C 1 65163 — SEQUENCE NO. (MDE USE ONLY)

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

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 2 DD 18 YY 19 (15–20)

Approved 4/16/20 ST

Depth of Well 125' (TO NEAREST FOOT) (22–26)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO - 18 - 0155 (28–37)

OWNER Toll Brothers (last name / first name)

WELL SITE ADDRESS Pudding Lane TOWN Ellicott City

SUBDIVISION Kings Forest SECTION LOT 26

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 FROM	FEET TO	check if water bearing
Clay	0	12	
Sandy Clay	12	31	
Grey Limestone	31	80	
Fracture	80	82	✓
Grey Limestone	82	110	
Fracture	110	112	✓
Grey Limestone	112	125	

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes [Y] no [N]

CIRCLE APPROPRIATE LETTER
- A — A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E — ELECTRIC LOG OBTAINED
- P — TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. M D 224

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. __ D ___

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

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes [Y] (44) no [N] (44)

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT [CM] (45 46) BENTONITE CLAY [BC] (45 46)

NO. OF BAGS 9 NO. OF POUNDS 450

GALLONS OF WATER 225

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (48 TOP 52) ft. to 50 (54 BOTTOM 58) 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	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
ST (60 61)	06 (63 64)	51 (66 70)

OTHER CASING (if used)

EACH CASING	diameter inch	depth (feet) from	depth (feet) to

SCREEN RECORD
screen type or open hole — insert appropriate code below

[ST] STEEL [BR] BRASS [BRONZE] [PL] PLASTIC [HO] OPEN HOLE [OT] OTHER

C 2

DEPTH (nearest ft.)

EACH SCREEN		from	to
1	HO (8 9)	51 (11–15)	125 (17–21)
2	(23 24)	(26–30)	(32–36)
3	(38 39)	(41–45)	(47–51)

SLOT SIZE 1 ____ 2 ____ 3 ____

DIAMETER OF SCREEN ____ (56–60) (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 (68)

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) (E.R.O.S.) (72) W Q (74 75 76)

TELESCOPE CASING — LOG INDICATOR — OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 3 (8 9)

PUMPING RATE (gal. per min.) 10 (11–15)

METHOD USED TO MEASURE PUMPING RATE 1 gal

WATER LEVEL (distance from land surface)

BEFORE PUMPING 10 (17–20) ft.

WHEN PUMPING 17 (22–25) ft.

TYPE OF PUMP USED (for test)

[A] air (27) [P] piston (27) [T] turbine (27)

[C] centrifugal (27) [R] rotary (27) [O] other (describe below) (27)

[J] jet (27) [S] submersible (27)

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31–35)

PUMP HORSE POWER (37–41)

PUMP COLUMN LENGTH (nearest ft.) (43–47)

CASING HEIGHT (circle appropriate box and enter casing height)

[+] above [–] below (49) LAND SURFACE

1 (nearest foot) (50 51)

LATITUDE 39.253456

LONGITUDE 76.881525

(DEFAULT COORD. WGS 84)

Pursuant to §10-624 of the State Govt. Article of the Maryand Code personal info. requested on this form is used in processing this form pursuant to COMAR 26.04.04. Failure to provide the info. may result in this form not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment is subject to the Maryland Public Information Act. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the pulic and other governmental agencies, if not protected by federal or state law.

COUNTY

MDE/WMA/PER.071

EMERGENCY/TEMP NO. IF ANY

B 1 — SEQUENCE NO. (MDE USE ONLY): 66416

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

please type

5dc429-H

STATE PERMIT NUMBER: HO -18 -0155

fill in this form completely

Date Received (APA): 11/4/19

OWNER INFORMATION

Toll Brothers — Last Name / Owner / First Name

7164 Columbia Gateway Dr. — Street or RFD

Columbia, Md. 21046 — Town / State / Zip

DRILLER INFORMATION

Andrew Houseman MD 224 — Driller's Name / License No.

