SEQUENCE NO. THIS REPORT MUST BE SUBMITTED WITHIN STATE OF MARYLAND 63429 С 1 (MDE USE ONLY) 45 DAYS AFTER WELL IS COMPLETED. WELL COMPLETION REPORT COUNTY 1 2 3 (THIS NUMBER IS TO BE PUNCHED FILL IN THIS FORM COMPLETELY NUMBER PLEASE TYPE IN COLS. 3-6 ON ALL CARDS) PERMIT NO. ST/CO USE ONLY DATE WELL COMPLETED Depth of Well Approved FROM "PERMIT TO DRILL WELL" DATE Received 1/20/21 22 10-- 0/86 YY TO NEAREST FOOT 13 29 30 31 32 33 34 35 36 37 28 01 OWNER. first name WELL SITE ADDRESS ann TOWN Con SUBDIVISION SECTION LOT WELL LOG GROUTING RECORD Ves C 3 WELL HAS BEEN GROUTED (Circle Appropriate Box) Not required for driven wells PUMPING TEST STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING TYPE OF GROUTING MATERIAL (Circle ong) HOURS PUMPED (nearest hour) CEMENT CM BENTONITE CLAY BC check if water bearing DESCRIPTION (Use additional sheets if needed) FEET FROM TO NO. OF BAGS 46 PUMPING RATE (gal. per min.) NO. OF POUNDS 15 225 GALLONS OF WATER. g METHOD USED TO 2 DEPTH OF GROUT SEAL (to nearest foot), MEASURE PUMPING RATE 58 ft. 59 ft. to _____ from BOTTOM WATER LEVEL (distance from land surface) (enter 0 if from surface) **BEFORE PUMPING** CASING RECORD casing 58 types CONCRETE S T insert WHEN PUMPING appropriate g0 code PL OT TYPE OF PUMP USED (for test) below PLASTIC OTHER A P piston T turbine 81 MĂIN Nominal diameter Total depth top (main) casing of main casing CASING othe (nearest inch)! (nearest foot) C R 0 TYPE centrifuga rotan (describe helow) 6 60 61 63 66 70 64 S J OTHER CASING (if used) 12 EACH depth (feet) diameter inch from to PUMP INSTALLED CAS DRILLER INSTALLED PUMP 50 NO YES (CIRCLE) (YES or NO) IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS. SCREEN RECORD TYPE OF PUMP INSTALLED screen type or open hole PLACE (A,C,J,P,R,S,T,O) 20 HO SIT BR IN BOX 29. insert ----OPEN CAPACITY: GALLONS PER MINUTE appropriate HOLE BRONZE code OT PL 31 35 below (to nearest gallon) PUMP HORSE POWER 37 41 С 2 DEPTH (nearest ft.) PUMP COLUMN LENGTH NUMBER OF UNSUCCESSFUL WELLS: C (nearest ft.) 43 47 no CASING HEIGHT Ē (circle appropriate box -51 WELL HYDROFRACTURED 15 Y N A and enter casing height) + above C н LAND SURFACE CIRCLE APPROPRIATE LETTER 23 24 26 30 32 36 A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED s (nearest) below C foot) ELECTRIC LOG OBTAINED 38 39 41 45 47 51 51 50 E TEST WELL CONVERTED TO PRODUCTION LATITUDE 39.2541 Ē SLOT SIZE 1 _ WELL 3 2 I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN LONGITUDE 76. 879869 ACCORDANCE WITH COMAR 28.04.04 "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 (NEAREST DIAMETER OF SCREEN INCH) (DEFAULT COORD, WGS 84) 56 80 KNOWLEDGE from to Pursuant to \$10-624 of the State Govt. Article of the Maryand Code personal info. requested on S D DRILLERS LIC, NO. JA M this form is used in processing this form pursuant GRAVEL PACK IF WELL DRILLED to COMAR 26.04.04. Failure to provide the info. may result in this form not being processed. You INSERT F IN BOX 68 68 DRILLERS SIGNATURE have the right to inspect, amend, or correct this (MUST MATCH SIGNATURE ON APPLICATION) MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) form. The Maryland Department of the Environment is subject to the Maryland Public LIC. NO. I ____ D ____ Т (E.R.O.S.) WO 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 70 72 part, by the pulic and other governmental SITE SUPERVISOR (sign. of driller or journeyman 74 75 7 TELESCOPE LOG agencies, if not protected by federal or state law. responsible for sitework if different from permittee) INDICATOR OTHER DATA CASING COUNTY

