

C1 0754 (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.

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 12 20 10

DATE WELL COMPLETED MM DD YY 10 27 10 Depth of Well 22 300 26 21111 OK KW (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-1983

OWNER last name first name TOLL Brothers STREET OR RFD Fox River Dr. TOWN Columbia SUBDIVISION Benedict Farm SECTION LOT 83

WELL LOG Not required for driven wells STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

GROUTING RECORD WELL HAS BEEN GROUTED (Circle Appropriate Box) YES Y NO N TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC NO. OF BAGS 19 NO. OF POUNDS 1786 GALLONS OF WATER 114 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 52 ft.

CASING RECORD casing types insert appropriate code below MAIN CASING TYPE PL Nominal diameter top (main) casing (nearest inch)! 06 Total depth of main casing (nearest foot) 56

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

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES Y NO N

CIRCLE APPROPRIATE LETTER 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 SD 009 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 D

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

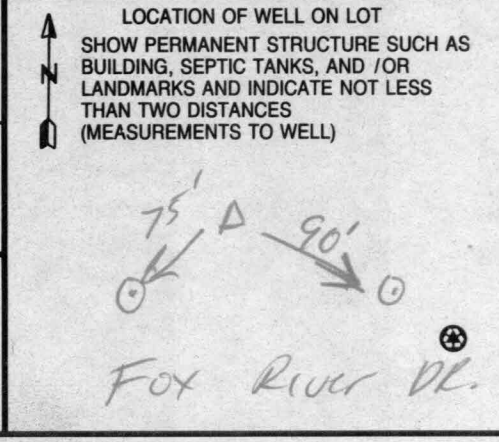
C2 DEPTH (nearest ft.) 1 2 3 4 5 6 7 8 9 11 15 17 21 23 24 26 30 32 36 38 39 41 45 47 51 SLOT SIZE 1 2 3 DIAMETER OF SCREEN (NEAREST INCH) 56 60 from to

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 70 72 74 75 76 TELESCOPE CASING LOG INDICATOR OTHER DATA

C3 PUMPING TEST HOURS PUMPED (nearest hour) 06 PUMPING RATE (gal. per min.) 2.4 METHOD USED TO MEASURE PUMPING RATE 1916 WATER LEVEL (distance from land surface) BEFORE PUMPING 25 ft. WHEN PUMPING 196 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 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) LAND SURFACE below 02 (nearest foot)



Date Received (APA) 08 19 10
 8 MM DD YY 13
OWNER INFORMATION
Toll Brothers
 15 Last Name Owner First Name 34
11423 Hunt Crossing Ct
 36 Street or RFD 55
Ellicott City Md 21042
 57 Town 70 State 72 Zip 76

B 3 **LOCATION OF WELL**
Howard
 8 COUNTY 21
Homewood Crossing
 23 SUBDIVISION 42
 SECTION 44 46 LOT 83 48 50
Columbia
 52 NEAREST TOWN 71
 MILES FROM TOWN (enter 0 if in town) 5 M I 73 76 77 78

DRILLER INFORMATION
Allen Compton M S D 009
 76 Driller's Name License No. 81
Fogles Well Drilling
 Firm Name
P.O. Box 202
 Address
Allen Compton 8-9-10
 Signature Date

B 4 **DIRECTION OF WELL FROM TOWN (CIRCLE BOX)**
 1 2

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
Fox River DR
 11 NEAR WHAT ROAD 30
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
 NORTH NORTH
 WEST WEST EAST EAST
 SOUTH SOUTH
 34 30 37
 DISTANCE FROM ROAD ENTER FT OR MI 38 39
 TAX MAP: 29 BLK: 9 PARCEL 28

B 2 **WELL INFORMATION**
 1 2 APPROX. PUMPING RATE 5
 (GAL. PER MIN.) 8 12
 AVERAGE DAILY QUANTITY NEEDED 500
 (GAL. PER DAY) 14 20

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL
Howard (13) A 515042
 COUNTY NAME COUNTY NO.
 STATE SIGNATURE _____ INSERT S → 41
 DATE ISSUED 9/2/10
 43 MM DD YY 48 CO SIGNATURE [Signature] 9/2/11 EXP. DATE
 NORTH GRID 511 0 0 0 EAST GRID 0826 0 0 0
 50 55 57 63