Eagles Well Drilling, LLC. — Firm Name

P.O. Box 202 Woodbine, Md 21797 — Address

Andrew Houseman 11-1-19 — Signature / Date

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
- [O] OPEN LOOP GEOTHERMAL
- [C] CLOSED LOOP GEOTHERMAL

APPROXIMATE DEPTH OF WELL: 300 FEET

APPROXIMATE DIAMETER OF WELL: 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) — JETTED — Jetted & DRIVEN

AIR-ROTary — AIR-PERcussion — ROTARY (Hydraulic Rotary)

CABLE — REVerse-ROTary — DRive-POINT

other

REPLACEMENT OR DEEPENED 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 DEEPEN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED (IF AVAILABLE): — — - — — - — — —

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

APPROP. PERMIT NUMBER: H 0 2 0 1 8 G 0 2 4

PERMIT No. HO - 18 -0155

B 3 LOCATION OF WELL

Howard — COUNTY

Kings Forest — SUBDIVISION

SECTION: — LOT: 26

Ellicott City — NEAREST TOWN

B 4

SOURCES OF DRILLING WATER

1. Well water
2. 2/12/20
3. Quik Grout

2/15/20
static 10'
pump 110'
10 gpm
level 17'

Pudding Lane — STREET ADDRESS

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX): NORTH (N) / WEST (W) (32) (E) EAST / (S) SOUTH

DISTANCE FROM ROAD: 12 Ft (ENTER FT OR MI)

TAX MAP: 23 BLK: 23 PARCEL 148

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

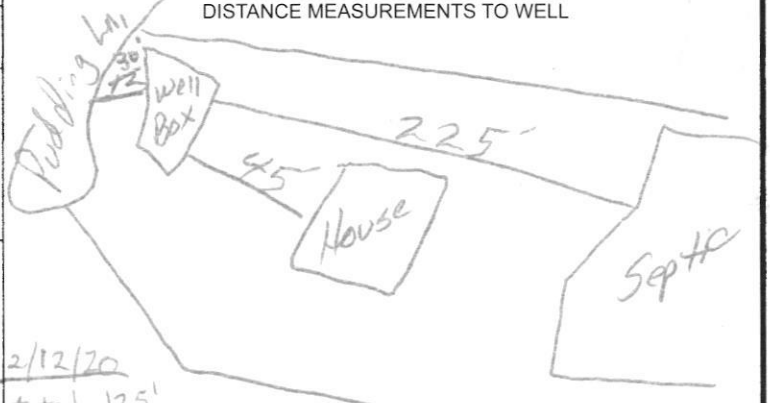
Howard — COUNTY NAME: 13 COUNTY NO.

STATE SIGNATURE: _____ INSERT S →

DATE ISSUED: 01/14/20 — Susan Thomas — CO SIGNATURE — EXP. DATE: 01/14/21

DOI: 2/11/20 (SI) DOG: 2/12/20 (SI) DOA: 2/8/20 (SI)

PROPOSED LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL



2/12/20
total 125'
casing 50'

N

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SPECIAL CONDITIONS: STEEL CASING 50' OR 10' INTO COMPETENT BEDROCK, WHICHEVER IS DEEPER. RADIUM SAMPLES REQUIRED, SODIUM, CHLORIDE AND TDS SAMPLES REQUIRED

NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

MDE/WMA/PER.071

② COUNTY

Date: February 18, 2020

FOGLE'S WELL DRILLING, LLC
P.O. Box 202
Woodbine, Md 21797
443-609-4195

FIELD DATA SHEET
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO-18-0155
Location of Property: Pudding Lane Ellicott City, Md
Subdivision: Kings Forest Lot#: 26
Well Driller/Tech: Fogles Andrew Houseman MSD224 Owner/Buyer: Toll Brothers

Depth of Well: 125' Casing: 51' of 6" Steel Casing Pump Depth: 110'

Distance of measuring point (M.P.) above ground: 2'
Static water level (S.W.L.) below M.P.: 10'
High rate pumping –reservoir Drawdown
Time pump started: 11:00 Pumping rate: 10
Total time 15 Mins to reach pumping water level 17 ft. below M.P.

Recovery pump test data – observations to be recorded every 15 minutes

TIME (in 15 minute intervals)	WATER LEVEL Below M.P.	PUMPING RATE Time to fill 1 gallon bucket	FLOW METER READING (if used)	CALCULATED FLOW (gallons per minute)
11:00	10'	6 Seconds		10 gpm
11:15	17'	6 Seconds		10 gpm
11:30	17'	6 Seconds		10 gpm
11:45	17'	6 Seconds		10 gpm
12:00	17'	6 Seconds		10 gpm
12:15	17'	6 Seconds		10 gpm
12:30	17'	6 Seconds		10 gpm
12:45	17'	6 Seconds		10 gpm
1:00	17'	6 Seconds		10 gpm
1:15	17'	6 Seconds		10 gpm
1:30	17'	6 Seconds		10 gpm
1:45	17'	6 Seconds		10 gpm
2:00	17'	6 Seconds		10 gpm
2:15	17'	6 Seconds		10 gpm
2:30	17'	6 Seconds		10 gpm

