARCEL <b>0571</b>	
<b>B 2</b> <b>WELL INFORMATION</b> APPROX. PUMPING RATE (GAL. PER MIN.) 8 12 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20		<b>NOT TO BE FILLED IN BY DRILLER</b> <b>HEALTH DEPARTMENT APPROVAL</b> <b>Howard</b> <b>13</b> COUNTY NAME COUNTY NO. STATE SIGNATURE INSERT S → DATE ISSUED <b>12/05/2013</b> <b>12/5/14</b> 43 MM DD YY 48 CO SIGNATURE EXP. DATE	
<b>USE FOR WATER (CIRCLE APPROPRIATE BOX)</b> <input type="radio"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION <input type="radio"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) 22 <input checked="" type="radio"/> INDUSTRIAL, COMMERCIAL, DEWATERING <input type="radio"/> PUBLIC WATER SUPPLY WELL <input type="radio"/> TEST, OBSERVATION, MONITORING <input type="radio"/> OPEN LOOP GEOTHERMAL <input checked="" type="radio"/> CLOSED LOOP GEOTHERMAL <b>2 loops</b>		<b>PROPOSED LOCATION OF WELL ON LOT</b> SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL 	
APPROXIMATE DEPTH OF WELL <b>240</b> FEET 24 28 APPROXIMATE DIAMETER OF WELL <b>6</b> INCH NEAREST INCH		<b>METHOD OF DRILLING (circle one)</b> BORED (or Augered) JETTED Jetted & DRIVEN 30 <u>AIR-ROTary</u> AIR-PERCussion ROTARY (Hydraulic Rotary) 37 <u>CABLE</u> REVERSE-ROTary DRIVE-POINT other	
<b>REPLACEMENT OR DEEPEMED WELLS</b> (CIRCLE APPROPRIATE BOX) <input checked="" type="radio"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL <input type="radio"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED 39 <input checked="" type="radio"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS <input type="radio"/> THIS WELL WILL DEEPEM AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 52		<b>Not to be filled in by driller (MDE OR COUNTY USE ONLY)</b> APPROP. PERMIT NUMBER <b>G</b> PERMIT No. <b>H0-95-2610</b> 70 71 72 73 74 75 76 77 78 79	
<b>SPECIAL CONDITIONS</b> NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED: <b>well's must be grouted from bottom to top.</b>			

# SITE PLAN



## SEDIMENT CONTROL PROTOCOL:

DISTANCE FROM HOUSE: \_\_\_\_\_  
FROM SEPTIC: \_\_\_\_\_  
FROM SEWER: \_\_\_\_\_  
FROM PROPERTY LINE: \_\_\_\_\_  
FROM STREET: \_\_\_\_\_

TREES NEARBY: \_\_\_\_\_  
UTILITY ISSUES: \_\_\_\_\_  
MATS NEEDED: \_\_\_\_\_  
ACCESS FOR H/U: \_\_\_\_\_  
NEIGHBORING TAGS: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

PERSON COMPLETING FORM: \_\_\_\_\_

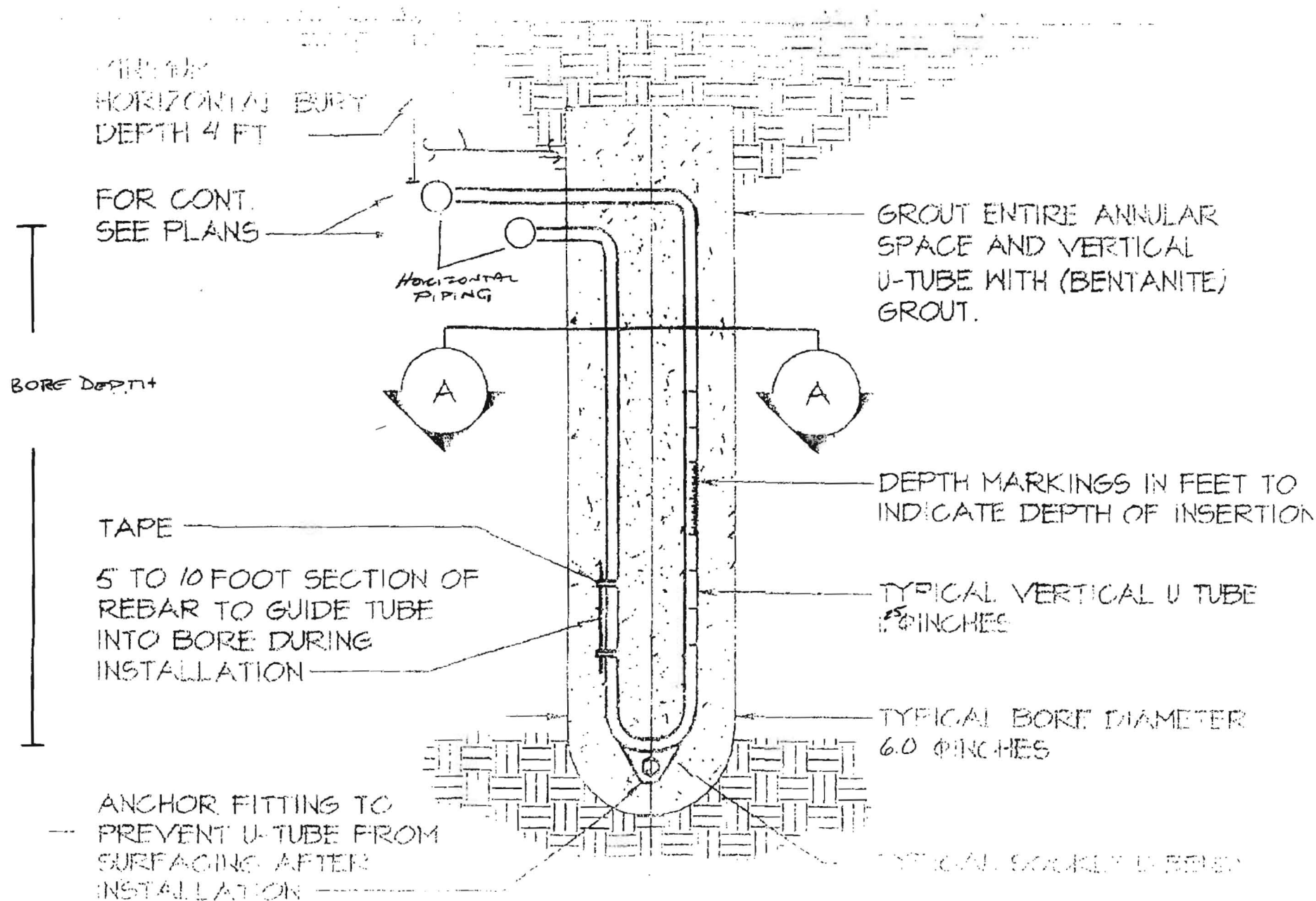
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3717 St John Ln  
Ellicott City MD



GRADE

EACH BORE HOLE (TYP.)



## **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  $2.5 \times 10^{-8}$  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.

