

(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS) FILL IN THIS FORM COMPLETELY PLEASE TYPE COUNTY NUMBER **13**

ST/CO USE ONLY DATE Received **MM 12 DD 19 YY 23** DATE WELL COMPLETED **11/29/2023** Depth of Well **500 x 2** PERMIT NO. FROM "PERMIT TO DRILL WELL" **AD-20-0302**

OWNER **WORKS+PIN ANDY** last name first name TOWN **Ellicott City** WELL SITE ADDRESS **11224 Castle Lane** SUBDIVISION **Bluffs 614** SECTION LOT **56**

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 | |
| soft brown | 0 | 132 | ✓ |
| med brown | 132 | 148 | ✓ |
| med brown | 148 | 170 | |
| med brown | 170 | 174 | |
| hard limestone | 174 | 235 | |
| hard limestone | 235 | 240 | ✓ |
| hard limestone | 240 | 500 | |

Installed 1 1/2" geo loops

GROUTING RECORD (Circle Appropriate Box) **Y** **N**

WELL HAS BEEN GROUTED

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

NO. OF BAGS **78** NO. OF POUNDS **3799**

GALLONS OF WATER **1500**

DEPTH OF GROUT SEAL (to nearest foot)
from **0** TOP **52** ft. to **500** BOTTOM **58** ft.
(enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

ST **CO**
STEEL CONCRETE

PL **OT**
PLASTIC OTHER

MAIN CASING TYPE **ST** Nominal diameter top (main) casing (nearest inch) **6** Total depth of main casing (nearest foot) **176**

60 61 63 64 65 66 70

OTHER CASING (if used)

diagram diameter depth (feet)
inch from to

ST **5** **147** **189**

SCREEN RECORD

screen type or open hole (insert appropriate code below)

ST **BR** **HO**
STEEL BRASS OPEN HOLE

PL **OT**
PLASTIC OTHER

NUMBER OF UNSUCCESSFUL WELLS: **2**

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. **MWD 304**

DRILLERS SIGNATURE **[Signature]**

LIC. NO. **WDO 127**

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

C2 DEPTH (nearest ft.)

1 8 9 11 15 17 21

2 23 24 26 30 32 36

3 38 39 41 45 47 51

SLOT SIZE 1 2 3

DIAMETER OF SCREEN (NEAREST INCH)
58 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

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** 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 **29**

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

PUMP HORSE POWER **37** **41**

PUMP COLUMN LENGTH (nearest ft.) **40** **47**

CASING HEIGHT (circle appropriate box and enter casing height)

+ above } LAND SURFACE (nearest foot)

