

C1 **7291** SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
WELL COMPLETION REPORT
 FILL IN THIS FORM COMPLETELY
 PLEASE TYPE

THIS REPORT MUST BE SUBMITTED
 45 DAYS AFTER WELL IS COMPLETED.
 COUNTY NUMBER

ST/CO USE ONLY
 DATE RECEIVED
 MM DD YY
 8 13

DATE WELL COMPLETED
 MM DD YY
 12 4 07
 Depth of Well
 22 400 26
 (TO NEAREST FOOT)

PERMIT NO.
 FROM "PERMIT TO DRILL WELL"
 HO-15-1237
 28 29 30 31 32 33 34 35 36 37

OWNER Toll Brothers
 STREET OR RFD Hammwood Rd. TOWN Columbia
 SUBDIVISION Hammwood Crossing SECTION LOT 69

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	
Brown sand-shale	0	90	
Gray Limestone	90	400	✓

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 30 NO. OF POUNDS 2820
 GALLONS OF WATER 180
 DEPTH OF GROUT SEAL (to nearest foot)
 from 0 ft. to 95 ft.
 (enter 0 if from surface)

CASING RECORD
 casing types insert appropriate code below
 ST CO
 PL OT
 MAIN CASING TYPE ST Nominal diameter top (main) casing (nearest inch) 06 Total depth of main casing (nearest foot) 100
 60 81 63 64 66 70

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

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

NUMBER OF UNSUCCESSFUL WELLS: 2
 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. M SD 009
 DRILLERS SIGNATURE
 (MUST MATCH SIGNATURE ON APPLICATION)
 LIC. NO. D

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

DEPTH (nearest ft.)

DEPTH	100	400
1		
2		
3		
4		
5		
6		
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51		

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

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

PUMPING TEST
 HOURS PUMPED (nearest hour) 06
 PUMPING RATE (gal. per min.) 1.4
 METHOD USED TO MEASURE PUMPING RATE 196L
 WATER LEVEL (distance from land surface)
 BEFORE PUMPING 42 ft.
 WHEN PUMPING 189 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 (CIRCLE) (YES OR NO) 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 29
 CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 36
 PUMP HORSE POWER 37 41
 PUMP COLUMN LENGTH (nearest ft.) 43 47
 CASING HEIGHT (circle appropriate box and enter casing height)
 above } LAND SURFACE
 below } 01 (nearest foot)
 49 50 51

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)

See attached plans

B 1 **6149**

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
5 2 7 2 8 7 please type

STATE PERMIT NUMBER
HO-95-1237
fill in this form completely

Date Received (APA)
OWNER INFORMATION
8 MM DD YY 13
15 Last Name **Toll Brothers** Owner First Name 34
36 **11423 Hunt Crossing Ct** Street or RFD 55
57 **Ellicott City md 21042** Town 70 State 72 Zip 76

B 3 **LOCATION OF WELL**
8 COUNTY **Howard** 21
23 SUBDIVISION **Homewood Crossing** 42
SECTION **II** 44 46 LOT **69** 48 50
Columbia 52 NEAREST TOWN 71
MILES FROM TOWN (enter 0 if in town) **5** M 73 76 77 78

DRILLER INFORMATION
76 Driller's Name **Allen Compton M SD 009** License No. 81
Firm Name **Fogles Well Drilling**
Address **580 Obrecht rd.**
Signature **Allen Compton** Date **7-17-07**

B 4 **DIRECTION OF WELL FROM TOWN (CIRCLE BOX)**
1 2
NORTH
W E
S E
S
W
N
E
S
E
TOWN
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
11 **Old Homewood rd.** 30
34 100 37 DISTANCE FROM ROAD FT
ENTER FT OR MI 38 39
TAX MAP: **29** BLK: **9** PARCEL **28**

B 2 **WELL INFORMATION**
1 2 APPROX. PUMPING RATE (GAL. PER MIN.) **5**
8 500 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)
22 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) A515042
COUNTY NAME COUNTY NO.
STATE SIGNATURE _____ INSERT S
DATE ISSUED **8/23/2007** **Brian Baker** 8/23/2008
43 MM DD YY 48 CO SIGNATURE EXP. DATE
NORTH GRID **510** 0 0 0 EAST GRID **829** 0 0 0
50 55 57 63

