

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

ST/CO USE ONLY DATE Received DATE WELL COMPLETED Depth of Well PERMIT NO. FROM "PERMIT TO DRILL WELL"

MM DD YY MM DD YY 22 320 26 01 15 0253

8 01 13 15 09 20 (TO NEAREST FOOT) 7112/16SC 28 29 30 31 32 33 34 35 36 37

OWNER: Myers M. Howard Mary
 WELL SITE ADDRESS: 15912 Meadow walk Rd TOWN: Woodbine md 21797
 SUBDIVISION: _____ SECTION: _____ LOT: _____

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	
Top Soil	0	2	
Backfill	2	5	
Silty Sand	5	150	
Schist	150	320	

GROUTING RECORD yes no
 WELL HAS BEEN GROUTED Y N
 (Circle Appropriate Box) 44 44
 TYPE OF GROUTING MATERIAL (Circle one)
 CEMENT CM BENTONITE CLAY BC
 NO. OF BAGS 48 NO. OF POUNDS 2400
 GALLONS OF WATER 912
 DEPTH OF GROUT SEAL (to nearest foot)
 from 0 TOP 52 ft. to 320 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)
ST 6 160
 60 61 63 64 66 70

OTHER CASING (if used)
 diameter inch depth (feet) from to
 E A C H C A S I N G

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

NUMBER OF UNSUCCESSFUL WELLS: 0
 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 572
 DRILLERS SIGNATURE Samuel A. Connelly
 (MUST MATCH SIGNATURE ON APPLICATION)
 LIC. NO. WRD 064

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

C 2 DEPTH (nearest ft.)
 1 2
 E A C H S C 3 R E E N
 8 9 11 15 17 21
 23 24 26 30 32 36
 38 39 41 45 47 51
 SLOT SIZE 1 _____ 2 _____ 3 _____
 DIAMETER OF SCREEN (NEAREST INCH)
 56 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

C 3 PUMPING TEST
 1 2
 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. _____ 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)
 4 above } LAND SURFACE
 below } 2 (nearest foot)
 49 50 51

LATITUDE 39.282328
 LONGITUDE 77.892433
 (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	SEQUENCE NO. (MDE USE ONLY) 46368	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 558727 please type	STATE PERMIT NUMBER HO-15-0253 <small>70 fill in this form completely 79</small>
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OWNER INFORMATION

Date Received (APA) **05/20/16**
8 MM DD YY 13

Last Name **Myers** Owner **Milton + Mary** First Name **Milton**
15 Last Name 34

Street or RFD **15912 Meadow Walk Rd**
36 Street or RFD 55

Town **Woodbine** MD State **MD** Zip **21797**
57 Town 70 State 72 Zip 76

LOCATION OF WELL

Howard COUNTY 8 COUNTY 21

Daisy Hill Estate SUBDIVISION 23 SUBDIVISION 42

SECTION **18** LOT **18**
44 46 48 50

Woodbine NEAREST TOWN 52 NEAREST TOWN 71

DRILLER INFORMATION

Driller's Name **Samuel A. Connelly** MWD License No. **572**
76 License No. 81

Firm Name **Connelly + Associates, Inc.**

Address **260 Interstate Ct. Frederick, MD 21704**

Signature **Samuel A. Connelly** Date **5/19/16**
Signature Date

SOURCES OF DRILLING WATER

1. **Private**

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
34 250 37 WEST EAST NORTH SOUTH

DISTANCE FROM ROAD **ET**
ENTER FT OR MI 38 39

TAX MAP: **13** BLK: **18** PARCEL **226**

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)

