

C 1 8700

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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 A 515042

ST/CO USE ONLY DATE RECEIVED

DATE WELL COMPLETED 8 22 06 DEPTH OF WELL 22 200

PERMIT NO. FROM "PERMIT TO DRILL WELL" 10-95-0492

OWNER TOLL Brothers STREET OR RFD FOX River Dr. TOWN Columbia SUBDIVISION Benedict Farms SECTION LOT 18

WELL LOG table with columns for DESCRIPTION, FEET (FROM, TO), and check if water bearing. Includes handwritten entries: Brown shale 0-50, Gray Limestone 30-200.

GROUTING RECORD form with fields for WELL HAS BEEN GROUTED, TYPE OF GROUTING MATERIAL (CEMENT, BENTONITE CLAY), NO. OF BAGS, NO. OF POUNDS, GALLONS OF WATER, DEPTH OF GROUT SEAL.

CASING RECORD form with fields for casing types (STEEL, CONCRETE, PLASTIC, OTHER), MAIN CASING TYPE, Nominal diameter, Total depth.

OTHER CASING (if used) form with fields for diameter, depth.

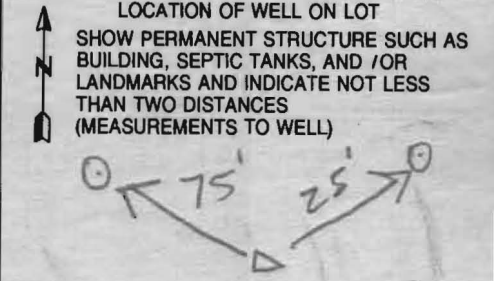
SCREEN RECORD form with fields for screen type (STEEL, BRASS, BRONZE, PLASTIC, OPEN HOLE, OTHER).

PUMPING TEST form with fields for HOURS PUMPED, PUMPING RATE, METHOD USED TO MEASURE PUMPING RATE, WATER LEVEL, BEFORE PUMPING, WHEN PUMPING, TYPE OF PUMP USED.

PUMP INSTALLED form with fields for DRILLER INSTALLED PUMP, IF DRILLER INSTALLS PUMP, TYPE OF PUMP INSTALLED, PLACE, CAPACITY, PUMP HORSE POWER, PUMP COLUMN LENGTH, CASING HEIGHT.

Form with fields for NUMBER OF UNSUCCESSFUL WELLS, WELL HYDROFRACTURED, and instructions for well status (A, E, P).

Form with fields for DEPTH (nearest ft.), SLOT SIZE, DIAMETER OF SCREEN.



Form with fields for DRILLERS LIC. NO., DRILLERS SIGNATURE, LIC. NO.

Form with fields for GRAVEL PACK, MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER).

W525166

B 1 5969

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND PERMIT TO DRILL WELL

STATE PERMIT NUMBER

H0-95-0492

fill in this form completely

W525166

Date Received (APA)

OWNER INFORMATION

8 MM DD YY 13
Toll Brothers
15 Last Name Owner First Name 34
14324 Triadelphia Rd
36 Street or RFD 55
Glenelg md. 21737
57 Town 70 State 72 Zip 76

DRILLER INFORMATION Andrew H. Houseman
Allen Compton MS D 009
Driller's Name License No. 81

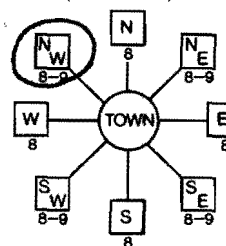
Fogle Well Drilling
580 Obrecht Rd
Address
Signature Date 8-3-06

B 3 LOCATION OF WELL

8 COUNTY 21 Howard
23 SUBDIVISION Benedict Farm
SECTION 44 46 LOT 18 48 50
52 NEAREST TOWN Columbia
MILES FROM TOWN (enter 0 if in town) 3 M I 73 76 77 78

B 4

1 2 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Fox River DR
11 NEAR WHAT ROAD 30
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
34 290 37
DISTANCE FROM ROAD ENTER FT OR MI 38 39
TAX MAP: 29 BLK: 9 PARCEL 28

