C 1 65154 — SEQUENCE NO. (MDE USE ONLY)

(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 09 DD 12 YY 20

DATE WELL COMPLETED MM 2 DD 4 YY 20 — Approved ST 2/20/2020

Depth of Well 325 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO - 18 - 0159

OWNER Toll Brothers (last name / first name)

WELL SITE ADDRESS Pudding Lane TOWN Ellicott City

SUBDIVISION Kings Forest SECTION LOT 30

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	10	
Soft brown	10	35	
Gray Limestone	35	85	
Fracture	85	86	✓
Gray Limestone	86	310	
Fracture	310	311	✓
Gray Limestone	311	325	
storage: 418.5 gal			

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 5 D 2 2 7

Andrew D Frost
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] no [N]

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT [CM] BENTONITE CLAY [BC]

NO. OF BAGS 6 NO. OF POUNDS 300

GALLONS OF WATER 150

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (TOP) ft. to 47 (BOTTOM) 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	06	49

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	49	325
2			
3			

SLOT SIZE 1 ____ 2 ____ 3 ____

DIAMETER OF SCREEN ____ (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68	from	to

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

T (E.R.O.S.) W Q

70 TELESCOPE CASING — 72 LOG INDICATOR — 74 75 76 OTHER DATA

C 3

PUMPING TEST
HOURS PUMPED (nearest hour) 5

PUMPING RATE (gal. per min.) 4.

METHOD USED TO MEASURE PUMPING RATE 1 gal

WATER LEVEL (distance from land surface)

BEFORE PUMPING 36 ft.

WHEN PUMPING 266 ft.

TYPE OF PUMP USED (for test)

[A] air [P] piston [T] turbine

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

[J] jet [S] submersible

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

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

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

CAPACITY: GALLONS PER MINUTE (to nearest gallon)

PUMP HORSE POWER

PUMP COLUMN LENGTH (nearest ft.)

CASING HEIGHT (circle appropriate box and enter casing height)

[+] above [−] below LAND SURFACE

2 (nearest) foot

LATITUDE 39.254921

LONGITUDE 76.881320

(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.

MDE/WMA/PER.071

COUNTY

EMERGENCY/TEMP NO. IF ANY

B 1 | 34450 (1 2 3 6) SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
please type

5d0429-2

STATE PERMIT NUMBER: HO – 18 – 0159 (70 79)

fill in this form completely

Date Received (APA): 1/04/19 (8 MM DD YY 13)

OWNER INFORMATION

Toll Brothers (15 Last Name — Owner — First Name 34)

7164 Columbia Gateway Dr. (36 Street or RFD 55)

Columbia, Md. 21046 (57 Town 70 State 72 Zip 76)

DRILLER INFORMATION

Andrew Housman M S D 224 (Driller's Name 76 License No. 81)

Eagles Well Drilling, LLC (Firm Name)

P.O. Box 202 Woodbine, Md 21797 (Address)

Andrew Housman 11-1-19 (Signature — Date)

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.): 5 (8 12)

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY): 500 (14 20)

USE FOR WATER (CIRCLE APPROPRIATE BOX)

(D) DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
[F] FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
22 [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 (24 28)

APPROXIMATE DIAMETER OF WELL: 6 NEAREST INCH

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 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
39 [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) 41 — — – — — – — — — — 52

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

APPROP. PERMIT NUMBER: H 0 2 0 1 8 G 0 6 4

PERMIT No. HO – 18 – 0159 (70 71 72 73 74 75 76 77 78 79)

SPECIAL CONDITIONS: RADIUM SAMPLES REQUIRED

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED=

B 3 LOCATION OF WELL

Howard (8 COUNTY 21)

Kings Forest (23 SUBDIVISION 42)

SECTION (44 46) LOT 30 (48 50)

Ellicott City (52 NEAREST TOWN 71)

B 4

SOURCES OF DRILLING WATER
1. Well Water
2.
3.

