

TAG = 10/30/2018

B 1 SEQUENCE NO. (MDE USE ONLY) 59729 STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type 50391075 STATE PERMIT NUMBER HO-17-0331
 1 2 3 6 70 79 *fill in this form completely*

OWNER INFORMATION
 Date Received (APA) 07-27-18
 8 MM DD YY 13
 15 Last Name Trinity Homes Owner First Name _____ 34
 36 Street or RFD 3675 Park Ave Suite 301 55
 57 Town Ellicott City Md 21043 70 State 72 Zip 76

B 3 LOCATION OF WELL
 8 COUNTY Howard 21
 23 SUBDIVISION The Estates at River Hill 42
 SECTION 44 46 LOT 7 48 50
 52 NEAREST TOWN Highland 71

DRILLER INFORMATION Andrew Houseman MSO 224
 Driller's Name Allen Compton M SD 009 76 License No. 81
 Firm Name Fogles Well Drilling, LLC
 Address P.O. Box 202 Woodbine Md 21797
 Signature Allen Compton Date 7-27-18

B 4 SOURCES OF DRILLING WATER
 1. Well water
 2. _____
 3. _____
 11 STREET ADDRESS Allnut Lane 30
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
 NORTH NORTH
 WEST EAST
 SOUTH SOUTH
 34 1000 37 DISTANCE FROM ROAD FT
 ENTER FT OR MI 38 39
 TAX MAP: 34 BLK: 23 PARCEL 389

B 2 WELL INFORMATION
 1 2 APPROX. PUMPING RATE 5 8 12 (GAL. PER MIN.)
 AVERAGE DAILY QUANTITY NEEDED 500 14 20 (GAL. PER DAY)

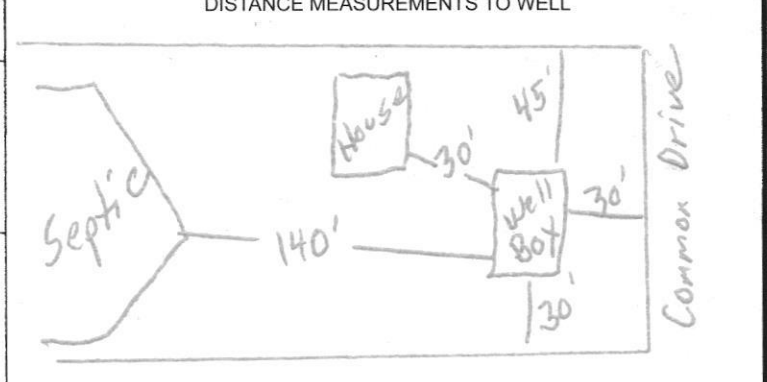
USE FOR WATER (CIRCLE APPROPRIATE BOX)
 DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
 FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
 INDUSTRIAL, COMMERCIAL, DEWATERING
 PUBLIC WATER SUPPLY WELL
 TEST, OBSERVATION, MONITORING
 OPEN LOOP GEOTHERMAL
 CLOSED LOOP GEOTHERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL
 COUNTY NAME Howard COUNTY NO. 13
 STATE SIGNATURE _____ INSERT S → 41
 DATE ISSUED 9/18/18 CO SIGNATURE SC Cell EXP. DATE 9/18/19
 43 MM DD YY 48

APPROXIMATE DEPTH OF WELL 300 FEET 24 28
 APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST INCH

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

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 DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)
 THIS WELL WILL NOT REPLACE AN EXISTING WELL
 THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
 THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
 THIS WELL WILL DEEPEM AN EXISTING WELL
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 _____ 52

10/29/2018 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 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 public and other governmental agencies, if not protected by federal or State Law.

Not to be filled in by driller (MDE OR COUNTY USE ONLY)
 APPROP. PERMIT NUMBER H02018G005
 PERMIT No. HO-17-0331
 70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS SEE ATTACHED MEMO.

**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WELL & SEPTIC PROGRAM
TEL: (410)313-1771 FAX: (410)313-2648**

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: Do-It Plumbing & Heating Telephone #: 2408826069
Address: 107 Estelle ct
Sykesville, md 21784

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer

License # and name of individual responsible for the field installation:

Name (Print): Duane Gilbert License# 21899

***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: TBI Telephone #: 410-450-0023
Subdivision: River Hill @ Allentown Lane Lot #: 7 Well Tag #: HO-17-0331 (37)
Site Address: 13609 Noble Way
Highland, md

Submersible Pump Data

Make: DAB
Model #: BF-0710-122
Pump Capacity 7 GPM
Well Yield: 10 GPM

Pitless Adapter

Make: Boshart
Model#: P-80-55
Depth: 42 (36" min)
NSF/WSC approved: yes

Well Cap and Electric Conduit

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

Depth of well encountered at time of pump installation: 150 (feet)

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Torque arrestors, Cable guards, or other acceptable method used- Must circle one

Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing N/A

Piping to house

Type: Black Poly
PSI: 250 (160 psi min)
Depth of supply line: 42 (36" min)

House Connection

PVC sleeve to undisturbed soil at wall penetration: yes
Length of sleeve (5' minimum from foundation): 10 ft
Sleeve sealed properly: yes

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation: D Gilbert date: July - 1 - 2022

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

Date Insp. Requested: 7/1/22 Date Insp. Approved: 7/1/22 Inspector: (37)

Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade	<input checked="" type="checkbox"/>	47"
Two piece cap installed and attached to casing securely	<input checked="" type="checkbox"/>	
Elec. conduit extends at least 18" below grade/attached to cap properly	<input checked="" type="checkbox"/>	41"
Safety rope not outside of well cap/casing	<input checked="" type="checkbox"/>	
Correct well tag attached properly and casing 8" above finished grade	<input checked="" type="checkbox"/>	15"
Water supply line sleeved adequately at house connection	<input checked="" type="checkbox"/>	9"
Adequate grout observed below pitless adapter	<input checked="" type="checkbox"/>	



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

INTERIM CERTIFICATE OF POTABILITY
PERMANENT DEVIATION FOR RADIUM

Expiration Date – SEPTEMBER 6, 2023

March 6, 2023

Homeowner
13609 Noble Way
Highland, MD 20777

RE: Est. @ River Hill, Lot 7
13609 Noble Way
Building Permit: B19003292
Well Permit: HO-17-0331

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 **2/13/2023**. Final approval of the well line connection to the dwelling was granted on **7/1/2022**. The well construction was completed on **11/26/2018**. Water samples were collected on **2/7/2023**, **2/13/2023**.

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 **10/30/2018**. Results showed a Gross Alpha level of **68.0 ± 5.9 pCi/L** and a Gross Beta level of **43.2 ± 3.6 pCi/L**. **This exceeds the maximum contaminant level (MCL)** of 15 pCi/L for Gross Alpha and the Gross Beta was below the target level of 50pCi/L (roughly equivalent to the annual dose rate of 4 millirems per year).

After installation of a radionuclide removal device (water softener), post-treatment water samples were collected on **2/13/2023** and indicated a combined Radium 226/228 level of **<1.4 pCi/L** which is below the MCL of 5 pCi/L.

This Department will grant a **permanent deviation** to the Interim Certificate of Potability on condition that the radionuclide removal system effectively maintains a Gross Alpha level of less than **15 pCi/L**, a Gross Beta level of less than **50 pCi/L**, and a Radium 226/228 level of less than **5 pCi/L**.

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

1. The system must be properly operated and maintained continuously in accordance with the service contract for the life of the residence.
2. It is recommended that a Maryland certified water laboratory certified for radionuclide analysis perform a yearly radionuclide analysis.

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

3. If you decide to sell or rent your home in the future, you must make any potential buyer/tenant aware of this permanent deviation. **A person who fails to make this disclosure is subject to the penalties set out in COMAR 26.04.04.12F Enforcement and Environment Article 9-1311, Annotated Code of Maryland.**

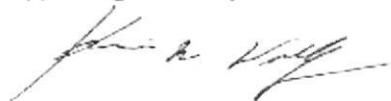
This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit HO-17-0331. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will be issued. **Failure to submit an additional sample and obtain a Final Certificate of Potability will result in a Notice of Violation and is punishable as a misdemeanor under the *Annotated Code of Maryland, Environment Article, 9-1311*, subject to a fine of up to \$500 or imprisonment not to exceed three months.**

Please contact (410) 313-1773 to schedule a final water sample appointment or contact a Maryland 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>

