

C1 9364

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 GOLS. 3-6 ON ALL CARDS)

COUNTY NUMBER

ST/CO USE ONLY DATE Received

DATE WELL COMPLETED 08 25 08

Depth of Well 400

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-1622

OWNER Brophy, STREET OR RFD 2818 Glenwood Springs Road, TOWN Glenwood Springs, SUBDIVISION Glenwood Springs, SECTION, LOT 40

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 (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Rows include Soft Brown, Hard Gray, Med hard Tan, Hard Gray.

NUMBER OF UNSUCCESSFUL WELLS: 0

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. MW D304, DRILLERS SIGNATURE David Kelly

LIC. NO. MW D564, DRILLERS SIGNATURE Matt Moffitt

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

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES (Y) NO (N)

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

NO. OF BAGS 25 NO. OF POUNDS 1250

GALLONS OF WATER 525

DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 400 ft. BOTTOM 58

CASING RECORD

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)

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

SCREEN RECORD

ST STEEL, BR BRASS, HO OPEN HOLE, PL PLASTIC, OT OTHER

DEPTH (nearest ft.)

Table with columns: E A C H S R E N, rows for casing depth intervals.

DIAMETER OF SCREEN (NEAREST INCH) 56 to 60

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

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

PUMP INSTALLED

DRILLER INSTALLED PUMP 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

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

PUMP HORSE POWER 37 41

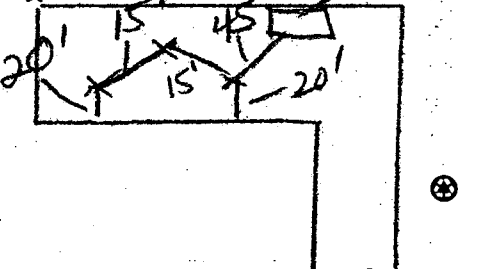
PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height)

LAND SURFACE (nearest foot) + above, - below

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL) Garage



C1 9389

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)

COUNTY NUMBER

ST/CO USE ONLY DATE Received

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

8 13

06 25 08

400

10-95-1602

OWNER Brophy, STREET OR RFD 2818 Glenwood Springs Road, TOWN Glenwood Springs, SUBDIVISION Glenwood Springs, SECTION, LOT 40

WELL LOG

Not required for driven wells

GROUTING RECORD

WELL HAS BEEN GROUTED (Y), TYPE OF GROUTING MATERIAL (CM, BC), NO. OF BAGS 25, NO. OF POUNDS 1250, GALLONS OF WATER 225, DEPTH OF GROUT SEAL 400

C 3

PUMPING TEST

HOURS PUMPED 8.9, PUMPING RATE 11-15, METHOD USED TO MEASURE PUMPING RATE, WATER LEVEL, TYPE OF PUMP USED (A, P, T, C, R, O, J, S)

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. Rows: Soft brown 0-90, hard gray 90-95, med hard tan 95-105, Hard gray 105-400

CASING RECORD (ST, CO, PL, OT), MAIN CASING TYPE, Nominal diameter, Total depth

OTHER CASING (if used) diameter, depth

SCREEN RECORD (ST, BR, HO, PL, OT), screen type or open hole

NUMBER OF UNSUCCESSFUL WELLS: 0

Table with columns: C 2, DEPTH (nearest ft.), A, C, H, S, R, E, N. Rows: 8-11, 15-17, 21, 23-24, 26, 30-32, 36, 38-39, 41, 45-47, 51, SLOT SIZE 1, 2, 3, DIAMETER OF SCREEN 56-60

PUMP INSTALLED

DRILLER INSTALLED PUMP (YES/NO), TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O), CAPACITY GALLONS PER MINUTE, PUMP HORSE POWER, PUMP COLUMN LENGTH, CASING HEIGHT

CIRCLE APPROPRIATE LETTER A, E, P

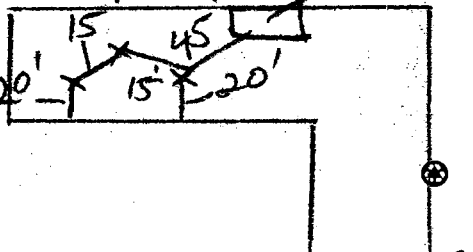
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION"

DRILLERS LIC. NO. MW 0304, David Kelly, LIC. NO. MW 0564, Matt Moffitt

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

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T, LOG INDICATOR, W Q, TELESCOPE CASING, OTHER DATA

LOCATION OF WELL ON LOT, SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



C1 9348

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 06 25 88

Depth of Well 22 400 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-1622

OWNER Brophy Peter STREET OR RFD 2818 Glenwood Springs Road TOWN Glenwood Springs SUBDIVISION Glenwood Springs SECTION LOT 40

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 (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Rows include Soft Brown, Hard Gray, Med hard Tan, Hard Gray.

