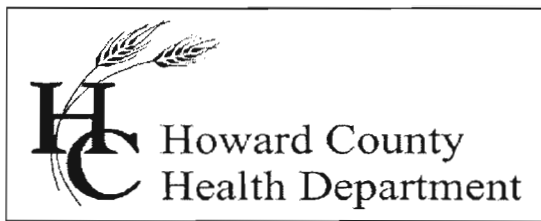


C 1 0755		STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE TYPE		THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.	
(THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)				COUNTY NUMBER	
ST/CO USE ONLY DATE Received MM DD YY 8 12 20 10		DATE WELL COMPLETED MM DD YY 10 28 10		Depth of Well 22 200 26 (TO NEAREST FOOT)	
				PERMIT NO. FROM "PERMIT TO DRILL WELL" 28 29 30 31 32 33 34 35 36 37 40 95 1986	
OWNER last name <u>Toll</u> first name <u>Brothers</u>		STREET OR RFD <u>Valley View Overlook</u>		TOWN <u>Columbia</u>	
SUBDIVISION <u>Benedict Farm</u>		SECTION		LOT <u>86</u>	
WELL LOG Not required for driven wells		GROUTING RECORD yes no <input checked="" type="checkbox"/> Y <input type="checkbox"/> N 44 44			
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		WELL HAS BEEN GROUTED (Circle Appropriate Box)			
DESCRIPTION (Use additional sheets if needed)		FEET FROM TO		check if water bearing	
Brown mica Gray mica Brown Gray mica		0 26 26 30 30 37 37 200		<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
		TYPE OF GROUTING MATERIAL (Circle one) CEMENT <input checked="" type="checkbox"/> CM BENTONITE CLAY <input type="checkbox"/> BC			
		NO. OF BAGS <u>10</u> NO. OF POUNDS <u>940</u>			
		GALLONS OF WATER <u>60</u>			
		DEPTH OF GROUT SEAL (to nearest foot) from <u>0</u> ft. to <u>29</u> ft. 48 TOP 52 ft. 54 BOTTOM 58 (enter 0 if from surface)			
		CASING RECORD			
		casing types insert appropriate code below			
		<input checked="" type="checkbox"/> ST <input type="checkbox"/> CO STEEL CONCRETE			
		<input checked="" type="checkbox"/> PL <input type="checkbox"/> OT PLASTIC OTHER			
		MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch)! Total depth of main casing (nearest foot)			
		<u>PL</u> <u>06</u> <u>31</u> 60 61 63 64 66 70			
		OTHER CASING (if used) diameter inch depth (feet) from to			
		E A C H C A S I N G			
		SCREEN RECORD			
		screen type or open hole insert appropriate code below			
		<input checked="" type="checkbox"/> ST <input type="checkbox"/> BR <input type="checkbox"/> HO STEEL BRASS OPEN HOLE			
		<input type="checkbox"/> PL <input type="checkbox"/> OT PLASTIC OTHER			
NUMBER OF UNSUCCESSFUL WELLS: <u>0</u>		C 2 DEPTH (nearest ft.)			
WELL HYDROFRACTURED yes no <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		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			
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		E 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			
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.		SLOT SIZE 1 <u>0.20</u> 2 <u>3</u>			
DRILLERS LIC. NO. <u>M SD 009</u>		DIAMETER OF SCREEN <u>04</u> (NEAREST INCH) 56 60			
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)		GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68			
LIC. NO. <u>D</u>		MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q			
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)		70 72 74 75 76 TELESCOPE LOG OTHER DATA CASING INDICATOR			
		PUMPING TEST			
		HOURS PUMPED (nearest hour) <u>03</u> 8 9			
		PUMPING RATE (gal. per min.) <u>15</u> 11 15			
		METHOD USED TO MEASURE PUMPING RATE <u>1906</u>			
		WATER LEVEL (distance from land surface)			
		BEFORE PUMPING <u>31</u> ft. 17 20			
		WHEN PUMPING <u>41</u> ft. 22 25			
		TYPE OF PUMP USED (for test)			
		<input checked="" type="checkbox"/> A air <input type="checkbox"/> P piston <input type="checkbox"/> T turbine 27 27 27			
		<input checked="" type="checkbox"/> C centrifugal <input type="checkbox"/> R rotary <input type="checkbox"/> O other (describe below) 27 27 27			
		<input type="checkbox"/> J jet <input checked="" type="checkbox"/> S submersible 27 27			
		PUMP INSTALLED			
		DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>			
		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 <u>29</u>			
		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)			
		<input checked="" type="checkbox"/> + above } LAND SURFACE			
		<input type="checkbox"/> - below } <u>02</u> (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)			
		<u>Valley View Overlook</u>			
		<u>50'</u> <u>75'</u>			

