

C1 56561

SEQUENCE NO. (MDE USE ONLY)

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.

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

COUNTY NUMBER

ST/CO USE ONLY DATE RECEIVED

DATE WELL COMPLETED

Depth of Well 300'

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-17-0329

OWNER: Trinity Homes, WELL SITE ADDRESS: Allnut Lane, TOWN: Highland, SUBDIVISION: The Estates @ River Hill SECTION, LOT: 5

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Clay, Brown shale, Grey L/S, Fracture, etc.

GROUTING RECORD: WELL HAS BEEN GROUTED (Y), TYPE OF GROUTING MATERIAL: CEMENT (CM), BENTONITE CLAY (BC), NO. OF BAGS: 20, NO. OF POUNDS: 1800, GALLONS OF WATER: 130, DEPTH OF GROUT SEAL: 0 to 56 ft.

CASING RECORD: MAIN CASING TYPE: ST (STEEL), Nominal diameter: 4.6, Total depth: 58, OTHER CASING: none.

SCREEN RECORD: screen type: HO (OPEN HOLE), DEPTH (nearest ft.): 58, 300.

DEPTH (nearest ft.): HO 58, 300

SCREEN RECORD: screen type: HO (OPEN HOLE), DEPTH (nearest ft.): 58, 300.

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

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER): T (E.R.O.S.), W Q

PUMPING TEST: HOURS PUMPED: 3, PUMPING RATE: 10 gal/min, METHOD USED TO MEASURE PUMPING RATE: 1 gal, WATER LEVEL: 19 ft before, 6.6 ft when pumping.

PUMP INSTALLED: DRILLER INSTALLED PUMP: YES, TYPE OF PUMP INSTALLED: HO (OPEN HOLE), CAPACITY: 31-35 GALLONS PER MINUTE, PUMP HORSE POWER: 37-41, PUMP COLUMN LENGTH: 43-47, CASING HEIGHT: 2 ft below land surface.

LATITUDE 39.196920, LONGITUDE 76.957281 (DEFAULT COORD. WGS 84)

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.

NUMBER OF UNSUCCESSFUL WELLS: 0, WELL HYDROFRACTURED: YES, DRILLERS LIC. NO.: M 5 D 224, DRILLERS SIGNATURE: [Signature], LIC. NO.: D, SITE SUPERVISOR: [Signature]

C 1 69126

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

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

COUNTY NUMBER

ST/CO USE ONLY DATE RECEIVED

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER Trinity Homes, WELL SITE ADDRESS, TOWN Highland, SUBDIVISION The Estates @ River Hill, SECTION, LOT 5

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 TO check if water bearing. Cleaned well out and installed 5" steel + 4" PVC casing.

GROUTING RECORD WELL HAS BEEN GROUTED (Circle Appropriate Box) TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC NO. OF BAGS NO. OF POUNDS GALLONS OF WATER DEPTH OF GROUT SEAL (to nearest foot) from 48 TOP 52 ft. to 54 BOTTOM 58 ft.

CASING RECORD casing types insert appropriate code below MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch)! Total depth of main casing (nearest foot) 60 61 63 64 66 70

OTHER CASING (if used) diameter inch depth (feet) from to ST 5" 60 106 PL 4" 10 220

SCREEN RECORD screen type or open hole (insert appropriate code below) ST STEEL BR BRASS PL PLASTIC HO OPEN HOLE OT OTHER

NUMBER OF UNSUCCESSFUL WELLS: 0 WELL HYDROFRACTURED YES NO Y 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 2224 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. D

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

DEPTH (nearest ft.) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

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

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q TELESCOPE CASING LOG INDICATOR OTHER DATA

PUMPING TEST HOURS PUMPED (nearest hour) 2 PUMPING RATE (gal. per min.) 8.5 METHOD USED TO MEASURE PUMPING RATE 1 gpd WATER LEVEL (distance from land surface) BEFORE PUMPING 45 ft. WHEN PUMPING 85 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) 31 35 PUMP HORSE POWER 37 41 PUMP COLUMN LENGTH (nearest ft.) 43 47 CASING HEIGHT (circle appropriate box and enter casing height) + above LAND SURFACE - below (nearest foot) 49 50 51

LATITUDE 39.196920 LONGITUDE 76.952281 (DEFAULT COORD. WGS 84)

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.

