

B 1  
141874

SEQUENCE NO.  
(MDE USE ONLY)

STATE OF MARYLAND  
APPLICATION FOR PERMIT TO DRILL WELL  
559792 please type

STATE PERMIT NUMBER  
HO - 15 - 0333  
70 fill in this form completely 79

Date Received (APA) 10/2/16

**OWNER INFORMATION**

8 MM DD YY 13  
15 Last Name Owner First Name 34  
36 Street or RFD 55  
57 Town 70 State 72 Zip 76

Bovard T/E Reese + Melanie  
3217 Green forest Court  
Ellicott City MD 21042

B 3 **LOCATION OF WELL**

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

Howard  
Bethany Woods  
Ellicott City

**DRILLER INFORMATION**

Driller's Name 76 License No. 81  
Firm Name  
Address  
Signature Date

C John Hess MWD 553  
Allied Environmental Svcs  
PO Box 29 Annapolis Junction MD 20701  
John Hess 10/10/16

B 4 **SOURCES OF DRILLING WATER**

11 STREET ADDRESS 30  
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
34 50 37  
DISTANCE FROM ROAD  
ENTER FT OR MI 38 39  
TAX MAP: 17 BLK: 20 PARCEL 661

3217 Green forest Ct  
Public

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 13  
COUNTY NAME COUNTY NO.  
STATE SIGNATURE INSERT S → 41  
DATE ISSUED 10/26/16 CO SIGNATURE 10/26/17 EXP. DATE

APPROXIMATE DEPTH OF WELL 320 FEET  
APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST INCH

**METHOD OF DRILLING (circle one)**

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

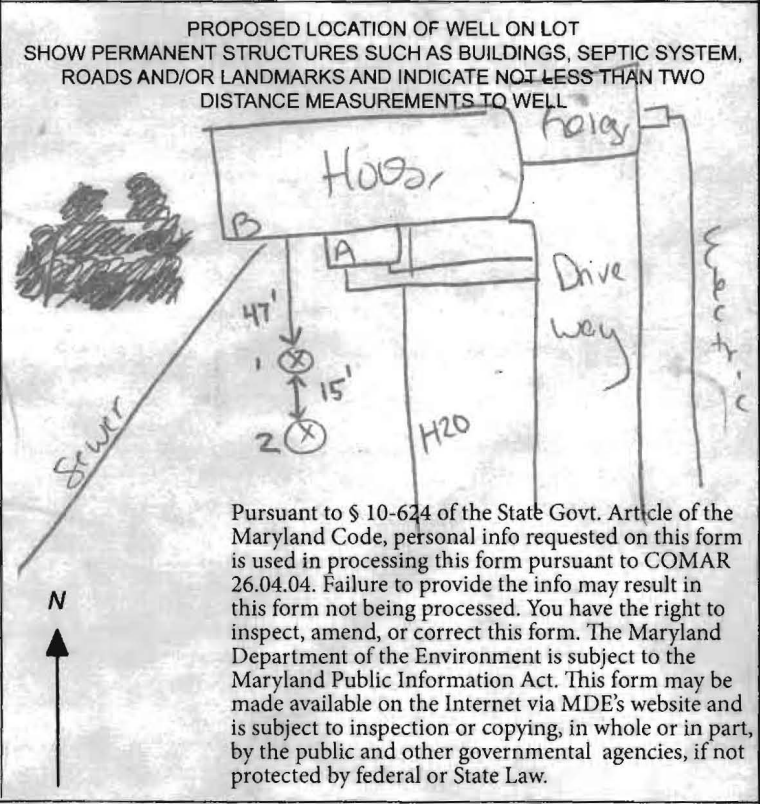
**REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)**

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)**

APPROP. PERMIT NUMBER G  
PERMIT No. HO - 15 - 0333  
70 71 72 73 74 75 76 77 78 79



SPECIAL CONDITIONS  
NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED- all wells must be grouted from bottom to top.

