

C1 41991

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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 13

ST/CO USE ONLY DATE Received MM DD YY 08 02 16

DATE WELL COMPLETED MM DD YY 07 21 16

Depth of Well 22 480 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-15-0277

OWNER Mahony Michael & Susan WELL SITE ADDRESS 4093 Columbia Pike TOWN Ellicott City SUBDIVISION Autumn Hill SECTION LOT 2

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, FEET (FROM, TO), check if water bearing. Includes entries like Top Soil, Sandy Silt, Gray/Black gneiss, Overburden, Hard Gray/Black Gneiss w/ Quartz.

GROUTING RECORD

WELL HAS BEEN GROUTED (Y) (N) TYPE OF GROUTING MATERIAL (C) (M) (B) (C) NO. OF BAGS 32 NO. OF POUNDS 1000 GALLONS OF WATER 950 DEPTH OF GROUT SEAL (to nearest foot) from 0 to 480 ft.

CASING RECORD

MAIN CASING TYPE ST Nominal diameter top (main) casing (nearest inch) 6 Total depth of main casing (nearest foot) 52

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

SCREEN RECORD

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

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 47 CASING HEIGHT (circle appropriate box and enter casing height) (+) above ( ) below LAND SURFACE 2 (nearest foot)

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED (Y) (N)

CIRCLE APPROPRIATE LETTER 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. 1 M WD 572 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. 1 WRD 064

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

C 2 DEPTH (nearest ft.)

Table with columns: E A C H S C 3 R E E N, 1 2 3, 8 9 11 15 17 21 23 24 26 30 32 36 38 39 41 45 47 51. Includes SLOT SIZE 1 2 3 and DIAMETER OF SCREEN 56 60 (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 TELESCOPE CASING LOG INDICATOR OTHER DATA 74 75 76

LATITUDE 39.258072 LONGITUDE 76.816434 (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>B 1</b>	SEQUENCE NO. (MDE USE ONLY) <b>46379</b>	STATE OF MARYLAND <b>APPLICATION FOR PERMIT TO DRILL WELL</b> 558782 please type	STATE PERMIT NUMBER <b>Ho - 15 - 0277</b> <small>70 fill in this form completely 79</small>
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**OWNER INFORMATION**

Date Received (APA) **07/05/16**  
8 MM DD YY 13

**Mahony Michael + Susan**  
15 Last Name Owner First Name 34

**4093 Old Columbia Pk.**  
36 Street or RFD 55

**ELICOTT CITY MD 21043**  
57 Town 70 State 72 Zip 76

**B 3 LOCATION OF WELL**

**Howard**  
8 COUNTY 21

**Autumn Hill**  
23 SUBDIVISION 42

SECTION **44 46** LOT **2**  
48 50

**ELICOTT CITY**  
52 NEAREST TOWN 71

**DRILLER INFORMATION**

**Samuel A. Connelly M W D 572**  
Driller's Name 76 License No. 81

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

**200 Interstate Ct, Frederick, MD 21704**  
Address

**Samuel A. Connelly 7/5/16**  
Signature Date

**B 4 SOURCES OF DRILLING WATER**

1. **private**

2.

3.

**4093 Old Columbia Pk**  
11 STREET ADDRESS 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH  
 WEST  EAST  SOUTH

34 **50** 37  
DISTANCE FROM ROAD FT

ENTER FT OR MI **FT**

TAX MAP: **24** BLK: \_\_\_\_\_ PARCEL **916**

**B 2 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)**

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 **2 bore**

**NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL**

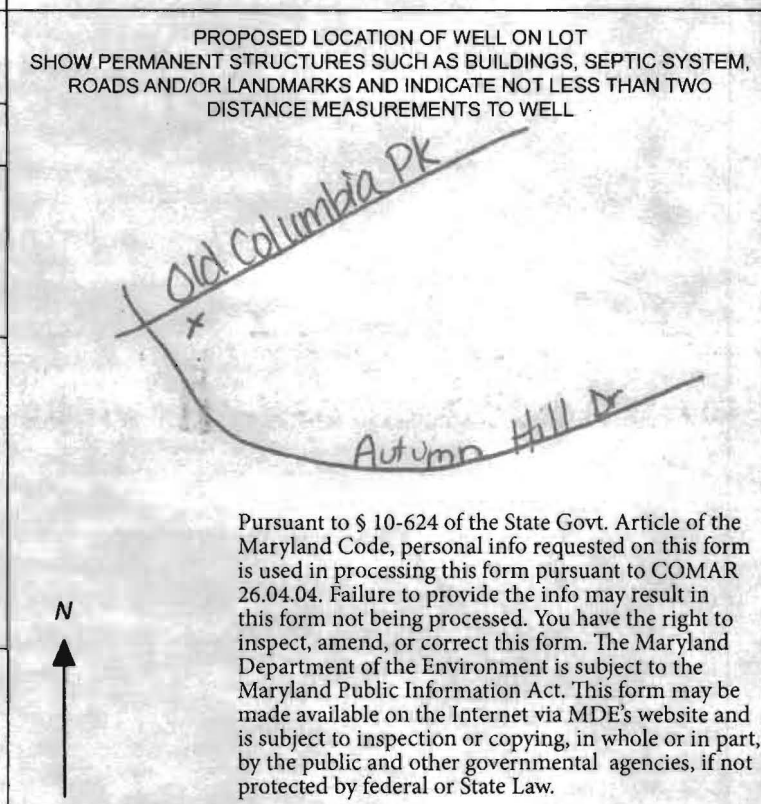
**Howard** **13**  
COUNTY NAME COUNTY NO.