EMERGENCY/TEMP NO. IF ANY STATE PERMIT NUMBER SEQUENCE NO. STATE OF MARYLAND (MDE USE ONLY) - 1186 HO - 18 APPLICATION FOR PERMIT TO DRILL WELL please type fill In this form completely LOCATION OF WELL Date Received (3 B OWNER INFORMATION COUNTY 8 15 First Name 34 23 SUBDIVISION 42 36 SECTION 57 State 76 Town 70 71 TOWN DRILLER INFORMATION 50224 M B 4 Briller's Name SOURCES OF DRILLING WATER Well under 30 STREFT ADDRESS Firm Name NORTH 11/10/2020 ON WHICH SIDE OF ROAD N (CIRCLE APPROPRIATE BOX) Address EST SEAST SOUTH LOTGPM 00 37 38 static Date 34 Signature DISTANCE FROM ROAD В 2 WELL INFORMATION 40' Level APPROX. PUMPING RATE ENTER FT OR MI 38 39 pung 125 (GAL. PER MIN.) 8 12 SP PARCEL BLK: TAX MAP: AVERAGE DAILY QUANTITY NEEDED radium somples collect 20 14 (GAL. PER DAY) NOT TO BE FILLED IN BY DRILLER USE FOR WATER (CIRCLE APPROPRIATE BOX) HEALTH DEPARTMENT APPROVAL D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION 13 Howard F FARMING (LIVESTOCK WATERING & AGRICULTURAL COUNTY NO. COUNTY NAME **IRRIGATION**) STATE INDUSTRIAL, COMMERCIAL, DEWATERING 22 SIGNATURE INSERT S PUBLIC WATER SUPPLY WELL Ρ DATE ISSUED 02/10/20 Ac 10 Т TEST, OBSERVATION, MONITORING EXP. DATE 43 CO SIGNATURE MM DD OPEN LOOP GEOTHERMAL YY 0 CLOSED LOOP GEOTHERMAL С Doy 11/10/2010/57 10/10/ 202055 DON: 24/2820 DAC PROPOSED LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, J FEET APPROXIMATE DEPTH OF WELL ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL NEAREST 3 APPROXIMATE DIAMETER OF WELL INCH 2 26 20 3/4/20 Sentic METHOD OF DRILLING (circle one) Second Hule A, dry 30 dry hole 500' total **Jetted & DRIVEN** CRED (er Augered) JETTED pof bor AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary) 72 500 bedrock (00) casina **DRive-POINT** CABLE **REVerse-ROTary** 6 other REPLACEMENT OR DEEPENED WELLS 140/20 (CIRCLE APPROPRIATE BOX) N new well box THIS WELL WILL NOT REPLACE AN EXISTING WELL 150 total THIS WELL WILL REPLACE A WELL THAT WILL BE Y ABANDONED AND SEALED 44 casing 290 THIS WELL WILL REPLACE A WELL THAT WILL BE USED 39 S AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY 160 FOR POLICY ON STANDBY WELLS D THIS WELL WILL DEEPEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED N (IF AVAILABLE) 52 Not to be filled in by driller (MDE OR COUNTY USE ONLY) 8 G0 0 4 APPROP. PERMIT NUMBER _0186 18 θH PERMIT No. 70 71 72 73 74 75 76 77 78 79 RADIUM SAMPLE REQUIRED SPECIAL CONDITIONS 8 NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

Date: <u>November **4**</u>, 2020

FOGLE'S WELL DRILLING, LLC P.O. Box 202 Woodbine, Md 21797 443-609-4195 <u>FIELD DATA SHEET</u> HOWARD COUNTY WELL YIELD TEST

 Well Permit No. HO-18-0186

 Location of Property: Pudding Lane Ellicott City, Md

 Subdivision: Kings Forest
 Lot#: Parcel D

 Well Driller/Tech: Fogles Andrew Houseman MSD224
 Owner/Buyer: Toll Brothers

Depth of Well: 150' Casing: 44' of 6" Steel Casing Pump Depth: 130'

Distance of measuring point (M.P.) above ground: <u>2'</u> Static water level (S.W.L.) below M.P.: <u>38</u> High rate pumping -reservoir Drawdown Time pump started: <u>7:30</u> Pumping rate: <u>10</u> Total time <u>15 Mins</u> to reach pumping water level <u>40 ft. below M.P.</u>