APPROXIMATE DEPTH OF WELL **300** FEET
24 28
APPROXIMATE DIAMETER OF WELL **6** INCH
NEAREST INCH

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
10/25/07
SOURCES OF DRILLING WATER
1. **Sample not collected due to sediment causing conclusions, well to be abandoned (KW)**
2.
3.
WRITE THE BOX NUMBER FROM THE MAP HERE
E **829**
N **510**
000
000

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 DEEPENEED 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 DEEPEEN AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENEED (IF AVAILABLE) 41 _____ 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)
APPROP. PERMIT NUMBER **HO20030006**
PERMIT No. **HO-95-1237**
70 71 72 73 74 75 76 77 78 79

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION
12/4/07
Sample collected on new well @ s.d. (KW) (109)
Homewood rd

SPECIAL CONDITIONS **Radium Sample to be Collected During Yield Test**

Yield Test Data Sheet

County File # _____
District 2

MD Well Permit #. H0-95-1237
 Date of Test: 12-4-07
 Subdivision Name: Homewood Crossing
 Section _____ Lot # 69
 Street Address: Homewood Rd.

Measuring Point (MP) Description: Top of casing
 (for ex. "Top of casing")

Distance from MP to ground surface 1 ft.

Well Depth 400' ft.

Well Driller: Fogle's Well Drilling

Must be submitted with the State of Maryland Well Completion Report

Submit to: _____

Pump Start Time <u>8:00</u>	Static Water level: <u>42</u> ft.	Pumping Rate () Time to fill <u>1</u> gal. bucket () Flow meter reading (if used)	Calculated Flow (gallons per minute) <u>20</u>
TIME	WATER LEVEL BELOW M.P.		

Water level and pumping rate must be recorded every 15 minutes

#	TIME	WATER LEVEL ft.	PUMPING RATE	CALCULATED FLOW (GPM)
1	8:00	42 ft.	3	20 GPM
2	8:15	189 ft.	42	1.4 GPM
3	8:30	189 ft.	42	1.4 GPM
4	8:45	189 ft.	42	1.4 GPM
5	9:00	189 ft.	42	1.4 GPM
6	9:15	189 ft.	42	1.4 GPM
7	9:30	189 ft.	42	1.4 GPM
8	9:45	189 ft.	42	1.4 GPM
9	10:00	189 ft.	42	1.4 GPM
10	10:15	189 ft.	42	1.4 GPM
11	10:30	189 ft.	42	1.4 GPM
12	10:45	189 ft.	42	1.4 GPM
13	11:00	189 ft.	42	1.4 GPM
14	11:15	189 ft.	42	1.4 GPM
15	11:30	189 ft.	42	1.4 GPM
16	11:45	189 ft.	42	1.4 GPM
17	12:00	189 ft.	42	1.4 GPM
18	12:15	189 ft.	42	1.4 GPM
19	12:30	189 ft.	42	1.4 GPM
20	12:45	189 ft.	42	1.4 GPM
21	1:00	189 ft.	42	1.4 GPM
22	1:15	189 ft.	42	1.4 GPM
23	1:30	189 ft.	42	1.4 GPM
24	1:45	189 ft.	42	1.4 GPM
25	2:00	189 ft.	42	1.4 GPM
26	2:15	189 ft.	42	1.4 GPM
27		ft.		GPM
28		ft.		GPM
29		ft.		GPM
30		ft.		GPM

NOTES:

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WATER AND SEWERAGE PROGRAM
TEL: (410)313-2640 FAX: (410)313-2648

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: Fogles Well Drilling Telephone #: 443-609-4195
Address: 1003 Woodbine Rd Woodbine md 21797

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer

License # and name of individual responsible for the field installation:
Name (Print): Allen Compton License# MSD009

*A licensed individual must perform the actual installation. Apprentices must be under the direct supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification.

