

B 1 17615 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type

STATE PERMIT NUMBER HO-95-2641 fill in this form completely

OWNER INFORMATION Date Received (APA) 01/27/14 Pett Jason/Jennifer 4560 Hemlock Court Wing Edlicott City MD 21042

LOCATION OF WELL B 3 Howard 8 COUNTY 21 23 SUBDIVISION SECTION 44 46 LOT PAR 1 48 50 COOKSVILLE 52 NEAREST TOWN 71

DRILLER INFORMATION C John Hess MW D 553 Driller's Name License No. Allied Environmental Services Firm Name P.O. Box 129 Annapolis Junction MD Address Signature Date 01/27/14

SOURCES OF DRILLING WATER B 4 1 Public 11 STREET ADDRESS 30 2. 3. ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) DISTANCE FROM ROAD ENTER FT OR MI 38 39 TAX MAP: 0008 BLK: 0005 PARCEL 0401

WELL INFORMATION B 2 APPROX. PUMPING RATE (GAL. PER MIN.) 8 12 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX) D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) I INDUSTRIAL, COMMERCIAL, DEWATERING P PUBLIC WATER SUPPLY WELL T TEST, OBSERVATION, MONITORING O OPEN LOOP GEOTHERMAL C CLOSED LOOP GEOTHERMAL 5 loops

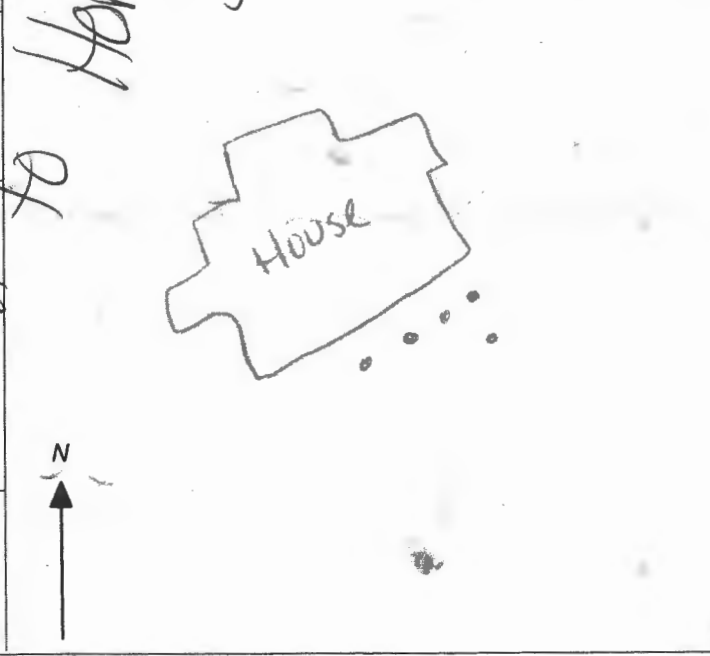
NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL COUNTY NAME Howard COUNTY NO. 13 STATE SIGNATURE DATE ISSUED 1/31/14 CO SIGNATURE EXP. DATE 1/31/15

APPROXIMATE DEPTH OF WELL 315 FEET 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 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary) CABLE REVERSE-ROTary DRIVE-POINT other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX) N THIS WELL WILL NOT REPLACE AN EXISTING WELL Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS D THIS WELL WILL DEEPEN 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-95-2641

