

C1 56548

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 WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

DATE Received MM DD YY

DATE WELL COMPLETED MM DD YY

22 200 26 (TO NEAREST FOOT)

OK 2/25/19 SC

28 29 30 31 32 33 34 35 36 37

OWNER: Trinity Homes, WELL SITE ADDRESS: Altrutt Lane, TOWN: Highland, SUBDIVISION: The Estates at River Hill, SECTION, LOT Parcel A

WELL LOG Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Rows include Clay, Soft Brown, Grey Limestone, Broken, White Limestone, Broken, Grey limestone.

GRROUTING RECORD yes no

WELL HAS BEEN GROUTED (Circle Appropriate Box) TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC

CASING RECORD casing types insert appropriate code below ST STEEL CO CONCRETE PL PLASTIC OT OTHER

MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch)! Total depth of main casing (nearest foot) ST 06 54

OTHER CASING (if used) diameter inch depth (feet) from to

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

DEPTH (nearest ft.) table with columns 1-21 and rows 1-3. Values include HO 54, 200.

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

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) (E.R.O.S.)

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3

PUMPING TEST HOURS PUMPED (nearest hour) 3, PUMPING RATE (gal. per min.) 10, METHOD USED TO MEASURE PUMPING RATE 100L, WATER LEVEL (distance from land surface) BEFORE PUMPING 23, WHEN PUMPING 39, TYPE OF PUMP USED (for test) S submersible

PUMP INSTALLED DRILLER INSTALLED PUMP 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) LAND SURFACE 2 (nearest foot)

LATITUDE 39.199226, LONGITUDE 76.952648 (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: 2

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. 1 M 5 D 224

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 D

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

TAG: 2/5/19 (S)

B 1	SEQUENCE NO. (MDE USE ONLY) <b>59738</b>	STATE OF MARYLAND <b>APPLICATION FOR PERMIT TO DRILL WELL</b> please type <b>503967-0</b>	STATE PERMIT NUMBER <b>H0 - 17 - 0340</b> <small>fill in this form completely</small>
<b>OWNER INFORMATION</b> Date Received (APA) <b>07/27/18</b> 8 MM DD YY 13 <b>Trinity Homes</b> 15 Last Name Owner First Name 34 <b>3675 Park Ave Suite 301</b> 36 Street or RFD 55 <b>Ellicott City Md. 21043</b> 57 Town 70 State 72 Zip 76		<b>LOCATION OF WELL</b> 8 COUNTY <b>Howard</b> 21 <b>The Estates at River Hill</b> 23 SUBDIVISION 42 SECTION <b>44</b> 46 LOT <b>A</b> 48 50 <b>Highland</b> 52 NEAREST TOWN 71	
<b>DRILLER INFORMATION</b> <b>Allen Compton</b> <b>MSD 009 224</b> 76 Driller's Name License No. 81 <b>Fragas Well Drilling, LLC</b> Firm Name <b>P.O. Box 202 Woodbine Md 21797</b> Address <b>Andrew R. Houseman 7-27-18</b> Signature Date		<b>SOURCES OF DRILLING WATER</b> 1. <b>Well water</b> 2. 3. <b>Allnorth Lane</b> 11 STREET ADDRESS 30 <b>ON WHICH SIDE OF ROAD</b> (CIRCLE APPROPRIATE BOX) NORTH N WEST W 32 EAST E SOUTH S 34 1200 37 DISTANCE FROM ROAD FT ENTER FT OR MI 38 39 TAX MAP: <b>34</b> BLK: <b>23</b> PARCEL <b>389</b>	
<b>WELL INFORMATION</b> APPROX. PUMPING RATE <b>5</b> (GAL. PER MIN.) 8 12 AVERAGE DAILY QUANTITY NEEDED <b>500</b> (GAL. PER DAY) 14 20		<b>NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL</b> <b>Howard</b> <b>(13)</b> COUNTY NAME COUNTY NO. STATE SIGNATURE _____ INSERT S → 41 DATE ISSUED <b>9/18/18</b> <b>S.L.C.M.</b> <b>9/18/19</b> 43 MM DD YY 48 CO SIGNATURE EXP. DATE	
<b>USE FOR WATER (CIRCLE APPROPRIATE BOX)</b> <input checked="" type="checkbox"/> DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION <input type="checkbox"/> FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input type="checkbox"/> INDUSTRIAL, COMMERCIAL, DEWATERING <input type="checkbox"/> PUBLIC WATER SUPPLY WELL <input type="checkbox"/> TEST, OBSERVATION, MONITORING <input type="checkbox"/> OPEN LOOP GEOTHERMAL <input type="checkbox"/> CLOSED LOOP GEOTHERMAL		<b>PROPOSED LOCATION OF WELL ON LOT</b> SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL <p>Common Dr. 2/5          - started pumping @ 1 pm          - 23' static          - 39' meas. pt.          - 10 gpm          - radium sample collected @ 2:30 pm          1/28          ~8 gpm          - 54' steel casing          - close to 200' depth          2/6          - 18 bags cement</p>	
APPROXIMATE DEPTH OF WELL <b>300</b> FEET 24 28 APPROXIMATE DIAMETER OF WELL <b>6</b> INCH NEAREST INCH		<b>METHOD OF DRILLING (circle one)</b> BORED (or Augered) <u>JETTED</u> Jetted & DRIVEN 30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary) 37 CABLE REVERSE-ROTary DRIVE-POINT other _____	
<b>REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)</b> <input checked="" type="checkbox"/> THIS WELL WILL NOT REPLACE AN EXISTING WELL <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED 39 <input type="checkbox"/> THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS <input type="checkbox"/> THIS WELL WILL DEEPEM AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 _____ 52		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.	
<b>Not to be filled in by driller (MDE OR COUNTY USE ONLY)</b> APPROP. PERMIT NUMBER <b>H02018G005</b> PERMIT No. <b>H0 - 17 - 0340</b> 70 71 72 73 74 75 76 77 78 79			
<b>SPECIAL CONDITIONS</b> NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED- <b>SEE ATTACHED MEMO.</b>			



