

C1 1445 SEQUENCE NO. (MDE USE ONLY)

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

THIS REPORT MUST BE SUBMITTED WITHIN
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
4 16 08
Depth of Well
22 150 26
(TO NEAREST FOOT)

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
40 - 95 - 1263
28 29 30 31 32 33 34 35 36 37

OWNER: TOLL Brothers
STREET OR RFD: Independence Way TOWN: Columbia
SUBDIVISION: Homewood Crossing SECTION: LOT 53

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	94	
gray limestone	94	150	✓

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 20 NO. OF POUNDS 1800
GALLONS OF WATER 120
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 61 ft.
(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below
ST STEEL CO CONCRETE
PL PLASTIC OT OTHER
MAIN CASING TYPE PL Nominal diameter top (main) casing (nearest inch)! 06 Total depth of main casing (nearest foot) 100
60 61 63 64 66 70

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

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

NUMBER OF UNSUCCESSFUL WELLS: 0
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. 1 M 3 D 009
DRILLERS SIGNATURE
LIC. NO. 1 D

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

C 2 DEPTH (nearest ft.)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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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

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3 PUMPING TEST

HOURS PUMPED (nearest hour) 03
PUMPING RATE (gal. per min.) 10
METHOD USED TO MEASURE PUMPING RATE 196L
WATER LEVEL (distance from land surface)
BEFORE PUMPING 43 ft.
WHEN PUMPING 57 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
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 LAND SURFACE
 - below 02 (nearest foot)

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)

NO Survey stakes

Yield Test Data Sheet

County File # _____

District _____

MD Well Permit #. HO-95-1263

Date of Test: 4-16-08

Subdivision Name: Homewood Crossing

Section _____ Lot # 53

Street Address: Independence way

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

Distance from MP to ground surface 2 ft.

Well Depth 150 ft.

Well Driller: Fogle's Well Drilling

Must be submitted with the State of Maryland Well Completion Report

Submit to:

Pump Start Time <u>11:15</u>	Static Water level: <u>43</u> ft.	Pumping Rate () Time to fill <u>1</u> gal. bucket () Flow meter reading (if used)	Calculated Flow (gallons per minute) <u>15</u>
TIME	WATER LEVEL BELOW M.P.		

Water level and pumping rate must be recorded every 15 minutes

#	TIME	WATER LEVEL BELOW M.P.	PUMPING RATE	CALCULATED FLOW (GPM)
1	11:15	43 ft.	4	15 GPM
2	11:30	57 ft.	6	10 GPM
3	11:45	57 ft.	6	10 GPM
4	12:00	57 ft.	6	10 GPM
5	12:15	57 ft.	6	10 GPM
6	12:30	57 ft.	6	10 GPM
7	12:45	57 ft.	6	10 GPM
8	1:00	57 ft.	6	10 GPM
9	1:15	57 ft.	6	10 GPM
10	1:30	57 ft.	6	10 GPM
11	1:45	57 ft.	6	10 GPM
12	2:00	57 ft.	6	10 GPM
13	2:15	57 ft.	6	10 GPM
14	2:30	57 ft.	6	10 GPM
15		ft.		GPM
16		ft.		GPM
17		ft.		GPM
18		ft.		GPM
19		ft.		GPM
20		ft.		GPM
21		ft.		GPM
22		ft.		GPM
23		ft.		GPM
24		ft.		GPM
25		ft.		GPM
26		ft.		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: _____ Telephone #: _____
Address: _____

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

License # and name of individual responsible for the field installation:

Name (Print): _____ License# _____

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

Name of Property Owner: _____ Telephone #: _____

Subdivision: Homewood Cross Mg Lot #: 53 Well Tag #: HO - 95-1263

Site Address: Independence Way

Submersible Pump Data

Make: _____
Model #: _____
Pump Capacity _____ GPM
Well Yield: _____ GPM

Pitless Adapter

Make: _____
Model#: _____
Depth: _____ (36" min)
NSF/WSC approved: _____

Well Cap and Electric Conduit

Two piece watertight cap: _____
Screened, vented well cap: _____
Cap secured to casing: _____
Conduit min 18" B.G.: _____
Conduit secured to well cap: _____