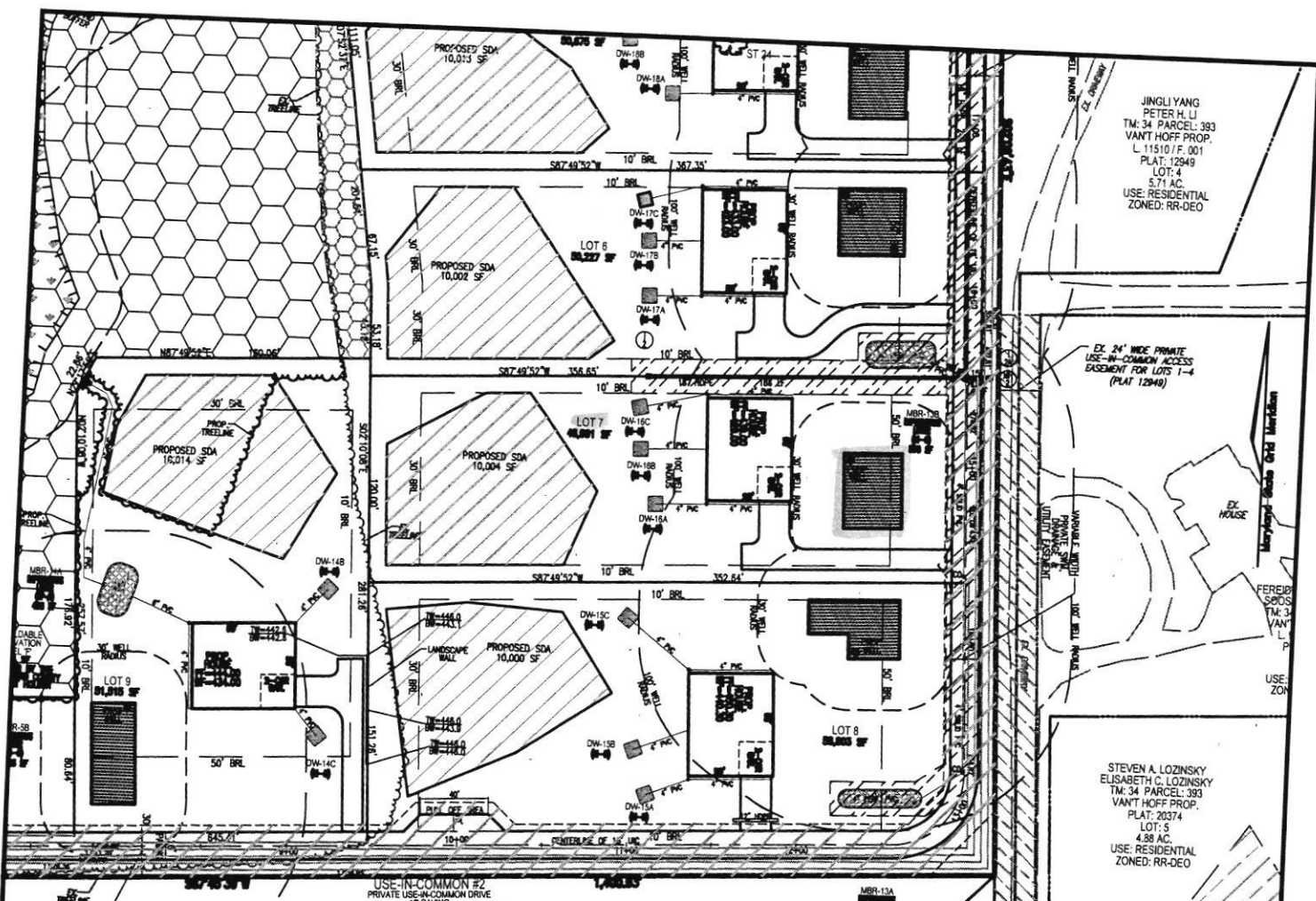
In closing, please refer to our "Homeowner Fact Sheet" which illustrates a better understanding for your onsite sewage disposal system. You will also find a link to Maryland Department of the Environment website which describes in further detail operation and maintenance of your septic system.

Approving Authority,



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

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



JINGLI YANG
 PETER H. LI
 TM: 34 PARCEL: 393
 VANT HOFF PROP.
 L 11510 / F. 001
 PLAT: 12949
 LOT: 4
 5.71 AC.
 USE: RESIDENTIAL
 ZONED: RR-DEO

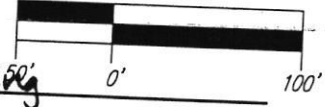
EX. 24' WIDE PRIVATE
 USE-IN-COMMON ACCESS
 EASEMENT FOR LOTS 1-4
 (PLAT 12948)

STEVEN A. LOZINSKY
 ELISABETH C. LOZINSKY
 TM: 34 PARCEL: 393
 VANT HOFF PROP.
 PLAT: 20374
 LOT: 5
 4.88 AC.
 USE: RESIDENTIAL
 ZONED: RR-DEO

Well box
 Approved 9/18/10
 SC

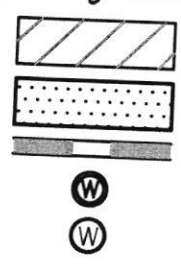
Well box
 staked by
 Vogel Engineering

SCALE 1"=100'



WELL EXHIBIT Well box
 SCALE: 1"=100'

- WOOD FENCE
- METAL FENCE
- 100-YEAR LAIN
- DRAINAGE & UTILITY EASEMENT
- PRIVATE USE-IN-COMMON EASEMENT



- PROP. SEWAGE DISPOSAL AREA
- PROP. WELL AREA
- PROP. STORMDRAIN
- EXISTING WELL
- PROPOSED WELL

- PROP. PUBLIC SWM, DRAINAGE & UTILITY EASEMENT
- PROP. 35' PRIVATE MONUMENT EASEMENT

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 3300 N. RIDGE ROAD, SUITE 110 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666 FAX: 410.461.8961

WELL EXHIBIT - LOT 7
THE ESTATES AT RIVER HILL
 LOTS 1-15, BUILDABLE PRESERVATION PARCEL 'A'
 AND NON-BUILDABLE PRESERVATION PARCELS 'B-H'
 A RE-SUBDIVISION OF THE "GREENE PROPERTY" LOT 1