HOWARD COUNTY HEALTH DEPARTMENT

Bureau of Environmental Health
8930 Stanford Blvd | Columbia, MD 21045
410.313.2640 - Voice/Relay
410.313.2648 - Fax
1.866.313.6300 - Toll Free

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

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: Eagles Well Pump + Water Treatment, LLC Telephone #: 410 795 1535
Address: PO Box 63
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): David C Fogle License#: MD22226
*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 #:
Subdivision: Kingsley Woods Lot #: 26 Well Tag #: HO-18-0155
Site Address: 10545 Pudding Lane
Ellicott City, MD 21042

Submersible Pump Data	Pitless Adapter	Well Cap and Electric Conduit
Make: Grundfos	Make: Campbell +	Two piece watertight cap: YES
Model #: 15SQE07-180	Model#: N/A	Screened, vented well cap: YES
Pump Capacity 15	GPM Depth: 36" (36" min)	Cap secured to casing: YES
Well Yield: 10	GPM NSF/WSC approved: YES	Conduit min 18" B.G.: YES
Depth of well encountered at time of pump installation: 125 (feet)		Conduit secured to well cap: YES

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4
Must circle one: Torque arrestors / Cable guards / Other acceptable method used
Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing N/A

Piping to house	House Connection
Type: 1" poly pipe	PVC sleeve to undisturbed soil at wall penetration: YES
PSI: 200 (160 psi min.)	Length of sleeve(5' minimum from foundation): 6'
Depth of supply line: 36" (36" min)	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.

David C Fogle 7/20/22
Signature of company representative responsible for installation date

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

Date Insp. Requested: 7/21/22 Date Insp. Approved: 7/21/22 Inspector: RR

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	✓

(Revised from 10/24/2018)

HOWARD COUNTY
HEALTH DEPARTMENT

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8930 Stanford Blvd | Columbia, MD 21045
410.313.2640 - Voice/Relay
410.313.2648 - Fax
1.866.313.6300 - Toll Free

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

INTERIM CERTIFICATE OF POTABILITY

Expiration Date – APRIL 26, 2023

October 26, 2022

Homeowner
10545 Pudding Lane
Ellicott City, MD 21042

RE: King's Forest, Lot 26
10545 Pudding Lane
Building Permit: B22000599
Well Permit: HO-18-0155

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 **10/26/2022.** Final approval of the well line connection to the dwelling was granted on **7/21/2022.** The well construction was completed on **2/18/2019.** Water samples were collected on **9/21/2022, 10/5/2022, 10/12/2022.**

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 **2/18/2020**. Results showed a Gross Alpha level of **3.1** ± 1.3 **pCi/L** and **Gross Beta** level of **4.0 ± 0.0 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-18-0155. 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.**

HOWARD COUNTY
HEALTH DEPARTMENT

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

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

In closing, please refer to our "Homeowner Fact Sheet" for understanding your onsite sewage disposal system. You will also find a link to Maryland Department of the Environments website which elaborates in further detail operation and maintenance of your Septic System.

Approving Authority,

Kevin M Wolf, L.E.H.S., REHS/R.S., Supervisor
Groundwater Management Section
Well & Septic Program

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

Send Report To: Bert Nixon

Howard County Health Department
Bureau of Environmental Health
8930 Stanford Blvd.
Columbia, Maryland 21045

State of Maryland
DHMH – Laboratories Administration
Division of Environmental Sciences
TRACE METALS LABORATORY
1770 Ashland Avenue
Baltimore, Maryland 21205

E20002792001
Received: 02/19/2020
Metals HOST0155NA

LABORATORY ANALYSIS REQUEST

Do not write above this line

Please Print

Sample ID No: HOST0155NA **Site Name:** Pudding Ln, King's Forest Lot 26 **County:** Howard

Sample Source: Pudding Ln, King's Forest Lot 26 **Collector:** Susan Thomas
(Street / Town or City / Name)

Date Collected: 2 /18 /2020 **Time Collected:** 2:20 a.m. / p.m. **Phone #:** 410-313-6287

Sample Preserved By: ☐ Field ☐ ESRL ☐ WMRL ☐ Central Lab
pH<2 PS- 02-19-20
Preservative Used: ☑ HNO_3 2 mL **pH:** 5.5