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

TIME (in 15 minute inte rva ls)	WATER LEVEL Below M.P.	PUMPING RATE Time to fill 1 gallon bucket	FLOW METER READING (if used)	CALCULATED FLOW (gallons per minute)
7:30	38'	6 Seconds	_	10 gpm
7:45	40'	6 Seconds		10 gpm
8:00	40'	6 Seconds		10 gpm
8:15	40'	6 Seconds		10 gpm
8:30	40'	6 Seconds		10 gpm
8:45	40'	6 Seconds		10 gpm
9:00	40'	6 Seconds		10 gpm
9:15	40'	6 Seconds		10 gpm
9:30	40'	6 Seconds		10 gpm
9:45	40'	6 Seconds		10 gpm
10:00	40'	6 Seconds		10 gpm
10:15	40'	6 Seconds		10 gpm
10:30	40'	6 Seconds		10 gpm
10:45	40'	6 Seconds		10 gpm
11:00	40'	6 Seconds		10 gpm
· · · · · · · · · · · · · · · · · · ·				



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: Fogle's Well Pump + Water Treatment, LLC Telephone #: 410-795-1535 Address: P.O. Box 63

Woodbine, Maryland 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): Dave C. Fogle License# MSD226

*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, Quiner: TOIL BYO HO	
	Telephone #:
Subdivision: KINASKY WOODS	Lot #: 37 Well Tag #: HO - 18 - 0186
Site Address: 10529 JPunding Lane	parce
Ellicoff City, mo	GU42 'D
	Adapter Well Cap and Electric Conduit
	Campbell Two piece watertight cap: yes
Model #: 14568.07160 Model#:	
Pump Capacity GPM De	epth: 36" (36" min) Cap secured to casing: yes
	SF/WSC approved: yes Conduit min 18" B.G.: yes
Depth of well encountered at time of pump insta	
	r cut off switch is required by NSPC 1990 Section 17.8.4
Must circle one: Torque arrestors / Cable guard	
Safety rope, it used, attached to brass rope ad	apter or other acceptable method <u>inside of well casing</u> N/A
Piping to house	House Connection
Type: 1" poly pipe	PVC sleeve to undisturbed soil at wall penetration: yes
PSI: 200 psi (160 psi nin)	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	st ten feet from the septic tank, pump chamber, sewage piping, distribution
	this <u>cannot</u> be accomplished, contact this office for approval prior to
installation.	1
	r laise
(/4/ /al	1 51217117 3
Signature of company representative responsibl	e for installation Date
For Health Department U	se Only - Not to be completed by Installer
Date Insp. Requested: 5/2/2023 Date Ins	p. Approved: $5/9/207^2$ Inspector: SP
Inspection Data: Pitless adapter watertight &	water supply line at least 36" below grade
	attached to casing securely
	st 18" below grade/attached to cap properly
Safety rope not outside of v	
	operly and casing 8" above finished grade
Hole 2000 Adequate grout observed be	dequately at house connection
Let n 1 10	-
(Revised form 10/24/2018)	
(Revised form 10/24/2018)	
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Maura J. Rossman, M.D., Health Officer

INTERIM CERTIFICATE OF POTABILITY

Expiration Date - MARCH 29, 2024

September 29, 2023

Homeowner 10529 Pudding Lane Ellicott City, MD 21042

RE: King's Forest,Parcel D, Lot 37 10529 Pudding Lane Building Permit: B22003321 Well Permit: HO-18-0186

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 9/19/2023. Final approval of the well line connection to the dwelling was granted on 5/9/2023. The well construction was completed on 11/10/2020. Water samples were collected on 8/17/2023.

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 11/10/2020. Results showed a Gross Alpha level of $2.0 \pm 1.1 \text{ pCi/L}$ and Gross Beta level of $5.7 \pm 1.7 \text{ pCi/L}$. 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-18-0186. 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.



