

C1 34404

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT 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)

COUNTY NUMBER

ST/CO USE ONLY DATE RECEIVED MM DD YY

DATE WELL COMPLETED MM DD YY

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER Bennett, Talista Meryle WELL SITE ADDRESS 10052 Flory Rd TOWN Haver, MD SUBDIVISION SECTION LOT 23

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 Brn Clay & Gravel, Iron/ Rock, Red Gravel, etc.

GROUTING RECORD WELL HAS BEEN GROUTED (Circle Appropriate Box)

TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC NO. OF BAGS 40 NO. OF POUNDS 2000

CASING RECORD casing types insert appropriate code below

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 screen type or open hole insert appropriate code below

C3

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 WHEN PUMPING 22 25

PUMP INSTALLED DRILLER INSTALLED PUMP (CIRCLE) (YES or 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. 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) LAND SURFACE (nearest foot)

NUMBER OF UNSUCCESSFUL WELLS:

WELL HYDROFRACTURED yes Y no 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...

DRILLERS LIC. NO. 1 MWD 553

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 W/D 108

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

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

70 72 74 75 76 TELESCOPE CASING LOG INDICATOR OTHER DATA

LATITUDE 39.20003 (#3) LONGITUDE 76.72011 (DEFAULT COORD. WGS 84)

NOTES: 39.19992 76.72003 39.19996 76.72002

01-293451

B 1	36089	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type 555804	STATE PERMIT NUMBER Ho - 15 - 0044 fill in this form completely
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Date Received (APA) 04/15
8 MM DD YY 13

OWNER INFORMATION

15 Last Name Owner First Name 34
Bemnet + TE Testa + Maryle

36 Street or RFD 55
6042 Florey Road

57 Town 70 State 72 Zip 76
Hanover MD 21076

B 3 **LOCATION OF WELL**

8 COUNTY 21
Howard

23 SUBDIVISION 42
Florey

SECTION 44 46 LOT 23 48 50

52 NEAREST TOWN 71
Hanover

DRILLER INFORMATION

Driller's Name 76 License No. 81
C John Hess MWD 553

Firm Name
Allied Environmental Services

Address
PO Box 127 Annapolis Junction MD 20701

Signature Date
John Hess 04/08/15

B 4 **SOURCES OF DRILLING WATER**

1. Public
2. H₂O
3. sewer

11 STREET ADDRESS 30
6042 Florey Road

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34 37
DISTANCE FROM ROAD ENTER FT OR MI 38 39

TAX MAP 0038 BLK: 015 PARCEL 0258

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)

22 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 4/20/15 CO SIGNATURE EXP. DATE 4/20/15

APPROXIMATE DEPTH OF WELL 200 200 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Driven & 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

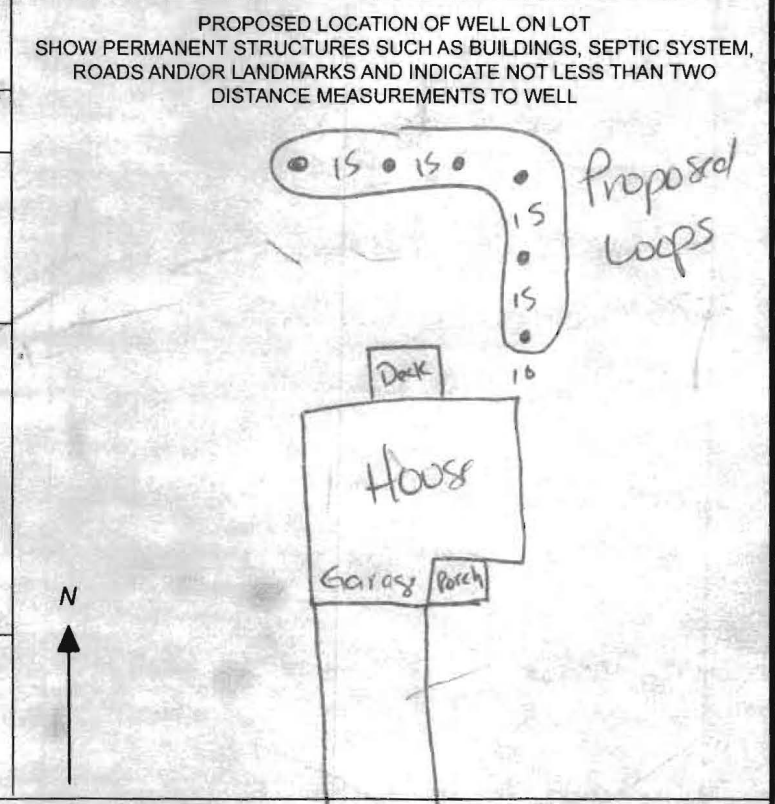
THIS WELL WILL DEEPEM AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 52