TAB - 11/13/2018
GAS 11/13/2018
HO - 17 - 0329
fill in this form completely

B 1	SEQUENCE NO. (MDE USE ONLY) 59727	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 5639671D please type	STATE PERMIT NUMBER HO - 17 - 0329
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OWNER INFORMATION

Date Received (APA) **09/12/18**

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 @ River Hill** 42

SECTION **44 46** LOT **5** 48 50

52 NEAREST TOWN **Highland** 71

DRILLER INFORMATION Andrew Houseman MSD

Allen Compton M S D 009 224

Driller's Name **Allen Compton** 76 License No. **81**

Firm Name **Eagles Well Drilling, LLC**

Address **P.O. Box 202 Woodbine MD 21797**

Signature **Andrew Houseman** Date **7-27-18**

B 4 SOURCES OF DRILLING WATER

1. **well water**

11 STREET ADDRESS **Alnut Lane** 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

NORTH WEST EAST SOUTH

34 **950** 37 DISTANCE FROM ROAD **FT**

ENTER FT OR MI **38 39**

TAX MAP: **34** BLK: **23** PARCEL **389**

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)

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

Howard **(13)** COUNTY NAME COUNTY NO.

STATE SIGNATURE _____ INSERT S → 41

DATE ISSUED **9/17/18** **S.C.U. 9/17/19**

43 MM DD YY 48 CO SIGNATURE **DMH** EXP. DATE **11/13/2018**

APPROXIMATE DEPTH OF WELL **300** FEET

24 28

APPROXIMATE DIAMETER OF WELL **10** INCH

NEAREST

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

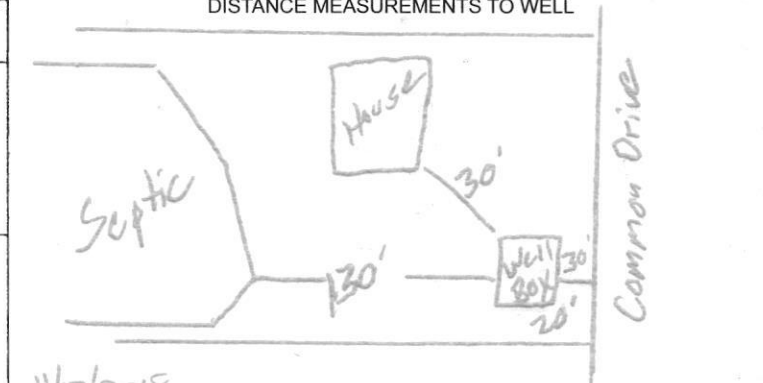
METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN

30 AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)

37 CABLE REVerse-ROTary DRive-POINT

other _____



REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

THIS WELL WILL NOT REPLACE AN EXISTING WELL

THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED

39 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 DEEPEIN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE) 41 _____ 52

11/13/2018
pump set @ 285'
gate is wide open ~10 gal
20 Bag grout

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

APPROX. PERMIT NUMBER **HO 2018G005**

PERMIT No. **HO-17-0329**

70 71 72 73 74 75 76 77 78 79

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

**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 LLC Telephone #: 240-882-0069
Address: 104 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: TBF Telephone #: 410-480-0023
Subdivision: Estates of River Hill Lot #: 5 Well Tag #: HO-17-0329 (S)
Site Address: 13617 Noble Way
Highland Md

Submersible Pump Data

Make: Myers
Model #: ZSF52-12Plus-P4-2
Pump Capacity: 12 GPM
Well Yield: 10 GPM

Pitless Adapter

Make: Bushart
Model#: P-800-SS
Depth: yes (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: 300 (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

Piping to house

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

House Connection

PVC sleeve to undisturbed soil at wall penetration: NO under
Length of sleeve (5' minimum from foundation): NO foundation
Sleeve sealed properly: NO

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: Duane Gilbert

date: Oct-21-2021

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

Date Insp. Requested: 10/21/21 Date Insp. Approved: 10/21/21 Inspector: (S)

Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade ✓ 48"
Two piece cap installed and attached to casing securely ✓
Elec. conduit extends at least 18" below grade/attached to cap properly ✓ 45"
Safety rope not outside of well cap/casing ✓
Correct well tag attached properly and casing 8" above finished grade ✓ 9"
Water supply line sleeved adequately at house connection ✓ under footer
Adequate grout observed below pitless adapter ✓



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

INTERIM CERTIFICATE OF POTABILITY

Expiration Date – February 23, 2023

August 23, 2022

Homeowner
13617 Noble Way
Highland, MD 21077

RE: Estates @ River Hill, Lot 5
13617 Noble Way
Building Permit: B19003290
Well Permit: HO-17-0329

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 **8/3/2022**. Final approval of the well line connection to the dwelling was granted on **10/21/2021**. The well construction was completed on **11/13/2018**. Water samples were collected on **7/26/2022, 8/4/2022, 8/15/2022**.