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: <u>http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf</u>

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,

- h. Kall

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

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

REPORT OF ANALYSIS

Laboratory ID #: Reference: Location:	160865 Kingsley Woo 10529 Puddin Ellicott City, N	g Lane		Account #: Client: Requested By Source:	1933 Fogle's Well Pun 7: Dave Fogle Well Water	np & Treatment
Date/ Time Collected	: 8/17/2023	1130		Site:	Pressure Tank	
Date/Time Rec'd:	8/17/2023	1252		Treatment:	None	
Chlorine ppm:	Free: ND	Total	: ND	pH:	6.4	
Collected By:	J. Evans	0309.	IE	Well #:	HO-18-0186	
PARAMETERS		RESULTS	UNITS	EFERENCE	IETHOD DA	TE/TIMERANALAST
Bacteria, Coliform, Total,		<1.0	MPN/ 100 ml	<1.0	SM20 9223B	8/18/2023 / 0800 / LLO
Bacteria, E. coli, MPN		<1.0	MPN/ 100 ml	<1.0	SM20 9223B	8/18/2023 / 0800 / LLO
Nitrate.		<0.40	mg/L (as N)	10	EPA 300.0	8/17/2023 / 1615 / BCD
Turbidity		0.38	NTU	<10	SM2130B	8/17/2023 / 1600 / BCD
Sand		ND	mg/L	5	Visual/Gravimetric	8/17/2023 / 1500 / BCD

NOTES:

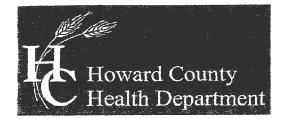
- 1 mg/L = milligrams per liter (also, parts per million)
- 2 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 3 NTU = Nephelometric Turbidity Units
- 4 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 5 Sample collected by client, analyzed as received
- 6 ND = None Detected
- 7 Visual well check: Sealed, vented cap
- 8 pH & Chlorine level tested on site

Reason for Test :	Use & Occupancy
Building Permit # :	B22003321



MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION 1800 Washington Blvd., Baltimore, Maryland 21230 (410) 537-3784 WATER WELL ABANDONMENT-SEALING REPORT FORM ****************************** SUBMIT COPIES OF COMPLETED FORM TO: COUNTY ENVIRONMENTAL AGENCY (contact MDE, WMA if address needed) WELL OWNER MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM DATE WELL ABANDONED: 3-2-20 (month/day/year) PERMIT NUMBER OF ABANDONED WELL (if any) PERMIT NUMBER OF REPLACEMENT WELL: Andrew Hausena Well DRILLER'S LICENSE NUMBER: 2 PERSON ABANDONING WELL: CIRCLE: MWD / MSDY M **OWNER'S NAME:** SITE LOCATION MAP WELL LOCATION: COUNTY: NEAREST TOWN: TAX MAP BLOC PARCEI SUBDIVISION: SECTION: LOT STREET ADDRESS: LATITUDE 39.2549 LOG OF SEALING MATERIAL LONGITUDE 7 6 . 87 99 43 FEET MATERIAL FROM TO 80 TYPE OF WELL BEING ABANDONED: Cottengs Barbaril DRILLED **JETTED** HAND DUG BORED OTHER (specify) USE CODE: DOMESTIC MUNICIPAL/PUBLIC IRRIGATION INDUSTRIAL TEST/OBSERVATION GEOTHERMAL VOLUME OF MATERIAL USED PE OF CASING: PLASTIC STEEL CONCRETE OTHER (specify) Pursuant to § 10-624 of the State Govt. Article of the Maryland 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 SIZE OF CASING:_ INCHES IN DIAMETER DEPTH OF WELL: 500 FEET DEEP 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, WAS ANY CASING REMOVED? ____YES___ by the public and other governmental agencies, if not protected by federal or State Law. If yes, length removed, in feet: WAS CASING RIPPED OR PERFORATED? YES MWD/MSDY MGS 3-2 0 CIRCLEONE SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN LICENSE# COUNTY

MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION 1800 Washington Blvd., Baltimore, Maryland 21230 (410) 537-3784 WATER WELL ABANDONMENT-SEALING REPORT FORM BMIT COPIES OF COMPLETED FORM TO: COUNTY ENVIRONMENTAL AGENCY (contact MDE, WMA if address needed). WELL OWNER MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM DATE WELL ABANDONED: (month/day/year) PERMIT NUMBER OF ABANDONED WELL (if any) PERMIT NUMBER OF REPLACEMENT WELL: PERSON ABANDONING WELL: Haus well DRILLER'S LICENSE NUMBER CIRCLE: MWD/MSD **OWNER'S NAME:** SITE LOCATION MAP WELL LOCATION: COUNTY: NEAREST TOWN: TAX MAP 23 BL SUBDIVISION: SECTION: STREET ADDRESS: LATITUDE .39 LOG OF SEALING MATERIAL LONGITUDE 7 6 8 FEET MATERIAL то FROM 500 YPE OF WELL BEING ABANDONED: 80 DIALE DRILLED **JETTED** BORED HAND DUG 80 OTHER (specify) USE CODE: MUNICIPAL/PUBLIC DOMESTIC **IRRIGATION** INDUSTRIAL **TEST/OBSERVATION GEOTHERMAL** VOLUME OF MATERIAL USED TYPE OF CASING: 5001 STEEL PLASTIC CONCRETE OTHER (specify) Pursuant to § 10-624 of the State Govt. Article of the Maryland 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 SIZE OF CASING: INCHES IN DIAMETER Department of the Environment is subject to the Maryland Public Information Act. This form may be DEPTH OF WELL: FEET DEEP made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by federal or State Law. WAS ANY CASING REMOVED? NO If yes, length removed, in feet: WAS CASING RIPPED OR PERFORATED? YES MWD / MSD / MGS DATE CIRCLE ONE SIGNATURE-MASTER WEIL DRILLER OR SUPERVISING SANITARIAN LICENSE#