Sample Type:	☑ Drinking Water	☐ Landfill	☑ Source (Raw Water)	☐ Liquid
Data Category	☐ Community	☐ Stream	☐ Distribution (Treated)	☐ Solid
Code ☐☐	☐ Non-Community	☐ Sediment	☐ Other _____	
	☑ Private			

Specify Program: ☐ SDWA ☐ NPDES ☐ CWA ☐ RCRA ☐ Consumer Products ☐ Other _____

Type of Sample Preparation: ☑ Total Metals ☐ Total Metals TCLP ☐ Dissolved Metals (field preparation required)

Remarks: Collected at end of yield

√	Element	Lab Use	√	Element	Lab Use	√	Element	Lab Use
	Antimony (Sb)			Aluminum (Al)			Uranium (U)	
	Arsenic (As)			Calcium (Ca)			Vanadium (V)	
	Barium (Ba)			Cobalt (Co)			Zinc (Zn)	
	Beryllium (Be)			Copper (Cu)				
	Cadmium (Cd)			Iron (Fe)				
	Chromium (Cr)			Lead (Pb)				
	Mercury (Hg)			Magnesium (Mg)				
	Nickel (Ni)			Manganese (Mn)				
	Selenium (Se)			Molybdenum (Mo)				
√	Sodium (Na)	SLS		Potassium (K)				
	Thallium (Tl)			Silver (Ag)				

Lab Supervisor: _____ **Date Reported:** ___/___/___

•Phone: (443) 681 – 4596 •Fax: (443) 681 – 4507

DHMH 4432 (05/17)

SUBMITTER'S COPY

Howard County Health Department

Bureau of Environmental Health
8930 Stanford Blvd, Columbia, MD 21045
Main: 410-313-2640 | Fax: 410-313-2648
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org

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

Sodium, Chloride and Total Dissolved Solids water sampling results

February 17, 2021

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

Re: Kings Forest Lot 26
Pudding Ln
Well Permit: HO-18-0155

Dear Toll Brothers,

The Health Department received results from the testing for sodium, chloride, and total dissolved solids (TDS) from your well water. These samples were collected directly from the raw well water when your well was drilled.

Sodium from your well measured 6.51 mg/L. There is no maximum contaminant level for sodium, however elevated sodium levels in drinking water could affect individuals on low-salt diets. If anyone in your household in on a low-salt diet, you may want to discuss these results with your physician.

Chloride and TDS are both considered secondary contaminants, meaning high concentrations can affect taste, color, odor, or corrosive properties of water but present no risk to health. The secondary maximum contaminant level for chloride is 250 mg/L; **chloride from you well measured <10 mg/L**. The secondary maximum contaminant level for TDS is 500 mg/L; **TDS from your well measured 79 mg/L**.

Feel free contact me at the number or email below with any questions regarding the results of water sampling.

Respectfully,

Susan Thomas

Susan Thomas
Environmental Health Specialist
Howard County Health Department
Well and Septic Program
410-313-6287
sathomas@howardcountymd.gov

✓ *Cc: File*

HOWARD COUNTY
HEALTH DEPARTMENT

Bureau of Environmental Health
8930 Stanford Blvd | Columbia, MD 21045
410.313.2640 - Voice/Relay
410.313.2648 - Fax
1.866.313.6300 - Toll Free

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

March 17, 2020

Toll Brothers
7164 Columbia Gateway Drive
Columbia, Maryland 21045

RE: Kings Forest Lot 26
Pudding Lane
Well Tag: HO – 18 – 0155

To Who it May Concern:

A sample was collected during a yield test on February 18, 2020 and submitted to the Maryland Department of Health 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 **3.1 ± 1.3 picocuries/liter (pCi/L)**, while the **Gross Beta** level was **< 4.0 ± 0.0 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 standard of **50 pCi/L** (roughly equivalent to the **annual dose rate** of **4 millirems/year**).

At the time of testing and with respect to these parameters, the well water supply **meets** EPA regulatory standards. Additional testing **for these parameters** will not be required to secure the future Use & Occupancy. Please **note** that other standard testing parameters (bacteria, nitrate, turbidity and sand) will still be needed 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.

Sincerely,

Bert Nixon

Bert Nixon, Director
Bureau of Environmental Health

Enclosure
cc: Property file
Theresa Miller, Fogles

Howard County Health Department
Bureau of Environmental Health
8930 Stanford Blvd.
Columbia, Maryland 21045

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Sciences
RADIATION LABORATORY
1770 Ashland Avenue
Baltimore, Maryland 21205

Lab No.