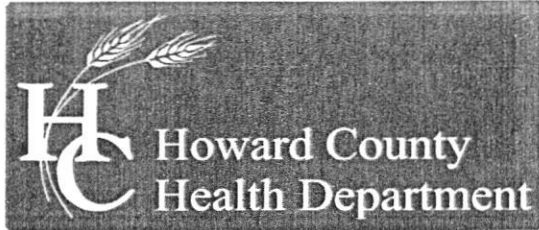
PARCEL: 389
 TAX MAP: 34 GRID: 23
 5TH ELECTION DISTRICT

ZONED: RR-DEO
 L 4772 / F. 265
 HOWARD COUNTY, MARYLAND

DO NOT REMOVE THIS TAG
 DEPARTMENT OF THE ENVIRONMENT
 INFORMATION: 410.336.7300
 BALTIMORE MARYLAND 21230

EXISTING WETLANDS
 EXISTING WETLAND BUFFER
 EXISTING SPECIMEN TREES

SCALE: 1"=100'
 DRAWN BY: JMR
 CHECKED BY: RHV
 DATE: JUNE 2018
 W. O. #: 15-39
 SHEET #: 1 OF 1



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:

The Estates at River Hill 1-15 Parcel A - Allnut Line
Subdivision/Property Name Lot # Road Name

The well site has been staked by Robert H. Vogel Engineering, Inc.
(professional land surveyor or company employing professional land surveyors)
on _____ (date) and does not require a site inspection.

The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location.

This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.

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

MEMORANDUM

TO: Allen Compton (MSD 009)

FROM: Sarah Collins, L.E.H.S. SEC
Howard County Health Department
Well and Septic Program

DATE: September 17, 2018

RE: Well permits for the Estates at River Hill

The following conditions apply to the well permits for the Estates at River Hill:

- A radium sample is required at the yield test for all lots.
- Sodium, chloride, and total dissolved solids samples are required at the yield test for Lots 1, 2, 3, 4, 10, and 11.
- Steel casing to 50' or 10' into competent bedrock, whichever is deeper, is required for Lots 5, 7, and 8.
- Per the Groundwater Appropriations Permit from Maryland Department of the Environment, any well less than 100' from another well AND on a lot less than one acre requires a simultaneous yield test. Lot 10 is the only lot less than one acre; any well less than 100' from Lot 10 requires a simultaneous yield test with the Lot 10 well.

Feel free to contact me at 410-313-6287 or SCollins@howardcountymd.gov with any questions.

Cc: Vogel Engineering, Rob Vogel (rvogel@vogeleng.com)
File

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

REPORT OF ANALYSIS

Laboratory ID #: 157222 Account #: 4035
Reference: Estates @ River Hill Lot 7 Client: Trinity Quality Homes, Inc.
Location: 13609 Noble Way Requested By: Michael Pfau
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 2/7/2023 1307 Site: Pressure Tank
Date/Time Rec'd: 2/7/2023 1521 Treatment: Prior to Sediment Filter
Chlorine ppm: Free: ND Total: ND pH: 6.6
Collected By: R. Ott 0266RO Well #: HO-17-0331

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	2/8/2023 / 1015 / MEW
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	2/8/2023 / 1015 / MEW
Nitrate.	0.77	mg/L	10	EPA 300.0	2/7/2023 / 1808 / MEW
Sand	ND	mg/L	5	Visual/Gravimetric	2/7/2023 / 1640 / MEW
Turbidity	11.2	NTU	<10	SM2130B	2/8/2023 / 1020 / MEW

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 ND:None Detected
- 6 pH & Chlorine level tested on site
- 7 Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy
Building Permit # : B19003292

Date Reported: 2/8/2023

Reviewed By:

Catherine C. Holland

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

REPORT OF ANALYSIS

Laboratory ID #: 157336 Account #: 4035
Reference: Estates @ River Hill Lot 7 Client: Trinity Quality Homes, Inc.
Location: 13609 Noble Way Requested By: Michael Pfau
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 2/13/2023 1050 Site: Pressure Tank
Date/Time Rec'd: 2/13/2023 1431 Treatment: Prior to Sediment Filter/Softener
Chlorine ppm: Free: ND Total: ND pH: 6.2
Collected By: R. Ott 0266RO Well #: HO-17-0331


PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Turbidity	11.6	NTU	<10	SM2130B	2/14/2023 / 1240 / MEW
Iron	1.10	mg/L	0.3*	Hach 8146	2/15/2023 / 0915 / MEW

NOTES:

- 1 *SMCL = Secondary Maximum Contaminant Level
- 2 NTU = Nephelometric Turbidity Units
- 3 ND:None Detected
- 4 pH & Chlorine level tested on site
- 5 Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy
Building Permit # : B19003292