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

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

TO ALL INTERESTED PARTIES

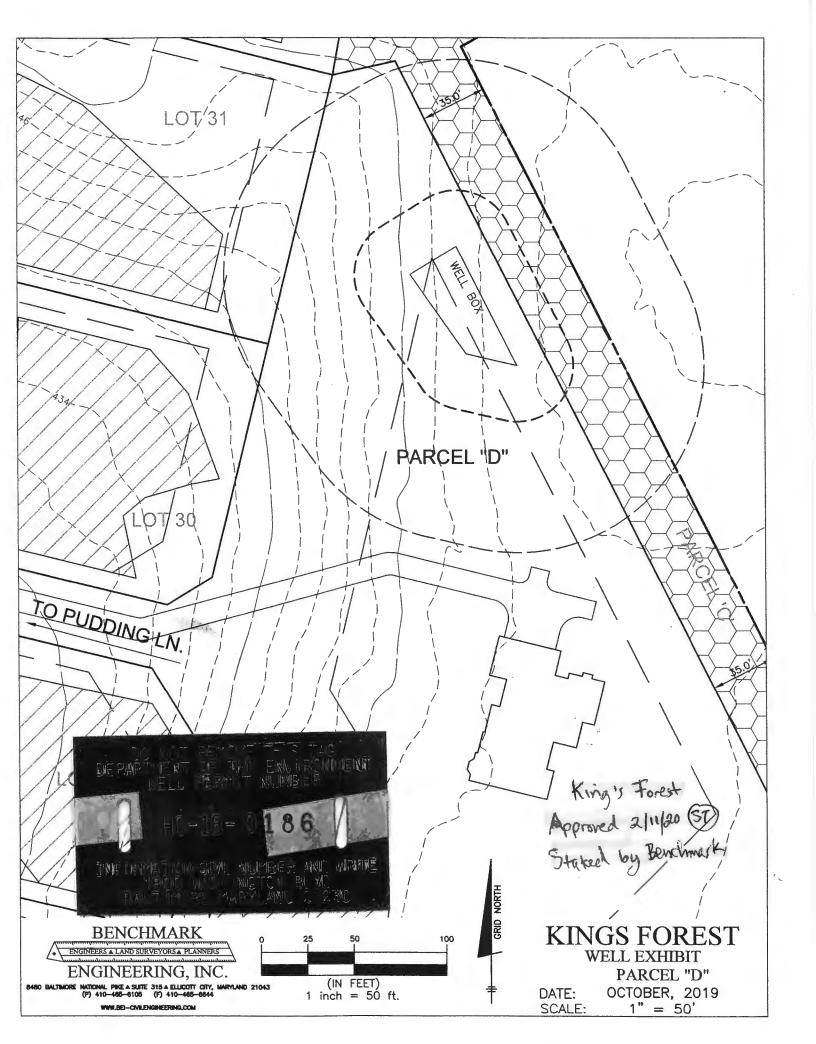
When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

Well Site Location:

Subdivision/Property Name

- □ 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.





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 (Sp) 14/27/19 Howard County Health Department Well & Septic Program
RF·	Kings Forest Subdivision – Well Permits Lots 1-36 and P

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.