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking.

Gross Alpha and Beta samples were also collected on **11/13/2018**. Results showed a Gross Alpha level of **6.7 ± 1.9 pCi/L** and **Gross Beta** level of **12.8 ± 2.3 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-17-0329. 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.**



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 Environment website which elaborates in further detail operation and maintenance of your Septic System.

Approving Authority,

A handwritten signature in black ink, appearing to read 'Kevin M. Wolf', is written over a light blue horizontal line.

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 #: 153893 Account #: 4035
Reference: Estates @ River Hills Lot 5 Client: Trinity Quality Homes, Inc.
Location: 13617 Noble Way Requested By: Michael Pfau
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 8/15/2022 1245 Site: Pressure Tank
Date/Time Rec'd: 8/15/2022 1520 Treatment: **
Chlorine ppm: Free: ND Total: ND pH: 7.0
Collected By: J. Yeager 0819JY Well #: HO-17-0329

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	8/16/2022 / 1000 / TSD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	8/16/2022 / 1000 / TSD

NOTES:

- 1 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 2 pH & Chlorine level tested on site
- 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 Visual well check: Sealed, vented cap
- 6 **Sample collected prior to Softener/Sediment Filter

Reason for Test : Use & Occupancy
Building Permit # : B19003290

Date Reported: 8/16/2022

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 #: 153729 Account #: 4035
Reference: Estates @ River Hills Lot 5 Client: Trinity Quality Homes, Inc.
Location: 13617 Noble Way Requested By: Michael Pfau
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 8/4/2022 1110 Site: Pressure Tank
Date/Time Rec'd: 8/4/2022 1504 Treatment: *
Chlorine ppm: Free: ND Total: ND pH: 6.8
Collected By: R. Ott 0266RO Well #: HO-17-0329

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	2.0	MPN/ 100 ml	<1.0	SM20 9223B	8/5/2022 / 1005 / TSD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	8/5/2022 / 1005 / TSD

NOTES:

- 1 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 2 pH & Chlorine level tested on site
- 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 Visual well check: Sealed, vented cap
- 6 *Sample collected prior to Softener/Sediment Filter

Reason for Test : Use & Occupancy

Building Permit # : B19003290

Date Reported: 8/5/2022

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 #: 153545 Account #: 4035
Reference: Estates @ River Hills Lot 5 Client: Trinity Quality Homes, Inc.
Location: 13617 Noble Way Requested By: Michael Pfau
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 7/26/2022 1305 Site: Pressure Tank
Date/Time Rec'd: 7/26/2022 1523 Treatment: *
Chlorine ppm: Free: ND Total: ND pH: 6.7
Collected By: R. Ott 0266RO Well #: HO-17-0329

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	1.0	MPN/ 100 ml	<1.0	SM20 9223B	7/27/2022 / 1015 / CRS
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	7/27/2022 / 1015 / CRS
Nitrate.	<0.40	mg/L	10	EPA 300.0	7/26/2022 / 2209 / TSD
Sand	ND	mg/L	5	Visual/Gravimetric	7/26/2022 / 1630 / TSD
Turbidity	0.82	NTU	<10	SM2130B	7/26/2022 / 1615 / TSD

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 pH & Chlorine level tested on site
- 5 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 6 ND:None Detected
- 7 Visual well check: Sealed, vented cap
- 8 *Sample collected prior to Softener/Sediment Filter

Reason for Test : Use & Occupancy

Building Permit # : B19003290

Date Reported: 7/27/2022

Reviewed By:



FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

REPORT OF ANALYSIS

Laboratory ID #: 153546 Account #: 4035
Reference: Estates @ River Hills Lot 5 Client: Trinity Quality Homes, Inc.
Location: 13617 Noble Way Requested By: Michael Pfau
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 7/26/2022 1307 Site: Pressure Tank
Date/Time Rec'd: 7/26/2022 1523 Treatment: Prior to Softener/Sediment Filter
Chlorine ppm: Free: ND Total: ND pH: 6.7
Collected By: R. Ott 0266RO Well #: HO-17-0329