B 2 WELL INFORMATION
APPROX. PUMPING RATE (GAL. PER MIN.) 5
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500

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

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

HOWARD 13 AS15042
COUNTY NAME COUNTY NO.
STATE SIGNATURE INSERT S
DATE ISSUED 8/2/06 8/3/07
43 MM DD YY 48 CO SIGNATURE EXP. DATE
NORTH GRID 510 000 EAST GRID 824 000
50 55 57 63

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

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTARY ROTARY (Hydraulic Rotary)
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 DEEPEMED AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

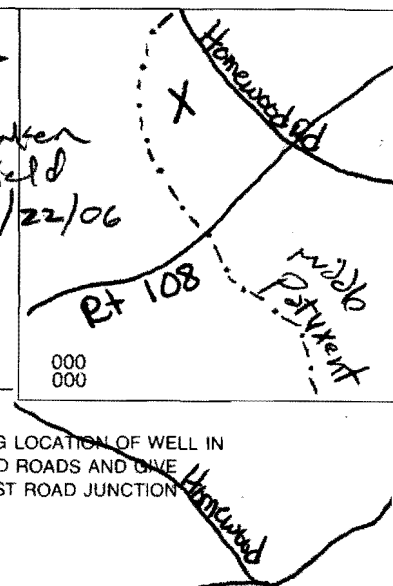
SOURCES OF DRILLING WATER

- 1. sample taken during yield test 8/22/06

WRITE THE BOX NUMBER FROM THE MAP HERE

E 824
N 510

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



N

Clarksville Pike

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROX. PERMIT NUMBER

H0 2003 006 (02)

Yield Test Data Sheet

County File # _____

MD Well Permit #: H0-95-0492

Subdivision Name: Benedict Farm

Section _____ Lot # 18

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 200' ft.

Well Driller: Allen Computers

Must be submitted with the State of Maryland Well Completion Report

Submit to:

NOTES:

Pump Start Time 7:30	Static Water level: <u>38'</u> ft.	Pumping Rate <u>5</u> sec. () Time to fill <u>1</u> gal. bucket () Flow meter reading (if used)	Calculated Flow (gallons per minute) 12
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 7:30	38 ft.	5	12 GPM
2 7:45	104 ft.	9	6.1 GPM
3 8:00	104 ft.	9	6.1 GPM
4 8:15	104 ft.	9	6.1 GPM
5 8:30	104 ft.	9	6.1 GPM
6 8:45	104 ft.	9	6.1 GPM
7 9:00	104 ft.	9	6.1 GPM
8 9:15	104 ft.	9	6.1 GPM
9 9:30	104 ft.	9	6.1 GPM
10 9:45	104 ft.	9	6.1 GPM
11 10:00	104 ft.	9	6.1 GPM
12 10:15	104 ft.	9	6.1 GPM
13 10:30	104 ft.	9	6.1 GPM
14 10:45	104 ft.	9	6.1 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

**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: 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# MSD0009
*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: Toil Brothers Telephone #: 410-992-5928
Subdivision: Benedict Farm/Retreat Lot# 13 Lot #: 18 Well Tag #: HO-95-0492
Site Address: 11602 Fox Chase Ct
Ellicott City, Md 21042

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>Grundfos</u>	Make: <u>Comphal</u>	Two piece watertight cap: <u>YES</u>
Model #: <u>15300W-180</u>	Model#: <u>N/A</u>	Screened, vented well cap: <u>YES</u>
Pump Capacity <u>15</u> GPM	Depth: <u>31</u> (36" min)	Cap secured to casing: <u>YES</u>
Well Yield: <u>6.0</u> GPM	NSF approved: <u>YES</u>	Conduit min 18" B.C.: <u>YES</u>
Depth of well encountered at time of pump installation: <u>200</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 or Cable guards are required - Must circle one
Safety rope, if used, attached to inside of well casing with eye bolt N/A

<u>Piping to house</u>	<u>House Connection</u>
Type: <u>1" Black Plastic</u>	PVC sleeved to undisturbed soil at wall penetration: <u>YES</u>
PSI: <u>160</u> (160 psi min)	Approximate length of sleeve (5 foot minimum): <u>5</u>

Depth of supply line: 42 (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:

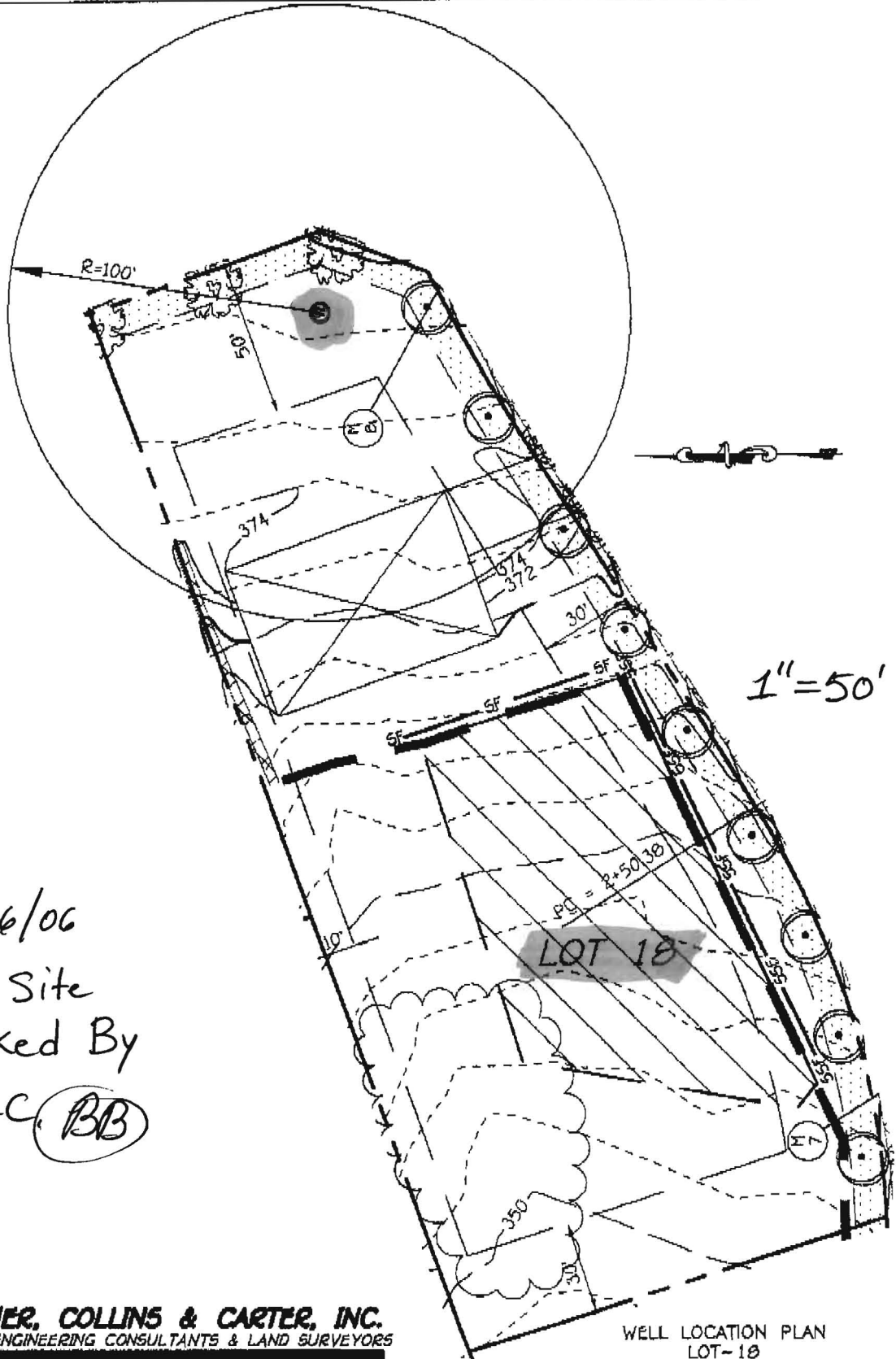
Signature of company representative responsible for installation: Allen Compton date 5/26/10

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

Date Insp. Requested: _____ Date Insp. Approved: 5/21/10 UCR

Inspection Data: Pitless adapter and water supply line at least 36" below grade	<input checked="" type="checkbox"/>
Two piece cap installed and attached to casing securely	<input checked="" type="checkbox"/>
Elec. conduit extends at least 18" below grade/attached to cap properly	<input checked="" type="checkbox"/>
Safety rope installed inside of well casing	<input checked="" type="checkbox"/>
Correct well tag attached properly and casing 8" above finished grade	<input checked="" type="checkbox"/>
Water supply line sleeved adequately at house connection	<input checked="" type="checkbox"/>
Adequate grout observed below pitless adapter	<input checked="" type="checkbox"/>