	HOWAR	COUNTY I	HEALTH DEPARTMENT	66429
Received		dll	PHONE	4015 # 11. 11. 11.1 # 11. 11. 11.1
CASH	For		<u>, 1. t. 1/5</u>	<u>Ada (n</u> Zeitek
NO. ()	1.10			Dollars

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

January 11, 2021

Toll Brothers 7164 Columbia Gateway Drive Columbia, Maryland 21045

> RE: Kings Forest Parcel D Pudding Lane Well Tag: HO – 18 – 0186

To Who it May Concern:

A sample was collected during a yield test on November 10, 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 2.0 ± 1.1 picocuries/liter (pCi/L), while the Gross Beta level was 5.7 ± 1.7 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, Director' Bureau of Environmental Health

Enclosure cc: Property file Theresa Miller, Fogles

Plant/Site Name: KEN Sample Source: KIN	Health 145 1000 1000 Cos	ent Divi	State of Mary MH - Laboratories A ision of Environmer ADIATION LABO 1770 Ashland A Baltimore, Marylan ORATORY ANAL C T D A Radon-2	Administration htal Sciences DRATORY venue nd 21205 .YSIS REQUES Coun	ty: <u>Her</u> ion: <u>Hor</u>		186
Bottle B_					Bottle	В	
County 13			Plant No).			
CHECK (one per Box) Type Drinking Water Landfill Stream Other				Point of Collection e (Raw) bution (treated)		<u>Testin</u> Emergency Routine Recheck Special	g
Submitters Code: 4 Collector: CABAt Date Collected: 11/19	TP tug] 0019 0019	IT FP	ederal Project: elephone No.: ime Collected:	4103	<u>3 264</u> a.m.	<u>p.m.</u>
Field pH:	Yes [Mo [Fi	eld Chlorine: ed: Yes	No [p
Field pH:	Yes [Fi	eld Chlorine:	Date Analyzed	Analyst	Date
Field pH: Nitric Acid Preserved: Remarks: <u>I</u> TEST	Yes [No [Fi	eld Chlorine: ed: Yes			I
Field pH: Nitric Acid Preserved: Remarks: <u>TEST</u>	Yes [EPA Code	Lab No.	Fi	eld Chlorine: ed: Yes			Date
Field pH: Nitric Acid Preserved: Remarks: Ø TEST Ø Gross Alpha	Yes [EPA Code 4000	Lab No.	Fi	eld Chlorine: ed: Yes Results (pCi/L)		Analyst	Date
Field pH: Nitric Acid Preserved: Remarks: Ø TEST Ø Gross Alpha Ø Gross Beta	Yes [EPA Code 4000 4100	Lab No.	Fi	eld Chlorine: ed: Yes Results (pCi/L)		Analyst	Date
Field pH: Nitric Acid Preserved: Remarks: Gross Alpha Gross Beta Radium-226 Radium-228 Total Uranium	Yes [EPA Code 4000 4100 4020 4030 4006	Lab No.	Fi	eld Chlorine: ed: Yes Results (pCi/L)		Analyst	Date
Field pH: Nitric Acid Preserved: Remarks: ✓ <t< td=""><td>Yes EPA Code 4000 4100 4020 4030 4006 4004</td><td>Lab No.</td><td>Fi</td><td>eld Chlorine: ed: Yes Results (pCi/L)</td><td></td><td>Analyst</td><td>Date</td></t<>	Yes EPA Code 4000 4100 4020 4030 4006 4004	Lab No.	Fi	eld Chlorine: ed: Yes Results (pCi/L)		Analyst	Date
Field pH: Nitric Acid Preserved: Remarks: Image: marks in the served in the serv	Yes EPA Code 4000 4100 4020 4030 4006 4004 4004	Lab No.	Fi	eld Chlorine: ed: Yes Results (pCi/L)		Analyst	Date