B 1	9581	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL <u>533980</u> please type	STATE PERMIT NUMBER <u>40-95-1986</u> fill in this form completely
Date Received (APA) <u>08 19 10</u> 8 MM DD YY 13		OWNER INFORMATION		
15 Last Name <u>Toll Brothers</u>		34 First Name		
36 Street or RFD <u>11423 Hunt Crossing Ct</u>		55		
57 Town <u>Ellicott City, Md</u>		76 Zip <u>21042</u>		
DRILLER INFORMATION				
76 Driller's Name <u>Allen Compton</u>		81 License No. <u>M S D 009</u>		
Firm Name <u>Eagles Well Drilling</u>				
Address <u>P.O. Box 202</u>				
Signature <u>Allen Compton</u> Date <u>8-9-10</u>				
B 2		WELL INFORMATION		
1 2		APPROX. PUMPING RATE (GAL. PER MIN.) <u>5</u>		
		8 12		
		AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) <u>500</u>		
		14 20		
USE FOR WATER (CIRCLE APPROPRIATE BOX)				
<input checked="" type="checkbox"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION				
<input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)				
22 <input type="checkbox"/> INDUSTRIAL, COMMERCIAL, DEWATERING				
<input type="checkbox"/> PUBLIC WATER SUPPLY WELL				
<input type="checkbox"/> TEST, OBSERVATION, MONITORING				
<input type="checkbox"/> GEO-THERMAL				
APPROXIMATE DEPTH OF WELL <u>300</u> FEET 24 28				
APPROXIMATE DIAMETER OF WELL <u>6</u> INCH NEAREST				
METHOD OF DRILLING (circle one)				
BORED (or Augered) <u>JETTED</u> Jetted & DRIVEN				
30 <u>AIR-ROTARY</u> AIR-PERCussion ROTARY (Hydraulic Rotary)				
37 <u>CABLE</u> REVerse-ROTary Drive-POINT				
other _____				
REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)				
<input checked="" type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL				
<input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED				
39 <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS				
<input type="checkbox"/> THIS WELL WILL DEEPEN AN EXISTING WELL				
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 _____ 52				
Not to be filled in by driller (MDE OR COUNTY USE ONLY)				
APPROP. PERMIT NUMBER <u>40 2003 G006</u>				
PERMIT No. <u>40-95-1986</u> 70 71 72 73 74 75 76 77 78 79				
B 3		LOCATION OF WELL		
8 COUNTY <u>Howard</u>		21		
23 SUBDIVISION <u>Homewood Crossing</u>		42		
SECTION <u>44</u> LOT <u>86</u>		50		
52 NEAREST TOWN <u>Columbia</u>		71		
MILES FROM TOWN (enter 0 if in town) <u>5</u> M I 73 76 77 78				
B 4		DIRECTION OF WELL FROM TOWN (CIRCLE BOX)		
1 2		11 30		
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)		34 30 37		
DISTANCE FROM ROAD ENTER FT OR MI <u>ft</u>		38 39		
TAX MAP: <u>29</u> BLK: <u>9</u> PARCEL <u>28</u>				
NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL				
<u>Howard</u> (13) <u>A 515042</u> COUNTY NAME COUNTY NO.				
STATE SIGNATURE _____ INSERT S → 41				
DATE ISSUED <u>9/7/10</u> CO SIGNATURE <u>John M. Vap</u> EXP. DATE <u>9/7/11</u>				
43 MM DD YY 48 NORTH GRID <u>511</u> 000 EAST GRID <u>0826</u> 000 50 55 57 63				
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X				
SOURCES OF DRILLING WATER				
1. <u>10/28/10 Radon sample collected @ Yadd</u>				
2. _____				
3. _____				
WRITE THE BOX NUMBER FROM THE MAP HERE				
E <u>822.6</u> N <u>510.1</u>				
DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION				
SPECIAL CONDITIONS				
NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED.				