STATE SIGNATURE \_\_\_\_\_ INSERT S →

DATE ISSUED **7/11/16** **RRT** **7/11/17**  
43 MM DD YY 48 CO SIGNATURE EXP. DATE 41

APPROXIMATE DEPTH OF WELL **480** FEET  
24 28

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



**METHOD OF DRILLING (circle one)**

BORED (or Augered) JETTED Jetted & DRIVEN

30 AIR-ROTary **AIR-PERCussion** ROTARY (Hydraulic Rotary)

37 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

39  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 DEEPEM 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)**

APPROX. PERMIT NUMBER \_\_\_\_\_ **G** \_\_\_\_\_

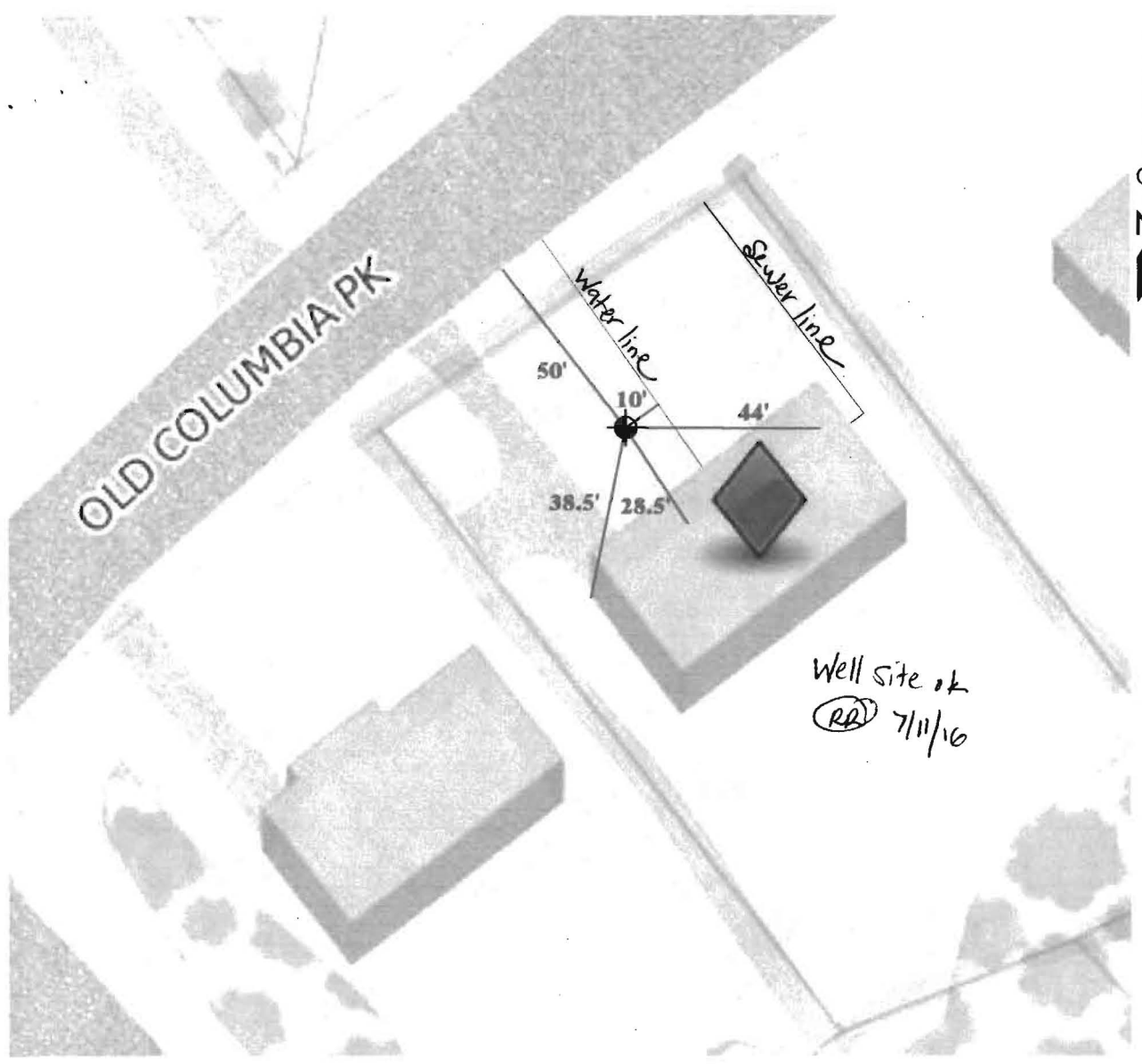
PERMIT No. **Ho - 15 - 0277**  
70 71 72 73 74 75 76 77 78 79