<b>C 1</b>	<b>42527</b>	SEQUENCE NO. (MDE USE ONLY)	<b>STATE OF MARYLAND WELL COMPLETION REPORT</b> FILL IN THIS FORM COMPLETELY PLEASE TYPE	THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.
1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)				
ST/CO USE ONLY DATE Received MM DD YY 8 13		DATE WELL COMPLETED MM DD YY 11-5-16		Depth of Well 22 320 26 (TO NEAREST FOOT)
OWNER <u>Bonard T/E Reese &amp; Malone</u>		PERMIT NO. FROM "PERMIT TO DRILL WELL" 11015-0333		COUNTY NUMBER
WELL SITE ADDRESS last name first name 317 Creech forest Ct		TOWN Ellicott City MD		28 29 30 31 32 33 34 35 36 37
SUBDIVISION		SECTION		LOT 21

**WELL LOG**  
Not required for driven wells

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

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Topsoil	0	1	
Brn Clay	1	20	
Gray Rock	20	320	

2 closed loops

**GROUTING RECORD** yes no  
WELL HAS BEEN GROUTED (Circle Appropriate Box)  Y  N  
44 44

TYPE OF GROUTING MATERIAL (Circle one)  
CEMENT  CM BENTONITE CLAY  BC  
45 46 45 46

NO. OF BAGS 48 NO. OF POUNDS 2400  
GALLONS OF WATER 1200  
DEPTH OF GROUT SEAL (to nearest foot)  
from 0 TOP 52 ft. to 320 BOTTOM 58 ft.  
(enter 0 if from surface)

**CASING RECORD**  
casing types insert appropriate code below  
 ST STEEL  CO CONCRETE  
 PL PLASTIC  OT OTHER

MAIN CASING TYPE  
Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot)  
60 61 63 64 66 70

OTHER CASING (if used)  
EACH CASING diameter inch depth (feet) from to

screen type or open hole insert appropriate code below  
 ST STEEL  BR BRASS  HO OPEN HOLE  
 PL PLASTIC  OT OTHER

**C 3**

**PUMPING TEST**

HOURS PUMPED (nearest hour) 8 9

PUMPING RATE (gal. per min.) 11 15

METHOD USED TO MEASURE PUMPING RATE

WATER LEVEL (distance from land surface)  
BEFORE PUMPING 17 20 ft.  
WHEN PUMPING 22 25 ft.

TYPE OF PUMP USED (for test)  
 A air  P piston  T turbine  
 C centrifugal  R rotary  O other (describe below)  
 J jet  S submersible

NUMBER OF UNSUCCESSFUL WELLS: \_\_\_\_\_

WELL HYDROFRACTURED  Y  N

CIRCLE APPROPRIATE LETTER  
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 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, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. MW D 553  
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)  
LIC. NO. WMD 097

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

**C 2**

DEPTH (nearest ft.)