INDUSTRIAL, COMMERCIAL, DEWATERING

PUBLIC WATER SUPPLY WELL

TEST, OBSERVATION, MONITORING

OPEN LOOP GEOTHERMAL

CLOSED LOOP GEOTHERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

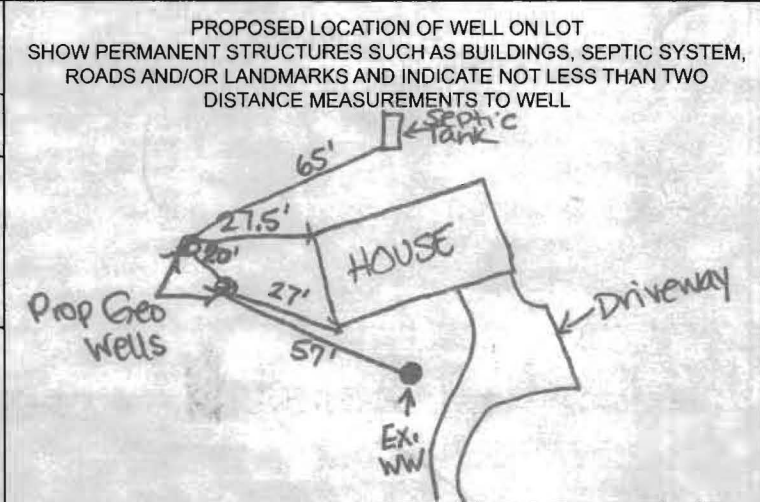
Howard COUNTY NAME **13** COUNTY NO.

STATE SIGNATURE _____ INSERT S →

DATE ISSUED **5/25/16** **5/25/17**
43 MM DD YY 48 CO SIGNATURE EXP. DATE

APPROXIMATE DEPTH OF WELL **320** FEET 24 28

APPROXIMATE DIAMETER OF WELL **6** INCH NEAREST INCH



METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jettied & DRIVEN

AIR-ROTARY AIR-PERCussion ROTARY (Hydraulic Rotary)

CABLE REVERSE-ROTARY DRIVE-POINT

other _____

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

THIS WELL WILL NOT REPLACE AN EXISTING WELL

THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

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 DEEPEIN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) _____

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

APPROP. PERMIT NUMBER _____ **G** _____

PERMIT No. **HO-15-0253**
70 71 72 73 74 75 76 77 78 79

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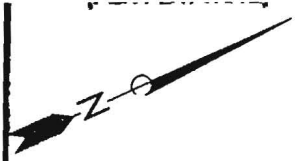
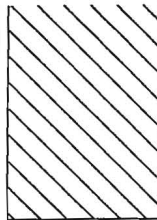
SPECIAL CONDITIONS

NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED.