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: Rutledge Ln. King's Forest Lot 26 County: Howard

Sample Source: Rutledge Ln. King's Forest Lot 26 Location: 410-15-0155
(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A HOST0155RA Radon-222 Field Blank Bottle A

Bottle B Bottle B

County 1 3 Plant No.

CHECK (one per Box)

Type		Service		Point of Collection		Testing	
Drinking Water	☑	Community	☐	Source (Raw)	☑	Emergency	☑
Landfill	☐	Non-Community	☐	Distribution (treated)	☐	Routine	☐
Stream	☐	Private	☑	MCL	☐	Recheck	☐
Other ____	☐	Other ____	☐			Special	☐

Submitters Code: 4 E Federal Project:

Collector: Susan Thomas Telephone No.: 410-313-6257

Date Collected: 2/15/20 Time Collected: ____ a.m. 2:20 p.m.

Field pH: 5.5 Field Chlorine: neg

Nitric Acid Preserved: Yes ☑ No ☐ Iced: Yes ☐ No ☑

Remarks: collected at end of yield

☑	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
☑	Gross Alpha	4000	1105	EPA 900.0	3.1±1.3	2/21/2020	KH	2/25/2020
☑	Gross Beta	4100	1106	EPA 900.0	2.6±1.5	2/21/2020	KH	2/25/2020
☐	Radium-226	4020						
☐	Radium-228	4030						
☐	Total Uranium	4006						
☐	Radon-222 (Bottle A)	4004						
☐	Radon-222 (Bottle B)	4004						
☐	Radon Field Blank A	4004						
☐	Radon Field Blank B	4004						
☐	Tritium							
☐								
☐								

Date Received: 2/19/20 Received By:

Data Release Signature: [signature] Date: 02/26/20

Lab Use Only	Yes	No	N/A
Sample Intact upon arrival?	✓		
Sample pH <2.0?	✓		
Received within holding time?	✓		

•Tel. No.: (443) 681-3766 •Fax No.: (443) 681-4507

FORM REVISED 05/15
DHMH 4540 05/17

SEND REPORT TO:

Howard County Health Department
Bureau of Environmental Health
8930 Stanford Blvd.
Columbia, Maryland 21045

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Sciences
RADIATION LABORATORY
1770 Ashland Avenue
Baltimore, Maryland 21205

Lab No.

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: Rolling Ln, King's Forest Lot 2L County: Howa

Sample Source: Rolling Ln, King's Forest Lot 2L Location: Front Pkt

(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A _____
Bottle B _____

Radon-222 Field Blank Bottle A HC-FB-20
Bottle B _____

County 1 2 Plant No. _____

CHECK (one per Box)

Type		Service		Point of Collection		Testing	
Drinking Water	☑	Community	☐	Source (Raw)	☑	Emergency	☐
Landfill	☐	Non-Community	☐	Distribution (treated)	☐	Routine	☑
Stream	☐	Private	☑	MCL	☐	Recheck	☐
Other _____	☐	Other _____	☐			Special	☐

Submitters Code: 4 F Federal Project: ☐

Collector: Chris Thomas Telephone No.: 410 313-6257

Date Collected: 2/5/20 Time Collected: 1147 a.m. _____ p.m.

Field pH: 6.0 Field Chlorine: neg

Nitric Acid Preserved: Yes ☑ No ☐ Iced: Yes ☐ No ☑

Remarks: _____

☑	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
☑	Gross Alpha	4000	[illegible]	EPA900.0	L2.0	2/21/2020	KH	2/25/2020
☑	Gross Beta	4100	[illegible]	EPA900.0	L4.0	2/21/2020	KH	2/25/2020
☐	Radium-226	4020						
☐	Radium-228	4030						
☐	Total Uranium	4006						
☐	Radon-222 (Bottle A)	4004						
☐	Radon-222 (Bottle B)	4004						
☐	Radon Field Blank A	4004						
☐	Radon Field Blank B	4004						
☐	Tritium							
☐								
☐								

Date Received: _____ Received By: _____

Data Release Signature: Amanda Turner Date: 02/06/20

Lab Use Only	Yes	No	N/A
Sample Intact upon arrival?	✓		
Sample pH <2.0?	✓		
Received within holding time?	✓		

•Tel. No.: (443) 681-3766 •Fax No.: (443) 681-4507

FORM REVISED 05/15
DHMH 4540 05/17

Invoice

Howard County Health Department

Bureau of Environmental Health
Attn: Bert Nixon, Director

DATE: MARCH 2, 2020
DATES OF SERVICE: FEBRUARY 18 & 19, 2020
INVOICE #: 2020-005

RECEIVED
MAR 5 2020
COLUMBIA, MARYLAND

8930 Stanford Boulevard, Columbia, MD 21045
Phone 410-313-2640 Fax 410-313-2648
www.hchealth.org

BILL TO: Toll Brothers
7164 Columbia Gateway Drive
Columbia, Maryland 21046

COMMENTS: Payment due upon receipt. Letter and results will be released upon receipt of payment.