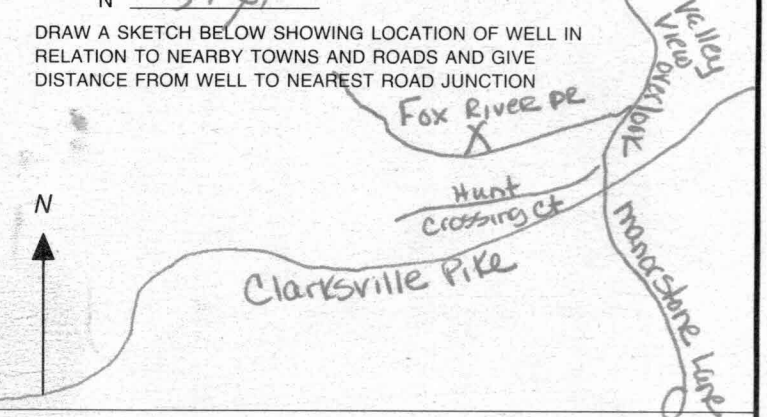
USE FOR WATER (CIRCLE APPROPRIATE BOX)
 D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
 F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
 I INDUSTRIAL, COMMERCIAL, DEWATERING
 P PUBLIC WATER SUPPLY WELL
 T TEST, OBSERVATION, MONITORING
 G GEO-THERMAL

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

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
 SOURCES OF DRILLING WATER
 1. 10/27/2010 Radium Sample Collected During Yield Test
 2.
 3.
 WRITE THE BOX NUMBER FROM THE MAP HERE
 E 8276
 N 5101
 000 000 (BB)

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 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 HO2003 GAP 006 (2)
 54 63
 PERMIT No. HO-95-1983
 70 71 72 73 74 75 76 77 78 79

Yield Test Data Sheet

County File # _____
District _____

MD Well Permit #: A0-95-1983

Date of Test: 10-27-10

Subdivision Name: Benedict Farm

Section _____ Lot # 83

Street Address: Fox River Dr

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

Distance from MP to ground surface 2' ft.

Well Depth 300 ft.

Well Driller: Allen Compton

Must be submitted with the State of Maryland Well Completion Report

Submit to: _____

Pump Start Time <u>9:00</u>	Static Water level <u>25</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 9:00	25 ft.	4	15 GPM
2 9:15	117 ft.	5	12 GPM
3 9:30	206 ft.	5	12 GPM
4 9:45	216 ft.	25	2.4 GPM
5 10:00	215 ft.	25	2.4 GPM
6 10:15	215 ft.	25	2.4 GPM
7 10:30	214 ft.	25	2.4 GPM
8 10:45	213 ft.	25	2.4 GPM
9 11:00	212 ft.	25	2.4 GPM
10 11:15	211 ft.	25	2.4 GPM
11 11:30	209 ft.	25	2.4 GPM
12 11:45	208 ft.	25	2.4 GPM
13 12:00	207 ft.	25	2.4 GPM
14 12:15	205 ft.	25	2.4 GPM
15 12:30	204 ft.	25	2.4 GPM
16 12:45	203 ft.	25	2.4 GPM
17 1:00	202 ft.	25	2.4 GPM
18 1:15	201 ft.	25	2.4 GPM
19 1:30	201 ft.	25	2.4 GPM
20 1:45	200 ft.	25	2.4 GPM
21 2:00	199 ft.	25	2.4 GPM
22 2:15	199 ft.	25	2.4 GPM
23 2:30	198 ft.	25	2.4 GPM
24 2:45	197 ft.	25	2.4 GPM
25 3:00	196 ft.	25	2.4 GPM
26 3:15	196 ft.	25	2.4 GPM
27 3:30	196 ft.	25	2.4 GPM
28 3:45	196 ft.	25	2.4 GPM
29	ft.		GPM
30	ft.		GPM

NOTES:

**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WELL & SEPTIC PROGRAM
TEL: (410)313-1771 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, LLC Telephone #: 443-609-4195
Address: P.O. Box 202
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# MSD 009

***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: Toll Brothers Telephone #: 410-992-5978
Subdivision: Palmyra Chase Lot #: 83 Well Tag #: HO-95-1983
Site Address: 11512 Fox River Dr.
Ellicott City, Md.