Field pH: Nitric Acid Preserved: Remarks: Image: Construction of the served of t	Yes EPA Code 4000 4100 4020 4030 4006 4004 4004 4004	Lab No.	Fi	eld Chlorine: ed: Yes Results (pCi/L)		Analyst	Date
Field pH: Nitric Acid Preserved: Remarks: Ø TEST Gross Alpha Gross Beta Radium-226 Radium-228 Total Uranium Radon-222 (Bottle A) Radon Field Blank A Radon Field Blank B	Yes EPA Code 4000 4100 4020 4030 4006 4004 4004	Lab No.	Fi	eld Chlorine: ed: Yes Results (pCi/L)		Analyst	Date
Field pH: Nitric Acid Preserved: Remarks: Image: Construction of the served of t	Yes EPA Code 4000 4100 4020 4030 4006 4004 4004 4004	Lab No.	Fi	eld Chlorine: ed: Yes Results (pCi/L)		Analyst	Date
Field pH: Nitric Acid Preserved: Remarks: Ø TEST Gross Alpha Gross Beta Radium-226 Radium-228 Total Uranium Radon-222 (Bottle A) Radon Field Blank A Radon Field Blank B	Yes EPA Code 4000 4100 4020 4030 4006 4004 4004 4004	Lab No.	Fi	eld Chlorine: ed: Yes Results (pCi/L)		Analyst	Date
Field pH: Nitric Acid Preserved: Remarks: Image: Mail of the served of the serve	Yes EPA Code 4000 4100 4020 4030 4006 4004 4004 4004	Lab No.	Fi Ic Method No.	eld Chlorine: ed: Yes Results (pCi/L)	Date Analyzed	Analyst	Date
Field pH: Nitric Acid Preserved: Remarks: Ø TEST Ø Gross Alpha Gross Beta Radium-226 Radium-228 Total Uranium Radon-222 (Bottle A) Radon-222 (Bottle B) Radon Field Blank A Tritium	Yes [EPA Code 4000 4100 4020 4030 4006 4004 4004 4004 4004 4004	No Lab No.	Fi Ic Method No.	eld Chlorine: ed: Yes Results (pCi/L)	Date Analyzed	Analyst	Date Reported
Field pH: Nitric Acid Preserved: Remarks: Image: marks for the served for the	Yes [EPA Code 4000 4100 4020 4030 4006 4004 4004 4004 4004 4004	Lab No.	Fi Ic Method No.	eld Chlorine: ed: Yes Results (pCi/L)	Date Analyzed	Analyst	Date Reported
Field pH: Nitric Acid Preserved: Remarks: ✓ <t< td=""><td>Yes [EPA Code 4000 4100 4020 4030 4006 4004 4004 4004 4004 4004</td><td>No Lab No.</td><td>Fi Ic Method No.</td><td>eld Chlorine: ed: Yes Results (pCi/L)</td><td>Date Analyzed</td><td>Analyst</td><td>Date Reported</td></t<>	Yes [EPA Code 4000 4100 4020 4030 4006 4004 4004 4004 4004 4004	No Lab No.	Fi Ic Method No.	eld Chlorine: ed: Yes Results (pCi/L)	Date Analyzed	Analyst	Date Reported
Field pH: Nitric Acid Preserved: Remarks: Image: marks: Image: marks: Im	Yes EPA Code 4000 4100 4020 4030 4006 4004 4004 4004 4004 4004 2 7 2	No Lab No.	Fi Ic Method No.	eld Chlorine: ed: Yes Results (pCi/L)	Date Analyzed	Analyst	Date Reported
Field pH: Nitric Acid Preserved: Remarks: Image: marks: Image: marks: Im	Yes EPA Code 4000 4100 4020 4030 4006 4004 4004 4004 4004 4004 2 7 2	No Lab No.	Fi Ic Method No.	eld Chlorine: ed: Yes Results (pCi/L)	Date Analyzed	Analyst	Date Reported