Depth of well encountered at time of pump installation: _____ (feet)
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4
Torque arrestors, Cable guards, or other acceptable method used- Must circle one

Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing

Piping to house

Type: _____
PSI: _____ (160 psi min)
Depth of supply line: _____ (36" min)

House Connection

PVC sleeve to undisturbed soil at wall penetration: _____
Approximate length of sleeve: _____
Sleeve caulked and sealed properly: _____

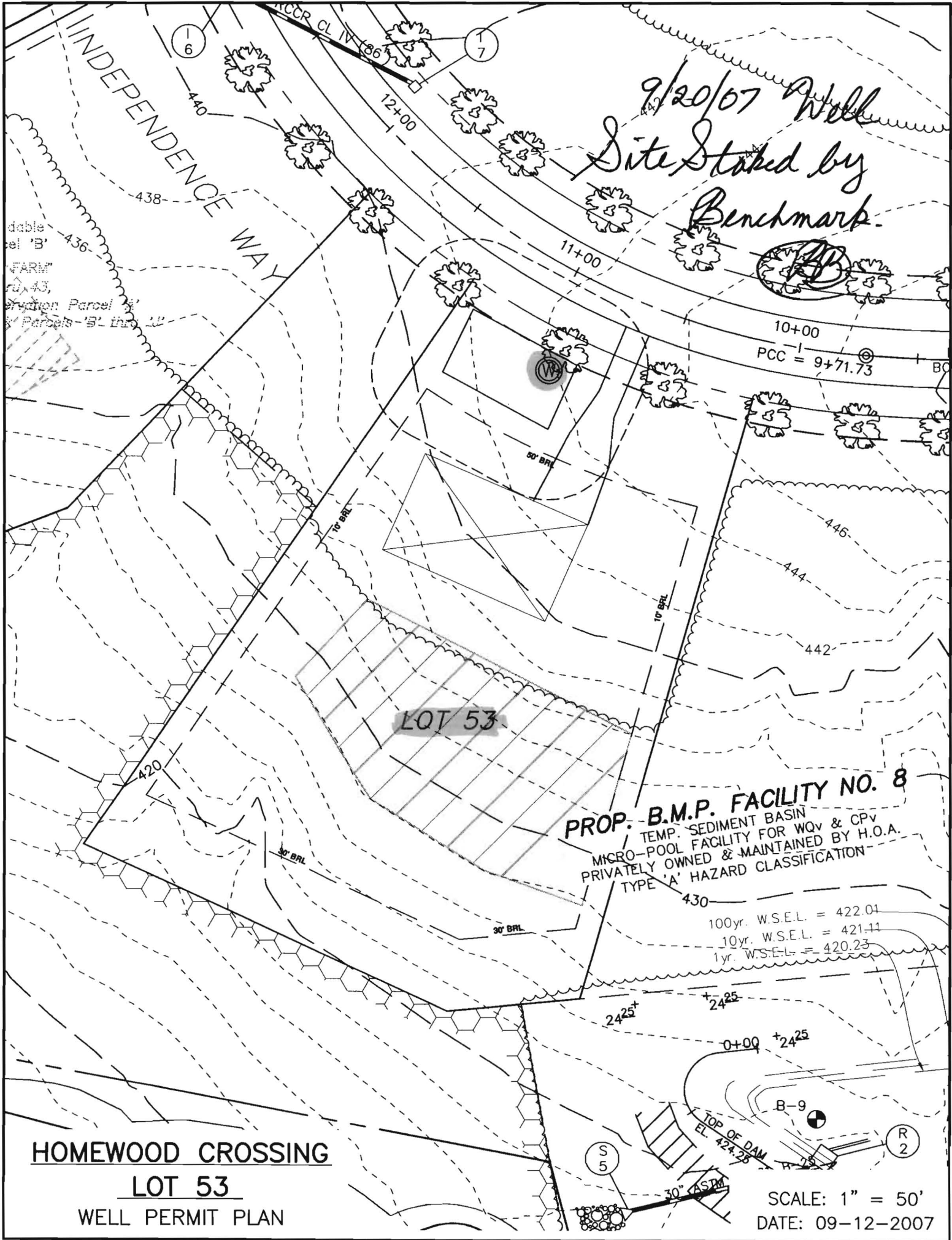
The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation _____ date _____