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>Grundfos</u>	Make: <u>Campbell</u>	Two piece watertight cap: <u>yes</u>
Model #: <u>10SGE10-220</u>	Model#: <u>N/A</u>	Screened, vented well cap: <u>yes</u>
Pump Capacity <u>10</u> GPM	Depth: <u>36"</u> (36" min)	Cap secured to casing: <u>yes</u>
Well Yield: <u>2.4</u> GPM	NSF/WSC approved: <u>yes</u>	Conduit min 18" B.G.: <u>yes</u>
Depth of well encountered at time of pump installation: <u>300'</u> (feet)		Conduit secured to well cap: <u>yes</u>
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 <u>inside of well casing</u> <u>N/A</u>		

<u>Piping to house</u>	<u>House Connection</u>
Type: <u>1" Black Plastic</u>	PVC sleeve to undisturbed soil at wall penetration: <u>yes</u>
PSI: <u>160</u> (160 psi min)	Length of sleeve(5' minimum from foundation): <u>5'</u>
Depth of supply line: <u>42"</u> (36" min)	Sleeve sealed properly: <u>yes</u>

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: 12-22-11

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

Date Insp. Requested: _____ Date Insp. Approved: _____ Inspector: _____

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 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 _____

**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 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: _____ Telephone #: _____
Subdivision: _____ Lot #: 83 Well Tag #: HO - 95-1983
Site Address: 115/2 Fox River Dr

Submersible Pump Data

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

Pitless Adapter

Make: _____
Model#: _____
Depth: _____ (36" min)
NSF 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 or Cable guards are required - Must circle one
Safety rope, if used, attached to inside of well casing with eye bolt _____

Piping to house

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

House Connection

PVC sleeved 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.

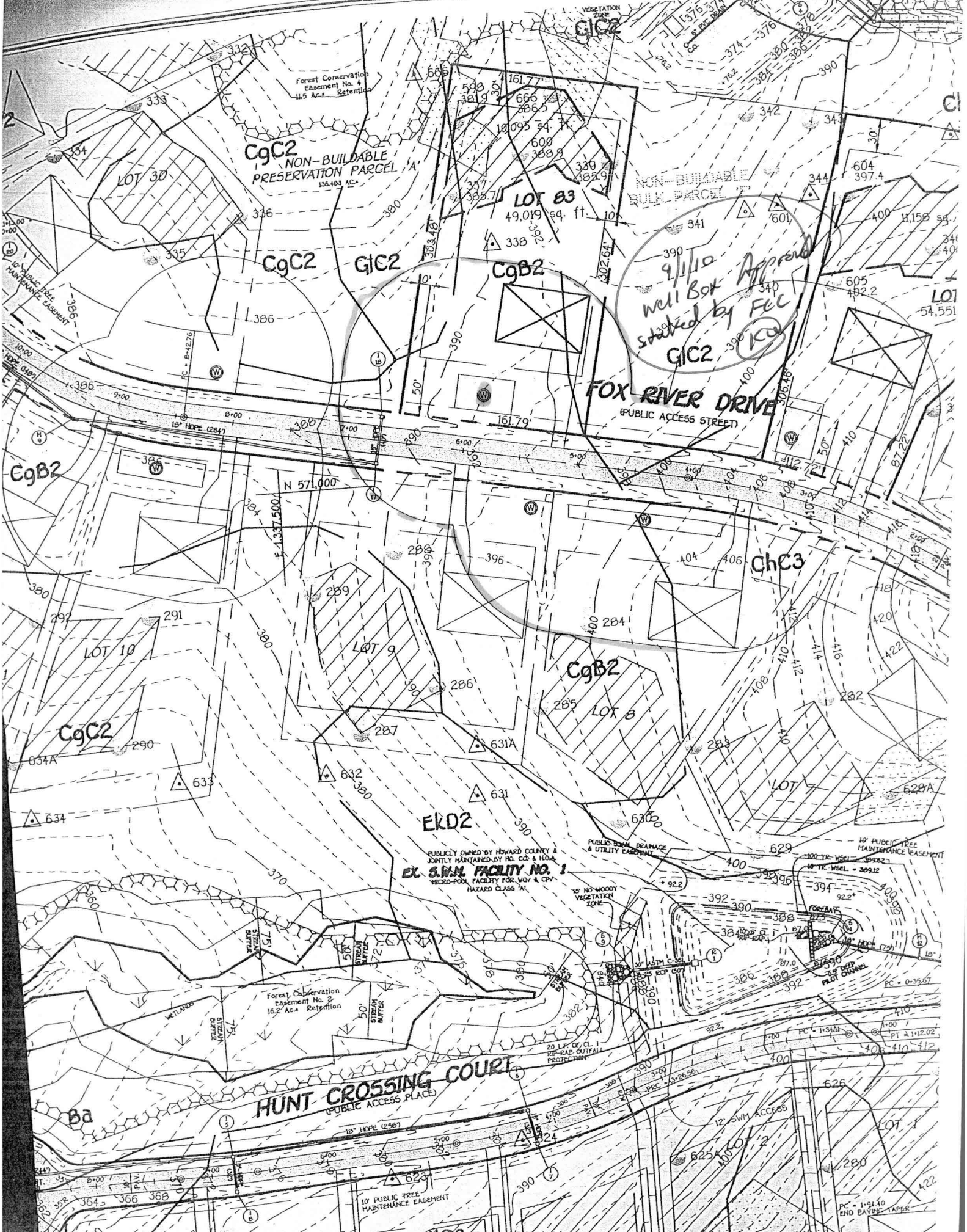
Signature of company representative responsible for installation _____ date _____