Pudding Lane (11 STREET ADDRESS 30)

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

34 25 37 DISTANCE FROM ROAD: Ft ENTER FT OR MI (38 39)

TAX MAP: 23 BLK: 23 PARCEL 148

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL

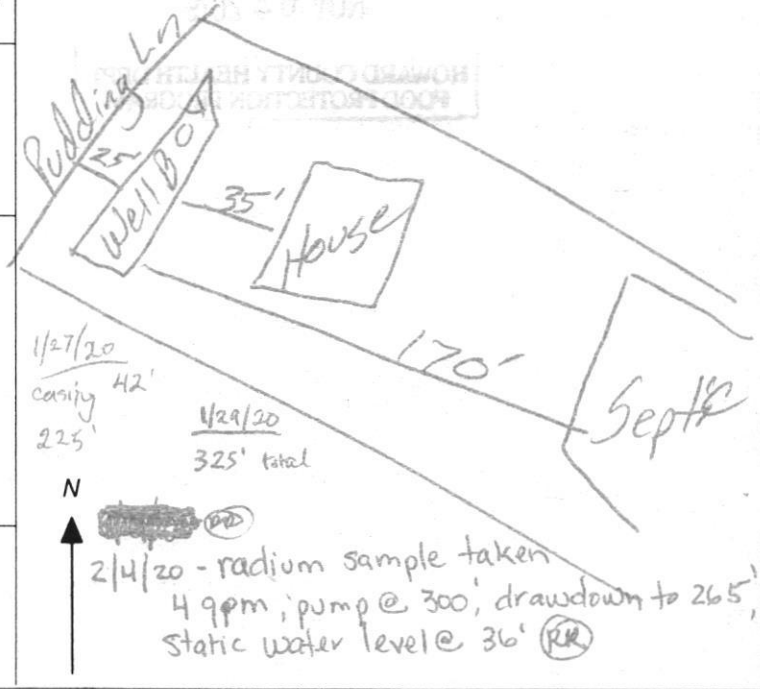
Howard (COUNTY NAME) 13 (COUNTY NO.)

STATE SIGNATURE _____ INSERT S → 41

DATE ISSUED 01/14/20 (43 MM DD YY 48) Susan Thomas (CO SIGNATURE) EXP. DATE 01/14/21

DON: 1/27/2020 ST DOG: 2/4/20 RM DOY: 2/4/20 RM

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



2/4/20 - radium sample taken 4 9pm; pump @ 300', drawdown to 265', static water level @ 36' RM

MDE/WMA/PER.071

② COUNTY

Date: February 4, 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-18-0159
Location of Property: Pudding Lane Ellicott City, Md
Subdivision: Kings Forest **Lot#:** 30
Well Driller/Tech: Fogles Andrew Houseman MSD224 **Owner/Buyer:** Toll Brothers

Depth of Well: 325' **Casing:** 49' of 6" Steel Casing **Pump Depth:** 300'

Distance of measuring point (M.P.) above ground: 2'
Static water level (S.W.L.) below M.P.: 36'
High rate pumping –reservoir Drawdown
Time pump started: 7:00 **Pumping rate:** 15
Total time 120 Mins **to reach pumping water level** 266 **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)
7:00	36'	4 Seconds		15 gpm
7:15	71'	4 Seconds		15 gpm
7:30	104'	4 Seconds		15 gpm
7:45	135'	6 Seconds		10 gpm
8:00	168'	6 Seconds		10 gpm
8:15	194'	6 Seconds		10 gpm
8:30	220'	7 Seconds		8.5 gpm
8:45	251'	7 Seconds		8 gpm
9:00	266'	15 Seconds		4 gpm
9:15	265'	15 Seconds		4 gpm
9:30	265'	15 Seconds		4 gpm
9:45	265'	15 Seconds		4 gpm
10:00	265'	15 Seconds		4 gpm
10:15	265'	15 Seconds		4 gpm
10:30	265'	15 Seconds		4 gpm
10:45	265'	15 Seconds		4 gpm
11:00	265'	15 Seconds		4 gpm
11:15	265'	15 Seconds		4 gpm
11:30	265'	15 Seconds		4 gpm
11:45	265'	15 Seconds		4 gpm
12:00	265'	15 Seconds		4 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

INTERIM CERTIFICATE OF POTABILITY

Expiration Date – MAY 17, 2023

November 17, 2022

Homeowner
10525 Pudding Lane
Ellicott City, MD 21042

RE: King's Forest, Lot 30
10525 Pudding Lane
Building Permit: B22000468
Well Permit: HO-18-0159

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 **11/9/2022.** Final approval of the well line connection to the dwelling was granted on **8/25/2022.** The well construction was completed on **2/4/2020.** Water samples were collected on **10/12/2022, 10/21/2022.**

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.