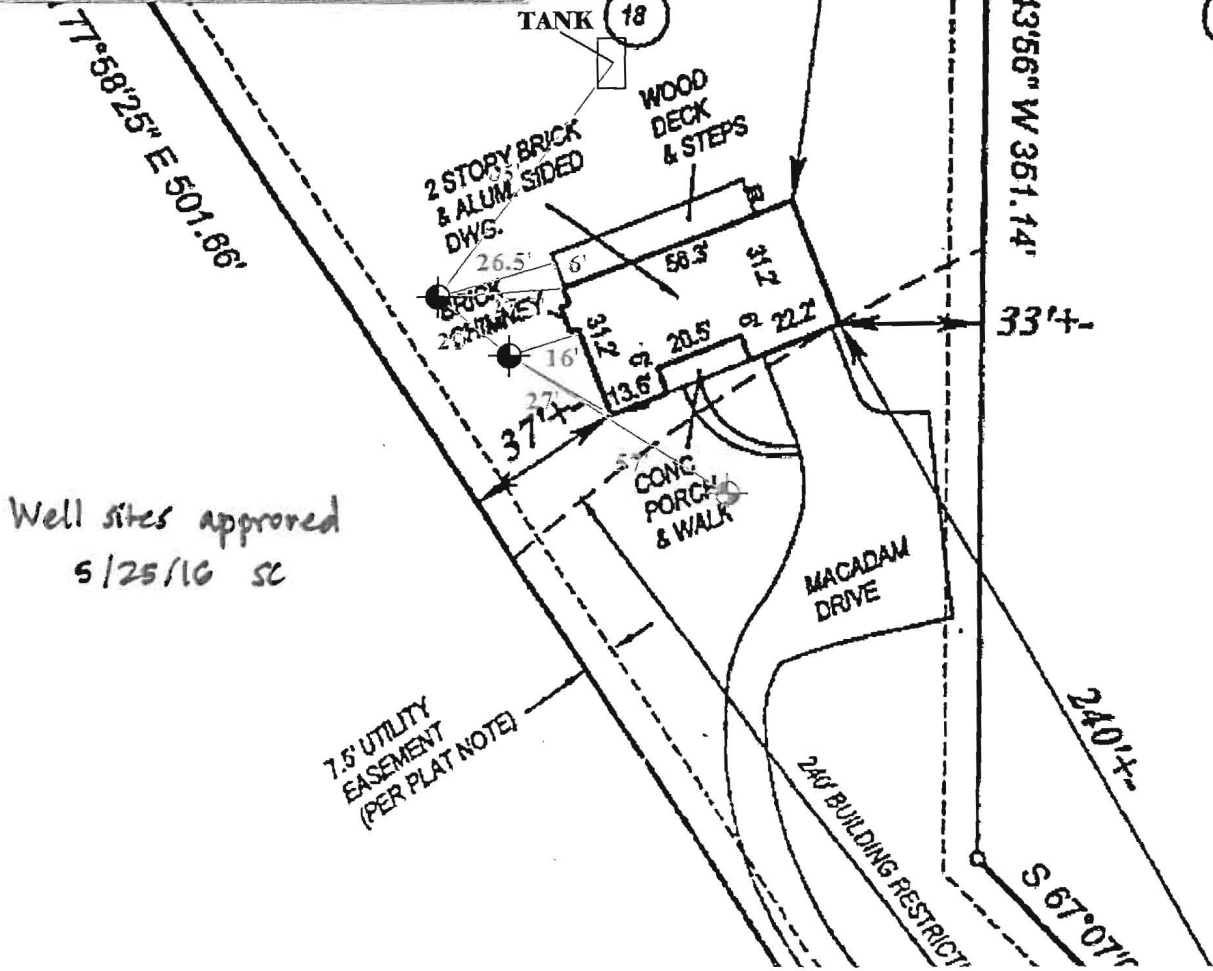
DO NOT REMOVE THIS TAG
DEPARTMENT OF THE ENVIRONMENT
WELL PERMIT NUMBER

HO-15-0253

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



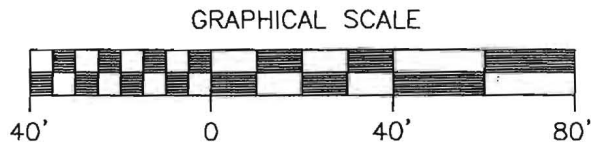
17



Well sites approved
5/25/16 SC

L E G E N D

- PROPOSED GEOTHERMAL WELL LOCATION
- APPROXIMATE EXISTING WATER WELL LOCATION
- APPROXIMATE SEPTIC DRAINAGE FIELD LOCATION



260 Interstate Court (301) 696-8820
Frederick, Maryland 21704 (301) 696-0327 fax

MYERS RESIDENCE
15912 MEADOW WALK ROAD, WOODBINE, MARYLAND

PROPOSED GEOTHERMAL WELL
LOCATION PLAN

Scale:
AS SHOWN

Fig.

Date:
MAY 2016

Drawn By:
J.A.