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES [Y] NO [N] TYPE OF GROUTING MATERIAL (Circle one) CEMENT [CM] BENTONITE CLAY [BC] NO. OF BAGS 24 NO. OF POUNDS 200 GALLONS OF WATER 504 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 400 ft.

CASING RECORD

casings types insert appropriate code below [ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER MAIN CASING TYPE [ST] Nominal diameter top (main casing) (nearest inch) 6 Total depth of main casing (nearest foot) 95

OTHER CASING (if used)

Each casing diameter inch depth (feet) from to

SCREEN RECORD

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

DEPTH (nearest ft.)

Table with columns: E, A, C, H, S, R, E, N and rows for depth intervals (1-21, 23-36, 38-51) and slot size.

DIAMETER OF SCREEN (NEAREST INCH) from to

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

C 3

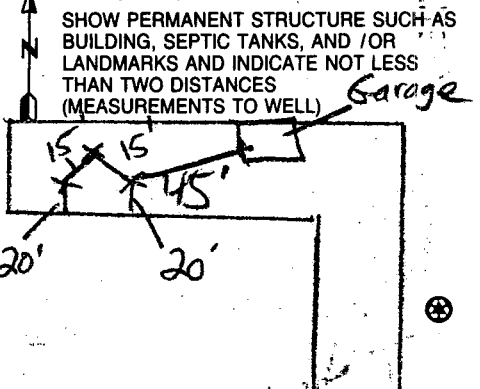
PUMPING TEST

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

PUMP INSTALLED

DRILLER INSTALLED PUMP YES NO (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.) 43 147 CASING HEIGHT (circle appropriate box and enter casing height) [+] above [-] below LAND SURFACE (nearest foot) 49 50 51

LOCATION OF WELL ON LOT



NUMBER OF UNSUCCESSFUL WELLS: 0

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

DRILLERS LIC. NO. MW D304 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. MW D564

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

Glenwood Springs Rd.

B 1 2487

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER HD-95-1622

W 528917 please type

fill in this form completely

Date Received (APA)

OWNER INFORMATION

8 MM DD YY 13 Brophy Peter
15 Last Name Owner First Name 34
2818 Glenwood Springs Rd
36 Street or RFD 55
Glenwood Md 21738
57 Town 70 State 72 Zip 76

DRILLER INFORMATION
David Kelly MWD 304
Driller's Name 76 License No. 81
Jones Well Drilling Inc
Firm Name
3700 Rush Rd Jarroville Md 21084
Address
David Kelly 4-24-08
Signature Date

WELL INFORMATION
APPROX. PUMPING RATE 0
AVERAGE DAILY QUANTITY NEEDED 0

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
G GEO-THERMAL 3 holes closed loop

APPROXIMATE DEPTH OF WELL 400 FEET
APPROXIMATE DIAMETER OF WELL 6 INCH

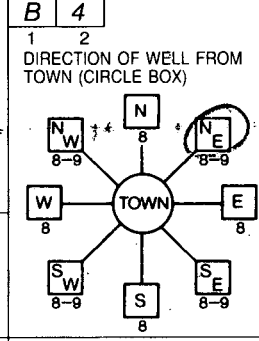
METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-Percussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT

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 DEEPEAN AN EXISTING WELL

Not to be filled in by driller (MDE OR COUNTY USE ONLY)
APPROX. PERMIT NUMBER G
PERMIT No. HD-95-1622

SPECIAL CONDITIONS
NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

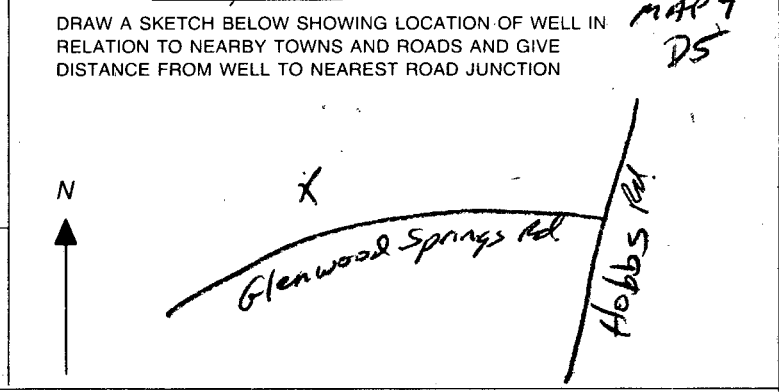
LOCATION OF WELL
Howard
8 COUNTY 21
Glenwood Springs
23 SUBDIVISION 42
SECTION 44 46 LOT 40 48 50
Glenwood
52 NEAREST TOWN 71
MILES FROM TOWN (enter 0 if in town) 73 76 77 78



