

C 1 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) FILL IN THIS FORM COMPLETELY PLEASE TYPE COUNTY NUMBER 13

ST/CO USE ONLY DATE Received MM 02 DD 29 YY 13 DATE WELL COMPLETED MM 2 DD 29 YEAR 13 Depth of Well 400' (TO NEAREST FOOT) PERMIT NO. FROM "PERMIT TO DRILL WELL" MD 14240-22-0119

OWNER _____ WELL SITE ADDRESS 8711 Courage Hills Dr TOWN 1 SUBDIVISION _____ SECTION _____ LOT 44

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	
<u>Blue Sand</u>	<u>0</u>	<u>58</u>	
<u>Red Clay</u>	<u>58</u>	<u>120</u>	
<u>Grey Rock</u>	<u>120</u>	<u>400</u>	

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

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

NO. OF BAGS 20 NO. OF POUNDS 500

GALLONS OF WATER 500

DEPTH OF GROUT SEAL (to nearest foot) from 0 TOP 52 ft. to 400 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) _____

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

SCREEN RECORD
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) _____

PUMPING RATE (gal. per min.) _____

METHOD USED TO MEASURE PUMPING RATE _____

WATER LEVEL (distance from land surface)

BEFORE PUMPING _____ ft.

WHEN PUMPING _____ 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 (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) _____

PUMP HORSE POWER _____

PUMP COLUMN LENGTH (nearest ft.) _____

CASING HEIGHT (circle appropriate box and enter casing height) _____

LAND SURFACE (nearest foot) _____

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES NO

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

C 2 DEPTH (nearest ft.)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
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SLOT SIZE 1 _____ 2 _____ 3 _____

DIAMETER OF SCREEN _____ (NEAREST INCH) _____

DRILLERS LIC. NO. M D C1

DRILLERS SIGNATURE Wesley A. Wolfe

LIC. NO. D

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 31.17027

LONGITUDE 76.8463

(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.

B 1 72273

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type

STATE PERMIT NUMBER HO-22-0119 fill in this form completely

OWNER INFORMATION: Date Received (APA) 1/26/23, Carpenter Michael Scott, 8711 Carriage Hills Dr, Columbia MD 21046

LOCATION OF WELL: Howard County, Carriage H. Hs., Section 46, Lot 44, Columbia

DRILLER INFORMATION: Wesley Wolfe, MWD 598, Allied Well Drilling, 129A Woodloch Parkway MD 20701, 12/22/23

SOURCES OF DRILLING WATER: 1. Public, 8711 Carriage Hills Dr, 14' distance from road, Tax Map 0042, Parcel 0015

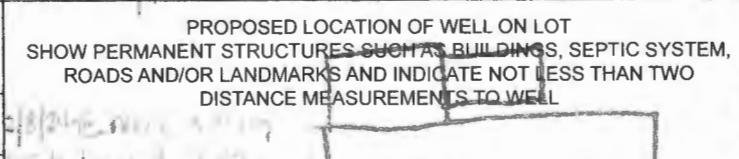
WELL INFORMATION: APPROX. PUMPING RATE (GAL. PER MIN.) 8, AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL: Howard County, 13, State Signature, Date Issued 2/1/2024, Exp. Date 2/1/2025

USE FOR WATER (CIRCLE APPROPRIATE BOX): [C] CLOSED LOOP GEOTHERMAL 1 loop

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

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



METHOD OF DRILLING (circle one): BORED (or Augered) AIR-ROTary, JETTED AIR-PERCussion, Jetted & DRIVEN ROTARY (Hydraulic Rotary), Drive-POINT

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX): [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX): [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

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

Not to be filled in by driller (MDE OR COUNTY USE ONLY): APPROP. PERMIT NUMBER G, PERMIT No. HO-22-0119

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.