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
Main: 410-313-6300 | Fax: 410-313-6303
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org
Facebook: www.facebook.com/hocohealth
Twitter: HowardCoHealthDep

Maura J. Rossman, M.D., Health Officer

INTERIM CERTIFICATE OF POTABILITY

Expiration Date – May 7, 2014

November 7, 2013

Homeowner
4953 Valley View Overlook
Ellicott City, MD 21042

**RE: Patuxent Chase, Lot 86
4953 Valley View Overlook
Building Permit: B12002876
Well Permit: HO-95-1986**

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 **9/24/2013**. Final approval of the well line connection to the dwelling was granted on **10/15/2013**. The well construction was completed on **10/28/2010**. Water samples were collected on **11/4/2013**.

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 **10/28/2010**. Results showed a Gross Alpha level of **2.0 ± 0.0 pCi/L** and **Gross Beta** level of **5.6 ± 1.9 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-95-1986. 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.**

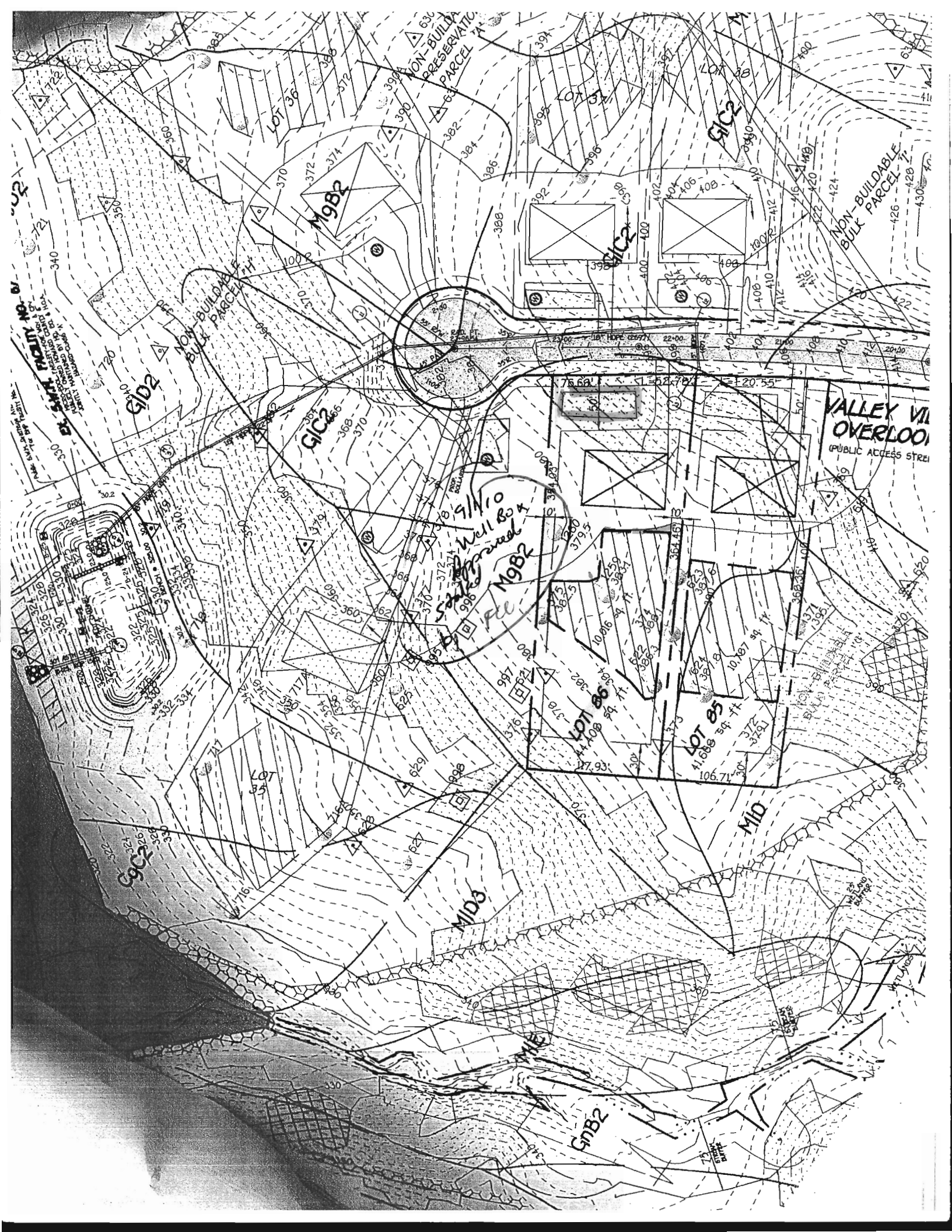
Please contact (410) 313-1773 to schedule a final water sample appointment or contact a certified water quality laboratory to schedule a water sample. A list of laboratories certified by the state of Maryland may be found at the following website:
<http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf>

