

C1 4420 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 2 3 10

Depth of Well 22 450 26 1/19/11 PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-1851

OWNER Lischer Roy last name first name STREET OR RFD 4680 Smokey Wreath Way TOWN Ellicott City 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 FROM TO check if water bearing Brown silty overburden 0 13 Grey rock increased hardness 13 450 29ppm @ 150ft geothermal well 1 1/4 inch loop 450 ft deep grouted 0-450 ft with thermally enhanced bentonite grout

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 45 NO. OF POUNDS 150 GALLONS OF WATER 300 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 450 ft.

CASING RECORD casing 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) 20

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 PL PLASTIC HO OPEN HOLE OT OTHER

DEPTH (nearest ft.) 1 HO 20 450

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. 1 MWD 421 DRILLERS SIGNATURE LIC. NO. 1 D

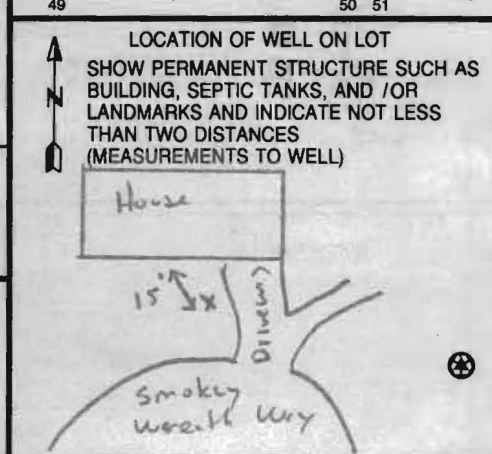
SLOT SIZE 1 2 3 DIAMETER OF SCREEN (NEAREST INCH) 58 60 from to

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.) well 11 15 METHOD USED TO MEASURE PUMPING RATE no test WATER LEVEL (distance from land surface) BEFORE PUMPING 30 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 J jet S submersible

PUMP INSTALLED DRILLER INSTALLED PUMP (CIRCLE) 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) above below LAND SURFACE 10-4 (nearest foot)



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

B 1 **8689** SEQUENCE NO. (MDE USE ONLY) STATE OF MARYLAND STATE PERMIT NUMBER  
**40-95-1851**  
 APPLICATION FOR PERMIT TO DRILL WELL **532484** please type **fill in this form completely**

Date Received (APA) \_\_\_\_\_  
 OWNER INFORMATION  
 8 MM DD YY 13  
 Lischner Ray  
 15 Last Name Owner First Name 34  
 4680 Smokey Wroath Way  
 36 Street or RFD 55  
 Ellicott H City MD 21042  
 57 Town 70 State 72 Zip 76

B 3 LOCATION OF WELL  
 8 COUNTY Howard 21  
 23 SUBDIVISION Dorsey Hall 42  
 SECTION 2 LOT B40  
 44 46 48 50  
 Ellicott H City  
 52 NEAREST TOWN 71

DRILLER INFORMATION  
 Stephen Saul MWD 421  
 76 Driller's Name License No. 81  
 B.L. Myers Bros  
 Firm Name  
 5112 Pegasus Ct Ste V Frederick MD 21704  
 Address  
 Signature Date 12-14-09

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)  
 4680 Smokey Wroath Way  
 11 NEAR WHAT ROAD 30  
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
 NORTH SOUTH WEST EAST  
 34 35 37 DISTANCE FROM ROAD ENTER FT OR MI 38 39  
 TAX MAP: 30 BLK: 4 PARCEL 396

B 2 WELL INFORMATION  
 APPROX. PUMPING RATE (GAL. PER MIN.) 0  
 8 12  
 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 0  
 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  
 G GEO-THERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL  
 Howard (13) Public  
 COUNTY NAME COUNTY NO.  
 STATE SIGNATURE INSERT S →  
 DATE ISSUED 12/23/2009 Brian Baber 12/23/2010  
 43 MM DD YY 48 CO SIGNATURE EXP. DATE  
 NORTH GRID 516 000 EAST GRID 845 000  
 50 55 57 63

APPROXIMATE DEPTH OF WELL 450 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  
 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 DEEPEMED 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)  
 APPROP. PERMIT NUMBER \_\_\_\_\_ G \_\_\_\_\_  
 PERMIT No. HO-95-1851  
 70 71 72 73 74 75 76 77 78 79

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X  
 SOURCES OF DRILLING WATER  
 1. Municipal  
 2.  
 3.  
 WRITE THE BOX NUMBER FROM THE MAP HERE  
 E 8445  
 N 516  
 000 000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION  
 House  
 10' ↓  
 85' ↑  
 Driveway  
 Smokey Wroath Way  
 Willow Street  
 Columbia Rd  
 Rt 108

SPECIAL CONDITIONS  
 NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED  
 Grant Borehole from Bottom Upward with  
 Ceramic Pipe  
 DENV-Permit 97 © COUNTY