DATE	DESCRIPTION	BALANCE	AMOUNT
2/18/2020	Gross Alpha/Beta testing performed for Kings Forest Lot 26 HO - 18 - 0155		$45.00
2/19/2020	Gross Alpha/Beta testing performed for Kings Forest Lots 24 And 25 HO - 18 - 0153 HO - 18 - 0154		$90.00
		AMOUNT DUE	
		$135.00	

Please detach and return with payment.

REMITTANCE	
Invoice #	2020-005
Site Information	Kings Forest Lots 24, 25 & 26
Amount Due	$135.00

Recv'd 3/16/20
67352

Make Checks Payable to: **Director of Finance** Mail Payments to: **Bureau of Env. Health**

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

REPORT OF ANALYSIS

Laboratory ID #:	154694	Account #:	1933
Reference:	Kingley Woods 26	Client:	Fogle's Well Pump & Treatment
Location:	10545 Pudding Lane	Requested By:	Dave Fogle
	Ellicott City, MD 21042	Source:	Well Water
Date/ Time Collected:	9/21/2022 1100	Site:	Pressure Tank
Date/Time Rec'd:	9/21/2022 1316	Treatment:	None
Chlorine ppm:	Free: ND Total: ND	pH:	5.9
Collected By:	J. Evans 0309JE	Well #:	HO-18-0155

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	3.1	MPN/ 100 ml	<1.0	SM20 9223B	9/22/2022 / 1030 / CRS
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	9/22/2022 / 1030 / CRS
Nitrate.	<0.40	mg/L	10	EPA 300.0	9/21/2022 / 1844 / CRS
Turbidity	11.8	NTU	<10	SM2130B	9/21/2022 / 1620 / MEW
Sand	ND	mg/L	5	Visual/Gravimetric	9/22/2022 / 1130 / CRS
Iron	0.84	mg/L	0.3*	Hach 8146	9/21/2022 / 1615 / MEW

NOTES:

1. *SMCL = Secondary Maximum Contaminant Level
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. 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. Sample collected by client, analyzed as received
7. ND:None Detected
8. Visual well check: Sealed, vented cap
9. pH and Chlorine level tested in lab (pH tested after recommended holding time)

Reason for Test : Use & Occupancy
Building Permit # : B22000599

Date Reported: 9/22/2022

MD State Certification # 133

Send Report To: Bert Nixon
Howard County Health Department
~~Bureau of Environmental Health~~
8930 Stanford Blvd.
Columbia, Maryland 21045

State of Maryland
MDH-Laboratories Administration
Division of Environmental Sciences
INORGANICS ANALYTICAL LABORATORY
1770 Ashland Avenue
Baltimore, Maryland 21205

WATER ANALYSIS

E20002794001
Received: 02/19/2020
Inorganic HOST0155CLT

SAMPLE ID

Bottle Number HOST0155CLTDS Name Pudding Ln, King's Forest, Lot 26 County Howard County Code 13

Address Pudding Ln, King's Forest Lot 26 Data Category Code 4F

Collected: Date 2/18/20 Time 2:20pm Collector & Phone Susan Thomas, 410-313-6287 Submitter Code

CHECK (one per box)

Drinking Water ☑ Landfill ☐ Stream ☐ Other ☐	Community ☐ Non-community ☐ Private ☐ Other ☐	Source (raw water) ☑ Distribution (treated) ☐ MCL ☐	Emergency ☐ Routine ☑ Recheck ☐ Special ☐

Federal Project ☐

FIELD

Plant No. Sampling Station Preservation: Iced ☑ Acid ☐ Type of Acid

pH 7.5 Chlorine: Free 0.0 Total 0.0 Specific Conductance

Notes to Lab/Remarks: collected at end of yield

CHECK TESTS	TESTS	Error Code	RESULTS
	Alkalinity (Total)		
	Ammonia - N		
✓	Chloride		
	Conductance*, Spec.		
✓	Dissolved Solids (Total)		
	Hardness		
	Fluoride		
	Nitrite, N		
	Nitrate + Nitrite, N		
	Sulfate		
	Total Solids		
	Turbidity*		
	Other:		

* Results reported in Units, all others in milligrams per liter (ppm)

*Samples are tested as received.

