

C1 5312

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

ST/CO USE ONLY DATE Received MM 09 DD 20 YY 11

DATE WELL COMPLETED MM 06 DD 30 YY 11

Depth of Well 22 240 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" 10 95-2138

OWNER Ballard STREET OR RFD 5009 Castle Moor Drive TOWN Columbia SUBDIVISION SECTION LOT

WELL LOG table with columns: DESCRIPTION (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Includes handwritten entries: Soft Brown Broken, Hard Gray.

GROUTING RECORD form with fields: WELL HAS BEEN GROUTED (Y), TYPE OF GROUTING MATERIAL (CM, BC), NO. OF BAGS (15), NO. OF POUNDS (750), GALLONS OF WATER (345), DEPTH OF GROUT SEAL (0 to 240 ft).

CASING RECORD form with fields: casing types insert appropriate code below (ST, CO, PL, OT), MAIN CASING TYPE (ST), Nominal diameter top (main) casing (6), Total depth of main casing (118).

OTHER CASING (if used) table with columns: diameter inch, depth (feet) from, to.

SCREEN RECORD form with fields: screen type or open hole (ST, BR, HO, PL, OT), DEPTH (nearest ft.)

NUMBER OF UNSUCCESSFUL WELLS: 0; WELL HYDROFRACTURED (Y)

CIRCLE APPROPRIATE LETTER: A (well abandoned and sealed), 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...

DRILLERS LIC. NO.: MW D 304; David Kelly; DRILLERS SIGNATURE; LIC. NO.: MW D 564; Matt Moffitt

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

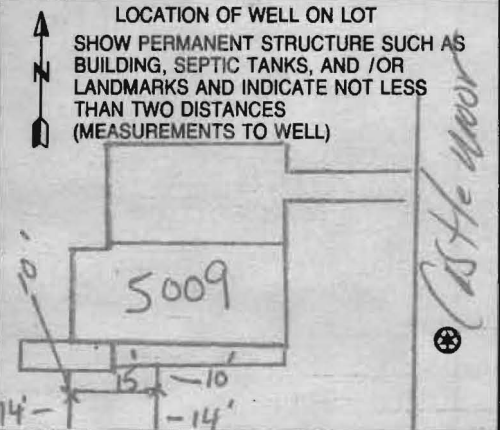
DEPTH (nearest ft.) table with columns: 1-21, 23-36, 38-51; SLOT SIZE 1, 2, 3; DIAMETER OF SCREEN (56, 60)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) (E.R.O.S.) W Q; TELESCOPE CASING; LOG INDICATOR; OTHER DATA

PUMPING TEST form with fields: HOURS PUMPED (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, P, T, C, R, O, J, S)

PUMP INSTALLED form with fields: DRILLER INSTALLED PUMP (YES/NO), TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29, CAPACITY: GALLONS PER MINUTE (31, 35), PUMP HORSE POWER (37, 41), PUMP COLUMN LENGTH (43, 47), CASING HEIGHT (circle appropriate box and enter casing height) (+ above, - below) LAND SURFACE (nearest foot)



B 1	9116	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 535208 please type	STATE PERMIT NUMBER HO - 95 - 2138 70 fill in this form completely 79
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OWNER INFORMATION

Date Received (APA) 05 19 11

8 MM DD YY 13

15 Last Name Ballard Owner Bruce First Name Bruce 34

36 Street or RFD 5009 Castle Moor Drive 55

57 Town Columbia 70 State MD 72 Zip 21044 76

LOCATION OF WELL

B 3 Howard

8 COUNTY Howard 21

23 SUBDIVISION Beaverbrook 42

SECTION 44 46 LOT 7 48 50

52 NEAREST TOWN Columbia 71

MILES FROM TOWN (enter 0 if in town) 0 M I 73 76 77 78

DRILLER INFORMATION

Driller's Name David Kelly M W D 304 76 License No. 81

Firm Name Jones Well Drilling, Inc.

Address 5700 Rush Rd - Lanv. MD 21084

Signature David Kelly Date 5-16-11

B 4

1 2 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

509 Castle Moor Drive

11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34 110 37 DISTANCE FROM ROAD FT 38 39

ENTER FT OR MI

TAX MAP: 0030 BLK: 13 PARCEL 1348

B 2 **WELL INFORMATION**

1 2 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)

22 I INDUSTRIAL, COMMERCIAL, DEWATERING

P PUBLIC WATER SUPPLY WELL

T TEST, OBSERVATION, MONITORING

G GEO-THERMAL

closed loop 2-240'

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard (13) Public

COUNTY NAME COUNTY NO.