Radium samples were also collected on **7/12/2022**. Results showed a Radium 226 level of **0.7 pCi/L** and a Radium 228 level of **1.2 pCi/L**. **This meets the maximum contaminant level (MCL) for combined Radium 226 and 228 of 5.0 pCi/L.**
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-18-0159. 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

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

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

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 26, 2020

Toll Brothers
7164 Columbia Gateway Drive
Columbia, Maryland 21045

RE: Kings Forest Lot 30
Pudding Lane
Well Tag: HO – 18 – 0159

To Who it May Concern:

A sample was collected during a yield test on February 4, 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 **27.8 ± 3.6 picocuries/liter (pCi/L)**, while the **Gross Beta** level was **15.1 ± 2.5 pCi/L.** The **Gross Alpha** result was above 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, your "untreated" well water supply **does not meet** EPA regulatory standards. Given these initial readings, some additional testing to further evaluate long-term **Gross Alpha**, **Gross Beta** and **Radium 226/228** will be required to secure the future Use & Occupancy. Treatment (a softener system or a point of use reverse osmosis (R/O)) can be considered; if installed then post-treatment levels to ensure the effectiveness of the installed treatment will be needed. 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, Director
Bureau of Environmental Health

Enclosure
cc: Property file
Theresa Miller, Fogles

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
RADIATION LABORATORY
1770 Ashland Avenue
Baltimore, Maryland 21205

Lab No.

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: Kings Forest Lot 30 County: Howard

Sample Source: Well @ yield test / HC 18-0159 Location: HO-18-0159
(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A _____ Bottle B _____

Radon-222 Field Blank Bottle A _____ Bottle B _____

County 13 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: _____ Federal Project: 5

Collector: R. Rappaport Telephone No.: 410-313-1781

Date Collected: 2/4/20 Time Collected: 930 a.m. _____ p.m.

Field pH: _____ Field Chlorine: _____

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

Remarks: Sample taken @ yield

☑	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
☑	Gross Alpha	4000	1706	EPA 900.0	27.8±3.6	2/7/20	RH	2/10/20
☑	Gross Beta	4100	1706	EPA 900.0	15.1±2.5	2/7/20	RH	2/10/20
☐	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: 2/6/20 Received By: _____

Data Release Signature: _____ Date: 2/10/20

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

RECEIVED
FEB 20 2020
HOWARD COUNTY HEALTH DEPT.
COMMUNITY HYGIENE PROGRAM

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

FORM REVISED 05/15
DHMH 4540 05/17

PROGRAM COPY

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
RADIATION LABORATORY
1770 Ashland Avenue
Baltimore, Maryland 21205

Lab No.

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: HCHD - Field Blank County: Howard

Sample Source: Distilled Water Location: in field @ sample site
(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A _____ Radon-222 Field Blank Bottle A _____
Bottle B _____ Bottle B _____

County 13 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: _____ Federal Project: S

Collector: R. Reppaport Telephone No.: 410-313-1781

Date Collected: 2/4/20 Time Collected: 9 30 a.m. _____ p.m.

Field pH: _____ Field Chlorine: _____

Nitric Acid Preserved: Yes x No _____ Iced: Yes _____ No x

Remarks: Sampled @ Site

☑	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
☑	Gross Alpha	4000	1105	EPA 900.0	1.3.0	2/6/20	KH	2/7/20
☑	Gross Beta	4100	1105	EPA 900.0	14.0	2/6/20	KH	2/7/20
☐	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: 2/5/20 Received By: _____

Data Release Signature: _____ Date: 2/12/20

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

RECEIVED
FEB 20 2020
HOWARD COUNTY ... COMMUNITY ...