Date Reported: 2/15/2023

Reviewed By: 

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

REPORT OF ANALYSIS

Laboratory ID #: 157377 Account #: 4035
Reference: Estates @ River Hill Lot 7 Client: Trinity Quality Homes, Inc.
Location: 13609 Noble Way Requested By: Michael Pfau
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 2/13/2023 1045 Site: Kitchen Sink Tap
Date/Time Rec'd: 2/13/2023 1431 Treatment: Sediment Filter/Softener
Chlorine ppm: Free: ND Total: ND pH: 6.1
Collected By: R. Ott 0266RO Well #: HO-17-0331


PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Turbidity	1.57	NTU	<10	SM2130B	2/14/2023 / 1650 / MEW
Iron	0.02	mg/L	0.3*	Hach 8146	2/15/2023 / 0915 / 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 ND:None Detected
- 5 pH & Chlorine level tested on site
- 6 Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy
Building Permit # : B19003292

Date Reported: 2/15/2023

Reviewed By: 

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

REPORT OF ANALYSIS

Laboratory ID #: 157336.1 Account #: 4035
Reference: Estates @ River Hill Lot 7 Client: Trinity Quality Homes, Inc.
Location: 13609 Noble Way Requested By: Michael Pfau
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 2/13/2023 1050 Site: Pressure Tank
Date/Time Rec'd: 2/13/2023 1431 Treatment: Prior to Sediment Filter/Softener
Chlorine ppm: Free: ND Total: ND pH: 6.2
Collected By: R. Ott 0266RO Well #: HO-17-0331

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Manganese	0.035	mg/L	0.05*	EPA 200.8	2/15/2023 / 1315 / MBC

NOTES:

- * SMCL = Secondary Maximum Contaminant Level
- Manganese Detection Limit: 0.005 mg/L
- mg/L = milligrams per liter (also, parts per million)
- Sub-contracted to Reference Lab #320
- ND:None Detected
- pH & Chlorine level tested on site
- Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy

Building Permit # : B19003292

Date Reported: 2/23/2022

Reviewed By:

Catherine C Holland

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

REPORT OF ANALYSIS

Laboratory ID #: 157377.1 Account #: 4035
Reference: Estates @ River Hill Lot 7 Client: Trinity Quality Homes, Inc.
Location: 13609 Noble Way Requested By: Michael Pfau
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 2/13/2023 1045 Site: Kitchen Sink Tap
Date/Time Rec'd: 2/13/2023 1431 Treatment: Sediment Filter/Softener
Chlorine ppm: Free: ND Total: ND pH: 6.2
Collected By: R. Ott 0266RO Well #: HO-17-0331

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Manganese	ND	mg/L	0.05*	EPA 200.8	2/15/2023 / 1319 / MBC

NOTES:

- 1 * SMCL = Secondary Maximum Contaminant Level
- 2 Manganese Detection Limit: 0.005 mg/L
- 3 mg/L = milligrams per liter (also, parts per million)
- 4 Sub-contracted to Reference Lab #320
- 5 ND:None Detected
- 6 pH & Chlorine level tested on site
- 7 Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy

Building Permit # : B19003292

Date Reported: 2/23/2023

Reviewed By: Catherine C. Holland

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

REPORT OF ANALYSIS

Laboratory ID #: 157223 Account #: 4035
Reference: Estates @ River Hill Lot 7 Client: Trinity Quality Homes, Inc.
Location: 13609 Noble Way Requested By: Michael Pfau
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 2/7/2023 1311 Site: Pressure Tank
Date/Time Rec'd: 2/7/2023 1521 Treatment: Prior to Sediment Filter/Softener
Chlorine ppm: Free: ND Total: ND pH: 6.6
Collected By: R. Ott 0266RO Well #: HO-17-0331

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Gross Alpha, Short Term	16.3	pCi/L	15	900.0	2/10/2023 / 0551 / MJN
Gross Beta, Short Term	14.4	pCi/L	50	900.0	2/10/2023 / 0551 / MJN
Gross Alpha, Long Term	8.7	pCi/L	15	900.0	2/17/2023 / 0554 / MJN
Gross Beta, Long Term	12.5	pCi/L	50	900.0	2/17/2023 / 0554 / MJN
Radium-226	4.0	pCi/L	****	903.0	2/17/2023 / 0838 / MJN
Radium-228	3.2	pCi/L	****	Ra-05	2/16/2023 / 0947 / SN

NOTES:

- ****Radium 226 and Radium 228 combined have a reference of 5 pCi/L
- Long Term Gross Alpha Detection Limit: 1.5 pCi/L; Gross Alpha Error: +/- 2.2 pCi/L
- Long Term Gross Beta Detection Limit: 1.4 pCi/L; Gross Beta Error: +/- 1.4 pCi/L
- pCi/L = picocuries per liter
- Radium 226 Detection Limit: 0.1 pCi/L; Radium 226 Error: +/- 0.6 pCi/L
- Radium 228 Detection Limit: 0.6 pCi/L; Radium 228 Error: +/- 0.7 pCi/L
- Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- Short Term Gross Alpha Detection Limit: 1.4 pCi/L; Gross Alpha Error: +/- 2.7 pCi/L
- Short Term Gross Beta Detection Limit: 1.6 pCi/L; Gross Beta Error: +/- 1.6 pCi/L
- Sub-contracted to Reference Lab #278
- ND:None Detected
- pH & Chlorine level tested on site
- Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy
Building Permit # : B19003292

Date Reported: 2/24/2023

Reviewed By: Loi Ott

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

REPORT OF ANALYSIS

Laboratory ID #: 157337 Account #: 4035
Reference: Estates @ River Hill Lot 7 Client: Trinity Quality Homes, Inc.
Location: 13609 Noble Way Requested By: Michael Pfau
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 2/13/2023 1045 Site: Kitchen Sink Tap
Date/Time Rec'd: 2/13/2023 1431 Treatment: Sediment Filter/Softener
Chlorine ppm: Free: ND Total: ND pH: 6.1
Collected By: R. Ott 0266RO Well #: HO-17-0331

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Gross Alpha, Short Term	<1.7	pCi/L	15	900.0	2/16/2023 / 0629 / MJN
Gross Beta, Short Term	2.1	pCi/L	50	900.0	2/16/2023 / 0629 / MJN
Gross Alpha, Long Term	<0.9	pCi/L	15	900.0	2/24/2023 / 0553 / MJN
Gross Beta, Long Term	<1.5	pCi/L	50	900.0	2/24/2023 / 0553 / MJN
Radium-226	0.5	pCi/L	****	903.0	2/23/2023 / 0812 / MJN
Radium-228	0.9	pCi/L	****	Ra-05	2/22/2023 / 0955 / SN

NOTES

- ****Radium 226 and Radium 228 combined have a reference of 5 pCi/L
- Long Term Gross Alpha Detection Limit: 0.9 pCi/L; Gross Alpha Error: +/- 0.6 pCi/L
- Long Term Gross Beta Detection Limit: 1.5 pCi/L; Gross Beta Error: +/- 0.9 pCi/L
- pCi/L = picocuries per liter
- Radium 226 Detection Limit: 0.1 pCi/L; Radium 226 Error: +/- 0.2 pCi/L
- Radium 228 Detection Limit: 0.7 pCi/L; Radium 228 Error: +/- 0.6 pCi/L
- Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- Short Term Gross Alpha Detection Limit: 1.7 pCi/L; Gross Alpha Error: +/- 1.0 pCi/L
- Short Term Gross Beta Detection Limit: 1.3 pCi/L; Gross Beta Error: +/- 0.9 pCi/L
- Sub-contracted to Reference Lab #278
- ND:None Detected
- pH & Chlorine level tested on site
- Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy

Building Permit # : B19003292

Date Reported: 2/28/2023

Reviewed By: _____

Cathy Siegman

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

December 10, 2018

Tim Keane
Trinity Homes
3625 Park Avenue
Ellicott City, Maryland 21043

RE: Estates at River Hill Lot 7
Allnutt Lane
Well Tag: HO – 17 – 0331

Dear Mr. Keane:

A sample was collected during a yield test on October 30, 2018 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 68.0 ± 5.9 picocuries/liter (pCi/L), while the **Gross Beta** level was 43.2 ± 3.6 pCi/L. The **Gross Alpha** result was well above its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below (though significantly higher than typically seen) 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 **does not meet** EPA regulatory standards. Additional testing **for these parameters** will be required to secure the future Use & Occupancy. Additional raw water samples for **short and long term Gross Alpha and Gross Beta**, plus **Radium 226 / 228** will be needed to assess any future treatment needs. Alternatively, treatment such as a water softener system or point of use reverse osmosis (R/O) could be considered. If installed, post-treated sampling for **short and long term Gross Alpha, Gross Beta and Radium 226 / 228** will be **required**. 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 or to schedule additional testing.

Sincerely,



Bert Nixon, Director
Bureau of Environmental Health

✓ Enclosure
cc: Property file

SEND REPORT TO:

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

Lab No.

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

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: ESTATES AT RIVER HILL County: HOWARD

Sample Source: LOT 7 Location: HO-17-0331

RADIUM
Radon-222 Bottle A HOJCC3312A Radon-222 Field Blank Bottle A _____
Bottle B _____ Bottle B _____
(Well no., lab sink, sample tap, etc.)

County 113 Plant No.