2818 Glenwood Springs Rd
NEAR WHAT ROAD 430
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
NORTH
WEST EAST
SOUTH
34 400 37
DISTANCE FROM ROAD ENTER FT OR MI 38 39
TAX MAP: 14 BLK: 17 PARCEL 229

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL
Howard A 38388
COUNTY NAME COUNTY NO.
STATE SIGNATURE INSERT S
DATE ISSUED 5/12/09 5/12/09
CO SIGNATURE EXP. DATE
NORTH GRID 53 000 EAST GRID 795 000
50 55 57 63

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
SOURCES OF DRILLING WATER
1.
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE
E 795
N 533



**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WATER AND SEWERAGE PROGRAM
TEL: (410)313-2640 FAX: (410)313-2648**

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: _____ Telephone #: _____
Address: _____

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer

License # and name of individual responsible for the field installation:

Name (Print): _____ License# _____

***A licensed individual must perform the actual installation. Apprentices must be under the direct supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification.**

Name of Property Owner: _____ Telephone #: _____

Subdivision: Glenwood Springs Lot #: 40 Well Tag #: HO - _____ → Tag Buried

Site Address: 2818 Glenwood Springs Dr.

Submersible Pump Data

Make: _____
Model #: _____
Pump Capacity _____ GPM
Well Yield: _____ GPM

Pitless Adapter

Make: _____
Model#: _____
Depth: _____ (36" min)
NSF approved: _____

Well Cap and Electric Conduit

Two piece watertight cap: _____
Screened, vented well cap: _____
Cap secured to casing: _____
Conduit min 18" B.G.: _____
Conduit secured to well cap: _____

Depth of well encountered at time of pump installation: _____ (feet)
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Torque arrestors or Cable guards are required - Must circle one

Safety rope, if used, attached to inside of well casing with eye bolt _____

Piping to house

Type: _____
PSI: _____ (160 psi min)
Depth of supply line: _____ (36" min)

House Connection

PVC sleeved to undisturbed soil at wall penetration: _____
Approximate length of sleeve: _____
Sleeve caulked and sealed properly: _____

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

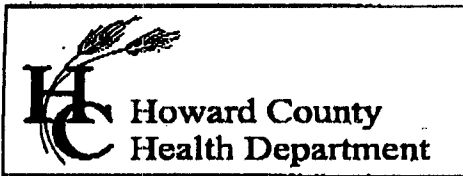
Signature of company representative responsible for installation _____ date _____

For Health Department Use Only - Not to be completed by Installer

Date Insp. Requested: 4/1/07 Date Insp. Approved: _____

Inspection Data: Pitless adapter and water supply line at least 36" below grade _____
Two piece cap installed and attached to casing securely _____
Elec. conduit extends at least 18" below grade/attached to cap properly _____
Safety rope installed inside of well casing _____
Correct well tag attached properly and casing 8" above finished grade _____
Water supply line sleeved adequately at house connection _____ 4'
Adequate grout observed below pitless adapter _____

* 4/1/07
Looks to be re-location of well line around pool. Sleeve @ house only 4'. New line not connected.
(KW)



7178 Columbia Gateway Drive, Columbia MD 21046
 (410) 313-2640 Fax (410) 313-2648
 TDD (410) 313-2323 Toll Free 1-866-313-6300
 website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