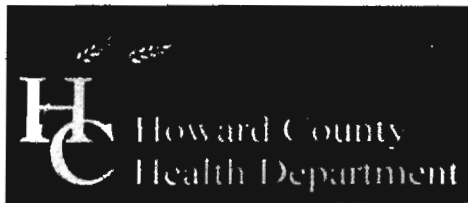
Approving Authority,

A handwritten signature in black ink, appearing to read "Heidi Scott". The signature is fluid and cursive, with the first name "Heidi" and last name "Scott" clearly distinguishable.

Heidi Scott, L.E.H.S.
Environmental Sanitarian
Well & Septic Program

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





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

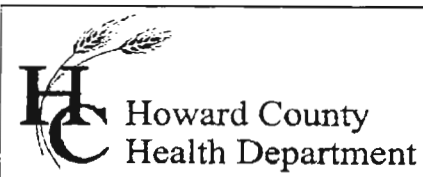
When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

Well Site Location: (Homewood Crossing)
Toll Brothers 1711 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



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 18, 2011

Toll Brothers-Maryland Division
7164 Columbia Gateway Drive
Suite 250
Columbia, Maryland 21046

RE: Homewood Crossing Lot 86
Valley View Overlook
Well Tag: HO - 95 - 1986

To Whom It May Concern:

A sample was collected during a yield test on October 28, 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 **long term** screening revealed a **Gross Alpha** of $< 2.0 \pm 0.0$ picocuries/liter (pCi/L), while the **Gross Beta** level was 5.6 ± 1.9 pCi/L. The **Long Term Gross Alpha** result was below its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Long Term 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, Director
Bureau of Environmental Health

Enclosure

cc: Barry Glotfelty, MDE Water Mgmt.
Well & Septic property 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 #:	91817	Account #:	1930
Reference:	Toll Brothers Lot 86	Company:	Fogle's Well Drilling
Location:	4953 Valley View Overlook	Requested By:	Dave Fogle
	Ellicott City, MD 21042	Source:	Well Water
Date/ Time Collected:	11/4/2013 1104	Site:	Pressure Tank
Date/Time Rec'd:	11/4/2013 1310	Treatment:	None
Chlorine ppm:	Free: ND Total: ND	pH:	6.0
Collected By:	J. Fogle 1974JF	Well #:	HO-95-1986

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	✓ <1.0	MPN/ 100 ml	<1.0	SM18 9223	11/5/2013 / 0800 / BCD
Bacteria, E. coli, MPN	✓ <1.0	MPN/ 100 ml	<1.0	SM18 9223	11/5/2013 / 0800 / BCD
Nitrate	✓ <1.0	mg/L	10	601	11/5/2013 / 0800 / BCD
Turbidity	✓ 1.25	NTU	<10	SM18 2130B	11/5/2013 / 0715 / JKW
Sand	✓ NS	mg/L	5	Visual/Gravimetric	11/5/2013 / 0710 / JKW

Results OK
11/7/13 HS

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 # : B12002876

Date Reported: 11/5/2013

Send Report To:

State of Maryland
DHMH - Laboratories Administration

E000690 829 5

Division of Environmental Chemistry
RADIATION LABORATORY201 W. Preston Street, Baltimore, Maryland 21201
John M. DeBoy, Dr. P. H., DirectorBert Nixon7/78 Columbia Gateway DrColumbia, MD 21046**LABORATORY ANALYSIS REQUEST**Sample Bottle No. A: H0951986 No. B: _____ Field Blank Bottle No. 1: _____ No B: _____Plant/Site Name: Home Wood Crossing - Lot 86 County: HowardSample Source: well - Valley View Overlook Location: H0-95-1986
(well no, lab sink, sample tap, etc.)County: ☒ 1 ☒ 2 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. WolfTelephone No.: 410-313-2445Date Collected: 10/28/10 eveningTime Collected: 11:30 a.m. _____ p.m.Nitric Acid Preserved: Yes ☒ No ☐Iced: Yes ☐ No ☐Submitters Code: ☐ ☐Federal Project: ☐Field Data: _____
pH _____ Chlorine _____Remarks: Sample collected @ Yard. / could not make short term analysis. Testing to be done for long term