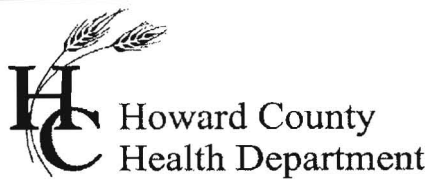
PROJ:30754 Benedict Farm.dwg PHASE I - FINALS:30754 WELL LOCATION.dwg, 2/17/2006 11:14:46 AM, 1:1



3/16/06
 Well Site
 Staked By
 F,C+C. (BB)

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461 - 2855

WELL LOCATION PLAN
 LOT-18
 ZONED RC-DEO
 TAX MAP No. 29 GRID No. 9 PARCEL No. 2B
 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE 1" = 50' DATE: FEBRUARY 16, 2006



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 22, 2010

Homeowner
11602 Fox Chase Court
Ellicott City, MD 21042

RE: Homewood Crossing, Lot 18
11602 Fox Chase Court
Ellicott City, MD 21042
BP #B09002292
Well Permit #HO-95-0492

Dear Sir/Madam,

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 06/02/2010. Final approval of the well line connection to the dwelling was approved on 05/21/2010.**

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 raw nitrate sample results were previously documented to be 10.5 ppm. **A nitrate removal device (Reverse Osmosis) has been installed to treat the excessive nitrate contamination. The nitrate treatment device appears to be operating properly as evidenced by the water sample results taken on 7/15/2010 which indicates a nitrate level of <1.0 ppm.**

Permanent Deviation for Nitrates

COMAR 26.04.04.09 prohibits approval of any water supply with a nitrate-nitrogen contaminant level in excess of 10 parts per million. **This department will grant a permanent deviation to that section of the regulation on condition that the nitrate removal system effectively maintains the nitrate-nitrogen contaminant level of 10 ppm or less.**

Furthermore, it will be necessary for you to comply with the following conditions:

1. The system must be properly operated and maintained continuously in accordance with the service contract for the life of the **residence**.
2. It is recommended that a laboratory certified for water testing perform a yearly nitrate analysis. (Certified to test for nitrates)
3. If you decide to sell or rent your home in the future, you must make any potential buyer/tenant aware of the above condition.

INTERIM CERTIFICATE OF POTABILITY
(Permanent Deviation for Nitrates)

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-95-0492. **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.

Further more, under COMAR 26.04.04.09 E. *Disclosure*, any and all special conditions to this interim certificate of potability shall be disclosed to any purchaser of the property served by the well HO-95-0179 before entering into a contract of sale or lease. A person who fails to make this disclosure is subject to the penalties set out in Regulation .12F *Enforcement* and Environment Article 9-1311, Annotated Code of Maryland.

This certificate may become final upon completion of the second bacteriological and nitrate tests, which may be taken by the health department within six months of the date 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 Sample(s): 07/15/2010

Date of Radium Sample(s): 09/18/2006, **PENDING GROSS ALPHA& BETA SHORT AND LONG TERM, RADIUM 226 & 228**

Date of Well Completion: 08/22/2006

Respectfully,



Kevin M. Wolf, R.S., R.E.H.S
Environmental Sanitarian
Well and Septic Program

cc: Building Inspector's office
Community Health Services
File

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1419 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	76041	Account #:	1930
Reference:	Toll Brothers #18	Company:	Fogle's Well Drilling
Location:	11602 Fox Chase Court Ellicott City, MD 21042	Requested By:	Dave Fogle
Date/ Time Collected:	7/15/2010 1020	Source:	Well Water
Date/Time Rec'd:	7/15/2010 1405	Site:	Kitchen Sink Tap
Chlorine ppm:	Free: ND Total: ND	Treatment:	Reverse Osmosis**
Collected By:	J. Fogle 1974.JF	pH:	6.0
		Well #:	N/A

