



# HOWARD COUNTY HEALTH DEPARTMENT

31043

DATE  
6 / 17 / 09

Received  
From

Michael Barlow Well Drilling PHONE # 410 838.6910

☐ CASH

☒ CHECK

NO.

9038

For Well permit - geo-thermal  
15282 Roxbury Rd

one hundred sixty-

Dollars

\$

160 00

Received By

William R.

DRILLER: REMOVE COPY AND RETAIN FOR YOUR RECORDS. RETURN COUNTY COPY TO COUNTY ENVIRONMENTAL AGENCY. SUBMIT COPY TO OWNER. RETURN ALL OTHER PARTS TO DEPARTMENT OF ENVIRONMENT, 2500 BROENING HIGHWAY, BALTIMORE, MARYLAND 21224. *geo. thermal*

<b>C1</b> 4910		SEQUENCE NO. (MDE USE ONLY)		<b>STATE OF MARYLAND WELL COMPLETION REPORT</b> FILL IN THIS FORM COMPLETELY PLEASE TYPE		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	
ST/CO USE ONLY DATE Received MM DD YY 8 13		DATE WELL COMPLETED MM DD YY 15 20 09		Depth of Well 22 405 26 (TO NEAREST FOOT)		PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-1780	
OWNER last name first name HARRISON-Moore		STREET OR RFD 15282 Roxbury Road		TOWN Glennig		LOT	
SUBDIVISION		SECTION		LOT			
<b>WELL LOG</b> Not required for driven wells		<b>GROUTING RECORD</b>		<b>C3</b>		<b>PUMPING TEST</b>	
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		WELL HAS BEEN GROUTED (Circle Appropriate Box) TYPE OF GROUTING MATERIAL (Circle one) CEMENT <b>CM</b> BENTONITE CLAY <b>BC</b> NO. OF BAGS 19 NO. OF POUNDS 450 GALLONS OF WATER 475 DEPTH OF GROUT SEAL (to nearest foot) from 48 TOP 52 ft. to 54 BOTTOM 58 ft. (enter 0 if from surface)		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) <b>A</b> air <b>P</b> piston <b>T</b> turbine <b>C</b> centrifugal <b>R</b> rotary <b>O</b> other (describe below) <b>J</b> jet <b>S</b> submersible			
DESCRIPTION (Use additional sheets if needed)		FEET FROM TO		check if water bearing			
Dirt Gold Brown Hard Grey Med Tan Hard Grey		0 3 3 10 10 18 18 45 45 405					
① 405' 6" Hole							
NUMBER OF UNSUCCESSFUL WELLS: 0		<b>C2</b>		DEPTH (nearest ft.)		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) <b>+</b> above } LAND SURFACE <b>-</b> below } (nearest foot) 49 50 51	
WELL HYDROFRACTURED yes <b>Y</b> no <b>N</b>		EACH CASING		SCREEN RECORD screen type or open hole (insert appropriate code below) <b>ST</b> STEEL <b>BR</b> BRASS <b>HO</b> OPEN HOLE <b>PL</b> PLASTIC <b>OT</b> OTHER			
CIRCLE APPROPRIATE LETTER <b>A</b> A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED <b>E</b> ELECTRIC LOG OBTAINED <b>P</b> TEST WELL CONVERTED TO PRODUCTION WELL		SLOT SIZE 1 2 3		DIAMETER OF SCREEN (NEAREST INCH) 56 60 from to			
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.		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		LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL) <i>Shed</i> <i>29'</i> <i>40'</i>	
DRILLERS LIC. NO. 1 MWD 355		DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)		LIC. NO. 1 MWD 359			
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)		TELESCOPE CASING		LOG INDICATOR		OTHER DATA	