Number of Tests Requested

Section Chief

Date Reported

SUBMITTER'S COPY

MDH-90-A 07/17

State of Maryland
Department of Health
Laboratories Administration
Division of Environmental Sciences
INORGANICS ANALYTICAL LABORATORY
1770 Ashland Avenue, Baltimore, Maryland 21205
Robert Myers, Ph.D., Director

ACCREDITED
Certificate # 3525.02

Certificate of Analysis

HOWARD CO ENVIRONMENTAL HLTH
8930 STANFORD BLVD
COLUMBIA, MD 21045

Lab Project NoE20002794 Date Coll. 02/18/2020 Date Received: 02/19/2020 Submitted By: S. Thomas

Field ID: HOST0155CLTDS
Lab No.: E20002794001

Analyte	Method	Result	Units	Date Analyzed
Chloride	SM 4500-Cl E	<10	mg/L	02/24/2020
Total Dissolved Solids	SM 2540C	79	mg/L	02/21/2020

Comments:

Approved by: _____ Approval date: 02/25/2020

*The following methods are included in our A2LA Scope of Accreditation: EPA150.1, EPA 353.2, EPA 375.2, SM4500F C, SM 4500-CN G & QCM-CN, QCM-CN. Samples are tested as received.

State of Maryland
Department of Health
Laboratories Administration
Division of Environmental Sciences
TRACE METALS LABORATORY
1770 Ashland Avenue, Baltimore, Maryland 21205
Robert Myers, Ph.D., Director

ACCREDITED
Certificate # 3525.02

Certificate of Analysis

HOWARD CO ENVIRONMENTAL HLTH
8930 STANFORD BLVD
COLUMBIA, MD 21045

Lab Project No: E20002792 Date Coll.: 02/18/2020 Date Received: 02/19/2020 Submitted By: Thomas

Field ID: HOST0155NA
Lab No.: E20002792001

Method	Element	Result	Units	Date Analyzed
EPA 200.7	Sodium	6.51	ppm	02/26/2020

Comments:

Approved by: Warren Luesseu Approval date: 02/28/2020

**The following methods are included in our A2LA Scope of Accreditation: EPA 200.7, EPA 200.8, EPA 245.1. Samples are tested as received.

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

REPORT OF ANALYSIS

Laboratory ID #:	155004	Account #:	1933
Reference:	Kingley Woods 26	Client:	Fogle's Well Pump & Treatment
Location:	10545 Pudding Lane	Requested By:	Dave Fogle
	Ellicott City, MD 21042	Source:	Well Water
Date/ Time Collected:	10/5/2022 0805	Site:	Kitchen Bath
Date/Time Rec'd:	10/5/2022 1400	Treatment:	None
Chlorine ppm:	Free: ND Total: ND	pH:	5.8
Collected By:	T. Cassell 0767TC	Well #:	HO-18-0155

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	1.0	MPN/ 100 ml	<1.0	SM20 9223B	10/6/2022 / 0930 / TSD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	10/6/2022 / 0930 / TSD
Turbidity	11.5	NTU	<10	SM2130B	10/6/2022 / 0845 / TSD
Iron	1.74	mg/L	0.3*	Hach 8146	10/6/2022 / 1030 / TSD

NOTES:

1. *SMCL = Secondary Maximum Contaminant Level
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. 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. Sample collected by client, analyzed as received
7. ND:None Detected
8. Visual well check: Sealed, vented cap
9. pH and Chlorine level tested in lab (pH tested after recommended holding time)

Reason for Test : Use & Occupancy
Building Permit # : B22000599

Date Reported: 10/6/2022

MD State Certification # 133

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

REPORT OF ANALYSIS

Laboratory ID #:	155171	Account #:	1933
Reference:	Kingley Woods 26	Client:	Fogle's Well Pump & Treatment
Location:	10545 Pudding Lane	Requested By:	Dave Fogle
	Ellicott City, MD 21042	Source:	Well Water
Date/ Time Collected:	10/12/2022 1130	Site:	Kitchen Sink
Date/Time Rec'd:	10/12/2022 1328	Treatment:	None
Chlorine ppm:	Free: ND Total: ND	pH:	5.9
Collected By:	J. Evans 0309JE	Well #:	HO-18-0155