--	--	--	--	--	--	--	--	--	--

CHECK (one per Box)

Type	Service	Point of Collection	Testing
Drinking Water <input checked="" type="checkbox"/>	Community <input type="checkbox"/>	Source (Raw) <input checked="" type="checkbox"/>	Emergency <input type="checkbox"/>
Landfill <input type="checkbox"/>	Non-Community <input type="checkbox"/>	Distribution (treated) <input type="checkbox"/>	Routine <input checked="" type="checkbox"/>
Stream <input type="checkbox"/>	Private <input checked="" type="checkbox"/>	MCL <input type="checkbox"/>	Recheck <input type="checkbox"/>
Other <input type="checkbox"/>	Other <input type="checkbox"/>		Special <input type="checkbox"/>

Submitters Code: 41F Federal Project: _____
Collector: CABRILLO, JOSEPH Telephone No.: 410 313 2643
Date Collected: 10/30/2018 Time Collected: _____ a.m. 13:00 p.m.
Field pH: 7.0 Field Chlorine: NEG
Nitric Acid Preserved: Yes No Iced: Yes No

Remarks: SAMPLE COLLECTED AT YIELD

✓	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/>	Gross Alpha	4000	0926	EPA900.0	68.0 ± 5.9	11/01/18	RH	11/2/18
<input checked="" type="checkbox"/>	Gross Beta	4100	0926	EPA900.0	43.2 ± 3.6	11/01/18	RH	11/2/18
<input type="checkbox"/>	Radium-226	4020						
<input type="checkbox"/>	Radium-228	4030						
<input type="checkbox"/>	Total Uranium	4006						
<input type="checkbox"/>	Radon-222 (Bottle A)	4004						
<input type="checkbox"/>	Radon-222 (Bottle B)	4004						
<input type="checkbox"/>	Radon Field Blank A	4004						
<input type="checkbox"/>	Radon Field Blank B	4004						
<input type="checkbox"/>	Tritium							
<input checked="" type="checkbox"/>	Gross Alpha - Dup		0926	EPA900.0	64.8 ± 5.9	11/01/18	RH	11/2/18
<input checked="" type="checkbox"/>	Gross Beta - Dup		0926	EPA900.0	48.7 ± 3.7	11/01/18	RH	11/2/18

Date Received: 10/31/18 Received By: W. T. ...
Data Release Signature: [Signature] Date: 11/2/18

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

PROGRAM COPY

SAMPLE TESTED AS RECEIVED

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: HOWARD COUNTY HEALTH DEPT County: HOWARD

Sample Source: WEGMANN'S DISTILLED H₂O Location: LAB
(Well no., lab sink, sample tap, etc.)

Radon-222 RADIUM Bottle A FIELD BLANK Radon-222 Field Blank Bottle A _____
Bottle B _____ Bottle B _____

County 113 Plant No. _____

CHECK (one per Box)

Type	
Drinking Water	<input checked="" type="checkbox"/>
Landfill	<input type="checkbox"/>
Stream	<input type="checkbox"/>
Other	<input type="checkbox"/>

Service	
Community	<input type="checkbox"/>
Non-Community	<input type="checkbox"/>
Private	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

Point of Collection	
Source (Raw)	<input checked="" type="checkbox"/>
Distribution (treated)	<input type="checkbox"/>
MCL	<input type="checkbox"/>

Testing	
Emergency	<input type="checkbox"/>
Routine	<input checked="" type="checkbox"/>
Recheck	<input type="checkbox"/>
Special	<input type="checkbox"/>

Submitters Code: H F Federal Project: _____

Collector: CABALLERO, JOSEPH Telephone No.: 410 373 2643

Date Collected: 10/30/2018 Time Collected: _____ a.m. 16:00 p.m.

Field pH: _____ Field Chlorine: _____

Nitric Acid Preserved: Yes No Iced: Yes No

Remarks: _____

✓	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/>	Gross Alpha	4000	0925	EPA 900.0	<2.0	11/01/18	RH	11/21/18
<input checked="" type="checkbox"/>	Gross Beta	4100	0925	EPA 900.0	<4.0	11/01/18	RH	11/21/18
<input type="checkbox"/>	Radium-226	4020						
<input type="checkbox"/>	Radium-228	4030						
<input type="checkbox"/>	Total Uranium	4006						
<input type="checkbox"/>	Radon-222 (Bottle A)	4004						
<input type="checkbox"/>	Radon-222 (Bottle B)	4004						
<input type="checkbox"/>	Radon Field Blank A	4004						
<input type="checkbox"/>	Radon Field Blank B	4004						
<input type="checkbox"/>	Tritium							
<input type="checkbox"/>								
<input type="checkbox"/>								

Date Received: 10/31/18 Received By: W. Tucker

Data Release Signature: [Signature] Date: 11/2/18

Lab Use Only	Yes	No	N/A
Sample Intact upon arrival?	<input checked="" type="checkbox"/>		
Sample pH <2.0?	<input checked="" type="checkbox"/>		
Received within holding time?	<input checked="" type="checkbox"/>		