SEQUENCE NO. (MDE USE ONLY)						STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL						STATE PERMIT NUMBER <u>140-95-1780</u>											
B 1 <u>2100</u>						531043 please type						fill in this form completely											
Date Received (APA) 8 MM DD YY 13 <u>Earth River Geothermal</u>												LOCATION OF WELL B 3 <u>Howard</u> 8 COUNTY _____ 21											
OWNER INFORMATION 15 Last Name Owner First Name 34 <u>1202 West Street</u> 36 Street or RFD 55 <u>Annapolis MD 21401</u> 57 Town 70 State 72 Zip 76												23 SUBDIVISION 42 SECTION 44 46 LOT 48 50 <u>Glenview</u> 52 NEAREST TOWN 71											
DRILLER INFORMATION Driller's Name 76 License No. 81 <u>Michael Barlow MW D355</u> Firm Name <u>Barlow Well Drilling</u> Address <u>522 Underwood Lane 21015</u> Signature Date <u>[Signature] 6/12/09</u>												MILES FROM TOWN (enter 0 if in town) <u>2</u> M I 73 76 77 78											
WELL INFORMATION APPROX. PUMPING RATE (GAL. PER MIN.) AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY)												DIRECTION OF WELL FROM TOWN (CIRCLE BOX) ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NEAR WHAT ROAD ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) DISTANCE FROM ROAD ENTER FT OR MI TAX MAP: BLK: PARCEL:											
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 GEO-THERMAL <u>1 x 400'</u>												NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL COUNTY NAME <u>Howard</u> COUNTY NO. <u>13</u> STATE SIGNATURE INSERT S → DATE ISSUED <u>6/26/09</u> CO SIGNATURE <u>Kir Kull</u> EXP. DATE <u>6/26/10</u> NORTH GRID 50 510 000 EAST GRID 57 0730 000											
APPROXIMATE DEPTH OF WELL <u>400</u> FEET APPROXIMATE DIAMETER OF WELL <u>6</u> INCH NEAREST INCH												SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X SOURCES OF DRILLING WATER WRITE THE BOX NUMBER FROM THE MAP HERE E <u>780</u> N <u>510</u>											
METHOD OF DRILLING (circle one) BORED (or Augered) JETTED Jetted & DRIVEN AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary) CABLE REVERSE-ROTary Drive-POINT other												DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION											
REPLACEMENT OR DEEPENED 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 DEEPEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE) 41 52																							
Not to be filled in by driller (MDE OR COUNTY USE ONLY) APPROP. PERMIT NUMBER PERMIT No. <u>140-95-1780</u>																							
SPECIAL CONDITIONS NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED.																							