SPECIAL CONDITIONS NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

Charles A. Klein + Sons

Cancelled

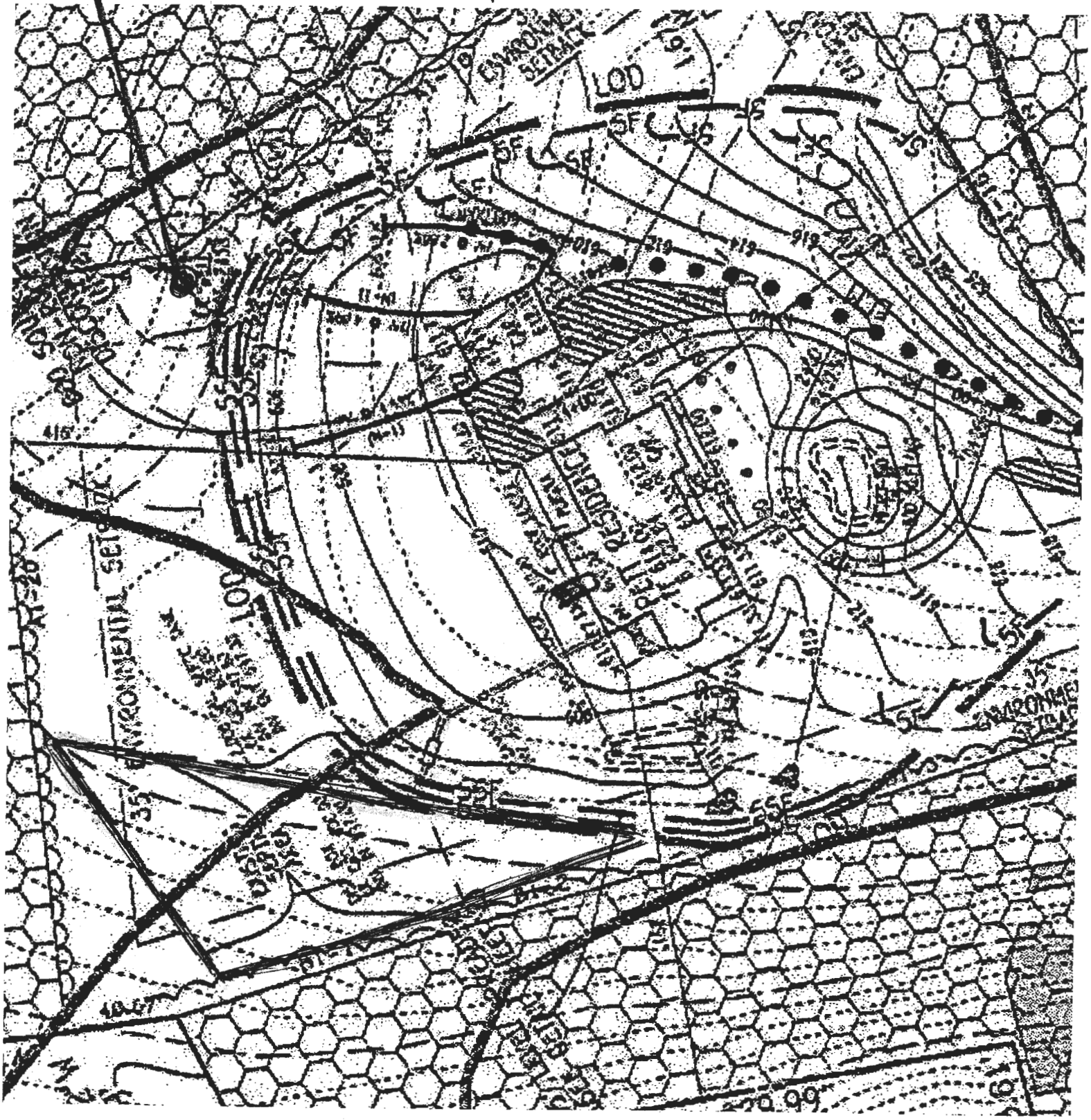
from

100
Well

• - Geo
الجب

Scale: 1" = 60'

Well locations
approved
1/31/14
AG
Tag # 95-2641



GRADE

EACH BORE HOLE (TOP)

SEE PLAN

IDENTIFICATION BARS
DEPTH 3/4"