Name of Property Owner: Toll Brothers Telephone #:
Subdivision: Benedict Farm / Paluxy Creek Lot #: 69 Well Tag #: HO-45-1237
Site Address: 1119 Old Homewood Rd

Submersible Pump Data Pitless Adapter Well Cap and Electric Conduit
Make: Grundfos Make: Campbell Two piece watertight cap: yes
Model #: 155ge15-29D Model #: N/A Screened, vented well cap: yes
Pump Capacity 1.5 GPM Depth: 36 (36" min) Cap secured to casing: yes
Well Yield: 1.4 GPM NSF approved: yes Conduit min 18" B.G.: yes
Depth of well encountered at time of pump installation: 400 (feet) Conduit secured to well cap: yes
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4.
Torque arrestors or Cable guards are required - Must circle one
Safety rope, if used, attached to inside of well casing with eye bolt N/A

Piping to house House Connection
Type: 1" Black Plastic PVC sleeved to undisturbed soil at wall penetration: yes
PSI: 160 (160 psi min) Approximate length of sleeve: 5
Depth of supply line: 36 (36" min) Sleeve caulked and sealed properly: yes

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation: Allen Compton date: 2/28/08

For Health Department Use Only - Not to be completed by Installer

Date Insp. Requested: Date Insp. Approved: 2/29/08 RW
Inspection Data: Pitless adapter and water supply line at least 36" below grade
Two piece cap installed and attached to casing securely
Elec. conduit extends at least 18" below grade/attached to cap properly
Safety rope installed inside of well casing
Correct well tag attached properly and casing 8" above finished grade
Water supply line sleeved adequately at house connection
Adequate grout observed below pitless adapter

8/23/07

Well Site Staked
by Benchmark
on 8/27/07

BB

OLD HOMEWOOD ROAD

LOT 69

NON-BUILDABLE
BUX PARCEL

HOMEWOOD ROAD

85' DGG NOISE LINE

Ex. Forest Conservation
Easement No. 5
0.3 Ac.± Retention
(F 05-31)

Ex. Forest Conservation
Easement No. 6
0.6 Ac.± Retention
(F 05-31)

H.O.A.