5112 PEGASUS COURT, SUITE V  
FREDERICK, MD 21704  
WEB: BLMYERS.COM

(800) 947-5552  
(301) 668-1044  
FAX (301) 668-1042

December 15, 2009

Brian Baker  
Howard County Health Department  
Environmental Health Division  
7178 Columbia Gateway Drive  
Columbia, MD 21047  
Fax: 410 313-2648

Re: geothermal well permit application  
4680 Smokey Wreath Way, Ellicott City, Maryland

Dear Mr. Baker,

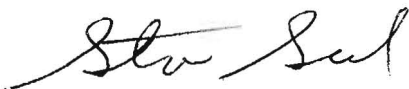
On behalf of the property owner, B.L. Myers Bros. hereby requests a variance from the minimum distance requirement for the placement of one closed loop geothermal well that is proposed to be located on the property.

Given the size and layout of the property, the placement of the wells cannot satisfy the minimum distance of 30 feet from the building foundation. Rather the proposed geothermal well would be located in the front yard at a distances of 12 feet from the foundation. It is not feasible to locate the wells further from the foundation without the drill rig encroaching on the public roadway. Furthermore, there is no drill rig access available to the back yard of the property.

We appreciate your consideration in this matter and look forward hearing from you.

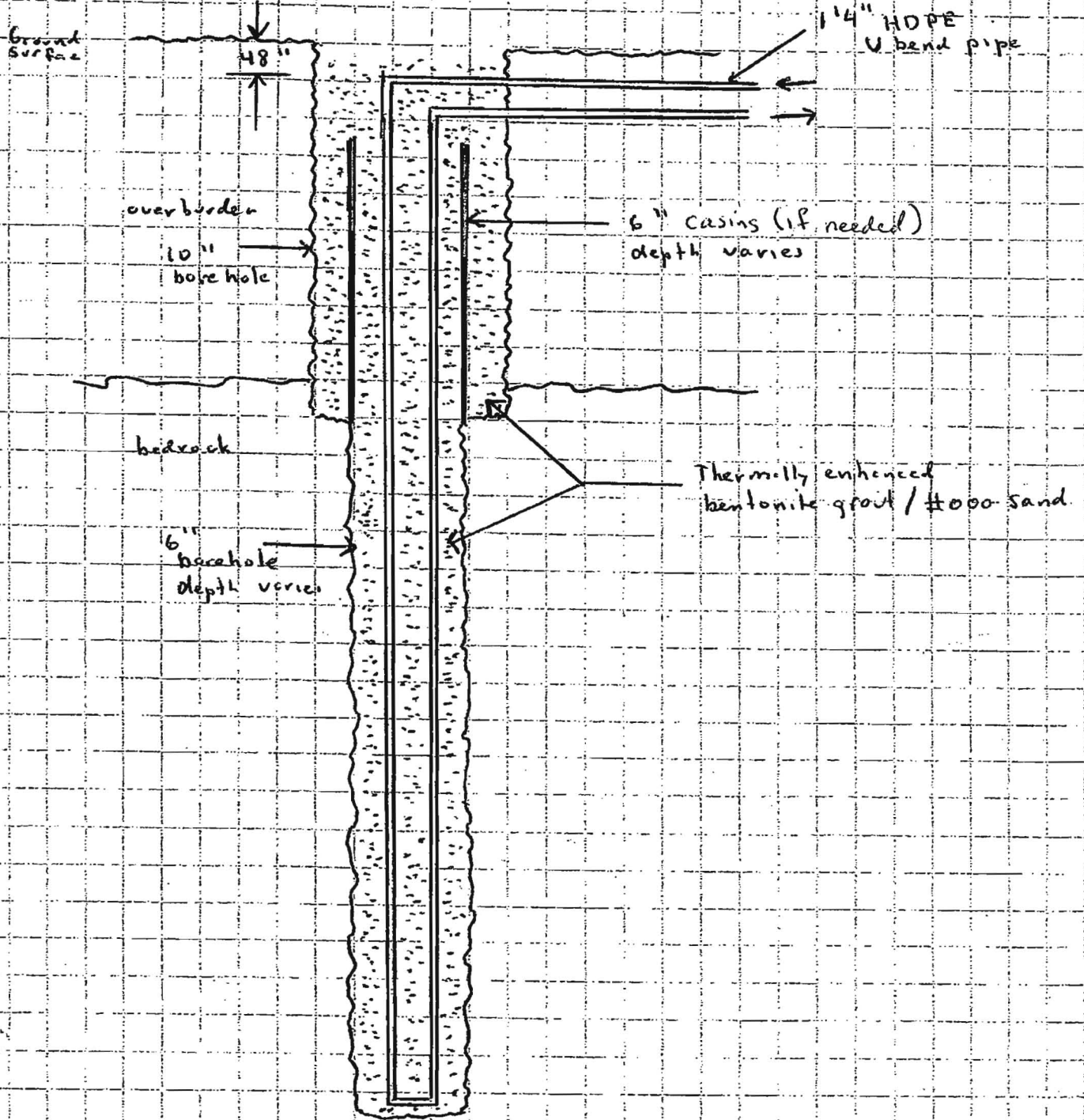
Should you have any questions or require additional information, please contact me by cell phone at 443 309-2201 or by email at [ssaul@blmyers.com](mailto:ssaul@blmyers.com).