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	10/13/2022 / 1030 / TSD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	10/13/2022 / 1030 / TSD
Turbidity	2.00	NTU	<10	SM2130B	10/12/2022 / 1540 / MEW
Iron	0.61	mg/L	0.3*	Hach 8146	10/12/2022 / 1455 / MEW

NOTES:

1. *SMCL = Secondary Maximum Contaminant Level
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. 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. Sample collected by client, analyzed as received
7. ND:None Detected
8. Visual well check: Sealed, vented cap
9. pH and Chlorine level tested in lab (pH tested after recommended holding time)

Reason for Test : Use & Occupancy
Building Permit # : B22000599

Date Reported: 10/13/2022

MD State Certification # 133

HOWARD COUNTY HEALTH DEPARTMENT

Bureau of Environmental Health
8930 Stanford Blvd | Columbia, MD 21045
410.313.2640 - Voice/Relay
410.313.2648 - Fax
1.866.313.6300 - Toll Free

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

MEMORANDUM

TO: **Fogle's Well Drilling**
580 Obrecht Road
Sykesville, MD 21784

FROM: **Susan Thomas**
Environmental Health Specialist ST 12/27/19
Howard County Health Department
Well & Septic Program

RE: **Kings Forest Subdivision – Well Permits Lots 1-36 and Parcel D**
Special Conditions for wells

DATE: December 26th, 2019

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

A. **Lots 17, 26, 27, and 33-35 will require 50' of Steel Casing or 10' into competent bedrock, whichever is deeper.**

> 10. A waiver for the location of the septic systems and wells, as shown on [Revised Percolation Certification Signed 11/12/2019] has been approved by MDE. As a condition of the approved [sic] of this waiver the initial and all replacement wells on lots 17, 26, 27, and 33 – 35 will require Steel Casings to be installed to 50' or 10' into competent bedrock, whichever is deeper.

B. **All lots in the Kings Forest Subdivision are within the Baltimore Gneiss Formation and will require Water Quality Tests for Radium to be collected at the time of the Yield Test.**

C. **If the wells on Lot 13 or Lot 28 are within 10' of the driveway the well must be surrounded by bollards.**

D. **Lots 2, 8, 9, 13, 18, 21, 24, 26, 27, 28, 33, 34 and 35 will require samples for Sodium, Chloride and TDS to be collected at the time of the Yield Test.**

PUDDING LN.

WELL BOX

WELLBOX

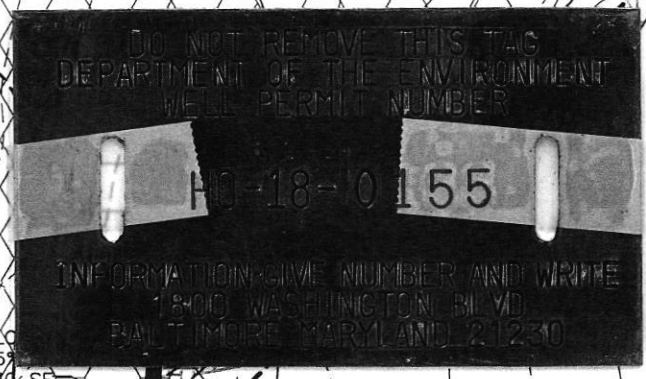
LOT 27

LOT 26

LOT 25

PARCEL 'C'

King's Forest
Approved 1/14/20 (ST)
Staked by Benchmark



BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315 ▲ ELLICOTT CITY, MARYLAND 21043
(P) 410-465-6105 (F) 410-465-6644
WWW.BEI-CIVILENGINEERING.COM

0 25 50 100
(IN FEET)
1 inch = 50 ft.

KINGS FOREST
WELL EXHIBIT
LOT 26

DATE: OCTOBER, 2019
SCALE: 1" = 50'

Howard County Health Department

Bureau of Environmental Health
8930 Stanford Boulevard, Columbia, MD 21045
Main: 410-313-2640 | Fax: 410-313-2648
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org
Facebook: www.facebook.com/hocohealth
Twitter: HowardCoHealthDep

Dr. Maura J. Rossman, M.D., 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:

Kings Forest (Subdivision/Property Name) #18 thru #35 & parcel D (Lot #) Pudding Lane (Road Name)

☒ The well site has been staked by Benchmark
(professional land surveyor or company employing professional land surveyors)
on Oct 22, 2019 (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.