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

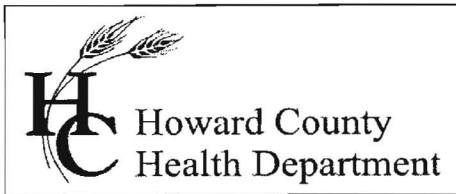
Date Insp. Requested: 2/25/10 Date Insp. Approved: 2/25/10 Inspector: (KW)
Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade
Two piece cap installed and attached to casing securely
Elec. conduit extends at least 18" below grade/attached to cap properly
Safety rope not seen outside of well cap/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

9/20/07 Well
Site Staked by
Benchmark



HOMEWOOD CROSSING
LOT 53
WELL PERMIT PLAN

SCALE: 1" = 50'
DATE: 09-12-2007



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

June 16, 2010

Homeowner
11241 Independence Way
Ellicott City, MD 21042

RE: Homewood Crossing, Lot 53
Patuxent Chase
BP #: B09002268
Well Permit # HO-95-1263

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 04/28/2010. Final approval of the well line connection to the dwelling was approved on 02/25/2010.**

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.

TEMPORARY INTERIM CERTIFICATE OF POTABILITY

This is a **Temporary Deviation** to allow additional time for radium testing and for the levels to meet EPA recommendations. **Until the water sample results are obtained or a treatment device is installed it is recommended that all water that is used for cooking or drinking be bottled.**

Gross Alpha and Gross Beta samples were collected on 04/16/2008. Results showed a Gross Alpha level was 14 +- 2 pCi/L and Gross Beta level was 16 +- 2.0 pCi/L. This is explained in more detail from the Radium letter issued 06/12/2008 for the aforementioned property. In addition, a pretreatment device (reverse osmosis, water softener) needs to be installed.

This temporary deviation is good for **45 days** to allow time for radium testing. An Interim Certificate of Potability will be issued upon submission of a water sample report that documents **Gross Alpha and Gross Beta, short and long term, before and after treatment, that are within the EPA standards.**

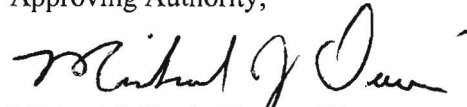
This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit #HO-95-1263. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies. 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.**

The Health Department has no objection to the issuance of temporary Use and Occupancy for the above referenced property.

Date of Water Samples: 06/09/2010
Date of Radium Tests: 04/16/2008
Date of Well Completion: 04/16/2008

Approving Authority,



Michael J. Davis, Deputy Director
Well & Septic Program

cc: Building Inspector's Office
Community Health Services
File

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 875-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	75586	Account #:	1930
Reference:	Toll Brothers Lot 53	Company:	Fogle's Well Drilling
Location:	11241 Independence Way Ellicott City, MD 21042	Requested By:	Dave Fogle
Date/ Time Collected:	6/9/2010 1155	Source:	Well Water
Date/Time Rec'd:	6/9/2010 1335	Site:	Bathroom Sink
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	J. Fogle 1974JF	pH:	6.0
		Well #:	HO-95-1263

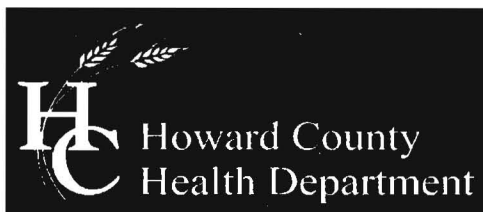
PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	6/10/2010 / 0830 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	6/10/2010 / 0830 / CCH
Nitrate	<1.0	mg/L	10	601	6/9/2010 / 1530 / CCH
Turbidity	1.05	NTU	<10	SM18 2130B	6/9/2010 / 1515 / KME
Sand	NS	mg/L	5	Visual/Gravimetric	6/9/2010 / 1515 / CHH