Sincerely,



Steve Saul  
B.L. Myers Bros of MD, LLC

# Typical Closed Loop Geothermal Bore

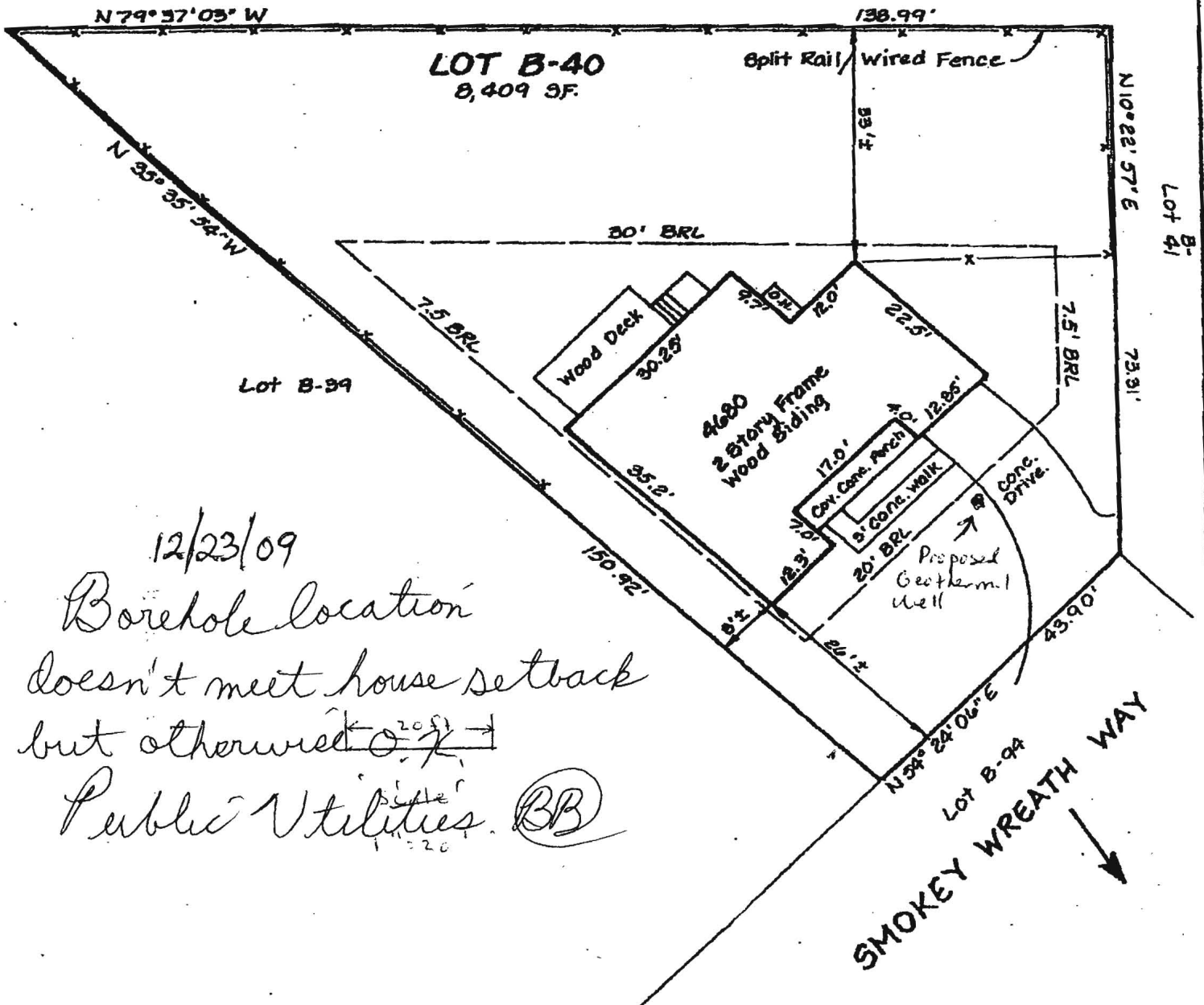


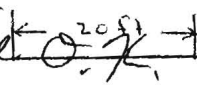
PROPERTY KNOWN AS: **LOT B-40**

Dorsey Hall  
Section 2 Area 2  
A Resubdivision of Parcel B  
Lots B-1 Thru B-97  
Sheet 5 of 5  
2nd Election District  
Howard County, MD  
Plat # 6935

**THIS PLAT CAN NOT BE USED TO ESTABLISH  
PROPERTY LINES OR CORNERS.**

Dorsey Hall Section 1 Area 4



12/23/09  
 Borehole location  
 doesn't meet house setback  
 but otherwise   
 Public Utilities (BB)