FOR CONE
SEE PLAN

Anchor
TAPPING

Bore Diameter

TAPE

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

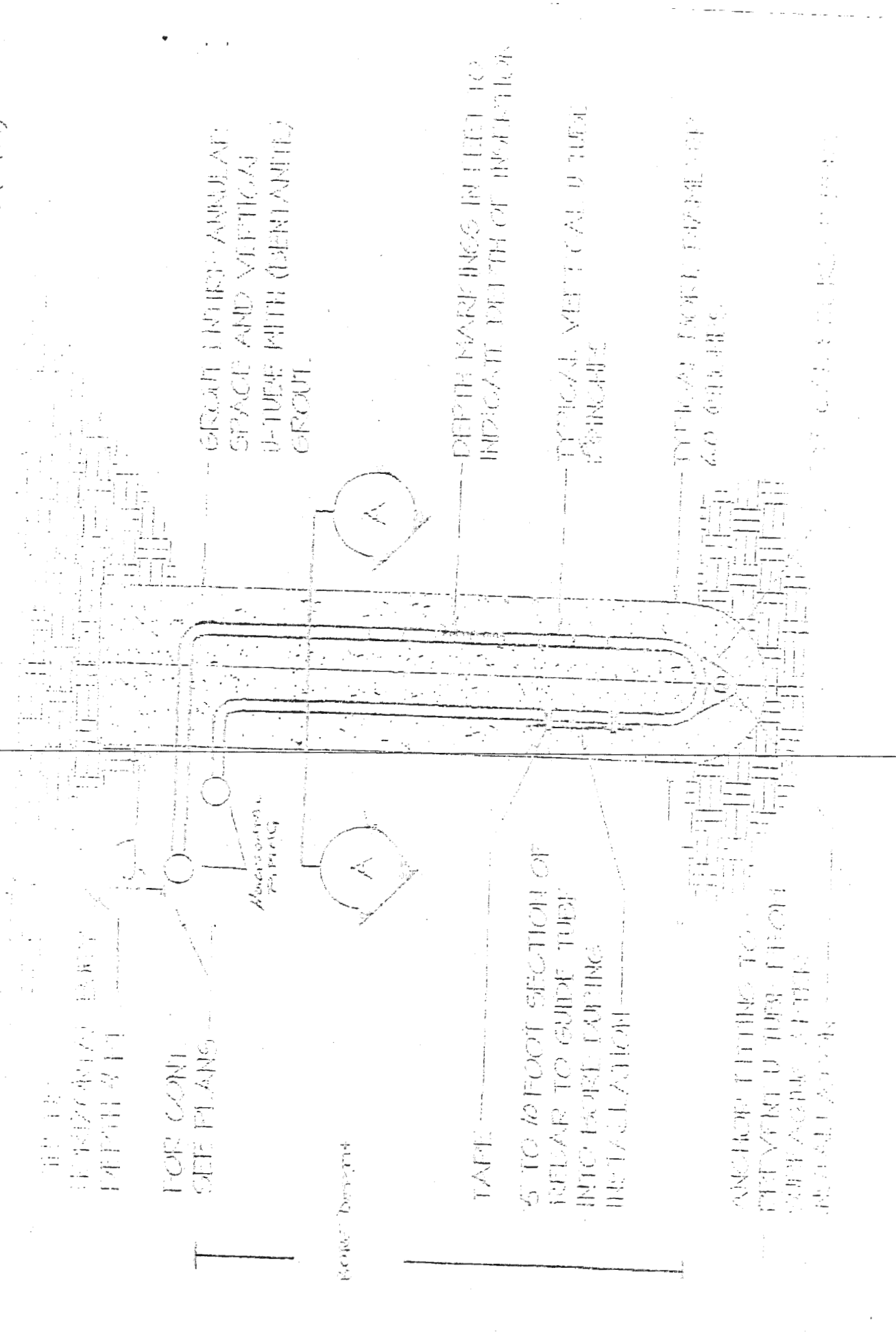
GROUT THREE ANNUAL
SPACE AND VERTICAL
U-TUBE WITH (BENTONITE)
GROUT.

DEPTH MARKINGS IN FEET TO
INDICATE DEPTH OF INSTALLATION

TYPICAL VERTICAL U-TUBE
SPACING

TYPICAL BORE DIAMETER
6.0 BORE HOLE

ANCHOR FITTING TO
FITMENT U-TUBE FITTING
WITH ANGLE FITTER
AS SHOWN



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

46243

CODES

DATE
1/29/14

05

CASH
 CHECK
 NO. 10570

Received From

Alleged Environment

For

Well Permit - 1000 Rt. 97

One hundred sixty 4/100 Dollars

\$ 160.00

Received By

J. King