Tax I.D. - 4321847

DEPARTMENT OF INSPECTIONS, LICENSES & PERMITS 3430 COURT HOUSE DRIVE ELLCOTT CITY, MD 21043 PERMITS (410) 313-2455 INSPECTIONS (410) 313-1850		HOWARD COUNTY RESIDENTIAL HEATING-VENTILATION-AIR CONDITIONING AND REFRIGERATION PERMIT APPLICATION		HVACR PERMIT # BUILDING PERMIT #													
BUILDING ADDRESS:		SUITE/APT:		OWNERS NAME: <u>Greg Garrison-Mogren</u>													
SUBDIVISION:				ADDRESS: <u>15-282 Roxbury Road</u>													
CENSUS TRACT:		SECTION:		CITY: <u>Glen Elg</u>													
LOT:		TAX MAP:		STATE: <u>md</u>													
BLOCK:		ZONE:		ZIP CODE: <u>21737</u>													
PROPERTY ID:		MAP COORDINATES:		HOME PHONE: <u>410-489-0857</u> WORK PHONE: <u>410-262-3363</u>													
TYPE OF IMPROVEMENTS:		USE:															
<table border="1"><thead><tr><th></th><th>CHECK ONE</th><th>HOW MANY</th></tr></thead><tbody><tr><td>SINGLE FAMILY DWELLING ZONES</td><td><input checked="" type="checkbox"/></td><td><u>1</u></td></tr><tr><td>SINGLE FAMILY TOWNHOUSE ZONES</td><td><input type="checkbox"/></td><td><u>   </u></td></tr><tr><td>MULTI-FAMILY / HOTEL/MOTEL UNITS</td><td><input type="checkbox"/></td><td><u>   </u></td></tr></tbody></table>			CHECK ONE	HOW MANY	SINGLE FAMILY DWELLING ZONES	<input checked="" type="checkbox"/>	<u>1</u>	SINGLE FAMILY TOWNHOUSE ZONES	<input type="checkbox"/>	<u>   </u>	MULTI-FAMILY / HOTEL/MOTEL UNITS	<input type="checkbox"/>	<u>   </u>	COMPANY NAME: <u>BAIR Necessities, LLC</u> LICENSEE NAME: <u>Terry Bair</u> ADDRESS: <u>1045 Carbandele Way</u> CITY: <u>Gambills</u> STATE: <u>md</u> ZIP CODE: <u>21054</u> PHONE: <u>410-721-4142</u> HVACR LICENSE NO: <u>0213061</u>			
	CHECK ONE	HOW MANY															
SINGLE FAMILY DWELLING ZONES	<input checked="" type="checkbox"/>	<u>1</u>															
SINGLE FAMILY TOWNHOUSE ZONES	<input type="checkbox"/>	<u>   </u>															
MULTI-FAMILY / HOTEL/MOTEL UNITS	<input type="checkbox"/>	<u>   </u>															
<div><div><input type="checkbox"/> New <input type="checkbox"/> Heating and Air Conditioning  <input type="checkbox"/> Replacement <input type="checkbox"/> Heating <input type="checkbox"/> Air Conditioning <input checked="" type="checkbox"/> Heating and Air Conditioning</div><div><p>APPROVED WALKTHRU BUILDING PERMIT BP# <u>M09001061</u> A# <u>628940</u> APP. SAN <u>BBB</u> DATE: <u>1/21/2010</u> Geo-Thermal WORK: <u>Heat Pump</u></p><table border="1"><thead><tr><th>Zones</th><th>Units</th></tr></thead><tbody><tr><td>Permit Fee = # of Zones x \$40 = Technology Fee (10% of Permit Fee) = Plus Application Fee Total Fees Due =</td><td>Permit Fee = # of Units x \$80 = Technology Fee (10% of Permit Fee) = Plus Application Fee \$50 Total Fees Due =</td></tr></tbody></table></div><div><div><input type="checkbox"/> Heating System Only  <input type="checkbox"/> Additions and Alterations <input type="checkbox"/> Heating <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Heating and Air Conditioning</div><div><input type="checkbox"/> Other Work (Describe):</div></div></div>						Zones	Units	Permit Fee = # of Zones x \$40 = Technology Fee (10% of Permit Fee) = Plus Application Fee Total Fees Due =	Permit Fee = # of Units x \$80 = Technology Fee (10% of Permit Fee) = Plus Application Fee \$50 Total Fees Due =								
Zones	Units																
Permit Fee = # of Zones x \$40 = Technology Fee (10% of Permit Fee) = Plus Application Fee Total Fees Due =	Permit Fee = # of Units x \$80 = Technology Fee (10% of Permit Fee) = Plus Application Fee \$50 Total Fees Due =																

I HAVE CAREFULLY EXAMINED AND READ THIS APPLICATION AND KNOW IT IS TRUE AND CORRECT. THE WORK DESCRIBED HEREIN WILL BE PERFORMED BY A STATE HVACR LICENSED PERSON(S), AND ALL WORK WILL BE PERFORMED IN COMPLIANCE WITH APPLICABLE CODES AND STANDARDS OF HOWARD COUNTY THE STATE OF MARYLAND.