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	1.0	MPN/ 100 ml	<1.0	SM18 9223	7/16/2010 / 0845 / KME
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	7/16/2010 / 0845 / KME
Nitrate	10.5	mg/L	10	601	7/16/2010 / 1100 / CCH
Turbidity	2.08	NTU	<10	SM18 2130B	7/16/2010 / 0830 / KME
Sand	NS	mg/L	5	Visual/Gravimetric	7/16/2010 / 0840 / KME

NOTES

- 1 **Sample collected prior to treatment
- 2 mg/L = milligrams per liter (also, parts per million)
- 3 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 4 NS = None Seen (NS indicates less than 5 mg/L)
- 5 NTU = Nephelometric Turbidity Units
- 6 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 7 ND = None Detected; N/A: Not Available
- 8 Sample collected by client, analyzed as received
- 9 pH tested on-site

Reason for Test : Use & Occupancy
 Building Permit # : 09002992

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1415 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	76041.1	Account #:	1930
Reference:	Toll Brothers #18	Company:	Fogle's Well Drilling
Location:	11602 Fox Chase Court Ellicott City, MD 21042	Requested By:	Dave Fogle
Date/ Time Collected:	7/15/2010 1020	Source:	Well Water
Date/Time Rec'd:	7/15/2010 1405	Site:	RO Tap
Chlorine ppm:	Free: ND Total: ND	Treatment:	Reverse Osmosis
Collected By:	J. Fogle 1974JF	pH:	6.0
		Well #:	N/A

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Nitrate	<1.0	mg/L	10	601	7/16/2010 / 1100 / CWM

NO
Permanent Denial
for Nitrates

NOTES

- 1 mg/L = milligrams per liter (also, parts per million)
- 2 ND = None Detected; N/A: Not Available
- 3 Sample collected by client, analyzed as received
- 4 pH tested on-site

Reason for Test : Use & Occupancy
Building Permit # : 09002992

REQUEST FOR PERMANENT DEVIATION TO
NITRATE STANDARDS FOR CERTIFICATE OF POTABILITY

DATE: 7/22/10 WELL PERMIT #: HO - 95 - 0492

PROPERTY OWNER: Toll MA III LP
SUBDIVISION & LOT #: Patuxent Changes
PROPERTY ADDRESS: 11602 Fox Chase Court Ellicott City Md 21042

CONDITIONS:

- 1) The well installed under permit # HO - 95 - 0492 has been documented to have a nitrate level of 10.5 ^{mg/L} ppm which exceeds the MCL of 10 ppm. As a result of installation and operation of a nitrate filtration system, this nitrate contamination has been reduced to 4.0 _{mg/L} ppm at the primary drinking tap.

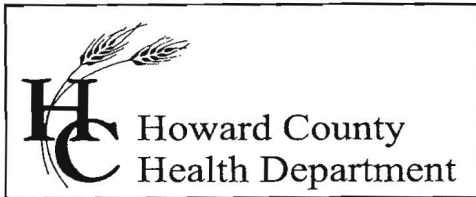
I hereby request that a Permanent Deviation to COMAR 26.04.04.09 be granted for the well installed under permit HO - 95 - 0492. I am fully aware of the conditions under which this deviation will be granted, and of my responsibilities as the well owner, which include advising any future buyer/ tenant of the installation, condition and maintenance responsibilities of the nitrate removal device.

Prospective Owner's Original Signature(s) [**Person(s) that intend to live in the dwelling**]



Prospective Owner's Day Time Phone Number(s)

410.489.7345



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

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

September 18, 2006

Toll Brothers – Maryland Division
7164 Columbia Gateway Drive
Columbia, Maryland 21046

RE: Benedict Farm Subdivision, Lot 18
Well Tag: HO-95-0492

To Whom It May Concern:

A sample was collected from a yield test on August 22, 2006 and submitted to GPL 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 17.0 ± 3.3 picocuries/liter (pCi/L); while the **Gross Beta** level was 12.2 ± 2.1 pCi/L. 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 equal to the annual dose rate of 4 millirems/year).

Since the **Gross Alpha** finding exceeded its MCL, additional testing for **Radium** will be necessary prior to occupancy to verify existing levels. Alternatively, you may install treatment designed to reduce **Gross Alpha**, **Gross Beta** and **Radium**, plus provide post treated results confirming that levels are in conformance with existing standards. Keep in mind that the standard potability parameters required for occupancy will still be needed.

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, Deputy Director
Bureau of Environmental Health

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