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oward Cor ty Health De ureau of tronmental 930 Star 1 Blvd. olumbia, ryland 2104	Health	nt Div I	State of Mary MH - Laboratories A ision of Environmer RADIATION LABO 1770 Ashland A Baltimore, Marylan ORATORY ANAL	Administration Intal Sciences ORATORY Internet Notes in the second secon	FORM		
Plant/Site Name: ROJ	Sin	GLA)	Count	y: +166	UARD	
Sample Source: KIN	ics	FORK	ST. PAR	-D Locat		VCI.	
Radon-222 Bottle A			Radent	222 Field Blank		ll no., lab sink, san A	nple tap, etc.)
Bottle B			KADI				
	-		,	· · · · · · · · · · · · · · · · · · ·			
County 12	-		Plant No	o.			
CHECK (one per Box)							
Drinking WaterImage: Constraint of the sector o				ce (Raw) ibution (treated)		Emergency Routine Recheck Special	
Collector: Date Collected: Field pH:		670	T	elephone No.: Time Collected: Tield Chlorine:	NEG	a.m.	p.m.
Date Collected:	Yes [No	T	ield Chlorine:	NO		p.m.
Date Collected:	Yes [EPA Code		T	ield Chlorine:	Date Analyzed		
Date Collected: Field pH: Nitric Acid Preserved: Remarks: M TEST Gross Alpha	Yes [EPA Code 4000	No	T	ield Chlorine:	Date Analyzed	a.m.	p.m.
Date Collected: Field pH: Nitric Acid Preserved: Remarks: Ø TEST Ø Gross Alpha Ø Gross Beta	Yes [EPA Code 4000 4100	No Lab No.	T F Ic Method No.	ield Chlorine:	Date Analyzed	a.m.	p.m. Date Reported
Date Collected:	Yes [EPA Code 4000 4100 4020	No Lab No.	T F Ic Method No.	ield Chlorine:	Date Analyzed	a.m.	p.m.
Date Collected:	Yes [EPA Code 4000 4100 4020 4030	No Lab No.	T F Ic Method No.	ield Chlorine:	Date Analyzed	a.m.	p.m.
Date Collected: Field pH: Nitric Acid Preserved: Remarks: Ø TEST Ø Gross Alpha Ø Gross Beta □ Radium-226	Yes [EPA Code 4000 4100 4020	No Lab No.	T F Ic Method No.	ield Chlorine:	Date Analyzed	a.m.	p.m.
Date Collected:	Yes [EPA Code 4000 4100 4020 4030 4006	No Lab No.	T F Ic Method No.	ield Chlorine:	Date Analyzed	a.m.	p.m.
Date Collected:	Yes Yes EPA Code 4000 4100 4020 4030 4006 4004 4004 4004	No Lab No.	T F Ic Method No.	ield Chlorine:	Date Analyzed	a.m.	p.m.
Date Collected:	Yes [EPA Code 4000 4100 4020 4030 4006 4004	No Lab No.	T F Ic Method No.	ield Chlorine:	Date Analyzed	a.m.	p.m.
Date Collected:	Yes Yes EPA Code 4000 4100 4020 4030 4006 4004 4004 4004	No Lab No.	T F Ic Method No.	ield Chlorine:	Date Analyzed	a.m.	p.m.
Date Collected:	Yes Yes EPA Code 4000 4100 4020 4030 4006 4004 4004 4004	No Lab No.	T F Ic Method No.	ield Chlorine:	Date Analyzed	a.m.	p.m.
Date Collected: Field pH: Nitric Acid Preserved: Remarks:	Yes Yes EPA Code 4000 4100 4020 4030 4006 4004 4004 4004	No Lab No.	T F Ic Method No.	ield Chlorine:	Date Analyzed	a.m.	p.m.
Date Collected: Field pH: Nitric Acid Preserved: Remarks: Ø TEST Ø Gross Alpha Ø Gross Beta Radium-226 Radium-228 Total Uranium Radon-222 (Bottle A) Radon-222 (Bottle B) Radon Field Blank A Radon Field Blank B Tritium D	Yes Yes EPA Code 4000 4100 4020 4030 4006 4004 4004 4004	No Lab No.	T F Ic Method No.	ield Chlorine:	Image: Analyzed Image: Analyzed	_a.m.	p.m.
Date Collected: Field pH: Nitric Acid Preserved: Remarks: Ø TEST Gross Alpha Ø Gross Beta Radium-226 Radium-228 Total Uranium Radon-222 (Bottle A) Radon-222 (Bottle B) Radon Field Blank A Radon Field Blank B Tritium Date Received: Data Release Signature:	Yes [EPA Code 4000 4100 4020 4030 4006 4004 4004 4004 4004 4004 	No Lab No.	T	ime Collected: ield Chlorine: ced: Yes Results (pCi/L)	Date Analyzed	_a.m.	p.m.
Date Collected: Field pH: Nitric Acid Preserved: Remarks: Ø TEST Gross Alpha Gross Beta Radium-226 Radium-228 Total Uranium Radon-222 (Bottle A) Radon-222 (Bottle B) Radon Field Blank A Radon Field Blank B Tritium Date Received: Data Release Signature:	Yes [EPA Code 4000 4100 4020 4030 4006 4004 4004 4004 4004	No Lab No.	T	ime Collected: ield Chlorine: ced: Yes Results (pCi/L)	Date Analyzed	_a.m.	p.m.
Date Collected:	Yes [EPA Code 4000 4100 4020 4030 4006 4004 4004 4004 4004 4004 	No Lab No.	T F Ic Method No. Received By: K K	ime Collected: ield Chlorine: ced: Yes Results (pCi/L)	Date Analyzed	_a.m.	p.m.

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SAMPLE TESTED AS RECEIVED