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

Date Insp. Requested: _____ Date Insp. Approved: _____

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

(KW) 2/14/12
✓
✓ Not Finished
✓ OK
✓
✓
✓



CgC2
NON-BUILDABLE
PRESERVATION PARCEL 'A'
136.483 AC.

NON-BUILDABLE
BULK PARCEL 'F'

9/11/10
Well Box
started by FEL
(K)

FOX RIVER DRIVE
(PUBLIC ACCESS STREET)

PUBLICLY OWNED BY HENARD COUNTY &
JOINTLY MAINTAINED BY HO, CO & HOA.
EX. S.W.M. FACILITY NO. 1
MICRO-POND FACILITY FOR HOV 4, CRY.
HAZARD CLASS 'A'

HUNT CROSSING COURT
(PUBLIC ACCESS PLACE)

Ba

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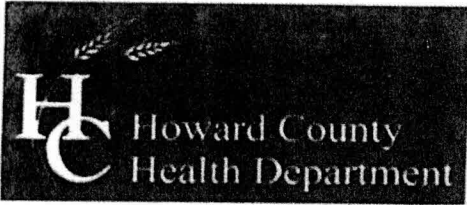
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Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

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

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: (Homewood Crossing)
Toll Brothers All Lots^{are} staked
Subdivision/Property Name Lot# Road Name

- The well site has been staked by Fisher, Collins & Carter Inc.
(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.

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

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

INTERIM CERTIFICATE OF POTABILITY

Expiration Date – September 16, 2012

3/16/2012

Homeowner
11512 FOX RIVER DRIVE
ELLCOTT CITY, MD 21042

RE: HOMEWOOD CROSSING, LOT 83
11512 Fox River Drive
Building Permit: B11001599
Well Permit: HO-95-1983

Dear Homeowner:

This is to advise you that the septic system installation and water well construction for the above referenced property have been inspected and approved. Final approval of the septic system was granted on **12/22/2011**. Final approval of the well line connection to the dwelling was granted on **2/14/2012**. The well construction was completed on **10/27/2010**. Water samples were collected on **1/27/2012, 2/2/2012, 2/20/2012 and 3/2/2012**.

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.

Gross Alpha and Beta samples were also collected on **10/27/2010**. Results showed a Gross Alpha level of **6.2 ± 1.8 pCi/L** and **Gross Beta** level of **7.0 ± 2.0 pCi/L**. The Gross Alpha was below the maximum contaminant level (MCL) of 15 pCi/L and the Gross Beta was below the target level of 50pCi/L (roughly equivalent to the annual dose rate of 4 millirems per year). At the time of testing and with respect to these parameters, the well water is safe for all uses.

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-95-1983. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will be issued. **Failure to submit an additional sample and obtain a Final Certificate of Potability will result in a Notice of**

Violation and is punishable as a misdemeanor under the *Annotated Code of Maryland, Environment Article, 9-1311*, subject to a fine of up to \$500 or imprisonment not to exceed three months.