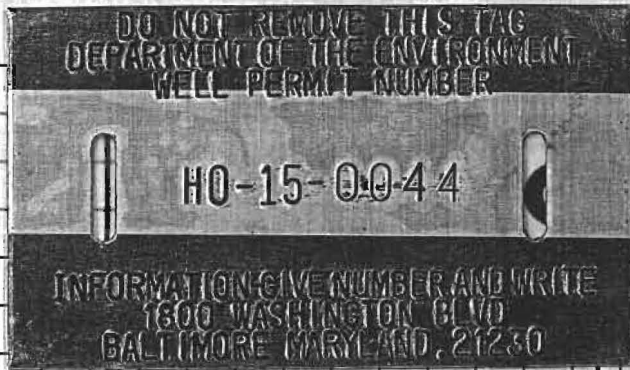
Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROX. PERMIT NUMBER G

PERMIT No. Ho-15-0044



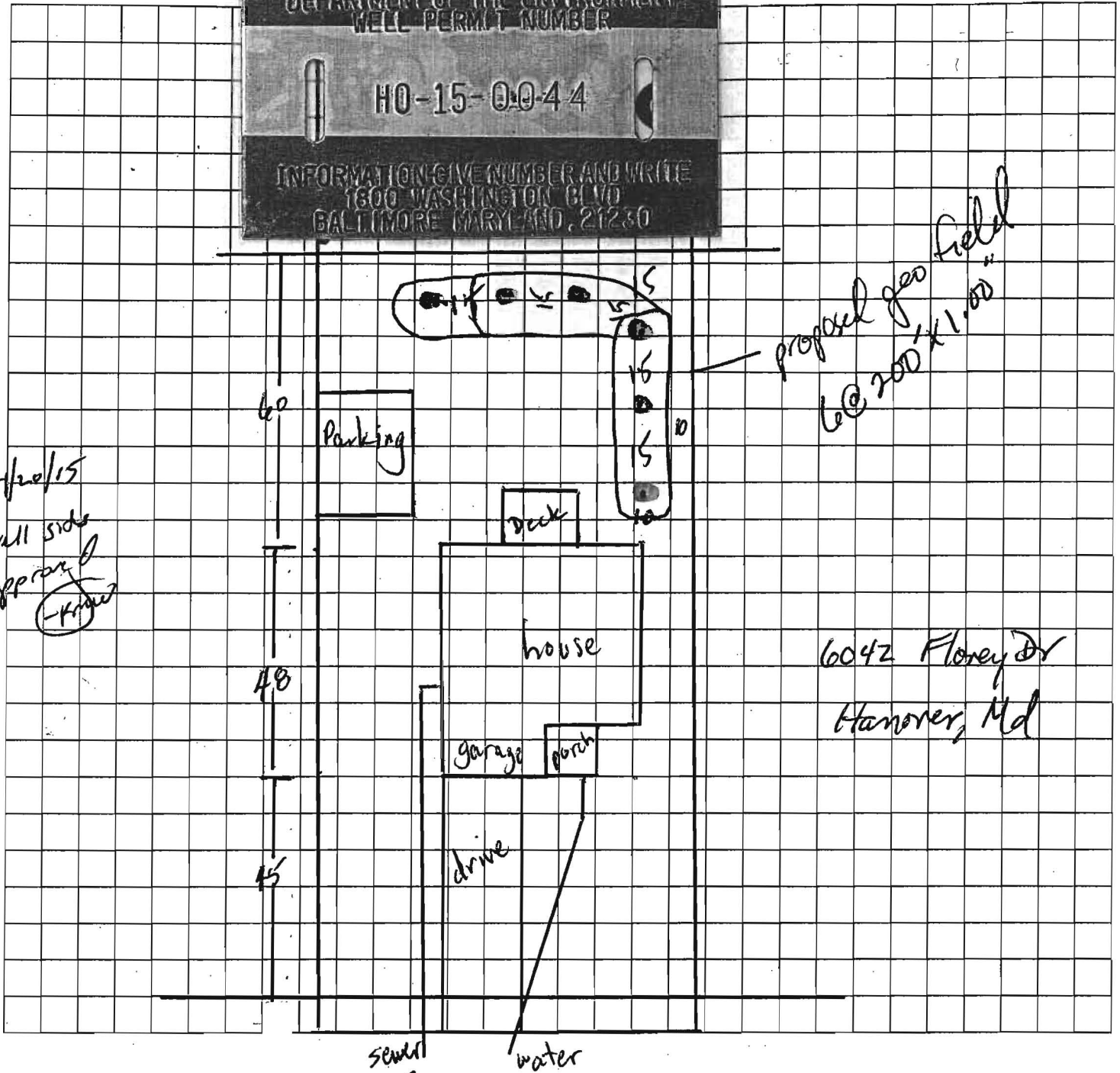
SPECIAL CONDITIONS
NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED



4/22/15
 well side
 approx 8'
 (circled)

proposed geo field
 @ 300' x 1,000'

6042 Florey Dr
 Hanover, Md



Sediment Control Protocol: silt fence

Distance From House: 10

From Septic: n/a

From Sewer: 50+

From Property Line: 10

From Street: 70+ side 100+ front

Trees Nearby: No

Utility Issues: get marked

Mats Needed: to leave asphalt

Access For H/U: to be done by others

Neighboring Tags: municipal

Comments: _____

Person Completing Form: Guizzardi

GRADE

EACH BORE HOLE (TYP.)