STATE SIGNATURE _____ INSERT S → 41

DATE ISSUED 6/3/2011 Bruce Baker 6/3/2012

43 MM DD YY 48 CO SIGNATURE EXP. DATE

NORTH GRID 509 000 EAST GRID 837 000

50 55 57 63

APPROXIMATE DEPTH OF WELL 240 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)

APPROP. PERMIT NUMBER _____ **G** _____

PERMIT No. HO-95-2138

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. _____

2. _____

3. _____

WRITE THE BOX NUMBER FROM THE MAP HERE

E 76° 52' 30"

N 39° 13' 30"

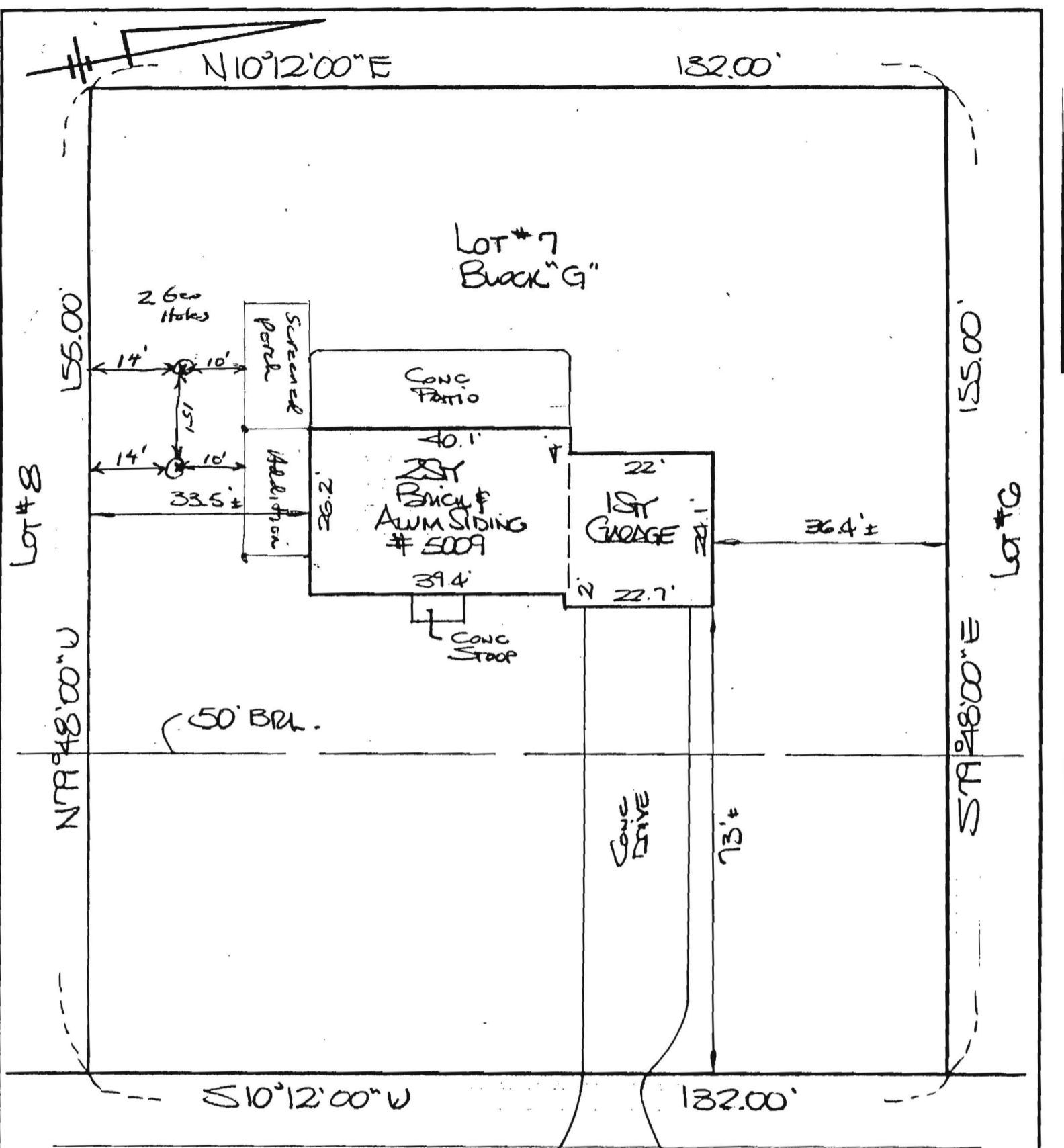
000 000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

4935
44

SPECIAL CONDITIONS How H/ Dept. Not Responsible for Any Structural Damage

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEETS WHEN NEEDED



MAC BERM

CASTLE MOOR DRIVE
 28± MAC PAVING
 50'rlw



THE LOT SHOWN HEREON IS IN FLOOD ZONE C PER F.E.M.A. FLOOD INSURANCE RATE MAP PANEL # 242244-0028D

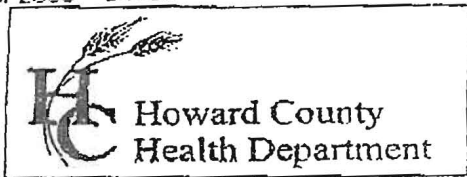
THIS IS TO CERTIFY That The Improvements Indicated Hereon Are Located As Shown. This Is Not A Property Line Survey And Should Not Be Used As Such.