Please contact (410) 313-1773 to schedule a final water sample appointment or contact a certified water quality laboratory to schedule a water sample. A list of laboratories certified by the state of Maryland may be found at the following website: <http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf>

Approving Authority,



Robert Bricker, REHS/R.S.
Environmental Sanitarian
Well & Septic Program

cc: Howard County Dept. of Inspections, Licenses, and Permits
Community Hygiene Program
File

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #: 83474 Account #: 1930
Reference: Toll Brothers Lot 83 Company: Fogle's Well Drilling
Location: 11512 Fox River Drive Requested By: Dave Fogle
Ellicott City, MD 21042 Source: Well Water
Date/ Time Collected: 3/2/2012 1435 Site: Laundry Room Sink
Date/Time Rec'd: 3/2/2012 1545 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 6.3
Collected By: J. Fogle 1974JF Well #: HO-95-1983

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	3/3/2012 / 1030 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	3/3/2012 / 1030 / CCH

OK
reb 3/16/12

NOTES

- 1 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 2 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 3 ND: None Detected
- 4 Sample collected by client, analyzed as received
- 5 pH & Chlorine level tested in lab

Reason for Test : Use & Occupancy

Building Permit # : B11001599

Date Reported: 3/5/2012

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.
 1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	83316	Account #:	1930
Reference:	Toll Brothers Lot 83	Company:	Fogle's Well Drilling
Location:	11512 Fox River Drive Ellicott City, MD 21042	Requested By:	Dave Fogle
Date/ Time Collected:	2/20/2012 1235	Source:	Well Water
Date/Time Rec'd:	2/20/2012 1615	Site:	Laundry Room Sink
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	J. Fogle 1974JF	pH:	6.1
		Well #:	HO-95-1983

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	5.3	MPN/ 100 ml	<1.0	SM18 9223	2/21/2012 / 1045 / BCD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	2/21/2012 / 1045 / BCD

*Follow up
3/1/12
Coliform test
Step #1 Well must
be chlorinated
then tested
Step #2 If well fails
after initial chlorinating
We must super
chlorinate then
test -
DB
2-23-12*

NOTES

- 1 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 2 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 3 ND: None Detected
- 4 Sample collected by client, analyzed as received
- 5 pH & Chlorine level tested in lab

Reason for Test : Use & Occupancy
 Building Permit # : B11001599

Date Reported: 2/21/2012

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	83144	Account #:	1930
Reference:	Toll Brothers Lot 83	Company:	Fogle's Well Drilling
Location:	11512 Fox River Drive Ellicott City, MD 21042	Requested By:	Dave Fogle
Date/ Time Collected:	2/2/2012 1345	Source:	Well Water
Date/Time Rec'd:	2/2/2012 1600	Site:	Laundry Room Sink
Chlorine ppm:	Free: <u>ND</u> Total: ND	Treatment:	None
Collected By:	J. Fogle 1974JF	pH:	6.1
		Well #:	HO-95-1983

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	2.0	MPN/ 100 ml	<1.0	SM18 9223	2/3/2012 / 1015 / BCD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	2/3/2012 / 1015 / BCD

*Total Coliform Fails (2nd Time)
reb 2/2/12*

NOTES

- 1 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 2 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 3 ND:None Detected
- 4 Sample collected by client, analyzed as received
- 5 pH & Chlorine level tested in lab

Reason for Test : Use & Occupancy
Building Permit # : B11001599

Date Reported: 2/3/2012

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd., Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	83045	Account #:	1930
Reference:	Toll Brothers Lot 83	Company:	Fogle's Well Drilling
Location:	11512 Fox River Drive Ellicott City, MD 21042	Requested By:	Dave Fogle
Date/ Time Collected:	1/27/2012 0716	Source:	Well Water
Date/Time Rec'd:	1/27/2012 1000	Site:	Kitchen Sink
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	J. Fogle 1974JF	pH:	6.5
		Well #:	HO-95-1983

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	9.9	MPN/ 100 ml	<1.0	SM18 9223	1/28/2012 / 1030 / BCD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	1/28/2012 / 1030 / BCD
Nitrate	6.23	mg/L	10	601	1/27/2012 / 1740 / CCH
Turbidity	0.43	NTU	<10	SM18 2130B	1/27/2012 / 1645 / CCH
Sand	NS	mg/L	5	Visual/Gravimetric	1/27/2012 / 1645 / CCH

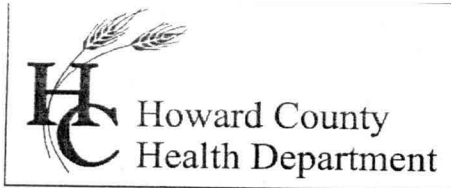
*Total Coliform 'Fail'
initial test.
Other parameters 'OK'
KB 2/1/12*