✓	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				
✓	Gross Alpha Long Term		0690	22.0	11/29/10	12/1/10
✓	Gross Beta Long Term		0690	5.6 ± 1.9	"	"

Date Received: 10/29/10Supervisor: [Signature]

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




Howard County
Health Department

7178 Columbia Gateway Drive, Columbia MD 21046
(410) 313-2640 Fax (410) 313-2648
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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. 
Well and Septic Program
Groundwater Management Section

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

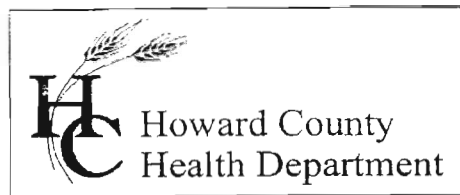
DATE: September 7th, 2010

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



Bureau of Environmental Health
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Peter L. Beilenson, M.D., M.P.H., Health Officer

January 18, 2011

Toll Brothers-Maryland Division
7164 Columbia Gateway Drive
Suite 250
Columbia, Maryland 21046

RE: Homewood Crossing Lot 86
Valley View Overlook
Well Tag: HO - 95 - 1986

To Whom It May Concern:

A sample was collected during a yield test on October 28, 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 **long term** screening revealed a **Gross Alpha** of $< 2.0 \pm 0.0$ picocuries/liter (pCi/L), while the **Gross Beta** level was 5.6 ± 1.9 pCi/L. The **Long Term Gross Alpha** result was below its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Long Term 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, Director
Bureau of Environmental Health

Enclosure

cc: Barry Glotfelty, MDE Water Mgmt.

✓ Well & Septic property file

Send Report To:

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

Bert Nixon

7178 Columbia Gateway Dr.

Columbia, MD 21046

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: H0951986 No. B: _____ Field Blank Bottle No. 1: _____ No B: _____

Plant/Site Name: Home Wood Crossing - Lot 86 County: Howard

Sample Source: well - Valley View Overlook Location: H0-95-1986
(well no, lab sink, sample tap, etc.)

County: ☒ 1 ☒ 3 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: K. Wolf

Telephone No.: 410-313-2645

Date Collected: 10/28/10 evening

Time Collected: 11:30 a.m. _____ p.m.

Nitric Acid Preserved: Yes ☒ No ☐

Iced: Yes ☐ No ☐

Submitters Code: ☐ ☐

Federal Project: ☐

Field Data: _____

Remarks: Sample collected @ Yard. / could not make short term analysis. Testing to be done for Long Term

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
<input checked="" type="checkbox"/>	Gross Alpha	4000				
<input checked="" type="checkbox"/>	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				
<input checked="" type="checkbox"/>	Gross Alpha Long Term		0690	22.0	11/29/10	12/1/10
<input checked="" type="checkbox"/>	Gross Beta Long Term		0690	5.6 ± 1.9	"	"

Date Received: 10/29/10

Supervisor: [Signature]

Send Report To:

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

E000688 829 5

LABORATORY ANALYSIS REQUEST

Field Blank
Sample Bottle No. A: FB102810 No. B: Field Blank Bottle No. 1: No B:

Plant/Site Name: Ho. Co. County: Howard

Sample Source: Distilled H₂O Location: Distilled H₂O
(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: K. Wolf

Telephone No.: 410-313-1721

Date Collected: 10/29/10

Time Collected: 9:55 a.m. p.m.