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 on site

Reason for Test : Use & Occupancy
 Building Permit # : B-09002268

Date Reported: 6/14/2010



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

June 12, 2008

Toll Brothers, Inc.
11423 Hunt Crossing Ct.
Ellicott City, Maryland 21042

**RE: Patuxent Chase Lot 53
Independence Way
Well Tag: HO - 95 - 1263**

To Whom It May Concern:

A sample was collected during a yield test on April 16, 2008 and submitted to the Department of Health & 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 (GA/GB)** measure the total alpha and beta particle activity in a water supply. These naturally occurring radioactive nuclides have been demonstrated to be present in a certain type of geologic formation known as the Baltimore Gneiss which exists in your area of development within the County.

Results from this screening revealed a **Gross Alpha** of 14.0 ± 2.0 picocuries/liter (pCi/L); while the **Gross Beta** level was 16.0 ± 2.0 pCi/L. With the margin of error, the **Gross Alpha** result exceeded its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its targeted value of 50 pCi/L (roughly equivalent to the **annual dose rate of 4 millirems/year**).

Since with the margin of error the **Gross Alpha** finding exceeded its **MCL**, additional testing to verify existing levels for **Gross Alpha** and **Gross Beta** (both short and long term components), plus **Radium** will be necessary prior to occupancy. Alternatively, you may install treatment designed to reduce **Gross Alpha**, **Gross Beta** and **Radium**, plus provide post treated results (**short and long term GA/GB**, plus **Radium**) confirming that levels are in conformance with existing standards. These tests are **in addition to** the standard parameters required for Use & Occupancy.

Additionally, if treatment is installed, the owners will be required to sign an "AGREEMENT FOR APPROVAL OF AN INDIVIDUAL DRINKING WELL WITH AN ON-SITE TREATMENT SYSTEM" as part of the Use and Occupancy process.

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 or to discuss additional testing requirements.

Sincerely,

Bert Nixon, Director
Bureau of Environmental Health

Enclosure
cc: Barry Glotfelty, MDE Water Mgmt.
Well & Septic property file

Send Report To:

State of Maryland

Howard Co. Health

DHMH - Laboratories Administration
Division of Environmental Chemistry

7178 Columbia Gateway Dr.

RADIATION LABORATORY

Columbia, MD 21046

201 W. Preston Street, Baltimore, Maryland 21201

John M. DeBoy, Dr. P.H., Director

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: 951263BB No. B: _____ Field Blank Bottle No. A: _____ No. B: _____

Plant/Site Name: Homewood Crossing-Lot 53 County: Howard

Sample Source: Independence Way Location: H0-95-1263
(well no., lab sink, sample tap, etc.)

County: Plant No.

CHECK (one per box)

Drinking Water	<input checked="" type="checkbox"/>
Landfill	<input type="checkbox"/>
Stream	<input type="checkbox"/>
Other	<input type="checkbox"/>

Community	<input type="checkbox"/>
Non-community	<input type="checkbox"/>
Private	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

Source (raw water)	<input checked="" type="checkbox"/>
Distribution (treated)	<input type="checkbox"/>
MCL	<input type="checkbox"/>

Emergency	<input type="checkbox"/>
Routine	<input checked="" type="checkbox"/>
Recheck	<input type="checkbox"/>
Special	<input type="checkbox"/>

Collector: Brian Baker

Telephone No: (410) 313-2643

Date Collected: 4/16/08

Time Collected: 10:45 a.m. _____ p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code: Federal Project: Field Data: _____

Remarks: Sample Collected During Yield Test ^{pH} Chlorine

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	2288	14 ± 2	04/21/08
✓	Gross Beta	4100	2288	16 ± 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: 01 1 17 1 08

Supervisor: S. White