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 & Chlorine level tested in lab

Reason for Test : Use & Occupancy
Building Permit # : BI1001599

Date Reported: 1/30/2012



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

January 24, 2011

**Toll Brothers-Maryland Division
 7164 Columbia Gateway Drive
 Suite 230
 Columbia, Maryland 21046**

**RE: Homewood Crossing Lot 83
 Fox River Drive
 Well Tag: HO - 95 - 1983**

To Whom It May Concern:

A sample was collected during a yield test on October 27, 2010 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** 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 6.2 ± 1.8 picocuries/liter (pCi/L), while the **Gross Beta** level was 7.0 ± 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 targeted value of 50 pCi/L (roughly equivalent to the **annual dose rate** of 4 millirems/year). Long term analysis was performed in lieu of the more standard short term analysis to ensure compliance with established time constraints.

At the time of testing and with respect to these parameters, the future well water supply **does** appear safe for all uses. Additional testing **for these parameters** will not be required to secure the future Use & Occupancy. However, please note that other standard testing parameters (bacteria, nitrate, turbidity and sand) will still be required to help secure Use & Occupancy.

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
 Bert Nixon, Director
 Bureau of Environmental Health

Enclosure

cc: Barry Glotfelty, MDE Water Mgmt.

✓ Well & Septic property file

2000682 827 5

Send Report To: Bert Nixon
Howard Co. Env. Health
7178 Columbia Gateway Dr.
Columbia, MD 21046

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: 951983B No. B: _____ Field Blank Bottle No. 1: _____ No B: _____
Plant/Site Name: Homewood Crossing-Lot 83 County: Howard
Sample Source: Fox River Dr. Location: HO-95-1983
(well no, lab sink, sample tap, etc.)

County: 1 3 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: Brian Baker Telephone No.: (410) 313-2643

Date Collected: 10/27/2010 Time Collected: 10:30 a.m. _____ p.m.

Nitric Acid Preserved: Yes ^{resub} No Iced: Yes No

Submitters Code: Federal Project: Field Data: _____ pH _____ Chlorine _____

Remarks: Sample Collected During Yield Test

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000	<u>0682</u>	<u>6.2 ± 1.8</u>	<u>11/03/10</u>	<u>11/04/10</u>
✓	Gross Beta	4100	<u>0682</u>	<u>7.0 ± 2.0</u>	"	"
	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: 10/27/10

Supervisor: [Signature]

• Tel. No.: (410) 767 - 5537 • Fax No: (410) 333- 5373

2010 NOV 17 AM 7:40
RECEIVED
HOWARD COUNTY HEALTH DEPT
ENVIRONMENTAL HEALTH

Send Report To: Bert Nixon
Howard Co. Env. Health
7178 Columbia Gateway Dr.
Columbia, MD 21046

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: 951983BB No. B: _____ Field Blank Bottle No. 1: _____ No B: _____
 Plant/Site Name: Homewood Crossing-Lot 83 County: Howard
 Sample Source: Fox River Dr. Location: HO-95-1983
(well no, lab sink, sample tap, etc.)

County: 1 3 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: Brian Baker Telephone No.: (410) 313-2643

Date Collected: 10/27/2010 Time Collected: 10:30 a.m. _____ p.m.

Nitric Acid Preserved: Yes No Iced: Yes No

Submitters Code: Federal Project: Field Data: _____ pH _____ Chlorine _____

Remarks: Sample Collected During Yield Test

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000				
✓	Gross Beta	4100				
	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: ___ / ___ / ___

Supervisor: _____



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TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

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

MEMORANDUM

TO: Fogle's Well Drilling
Theresa
Allen Compton MWD

FROM: Kevin M. Wolf, R.S., R.E.H.S. *(KMW)*
Well and Septic Program
Groundwater Management Section

RE: *Homewood Crossing Lots 81-88 Well Permit Applications*
Special Condition → **Radium Testing Needed**

DATE: September 7th, 2010

The following comments apply to the above referenced Well Permit Applications. Please read through and complete as needed.

Homewood Crossing Lots 81-88 are located in the Radium area and require testing. This testing will be done during the yield test of each well on each indicated lot. When calling in yields and grouts on such pre-scheduled days, please make a note that a sanitarian will need to be present during the time of the yield test to sample the water for radium.

If you have any questions on this matter, please feel free to call me at any time at 410-313-2645.

KMW
C.C. Files Lots 81-88