SPECIAL CONDITIONS: Please Grout from Bottom to Top

RECEIPT

Howard County, MD
HOWARD COUNTY HEALTH DEPARTMENT
ASCEND ONE BUILDING
Columbia, MD 21045
8930 STANFORD BLVD

Application: WS-WP-23-03525
Application Type: EnvHealth/Well and Septic/Installation/Application
Address: 8711 Carraige Hills DR,

Receipt No.	8606					
Payment Method	Ref Number	Amount Paid	Payment Date	Cashier ID	Received	Comments
Check	31555	\$160.00	12/26/2023	JUKING		Receipt # 75745

Work Description: Well Permit/ 8711 Carriage Hills Dr

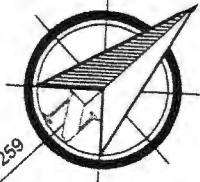
2/9/24 = Sediment fence's pump truck for excess water removal during drilling @



DO NOT REMOVE THIS TAG
DEPARTMENT OF THE ENVIRONMENT
WELL PERMIT NUMBER

HO-22-0119

INFORMATION - GIVE NUMBER AND WRITE
1800 WASHINGTON BLVD
BALTIMORE MARYLAND 21230



N 63°20'05" W
17.25' (Comp)
17.38' (Plat)

PLAT No. 8239

"SOLAR VILLAGE"
PLAT No. 3966

LOT 2

N 41°42'59" E
37.50'

IPF

FENCE CORNER
0.8' ± OVER

FENCE LINE 1.2' ON

FENCE CORNER
ON LINE ±

RCS

RCS

WALL

ASPHALT
WALL END
1.0' ± OVER

WALL CORNER
1.0' ± OVER

WALL

APPARENT
ENCROACHMENT
1.0' ± WALL

FENCE LINE
ON LINE ±

PLATTED 30' B.R.L.

LOT 44
8,810 Sq. Ft.

PLATTED 30' B.R.L.

GAZEBO

DECK

DECK

SHED

FENCE CORNER
0.8 ± ON

FENCE CORNER
0.2' ± ON

CURVE TABLE			
CURVE	RADIUS	LENGTH	DELTA
C1	2681.67'	72.00'	01°32'18"
		CHORD	S 42°29'08" W 72.00'

LOT 3

N 48°17'01" W
110.00'

PLATTED 5' B.R.L.

32.8

#8711
SPLIT FOYER
BRICK & FRAME

52.4

9.7' ±

PLATTED 7' B.R.L.

40.2

PLATTED 7' B.R.L.

9.6' ±

PLATTED 7' B.R.L.

24.3

PLATTED 7' B.R.L.

23.1' ±

PLATTED 7' B.R.L.

UTILITY BOXES

RCS

PLATTED 7' B.R.L.

23.1' ±

PLATTED 7' B.R.L.

23.1' ±

PLATTED 7' B.R.L.

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PLATTED 7' B.R.L.

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23.1' ±

PLATTED 7' B.R.L.

23.1' ±

PLATTED 7' B.R.L.

R=2,681.67'
L=72.00'
C1

CARRIAGE HILL DRIVE

LEGEND:

- IPF - IRON PIPE FOUND
- RCS - REBAR & BLUE CAP SET
- * - FENCE (LOCATIONS AND DIMENSIONS SHOWN REFER TO CENTER OF POSTS)

11-20'

BOUNDARY SURVEY OF:

#8711 CARRIAGE HILL DRIVE
LOT 44 SHEET No. 1 OF 2
CARRIAGE HILLS

A Land Surveying Company



DULEY
and
Associates, Inc.