H HICKS ENGINEERING CO., INC.
 CIVIL ENGINEERS • SURVEYORS • PLANNERS
 200 EAST JOPPA ROAD - SUITE 402
 TOWSON MARYLAND 21204
 TELEPHONE: (410)494-0001

LOCATION CERTIFICATION:
 #5009 CASTLE MOOR DRIVE
 LOT #7 BU'G" BEAVERBROOK" SEC 10
 AREA 3 HOWARD CO. MD PBCMP#3114

DATE: 8/5/93 SCALE: 1"=20' FILE: 15804

WFE



7178 Columbia Gateway Drive, Columbia MD 21046
 (410) 313-2640 Fax (410) 313-2648
 TDD (410) 313-2323 Toll Free 1-866-313-6300
 website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

TO ALL INTERESTED PARTIES

When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

Well Site Location:
5009 Castle Moor Drive
 Subdivision/Property Name Lot# Road Name

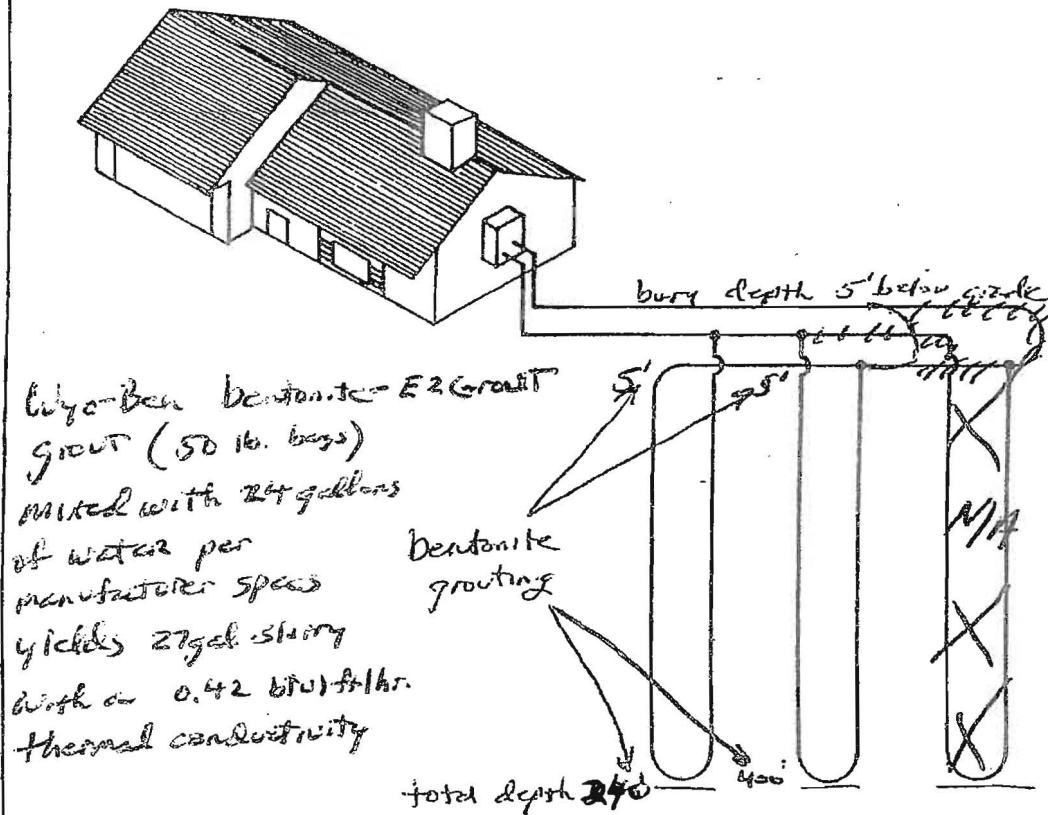
The well site has been staked by _____
 (professional land surveyor or company employing professional land surveyors)
 on _____ (date) and does not require a site inspection.

The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location. *staked*

This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.

Revised 3/11/05

Driller: Jones Well Drilling Inc.
 contact: David Kelly
 410-692-6987



Wyo-Ben Dentonite-E2 Grout
 GROUT (50 lb. bags)
 mixed with 24 gallons
 of water per
 manufacturer specs
 yields 27 gal slurry
 with a 0.42 btu/ft-hr.
 thermal conductivity

Earth Coil Type: Vertical - Single U-Bend
 Water Flow: Parallel
 Pipe Sizes: 1 1/4" double Loop

Bore Lengths: 240' x 2 holes (480' vertical bore)
 Pipe Lengths: 480' x 2 (960' vertical pipe)

FIGURE 4.5: Parallel Vertical Ground Heat Exchanger