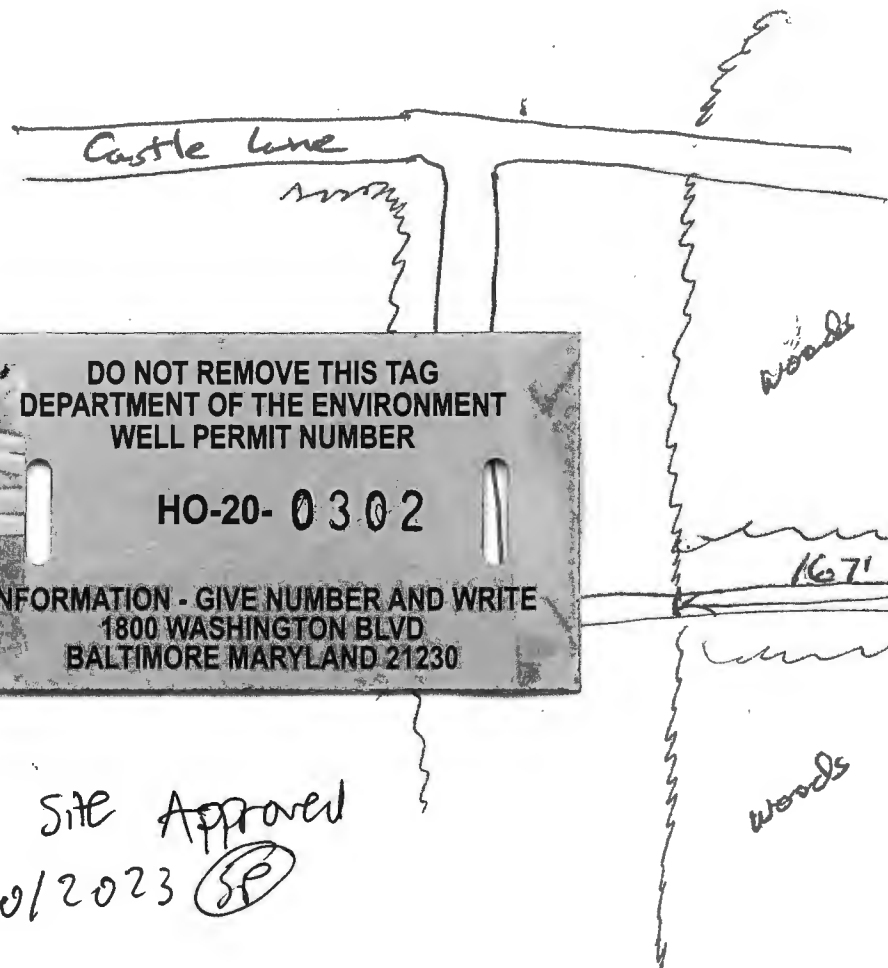
- below }

LATITUDE **39.297204**

LONGITUDE **76.912401**

(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.



Geo Holes

| | A | B |
|---|----|----|
| 1 | 63 | 74 |
| 2 | 54 | 55 |
| 3 | 48 | 66 |

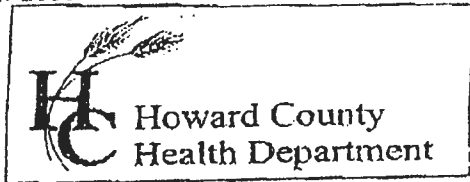
DO NOT REMOVE THIS TAG
 DEPARTMENT OF THE ENVIRONMENT
 WELL PERMIT NUMBER
HO-20-0302
 INFORMATION - GIVE NUMBER AND WRITE
 1800 WASHINGTON BLVD
 BALTIMORE MARYLAND 21230

well site Approved
 9/20/2023 (SP)

Not to scale.

HVAC
 Contractor
 Waterville Geo
 Joe Spdyke
 410-879-0292

owner: Andy Walkstein
 11424 Castle Lane
 Ellicott City Md 21042



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:

| | | |
|---------------------------|-----------|-------------------------|
| <u>Kings Gift</u> | <u>56</u> | <u>11424 Route Line</u> |
| Subdivision/Property Name | Lot# | Road Name |

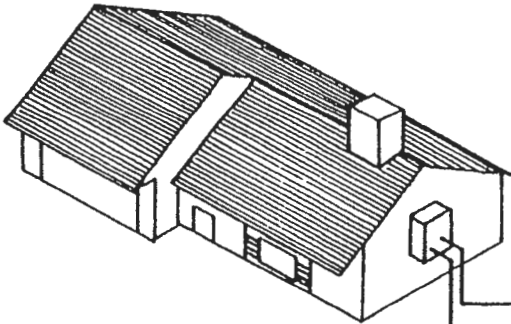
The well site has been staked by Well Driller
 (professional land surveyor or company employing professional land surveyors)
 on _____ (date) and does not require a site inspection.

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.

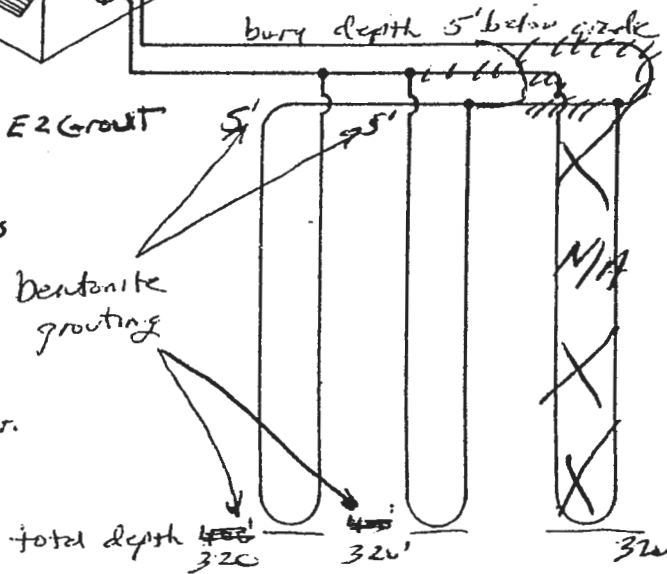
This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.

Revised 3/11/05

Driller: Jones Well Drilling
 contact: David Kelly
 410-692-6981



Wyo-Ben bentonite-E2 Grout
 grout (50 lb. bags)
 mixed with 24 gallons
 of water per
 manufacturer specs
 yields 27 gal slurry
 with a 0.42 btu-ft/ft-hr.
 thermal conductivity



Earth Coil Type: Vertical - Single U-Bend
 Water Flow: Parallel
 Pipe Sizes: 1 1/4" double Loop

Bore Lengths: 320' x 3 holes (~~660'~~ vertical bore)
 Pipe Lengths: ~~660' x 2~~ (vertical pipe)
 960' x 2 1920'

FIGURE 4.5: Parallel Vertical Ground Heat Exchanger