•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

RECEIVED
MAR 5 2020
COLUMBIA, MARYLAND

DATE: MARCH 2, 2020
DATES OF SERVICE: FEBRUARY 18 & 19, 2020
INVOICE #: 2020-006

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
2/4/2020	Gross Alpha/Beta testing performed for Kings Forest Lots 19 and 30 HO - 18 - 0148 and HO - 18 - 0159		$90.00
2/6/2020	Gross Alpha/Beta testing performed for Kings Forest Lot 20 HO - 18 - 0149		$45.00
			AMOUNT DUE
			$135.00

Please detach and return with payment.

REMITTANCE	
Invoice #	2020-006
Site Information	Kings Forest Lots 19, 20 & 30
Amount Due	$135.00

RECEIVED 3/13/20
67343

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

Laboratorv ID #:	155166	Account #:	1933
Reference:	Kingsley Woods 30	Client:	Fogle's Well Pump & Treatment
Location:	10525 Pudding Lane	Requested By:	Dave Fogle
	Ellicott City, MD 21042	Source:	Well Water
Date/ Time Collected:	10/12/2022 1150	Site:	Pressure Tank
Date/Time Rec'd:	10/12/2022 1328	Treatment:	None
Chlorine ppm:	Free: ND Total: ND	pH:	6.0
Collected By:	J. Evans 0309JE	Well #:	HO-18-0159

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Radium-226	0.7	pCi/L	****	903.0	10/26/2022 / 1140 / MJN
Radium-228	1.2	pCi/L	****	Ra-05	10/25/2022 / 1255 / SN

NOTES:

1. ****Radium 226 and Radium 228 combined have a reference of 5 pCi/L
2. pCi/L = picocuries per liter
3. Radium 226 Detection Limit: 0.1 pCi/L; Radium 226 Error: +/- 0.2 pCi/L
4. Radium 228 Detection Limit: 0.8 pCi/L; Radium 228 Error: +/- 0.7 pCi/L
5. Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
6. Sub-contracted to Reference Lab #278
7. ND:None Detected
8. pH and Chlorine level tested in lab (pH tested after recommended holding time)
9. Sample collected by client, analyzed as received

Reason for Test : Use & Occupancy
Building Permit # : 22000468

Date Reported: 10/26/2022

MD State Certification # 133

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

REPORT OF ANALYSIS

Laboratorv ID #:	155346	Account #:	1933
Reference:	Kingsley Woods 30	Client:	Fogle's Well Pump & Treatment
Location:	10525 Pudding Lane	Requested By:	Dave Fogle
	Ellicott City, MD 21042	Source:	Well Water
Date/ Time Collected:	10/21/2022 1031	Site:	Pressure Tank
Date/Time Rec'd:	10/21/2022 1254	Treatment:	None
Chlorine ppm:	Free: ND Total: ND	pH:	6.3
Collected By:	J. Smith 2896JS	Well #:	HO-18-0159

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Turbidity	3.00	NTU	<10	SM2130B	10/21/2022 / 1555 / MEW
Iron	0.22	mg/L	0.3*	Hach 8146	10/21/2022 / 1600 / MEW

NOTES:

1. *SMCL = Secondary Maximum Contaminant Level
2. NTU = Nephelometric Turbidity Units
3. Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
4. Sample collected by client, analyzed as received
5. ND:None Detected
6. pH and Chlorine level tested in lab (pH tested after recommended holding time)
7. Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy
Building Permit # : B22000468

Date Reported: 10/24/2022

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 #:	155172	Account #:	1933
Reference:	Kingsley Woods 30	Client:	Fogle's Well Pump & Treatment
Location:	10525 Pudding Lane	Requested By:	Dave Fogle
	Ellicott City, MD 21042	Source:	Well Water
Date/ Time Collected:	10/12/2022 1150	Site:	Pressure Tank
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-18-0159

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
Nitrate.	<0.40	mg/L	10	EPA 300.0	10/12/2022 / 1430 / MEW
Turbidity	11.0	NTU	<10	SM2130B	10/12/2022 / 1540 / MEW
Sand	ND	mg/L	5	Visual/Gravimetric	10/13/2022 / 0845 / TSD
Iron	0.96	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. pH and Chlorine level tested in lab (pH tested after recommended holding time)
9. Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy
Building Permit # : 22000468

Date Reported: 10/13/2022

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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.**

Howard County Health Department

Bureau of Environmental Health
8930 Stanford Boulevard, Columbia, MD 21045
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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.

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 30

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