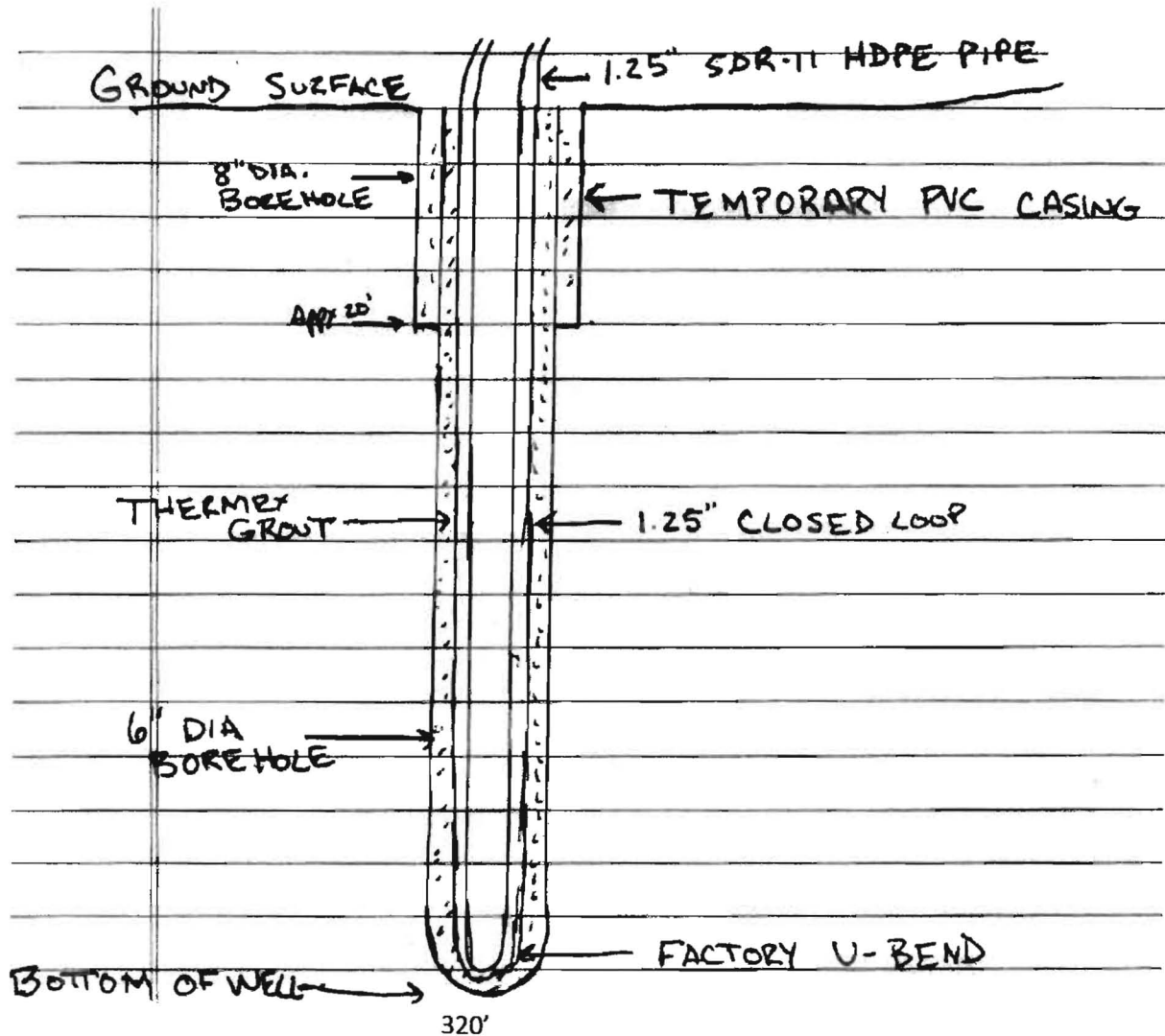
Checked By:
E.S.

Project No.:
00000

1

P:\Geothermal\2016 Projects\Waterfalls\Myers Residence\Documents\Proposed Geothermal Well Location Plan - Myers Residence.dwg

Geothermal Closed Loop – 15912 Meadow Walk Road, Woodbine, MD



Grout information for this property is as follows:

Thermex grout mixture of 50 lb. grout to 19 gallons water, placed in the well using the tremie method, from bottom to top.