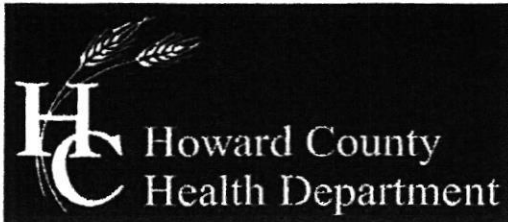
•Tel. No.: (443) 681-3766 •Fax No.: (443) 681-4507

FORM REVISED 05/15
DHMH 4540 05/17

PROGRAM COPY

SAMPLE TESTED AS RECEIVED

REC'D BY ENV HEALTH



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

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

AGREEMENT FOR APPROVAL OF AN INDIVIDUAL DRINKING WELL WITH AN ON-SITE TREATMENT SYSTEM

This agreement is entered into by and between the Howard County Health Department ("the Health Department") and SARATH C. MANDUVA + HAREESHA DOSAWADA ("the Owner").

WHEREAS, the Owner owns a tract of land at street address 13609 NOBLE WAY, HIGHLAND MD 20777 and the deed and subdivision plat of the property is recorded among the Land Records of Howard County, Maryland, Tax Map # 34, Block # 23, Parcel # 389, Deed Reference # _____ and Tax Account # _____ ("the Property"). LOT 7

WHEREAS, the Property lacks an available public drinking water source and is required to have and individual well as the source of drinking water for the residence of the property.

WHEREAS, the Owner has installed a residential drinking well under well permit A0-17-0331 that has been tested by the Health Department (or a private laboratory certified to perform testing) for radionuclide particles. The results of the tests have shown that the gross alpha particle content and/or the gross beta particle content and/or the combined radium 226/228 levels exceeds the standards of 15 picocuries per liter (pCi/L), 4 millirems per year (mrem/yr) and/or 5pCi/L respectively.

WHEREAS, The Maryland Department of the Environment (MDE) has promulgated rules and regulations under which a Certificate of Potability may be issued and has delegated the authority to issue such Certificate to the Health Department.

WHEREAS, MDE regulations permit the Health Department to issue as a special condition, a permanent deviation to the Certificate of Potability for individual wells where treatment has been installed to meet the maximum contaminate levels (MCL's) for radionuclides.

WHEREAS, MDE has determined that radium can be effectively removed from the drinking water by the use of treatment devices (e.g., ion exchange or reverse osmosis).

WHEREAS, the Owner is requesting that the Health Department issue a Certificate of Potability contingent upon installation and maintenance of a water treatment device to reduce radionuclides.

WHEREAS, neither the Owner nor the Health Department has knowledge of an alternative safe source of water for the Property.


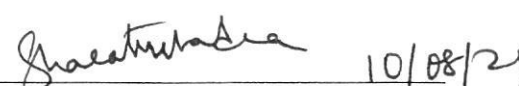
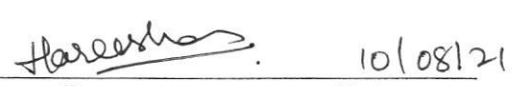

NOW THEREFORE, the parties have agreed to the following terms and conditions:

1. The Owner will record this Agreement among the Land Records of Howard County, Maryland and provide confirmation to the Health Dept.
2. The Owner agrees to install and maintain a water treatment device, which effectively reduces the gross alpha, gross beta and radium levels to below their respective MCL. The Health Department

shall verify that the treatment device is operating effectively and the Owner agrees to allow access to the Health Department to collect a follow-up sample(s).

3. The Health Department shall issue a Certificate of Potability for the well once follow-up sampling shows acceptable gross alpha, gross beta (short and long term) and radium 226 / 228 levels.
4. The Owner agrees that there shall be no liability on part of the Health Department for any immediate or long term impacts to health or property, under any circumstance or including, but not limited to, treatment device failure, improper maintenance or installation, or defect. The Health Department does not warranty or guarantee that the device will adequately or properly function and the Owner agrees to implement and pay for any necessary changes or corrections.
5. The Owner acknowledges and agrees that neither the Health Department nor any of its agents or employees, either officially or individually, underwrites the operation of any system or treatment device.
6. This Agreement shall not be construed to limit any authority of the Health Department to protect the public health, safety or enjoyment of property or to issue any other orders to take any other action, which is now or may hereafter be within its authority.
7. This agreement contains the entire agreement and understanding between the Health Department and the Owner. There are no additional terms other than as contained in this Agreement. This Agreement may not be modified except in writing signed by each of the parties or their authorized representatives.
8. The Agreement shall run with the land and binds the Owner, his heirs, successors, and assigns. The owner agrees to provide a copy of this agreement to any purchaser or lessee of the property.
9. The laws of the State of Maryland govern the provisions of all transactions.

The parties have signed and sealed this Agreement on the dates set forth below.

 Owner _____ Date 10/11/21	 Buyer _____ Date 10/08/21 SHARATA MANDUVA
_____ Date _____	 Buyer _____ Date 10/08/21 HAREESHA DOSAWADA.
 Howard County Health Department _____ Date 10/13/21	