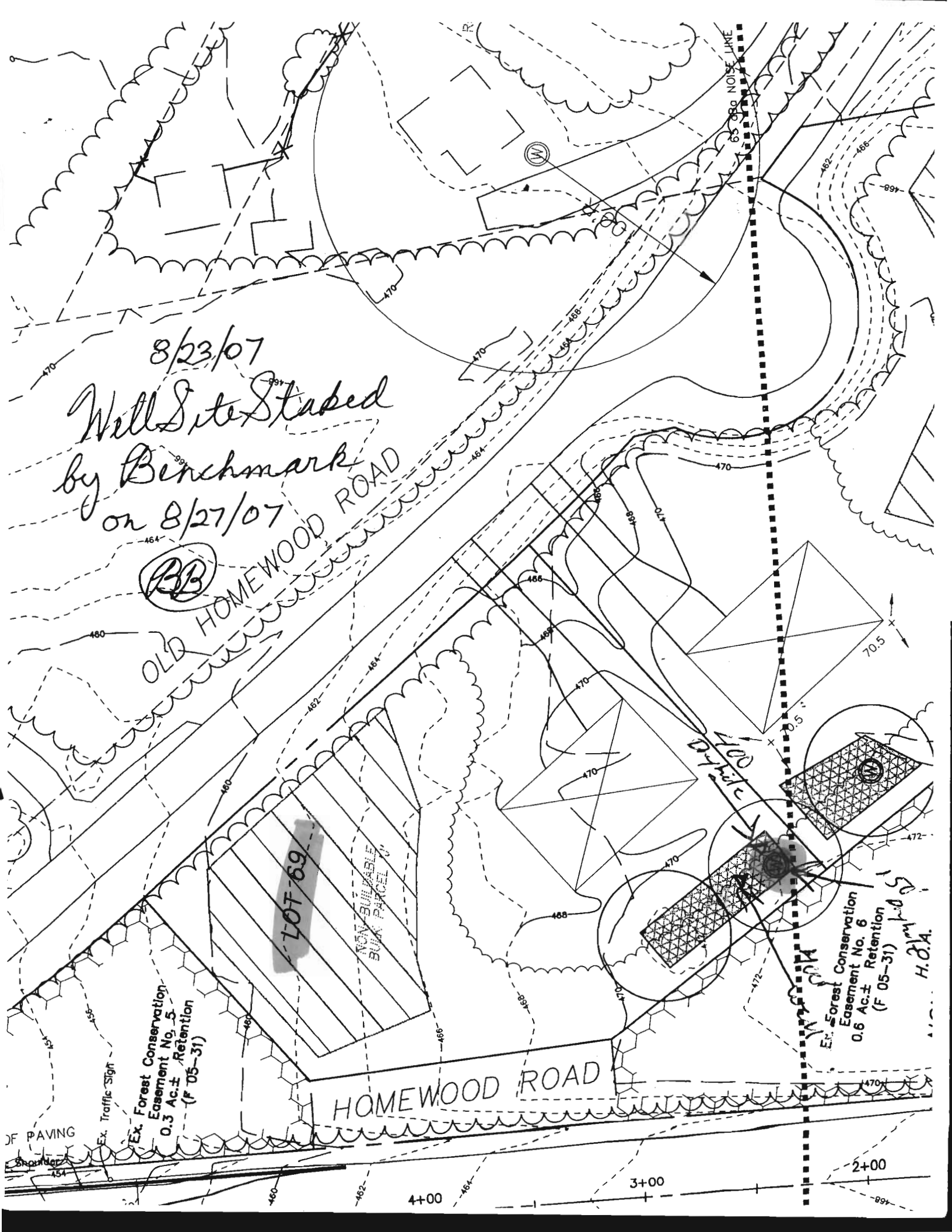
DF PAVING

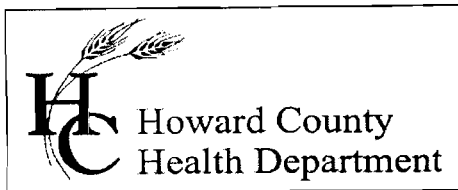
Ex. Traffic Sign

2+00

3+00

4+00





Bureau of Environmental Health
7178 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

Peter L. Beilenson, M.D., M.P.H., Health Officer

July 11, 2008

Toll MD II LP
7164 Columbia Gateway Drive, #230
Columbia, MD 21046

RE: Homewood Crossing, Lot 69
11119 Old Homewood Court
Ellicott City, MD 21042
BP #: B07003551
Well Permit # HO-95-1237

Dear Sir:

This is to advise you that the septic system for the above referenced property has been installed and inspected. **Final approval of the septic system was granted on 02/25/2008. Final approval of the well line connection to the dwelling was approved on 02/29/2008.**

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking. The water sample results were found to be in compliance with COMAR water quality standards.

Gross Alpha and Beta samples were also collected on 12/04/2007. Both findings were below the maximum limit suggested by the EPA. At the time of the testing and with respect to these parameters, the future well water supply appears safe for all uses. No additional testing for these parameters will be required to secure the future Use and Occupancy.

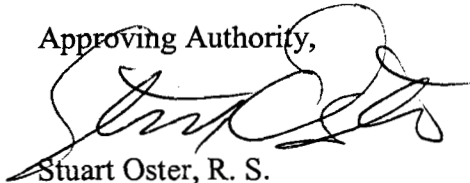
INTERIM CERTIFICATE OF POTABILITY

This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit #HO-95-1237. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies. Based upon satisfactory investigation and evaluation, the Howard County Health Department as authorized by the Maryland Department of the Environment accepts this well system as required by COMAR 26.04.04.

This certificate may become final upon completion of the second bacteriological test, which is to be taken by the county health department within six months of receipt of this letter. **Please contact (410) 313-1773 to schedule a final water sample appointment. Currently, there is no charge for this final sampling.**

Date of Water Samples: 07/09/2008
Date of Sample for Gross Alpha & Gross Beta: 12/04/2007
Date of Well Completion: 12/04/2007

Approving Authority,



Stuart Oster, R. S.
Well & Septic Program

cc: Building Inspector's Office
Community Health Services
File

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Timestown Rd. Westminster, MD (410) 848-1018 (410) 376-4559 FAX: (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	68037	Account #:	1930
Reference:	Toll Brothers Lot 69	Company:	Fogle's Well Drilling
Location:	11119 Old Homewood Road Ellicott City, MD 21042	Requested By:	Dave Fogle
Date/ Time Collected:	7/9/2008 1100	Source:	Well Water
Date/Time Rec'd:	7/9/2008 1535	Site:	Kitchen Sink Tap
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	V.M. Fadoul 6804VF-FS	pH:	6.3
		Well #:	HO-95-1237