1	8	9	11	15	17	21
2	23	24	26	30	32	36
3	38	39	41	45	47	51

ELECTRIC LOG OBTAINED  YES  NO

SLOT SIZE 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_

DIAMETER OF SCREEN (NEAREST INCH)  
56 60  
from \_\_\_\_\_ to \_\_\_\_\_

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

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

70 \_\_\_\_\_ 72 \_\_\_\_\_ 74 75 76

TELESCOPE CASING LOG INDICATOR OTHER DATA

**PUMP INSTALLED**

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. \_\_\_\_\_ 29

CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35

PUMP HORSE POWER 37 41

PUMP COLUMN LENGTH (nearest ft.) 43 47

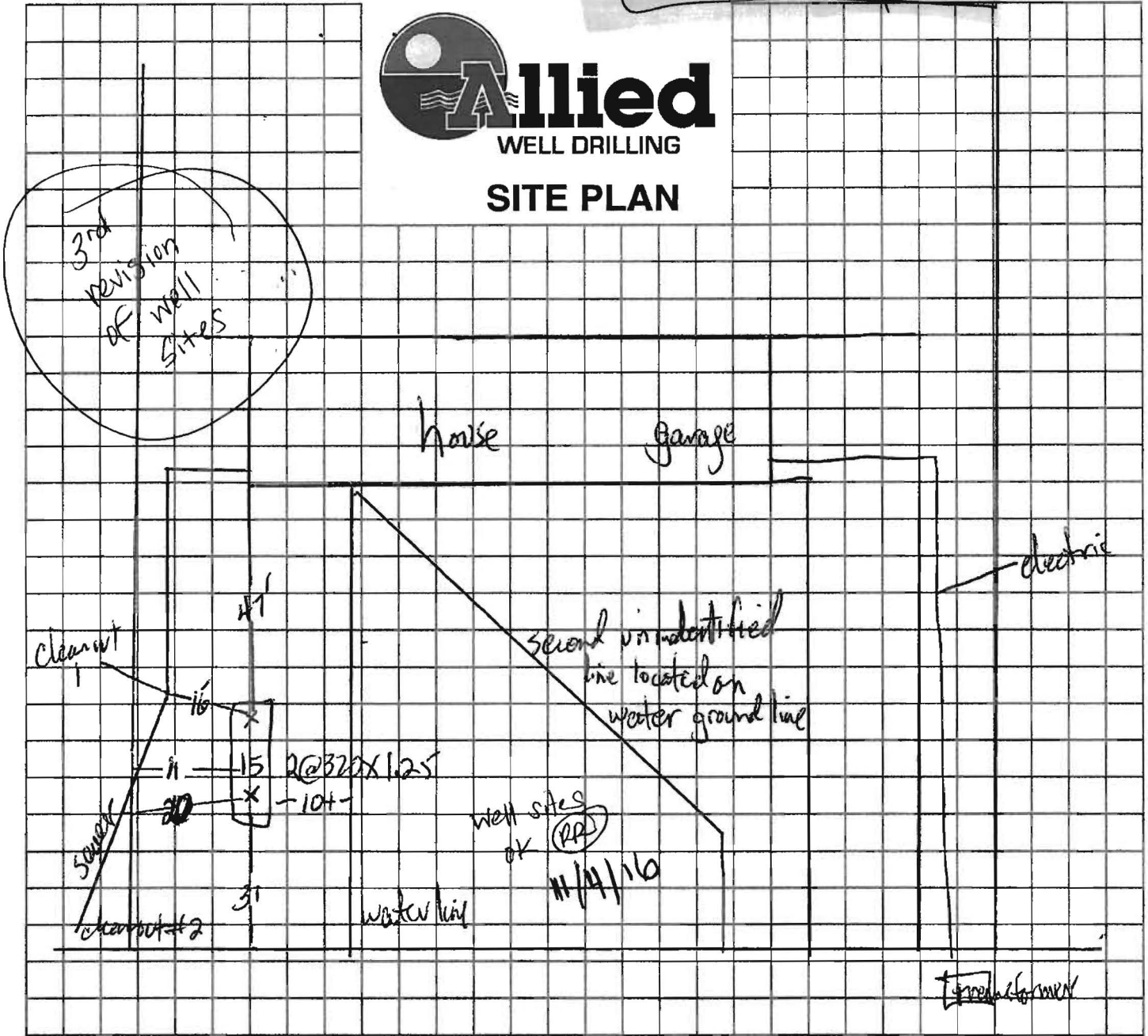
CASING HEIGHT (circle appropriate box and enter casing height)  
 + above } LAND SURFACE  
 - below } (nearest foot)  
49 50 51

LATITUDE 39.28311  
LONGITUDE 76.85636  
(DEFAULT COORD. WGS 84)

Pursuant to §10-624 of the State Govt. Article of the Maryland Code personal info. requested on this form is used in processing this form pursuant to COMAR 26.04.04. Failure to provide the info. may result in this form not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment is subject to the Maryland Public Information Act. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by federal or state law.



Final Site plan



Sediment Control Protocol: silt fence

Distance From House: 47  
 From Septic: n/a  
 From Sewer: 11 @ closet, bore 1-16' from clean out  
 From Property Line: 20+  
 From Street: 31 from second bore  
 (closest to road)

Trees Nearby: no  
 Utility Issues: marked privately, ground radar  
 Mats Needed: yes  
 Access For H/U: to be done by others  
 Neighboring Tags: \_\_\_\_\_

Comments: Third bore location 15' closer to road authorized by R. [unclear] if needed in  
 Person Completing Form: Grizzardi case water is encountered

## 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.

GRADE

EACH BORE HOLE (TYP.)

MINIMUM  
HORIZONTAL BURY  
DEPTH 4 FT

FOR CONT.  
SEE PLANS.