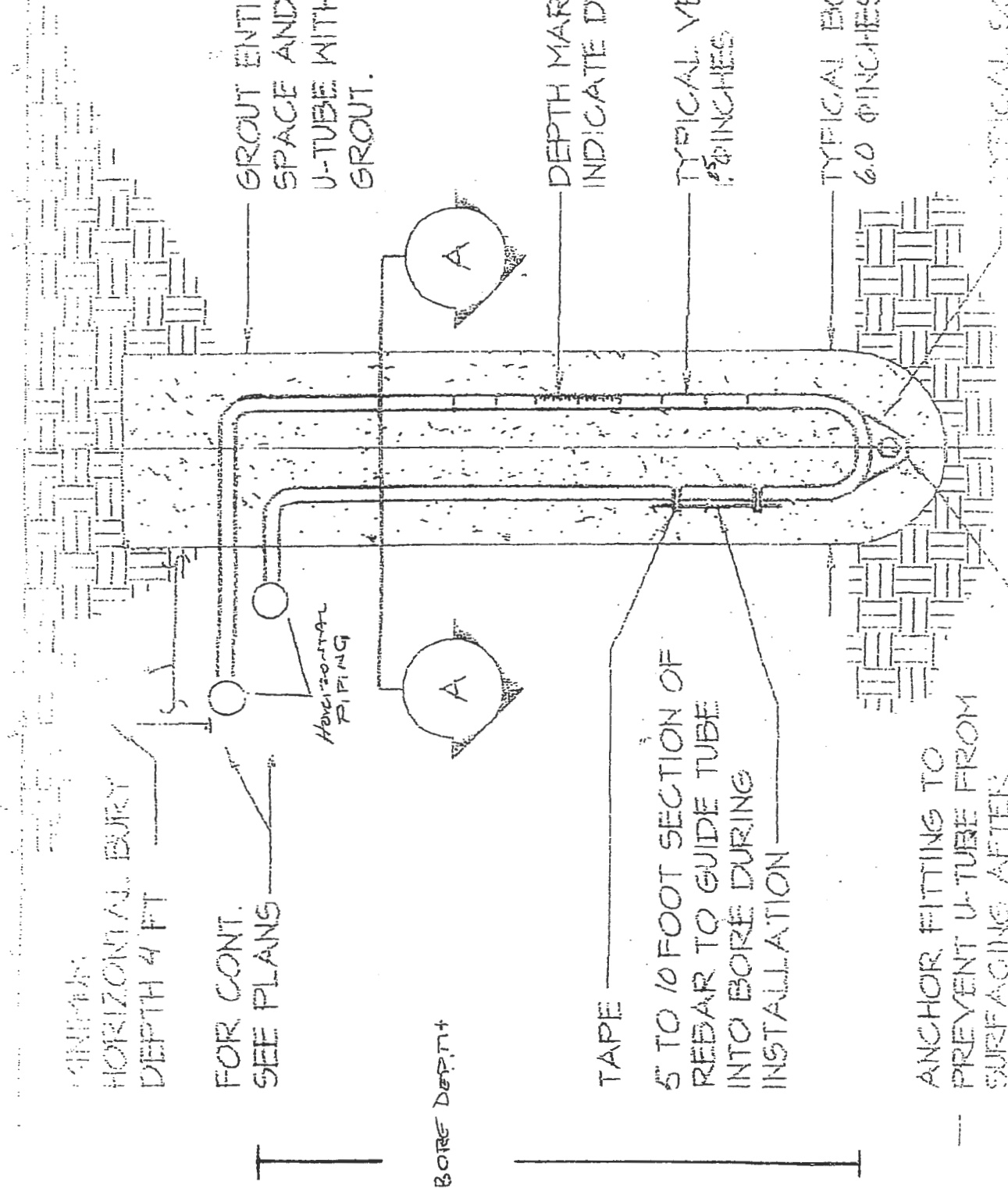


HOWARD COUNTY GROUTING PROCEDURE

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 2.5×10^{-8} 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.)



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

DEPTH MARKINGS IN FEET TO INDICATE DEPTH OF INSERTION

TYPICAL VERTICAL U-TUBE 6.0 PINCHES

TYPICAL BORE DIAMETER 6.0 PINCHES

ANCHOR FITTING TO PREVENT U-TUBE FROM SURFACING AFTER INSTALLATION

TYPICAL SOCKET U-TUBE