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223 B.	7/10/2008 / 0950 / AD/BD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223 B.	7/10/2008 / 0950 / AD/BD
Nitrate	1.57	mg/L	10	601	7/10/2008 / 1040 / AD/BD
Turbidity	2.78	NTU	<10	SM18 2130B	7/10/2008 / 0845 / AD/BD
Sand	NS	mg/L	5	Visual/Gravimetric	7/10/2008 / 0845 / AD/BD

NOTES

- 1 mg/L = milligrams per liter (also, parts per million)
- 2 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 3 NS = None Seen (NS indicates less than 5 mg/L)
- 4 NTU = Nephelometric Turbidity Units
- 5 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 6 ND: None Detected
- 7 Sample collected by client, analyzed as received
- 8 pH and Chlorine level tested in lab

Reason for Test : Use & Occupancy
 Building Permit # : B07003551

Date Reported: 7/10/2008

MD State Certification # 133

Send Report To:

Bert Nixon

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Chemistry
RADIATION LABORATORY

201 W. Preston Street, Baltimore, Maryland 21201
John M. DeBoy, Dr. P.H., Director

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: H0-95-1237 No. B: _____ Field Blank Bottle No. A: _____ No. B: _____

Plant/Site Name: Patuxent Chase - Lot 69 County: Howard

Sample Source: Old Homewood Rd. Location: H0-95-1237
(well no., lab sink, sample tap, etc.)

County: Plant No.

CHECK (one per box)

Drinking Water
Landfill
Stream
Other

Community
Non-community
Private
Other

Source (raw water)
Distribution (treated)
MCL

Emergency
Routine
Recheck
Special

Collector: K. Wolf

Telephone No: 410-313-2645

Date Collected: 12/4/07

Time Collected: _____ a.m. 12:00 p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code: Federal Project:

Field Data: _____ pH _____ Chlorine _____

Remarks: Sample collected @ Yield test

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	1290	5 ± 2	12/07/07
✓	Gross Beta	4100	1290	10 ± 2	"
	Radon-222 Bottle A	4004			
	Radon-222 Bottle B	4004			
	Field Blank A	4004			
	Field Blank B	4004			
	Tritium				
	Ra - 226	4020			
	Ra - 228	4030			
	Total Uranium	4006			

Date Received: 12/1/05 1/07

Supervisor: S. Wise

12:57 PM
12/5/07



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Peter L. Beilenson, M.D., M.P.H., Health Officer

December 21, 2007

Toll Brothers, INC.
7164 Columbia Gateway Dr.
Suite 230
Columbia, MD 21046

RE: Patuxent Chase, Lot #69
Well Tag: HO-95-1237

To Whom It May Concern:

A sample was collected from a yield test December 4, 2007 submitted to the Department of Health and Mental Hygiene Laboratories to assess the possible presence of Gross Alpha and Gross Beta in the future well water supply. Gross Alpha and Gross Beta measure the total alpha and beta particle activity in a water supply. In turn, this can provide information regarding naturally occurring radiation (i.e., Radionuclides) that may exist in your area of development within the County.

Results from this screening revealed a Gross Alpha of 5.0 ± 2.0 picocuries/liter (pCi/L); while the Gross Beta level was 10.0 ± 2.0 pCi/L. The Gross Alpha result was below its maximum contaminant level (MCL) of 15 pCi/L, while the Gross Beta level was below its target value of 50 pCi/L (roughly equivalent to the annual dose rate of 4 millirems/year).

At the time of testing and with respect to these parameters, the future well water supply appears safe for all uses. No additional testing for these parameters will be required to secure the future Use & Occupancy. However, other standard (potability) testing will still be necessary.

A copy of the test results is enclosed for your information. Please call this office at 410-313-1773 if you have any further questions.

Sincerely,

A handwritten signature in cursive script that reads 'Bert Nixon'.

Bert Nixon, Director
Bureau of Environmental Health

cc: Eric Dougherty, MDE Water Mgmt., Groundwater
✓ Well & Septic File