SIGNATURE OF LICENSEE

PRINT NAME OF LICENSEE

DATE

Make check payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY

Word doc: HVAC APPLICATION - JUNE 2004

Validation

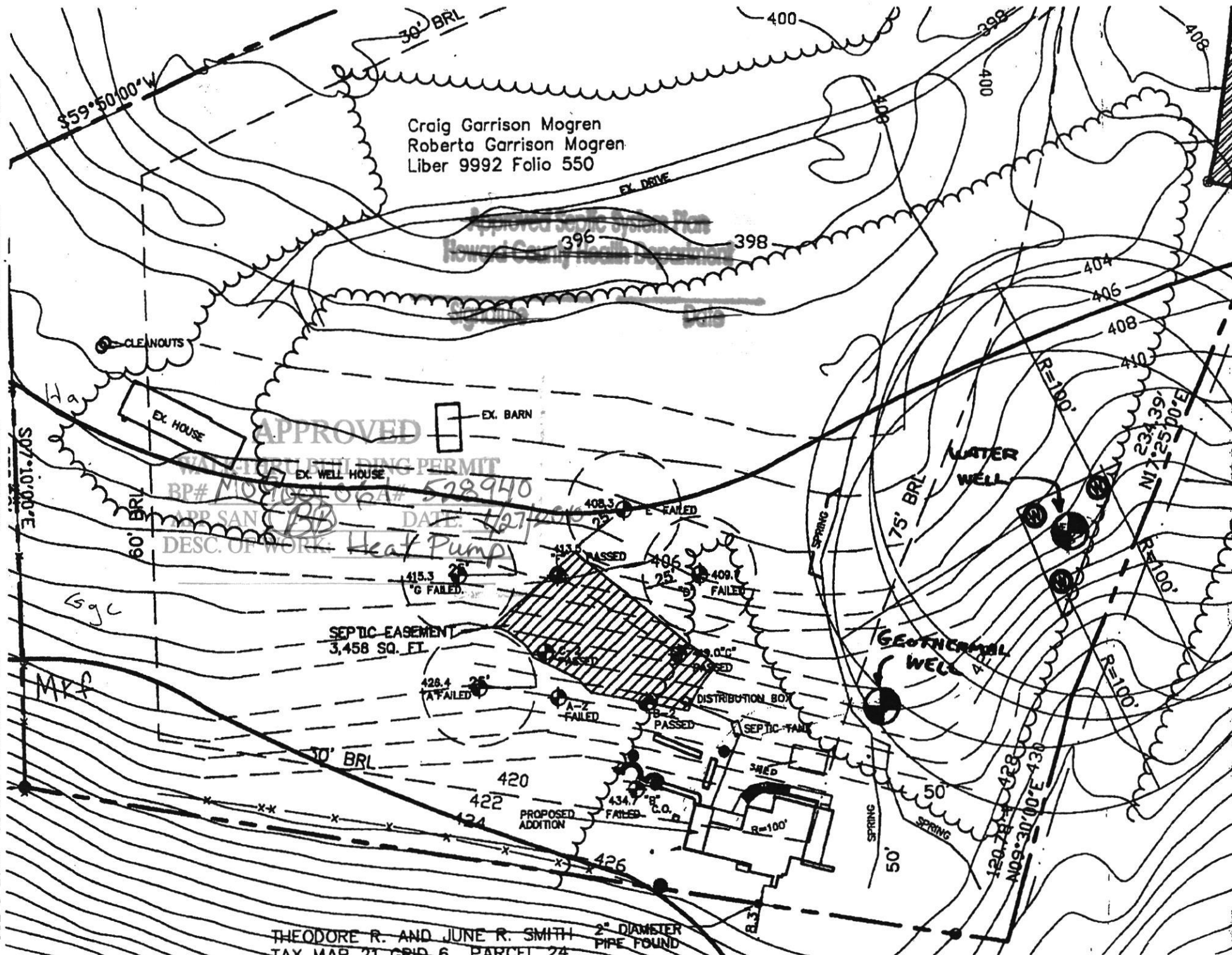
Check Number: 1459

Cash:    