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Radium-226	2.4	pCi/L	****	903.0	8/4/2022 / 0937 / MJN
Radium-228	1.5	pCi/L	****	Ra-05	8/3/2022 / 1037 / MJN
Gross Alpha, Short Term	7.1	pCi/L	15	900.0	7/29/2022 / 0549 / MJN
Gross Beta, Short Term	8.0	pCi/L	50	900.0	7/29/2022 / 0549 / MJN
Gross Alpha, Long Term	2.8	pCi/L	15	900.0	8/5/2022 / 0553 / MJN
Gross Beta, Long Term	8.3	pCi/L	50	900.0	8/5/2022 / 0553 / MJN

NOTES:

- ****Radium 226 and Radium 228 combined have a reference of 5 pCi/L
- Long Term Gross Alpha Detection Limit: 1.3 pCi/L; Long Term Gross Alpha Error: +/- 1.4 pCi/L
- Long Term Gross Beta Detection Limit: 1.2 pCi/L; Long Term Gross Beta Error: +/- 1.3 pCi/L
- pCi/L = picocuries per liter
- Radium 226 Detection Limit: 0.1 pCi/L; Radium 226 Error: +/- 0.5 pCi/L
- Radium 228 Detection Limit: 0.6 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: 1.0 pCi/L; Short Term Gross Alpha Error: +/- 1.8 pCi/L
- Short Term Gross Beta Detection Limit: 1.2 pCi/L; Short Term Gross Beta Error: +/- 1.2 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 # : B19003290

Date Reported: 8/9/2022

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 #: 153547 Account #: 4035
Reference: Estates @ River Hills Lot 5 Client: Trinity Quality Homes, Inc.
Location: 13617 Noble Way Requested By: Michael Pfau
Highland, MD 20777 Source: Well Water
Date/ Time Collected: 7/26/2022 1255 Site: Kitchen Sink Tap
Date/Time Rec'd: 7/26/2022 1523 Treatment: Softener/Sediment Filter
Chlorine ppm: Free: ND Total: ND pH: 7.3
Collected By: R. Ott 0266RO Well #: HO-17-0329

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Radium-226	0.5	pCi/L	****	903.0	8/4/2022 / 0937 / MJN
Radium-228	<0.7	pCi/L	****	Ra-05	8/3/2022 / 1037 / MJN
Gross Alpha, Short Term	<1.2	pCi/L	15	900.0	7/29/2022 / 0542 / MJN
Gross Beta, Short Term	<1.2	pCi/L	50	900.0	7/29/2022 / 0542 / MJN
Gross Alpha, Long Term	<1.1	pCi/L	15	900.0	8/5/2022 / 0553 / MJN
Gross Beta, Long Term	<1.3	pCi/L	50	900.0	8/5/2022 / 0553 / MJN

NOTES:

- ****Radium 226 and Radium 228 combined have a reference of 5 pCi/L
- Long Term Gross Alpha Detection Limit: 1.1 pCi/L; Long Term Gross Alpha Error: +/- 0.8 pCi/L
- Long Term Gross Beta Detection Limit: 1.3 pCi/L; Long Term Gross Beta Error: +/- 1.0 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: +/- 0.5 pCi/L
- Short Term Gross Alpha Detection Limit: 1.2 pCi/L; Short Term Gross Alpha Error: +/- 0.9 pCi/L
- Short Term Gross Beta Detection Limit: 1.2 pCi/L; Short Term 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 # : B19003290

Date Reported: 8/9/2022

Reviewed By:

Catherine C Holland

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

April 2, 2019

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

RE: Estates at River Hill Lot 5
Allnutt Lane
Well Tag: HO – 17 – 0329

Dear Mr. Keane:

A sample was collected during a yield test on November 13, 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 6.7 ± 1.9 picocuries/liter (pCi/L), while the **Gross Beta** level was 12.8 ± 2.3 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 **is within** 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

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 5

Location: HO-17-0329

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

Radon-222 - Bottle A HOJC03292A

Radon-222 Field Blank

Bottle A _____

~~RADIUM~~ Bottle B _____

Bottle B _____

County 13

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: 4 F

Federal Project: _____

Collector: CABANUG, JOSEPH

Telephone No.: 410 313 2643

Date Collected: 11/13/2018

Time Collected: 11:00 a.m. _____ p.m.