**SPECIAL CONDITIONS**




NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED- **well must be grouted from bottom to top.**

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F:\Geothermal\2016 Projects\Supreme Air\Mahoney Residence\Documents\4093 Old Columbia Pike, Proposed Geothermal Well Location Plan.dwg



L E G E N D

-  PROPOSED GEOTHERMAL WELL LOCATION
-  APPROXIMATE SANITARY WATER HOUSE CONNECTION
-  APPROXIMATE DOMESTIC WATER HOUSE CONNECTION

GRAPHICAL SCALE



**ConnellyGeothermal**  
Partnering with Mother Earth

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

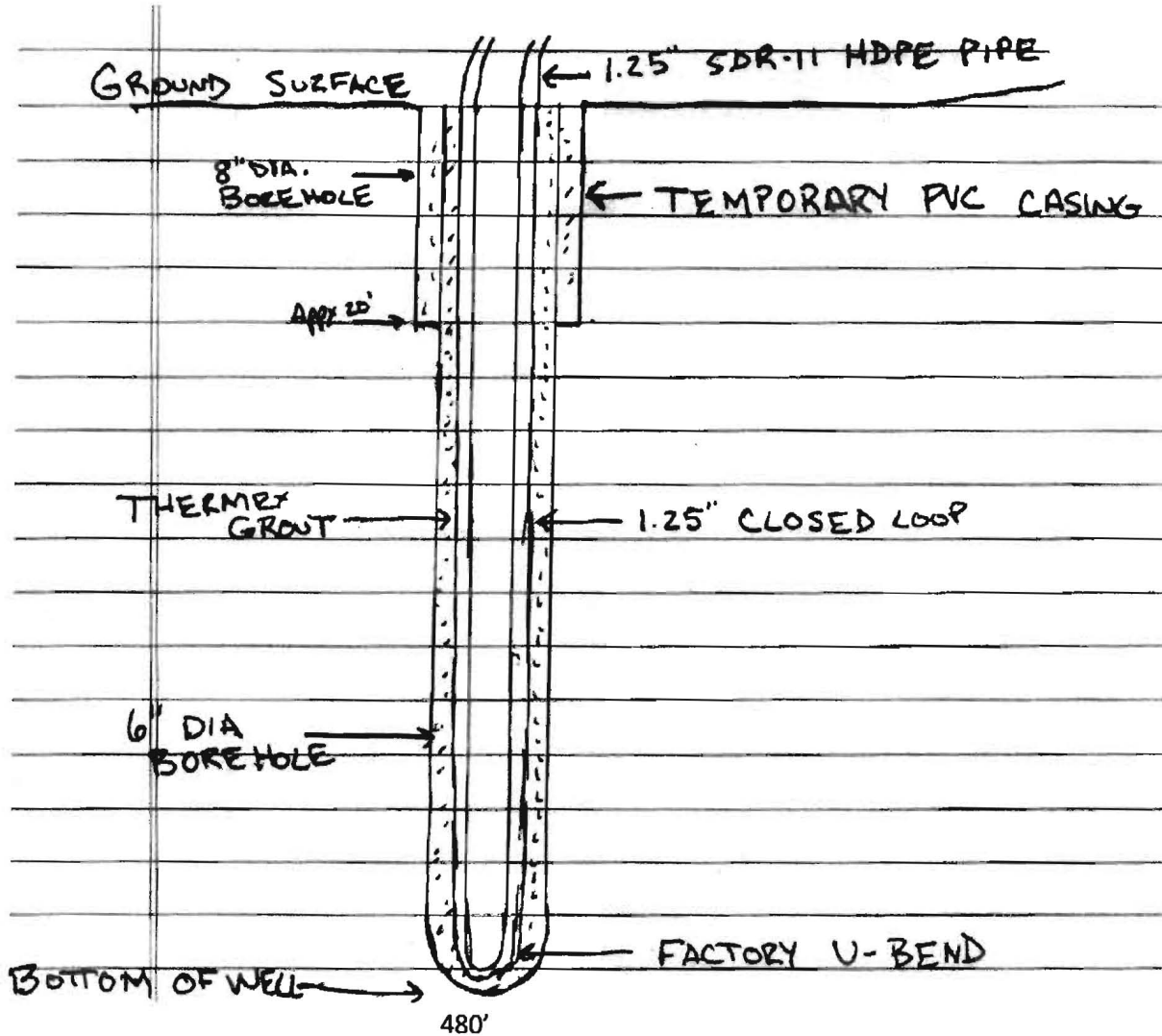
MAHONEY RESIDENCE  
4093 OLD COLUMBIA PIKE, ELLICOTT CITY, MARYLAND

PROPOSED GEOTHERMAL WELL LOCATION PLAN		Scale: AS SHOWN	Fig. 1
Date: JULY 2016	Drawn By: J.A.	Checked By: E.S.	

# Connelly Geothermal

Partnering with Mother Earth

Geothermal Closed Loop – 4093 Old Columbia Pike, Ellicott City, 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.