MINIMUM

HORIZONTAL BURY
DEPTH 4 FT

FOR CONT.
SEE PLANS

*Horizontal
Piping*

BORE DEPTH

TAPE

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

ANCHOR FITTING TO
PREVENT U-TUBE FROM
SURFACING AFTER
INSTALLATION

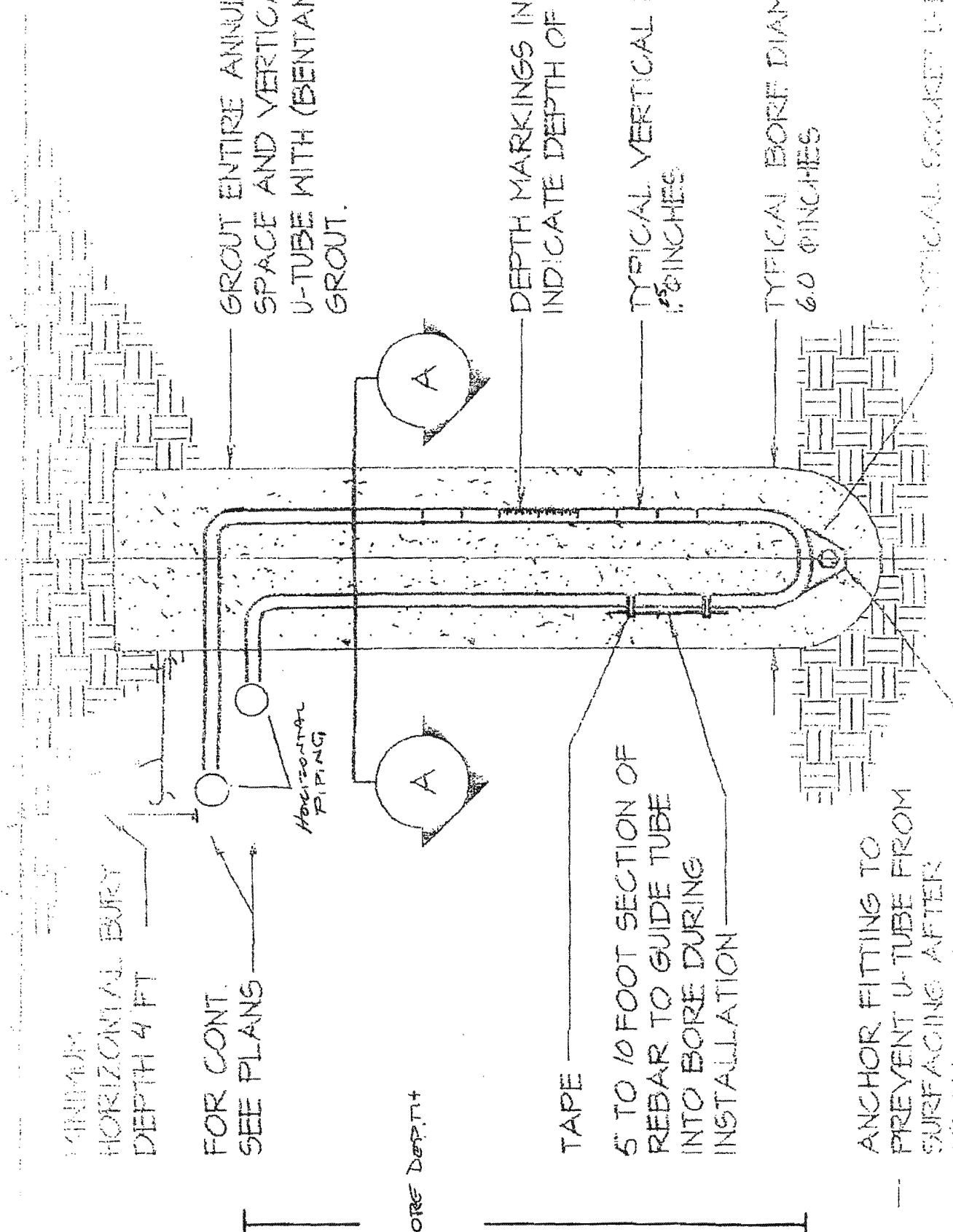
GROUT ENTIRE ANNULAR
SPACE AND VERTICAL
U-TUBE WITH (BENTANITE)
GROUT.

DEPTH MARKINGS IN FEET TO
INDICATE DEPTH OF INSERTION

TYPICAL VERTICAL U TUBE
1.5 INCHES

TYPICAL BORE DIAMETER
6.0 INCHES

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.