**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: DS-IT Plumbing & Heating LLC Telephone #: 2408820069  
Address: 9955 010 Mill Rd  
Edlicott City, Md 21042

(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 #: 410-480-0023  
Subdivision: The Estate of River Hill Lot #: A Well Tag #: HO-17-0340 ✓  
Site Address: 13610 Olivia Way Parcel  
Highland Md.

<b><u>Submersible Pump Data</u></b>	<b><u>Pitless Adapter</u></b>	<b><u>Well Cap and Electric Conduit</u></b>
Make: <u>Myers</u>	Make: <u>Campbell</u>	Two piece watertight cap: <u>YES</u>
Model #: <u>2552-12plus-P4-2</u>	Model#: <u>P800 LF</u>	Screened, vented well cap: <u>YES</u>
Pump Capacity <u>12</u> GPM	Depth: <u>42"</u> (36" min)	Cap secured to casing: <u>YES</u>
Well Yield: <u>10</u> GPM	NSF/WSC approved: <u>YES</u>	Conduit min 18" B.G.: <u>YES</u>
Depth of well encountered at time of pump installation: <u>2.00</u> (feet)		Conduit secured to well cap: <u>YES</u>

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: 200 (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.

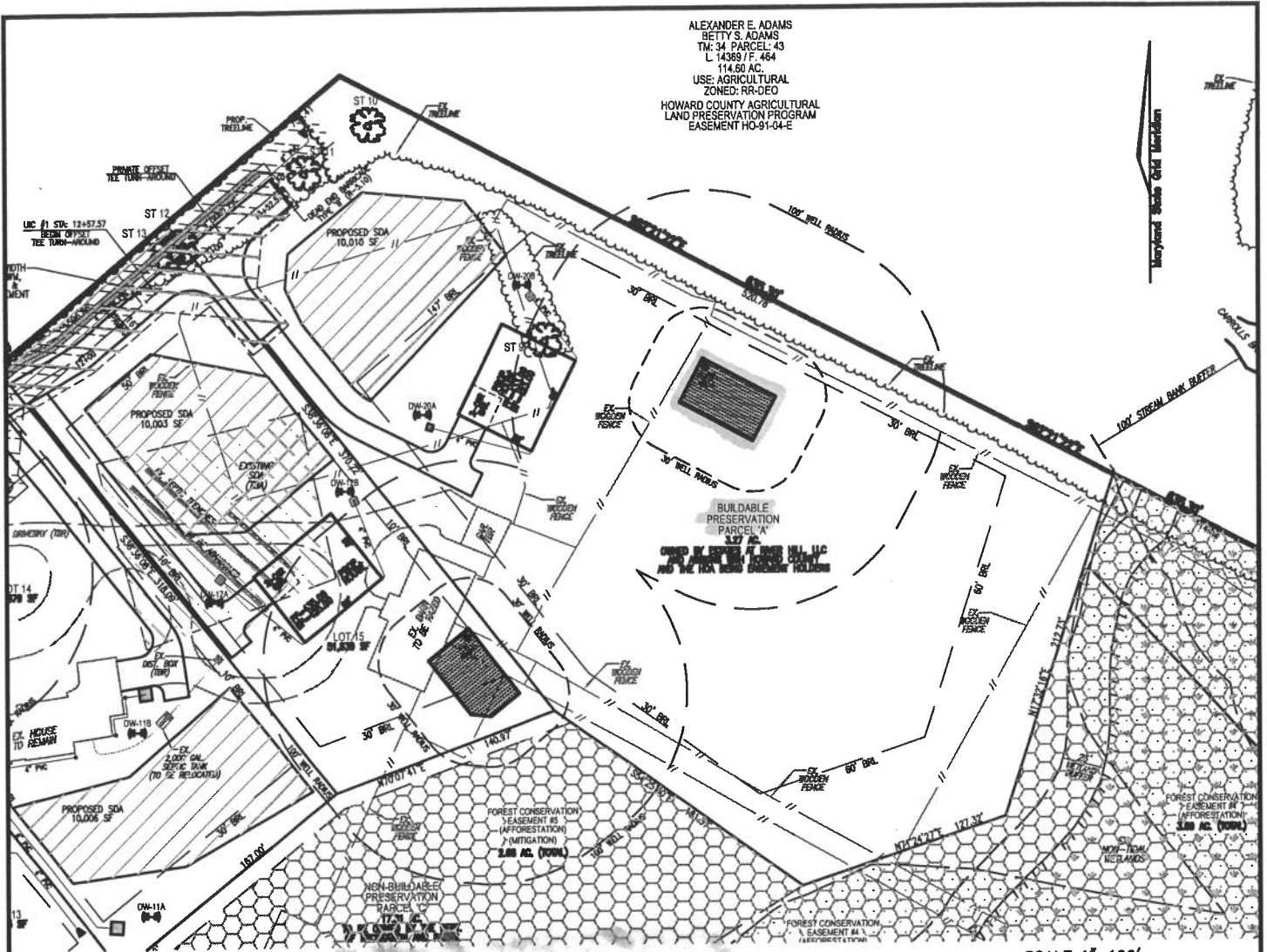
Signature of company representative responsible for installation