BORE DEPTH

ANCHOR FITTING TO  
PREVENT U-TUBE FROM  
SURFACING AFTER  
INSTALLATION

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

TAPE

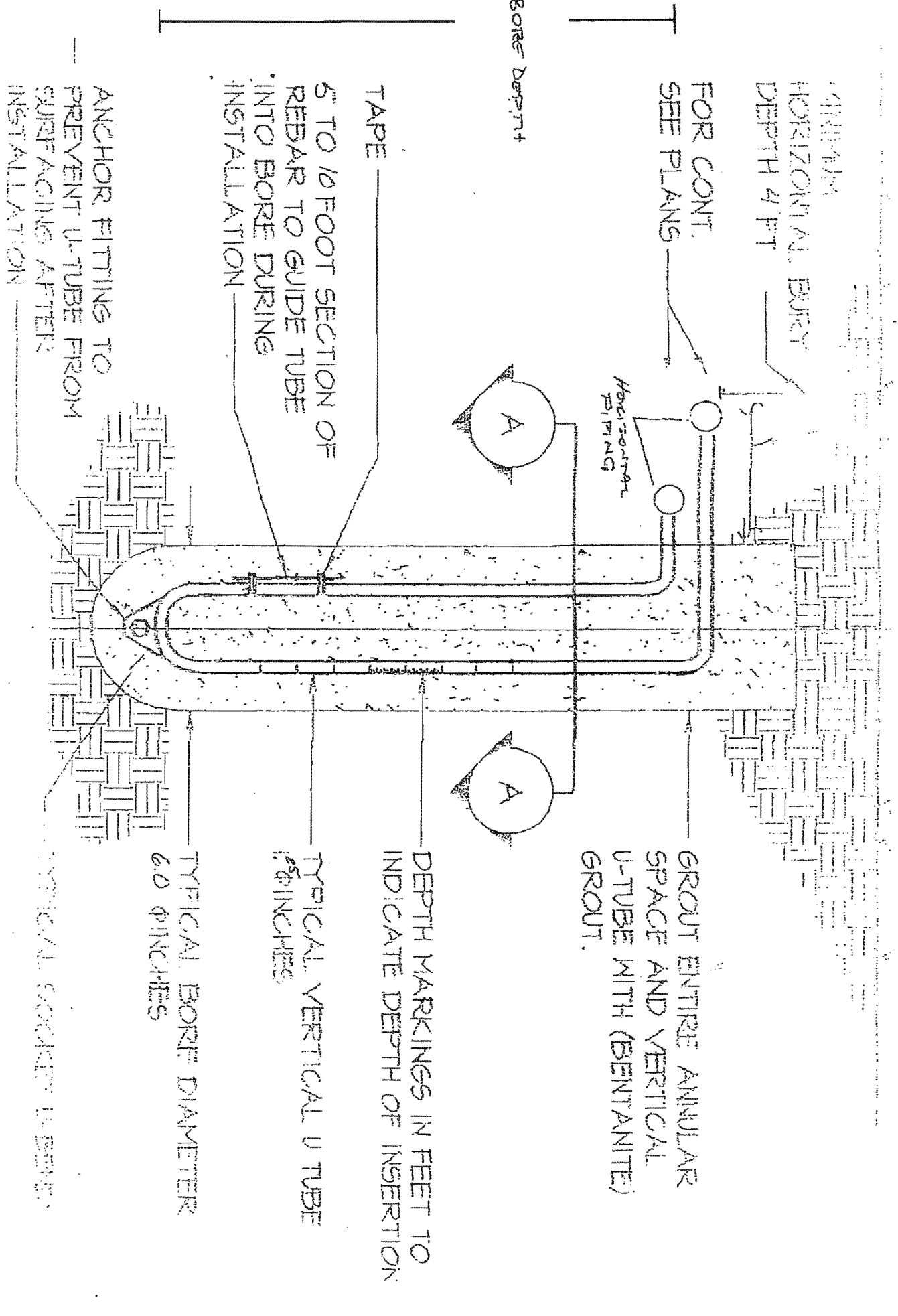
GROUT ENTIRE ANNULAR  
SPACE AND VERTICAL  
U-TUBE WITH (BENTONITE)  
GROUT.

DEPTH MARKINGS IN FEET TO  
INDICATE DEPTH OF INSERTION

TYPICAL VERTICAL U-TUBE  
1.5 INCHES

TYPICAL BORE DIAMETER  
6.0 INCHES

TYPICAL COCKETS IN REBAR





# HOWARD COUNTY HEALTH DEPARTMENT

59792

DATE 10/24/16

WS

Received From

Allied Environmental Services Inc

PHONE #

301 796-8310

CASH

CHECK

NO.

12188

For

Woll Permit / 3217 Green  
7513 Mac Sa Lane Forest et

Three hundred twenty Dollars

\$

320.00

Received By

J King