TO ALL INTERESTED PARTIES

When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

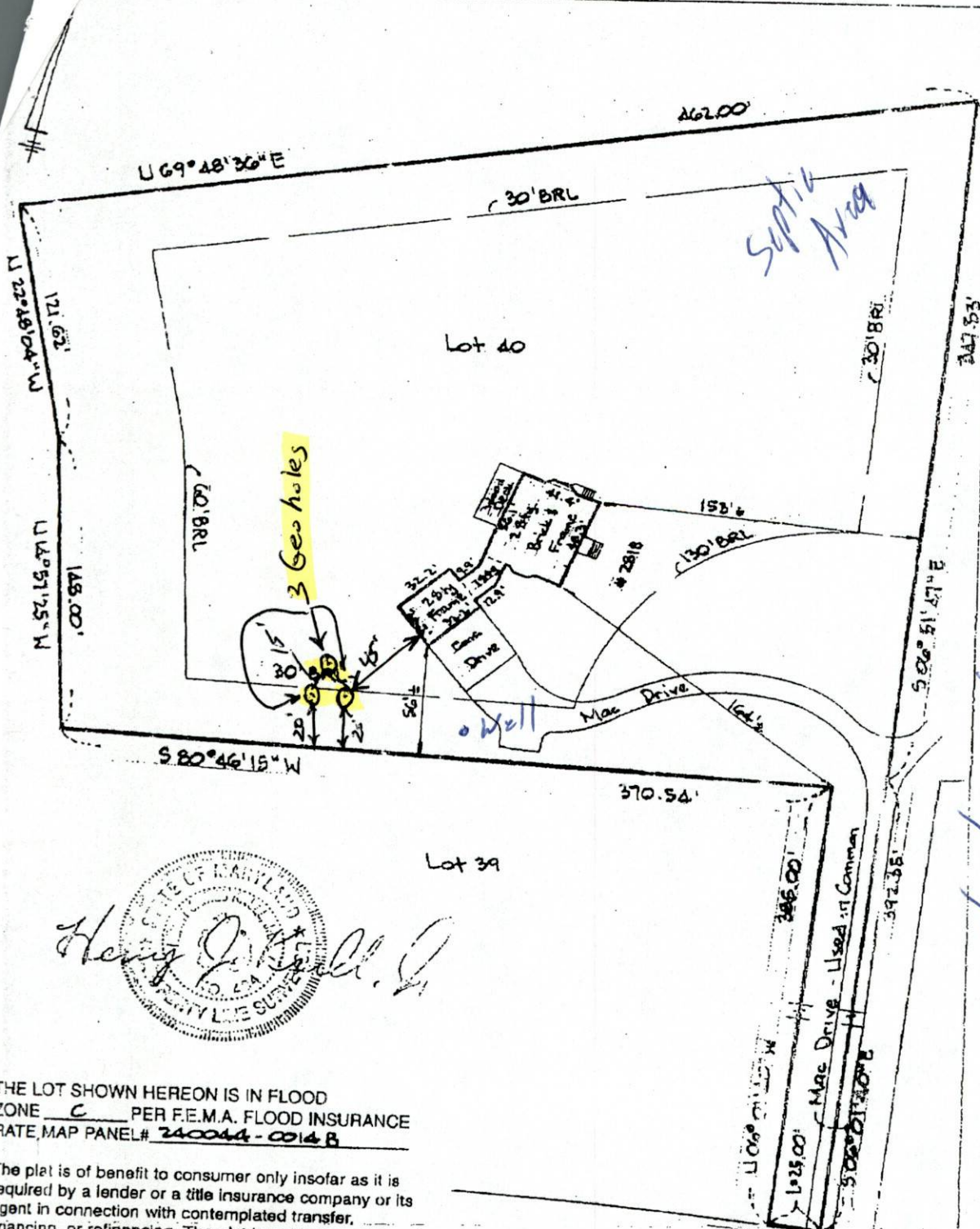
Well Site Location:

Glenwood Springs lot 40 2818 Glenwood Springs Rd
 Subdivision/Property Name Lot# Road Name

- The well site has been staked by _____,
 (professional land surveyor or company employing professional land surveyors)
 on _____ (date) and does not require a site inspection.
- The well driller, builder or property owner will call the Health
 Department to schedule a time to meet in the field to verify the
 proposed well site location.

This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.

Revised 3/11/05



5/12/08 Geo well sites OK
 (Signature)

Henry J. [Signature]
 Notary Seal: STATE OF MARYLAND, COUNTY OF BALTIMORE, Notary Public, Commission Expires 06/30/07

THE LOT SHOWN HEREON IS IN FLOOD ZONE C PER F.E.M.A. FLOOD INSURANCE RATE MAP PANEL# 240044-0014B

The plat is of benefit to consumer only insofar as it is required by a lender or a title insurance company or its agent in connection with contemplated transfer, financing, or refinancing. The plat is not to be relied upon for the establishment or location of fences, garages, buildings, or other existing or future improvements. The plat does not provide for the accurate identification of property boundary lines, but such identification may not be required for the transfer of title or securing financing or refinancing. The plat contains a tolerance of accuracy of two feet, more or less.