Field pH: 6.5

Field Chlorine: NEG

Nitric Acid Preserved: Yes No

Iced: Yes No

Remarks: Sample collected at field

✓	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/>	Gross Alpha	4000	1042	EPA900.0	6.7 ± 1.9	11/15/18	RH	11/16/18
<input checked="" type="checkbox"/>	Gross Beta	4100	1042	EPA900.0	12.8 ± 2.3	11/15/18	RH	11/16/18
<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: 11/14/18 Received By: _____

Data Release Signature: [Signature] Date: 11/16/18

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

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: HCHD County: HOWARD

Sample Source: Wegmans Distilled Location: LAB

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

RADIUM

County 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: 4 F Federal Project:

Collector: CABANUEG, JOSEPH Telephone No.: 410 313 2643

Date Collected: 11/14/2018 Time Collected: 8:15 a.m. p.m.

Field pH: 7.0 Field Chlorine: NEG

Nitric Acid Preserved: Yes No Iced: Yes No

Remarks:

✓	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/>	Gross Alpha	4000	1041	EPA900.0	<2.0	11/15/18	RH	11/16/18
<input checked="" type="checkbox"/>	Gross Beta	4100	1041	EPA900.0	<4.0	11/15/18	RH	11/16/18
<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: 11/14/18 Received By:

Data Release Signature: Date: 11/16/18

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"/>		

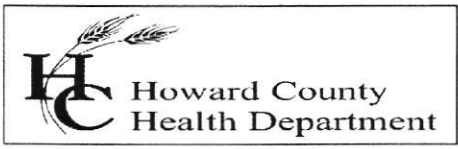
•Tel. No.: (443) 681-3766 •Fax No.: (443) 681-4507

FORM REVISED 05/15
DHMH 4540 05/17

SAMPLE TESTED AS RECEIVED

orig Mailed 11/20/18

Invoice



Bureau of Environmental Health
Attn: Bert Nixon, Director

DATE: NOVEMBER 20, 2018
DATES OF SERVICE: NOVEMBER 8 & 13, 2018
INVOICE #: 2018-004

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

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

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

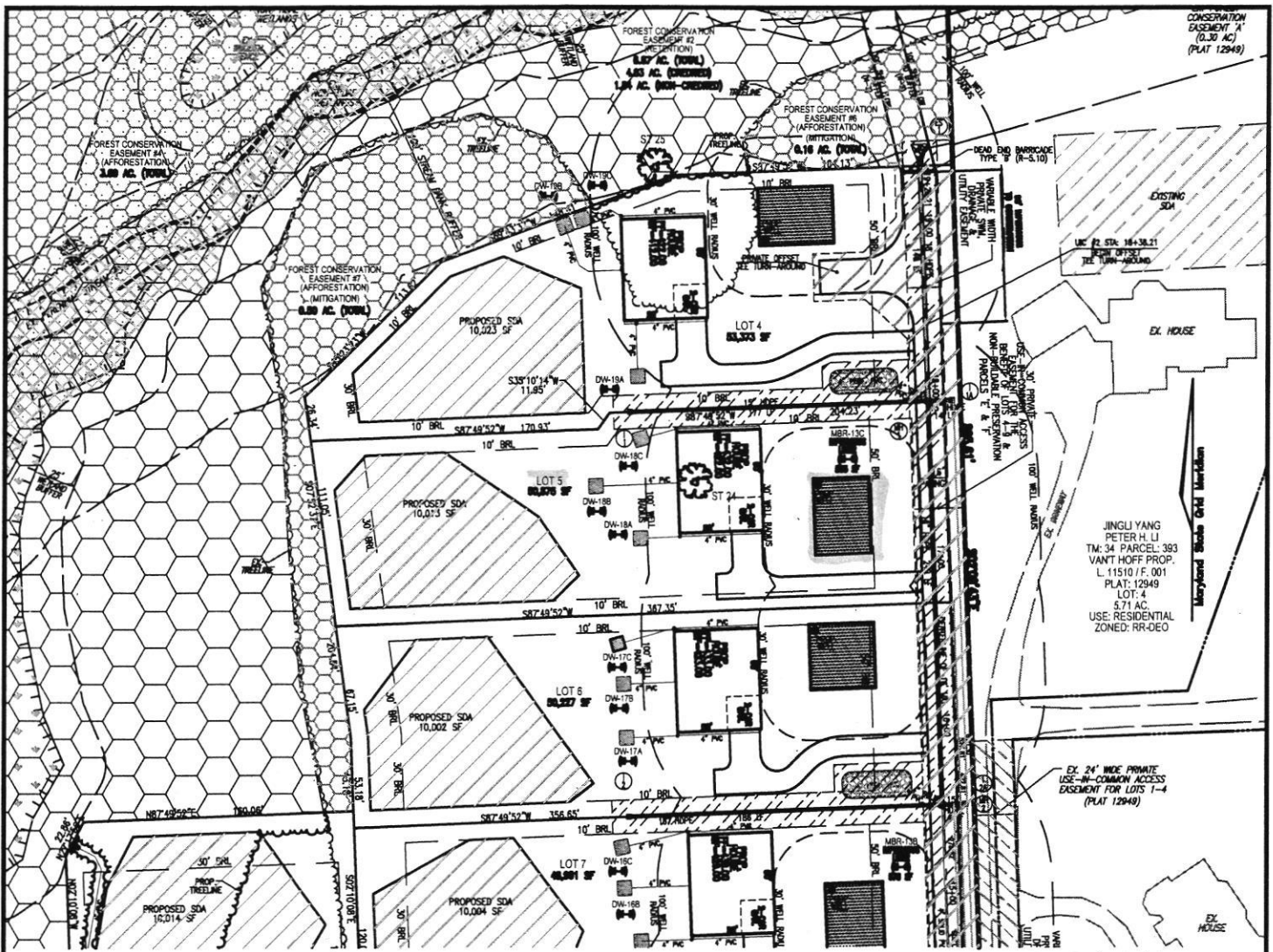
DATE	DESCRIPTION	BALANCE	AMOUNT
11/8/18	Gross Alpha/Beta testing performed for Lot 10 Estates at River Hill HO - 17 - 0334		\$45.00
11/13/18	Gross Alpha/Beta testing performed for Lot 5 Estates at River Hill HO - 17 - 0329		\$45.00
			AMOUNT DUE
			\$90.00