Nitric Acid Preserved: Yes ☒ No ☐

Iced: Yes ☐ No ☐

Submitters Code: ☐ ☐

Federal Project: ☐

Field Data: pH Chlorine

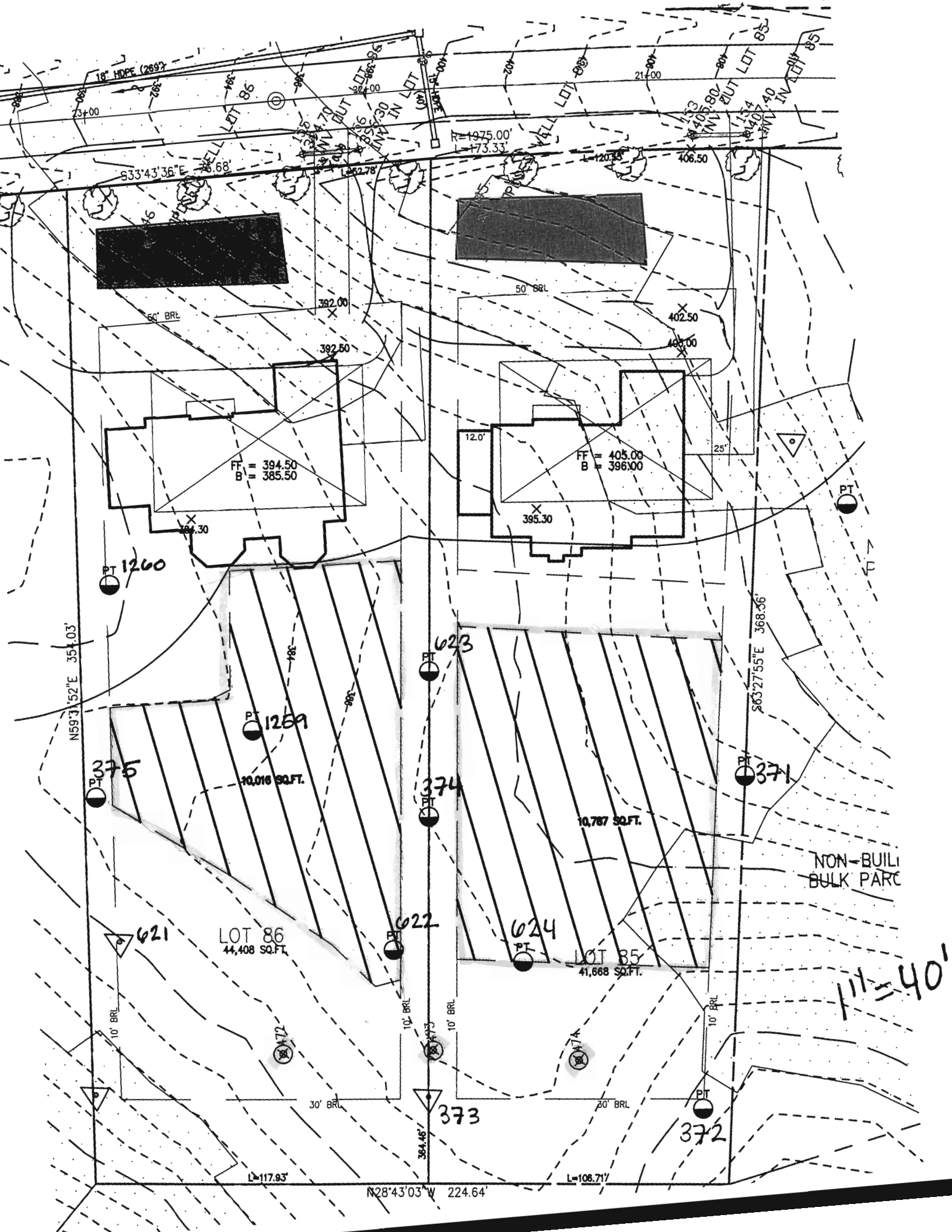
Remarks: Field Blank preserved & pH < 3.0

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000	<u>488</u>	<u><2.0</u>	<u>11/29/10</u>	<u>12/1/10</u>
✓	Gross Beta	4100	<u>489</u>	<u><4.0</u>	<u>"</u>	<u>"</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: 10/29/10

Supervisor: [Signature]

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



**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: Fogel's Well Drilling LLC Telephone #: 443-609-4195
Address: PO 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 #: 410-489-7407
Subdivision: Patient Chase Lot #: 66 Well Tag #: HO-95-1986
Site Address: 4953 Valleyview Overlook Ct
Ellicott City, MD 21042

Submersible Pump Data
Make: Gund POS
Model #: 15350T-180
Pump Capacity: 7 GPM
Well Yield: 15 GPM

Pitless Adapter
Make: Campbell
Model #: N/A
Depth: 36" (36" min)
NSF/WSC approved:

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

Depth of well encountered at time of pump installation: 200 (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 N/A

Piping to house

Type: 1" poly pipe
PSI: 160 (160 psi min)
Depth of supply line: 42" (36" min)

House Connection

PVC sleeve to undisturbed soil at wall penetration: yes
Length of sleeve (5' minimum from foundation): 5'
Sleeve 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

date

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

Date Insp. Requested: Date Insp. Approved: 10/15/13 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 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 ✓