GLENWOOD SPRINGS DRIVE
 50' R/W

Ertel Associates, Inc.
 8425 Hallmark Circle
 Baltimore, Maryland 21234
 Phone: 410-882-0989 • Fax: 410-882-0842

LOCATION DRAWING		
* 2818 GLENWOOD SPRINGS DRIVE; LOT 40		
" GLENWOOD SPRINGS, S.1, A.1, LOTS 1-44, SHT. 7		
OF T. HOWARD CO., MD. PLAT CMP 764-B		
DATE:	SCALE:	FILE:
8/8/02	1"=60'	KF

Scale OFF
 1"=75'

Howard
County

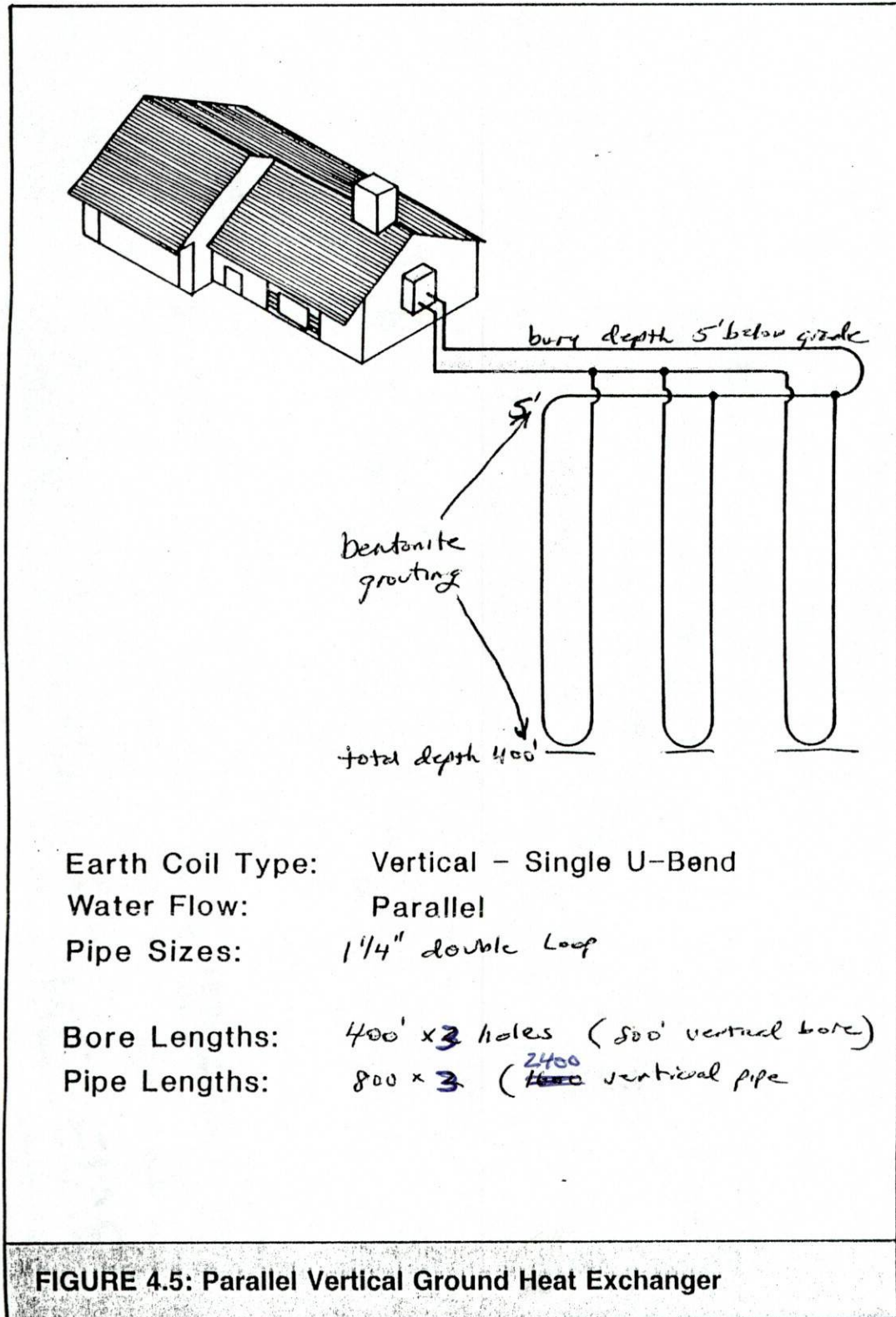


FIGURE 4.5: Parallel Vertical Ground Heat Exchanger