Please detach and return with payment.

REMITTANCE	
Invoice #	2018-004
Site Information	Estates at River Hill Lots 10 & 5
Amount Due	\$90.00

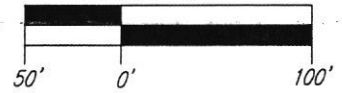
P/O 64099
12/17/18

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

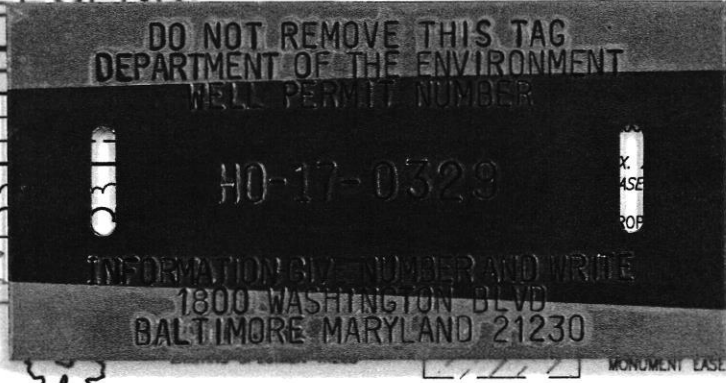


LOT 5 - WELL EXHIBIT
SCALE: 1"=100'

SCALE 1"=100'



LEGEND:



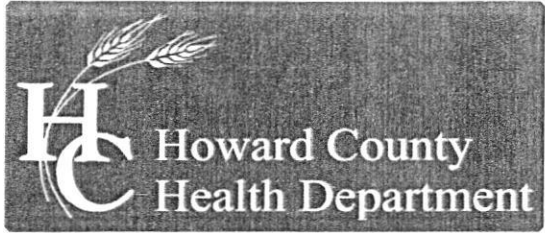
- ENCE
 - ENCE
 - YEAR
 - E & UTILITY (12949)
 - SE-IN-COMMON
 - WM, DRAINAGE
 - ENT
 - MONUMENT EASEMENT
- PROP. SEWAGE DISPOSAL AREA
 - PROP. WELL AREA
 - PROP. STORMDRAIN
 - EXISTING WELL
 - PROPOSED WELL

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 3300 N. RIDGE ROAD, SUITE 110 TEL: 410.461.7666
 ELLICOTT CITY, MD 211043 FAX: 410.461.8961

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

Well box approved 9/17/18 sc
 Well box staked by Vogel Engineering
WELL EXHIBIT - LOT 5
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



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 Lane
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.