Receipt Number: 192447

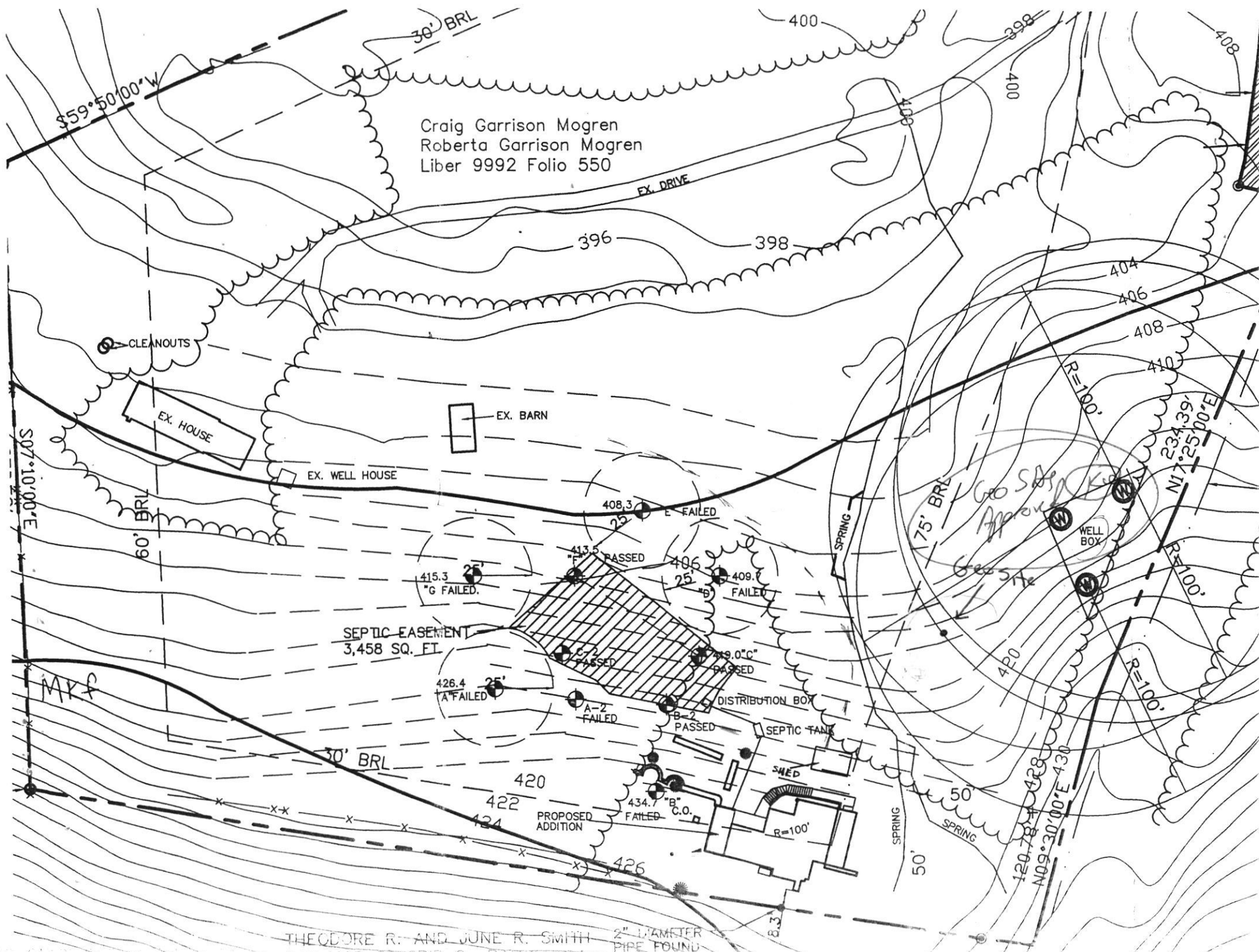
Merriweather Farms





THEODORE R. AND JUNE R. SMITH  
TAX MAP 21 GRID 6 PART 24

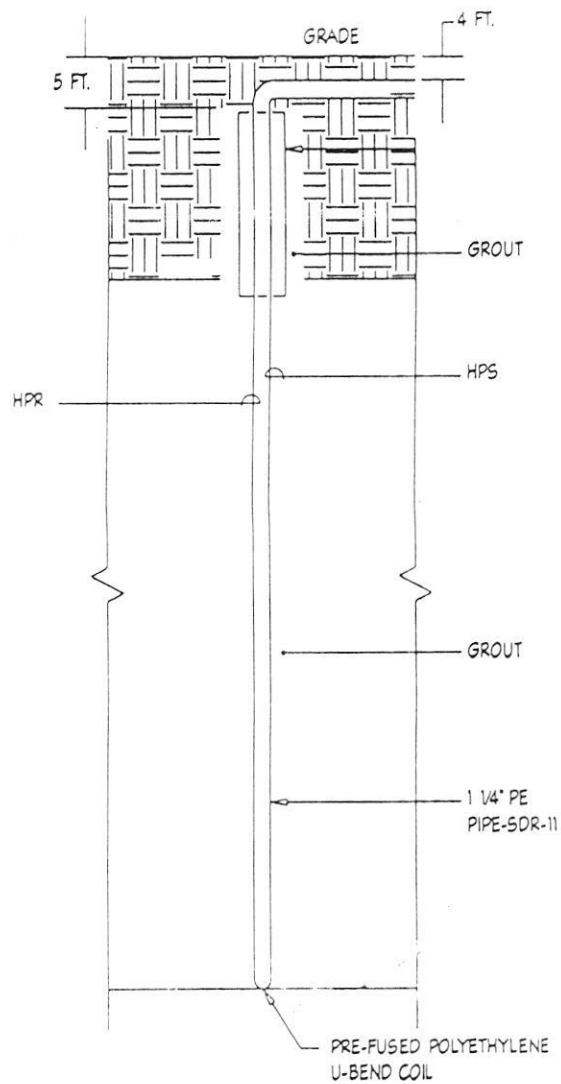
M03001001



Craig Garrison Mogren  
Roberta Garrison Mogren  
Liber 9992 Folio 550

SEPTIC EASEMENT  
3,458 SQ. FT.

THEODORE R. AND JUNE R. SMITH  
TAX MAP 21 CR 16 PART 1A  
2" DIAMETER PIPE FOUND



4 TYPICAL BORE HOLE DETAIL  
M1.00 NOT TO SCALE



Providing Quality Systems for Over 20 Years  
Commercial & Residential Water Well Drilling  
Test Borings & Consulting • Geothermal Drilling & Systems  
NGWA & IGSHPA Certified

June 15, 2009

Mr. Brian Baker  
Howard County Health Department  
7178 Columbia Gateway Drive  
Columbia, MD 21046  
Fax: 410-313-2648

Re: 15282 Roxbury Road

Dear Mr. Baker:

This letter is in reference to the message you left on 4/16/09. Please note unless otherwise specified all geothermal bores installed by our company will be installed as follows:

Grout: Bentonite Grout 20% solids minimum  
Manufacture(s): Baroid or Wyo-Ben  
Will be grouted from the bottom to the top with grout material

Piping: Polyethylene SDR 11 160 PSI as recommended per IGSHPA  
Manufacture: EnDot or Charter Plastics or equal, Size 1" or 1 1/4"  
IGSHPA Certification Number 12687

Also attached is a cross section diagram of the bore hole.

We would appreciate your help in getting this permit released as soon as possible so that we can expedite this project. If you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Michael Barlow', written in dark ink.

Michael Barlow