May-12-2021  
date

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

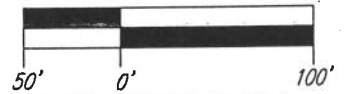
Date Insp. Requested: 5/13/21 Date Insp. Approved: 5/13/21 Inspector: RR  
Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade ✓  
Two piece cap installed and attached to casing securely ✓  
Elec. conduit extends at least 18" below grade/attached to cap properly ✓  
Safety rope not outside of well cap/casing ✓  
Correct well tag attached properly and casing 8" above finished grade ✓  
Water supply line sleeved adequately at house connection ✓  
Adequate grout observed below pitless adapter ✓

ALEXANDER E. ADAMS  
 BETTY S. ADAMS  
 TM: 34 PARCEL: 43  
 L 14369 / F. 464  
 114.60 AC.  
 USE: AGRICULTURAL  
 ZONED: RR-DEO  
 HOWARD COUNTY AGRICULTURAL  
 LAND PRESERVATION PROGRAM  
 EASEMENT HO-91-04-E








**BUILDABLE PRES. PARCEL 'A' - WELL EXHIBIT**

SCALE 1"=100'



DO NOT REMOVE THIS TAG  
 DEPARTMENT OF THE ENVIRONMENT  
 WELL PERMIT NUMBER  
**HO-17-0340**  
 INFORMATION CALL NUMBER AND WRITE  
 1800 WASHINGTON BLVD  
 BALTIMORE MARYLAND 21230

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

UTILITY  
 (49)  
 N-COMMON  
 DRAINAGE



EXISTING SPECIMEN TREES



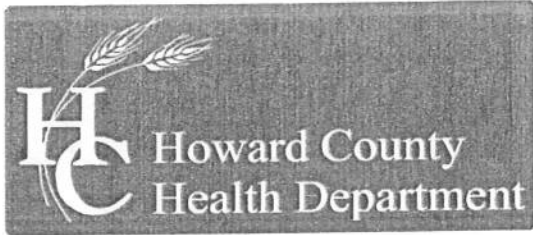
PROP. 35' PRIVATE  
 MONUMENT EASEMENT

**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

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

Well box approved 9/18/16  
 Well box staked by Vogel Engineering  
**WELL EXHIBIT - BUILDABLE PRES. PARCEL 'A'**  
**THE ESTATES AT RIVER HILL**  
 SLOTS 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**

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**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:

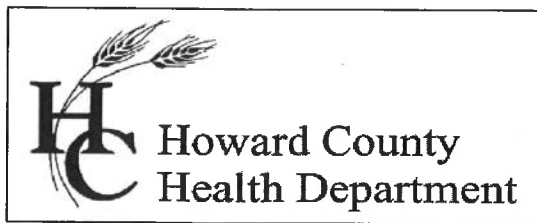
The Estates at River Hill    1-15 Parcel A - Albright Lane  
Subdivision/Property Name                      Lot #    Road Name

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.

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



## 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](http://www.hchealth.org)

Facebook: [www.facebook.com/hocohealth](https://www.facebook.com/hocohealth)

Twitter: HowardCoHealthDep

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

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### INTERIM CERTIFICATE OF POTABILITY

Expiration Date – 6 months from letter date

October 13<sup>th</sup>, 2021

Homeowner  
13616 Olivia Way  
Highland, MD 20777

**RE: The Estates at River Hill, Parcel A**  
**13616 Olivia Way**  
**Building Permit: B19003298**  
**Well Permit: HO-17-0340**

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 **March 5<sup>th</sup>, 2021**. Final approval of the well line connection to the dwelling was granted on **May 13<sup>th</sup>, 2021**. The well construction was completed on **February 5<sup>th</sup>, 2019**. Water samples were collected on **September 14<sup>th</sup> and 23<sup>rd</sup>, 2021**.

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 **September 14<sup>th</sup>, 2021**. Results showed a Gross Alpha level of **3.3 ± 1.5 pCi/L** and **Gross Beta** level of **4.9 ± 1.2 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.

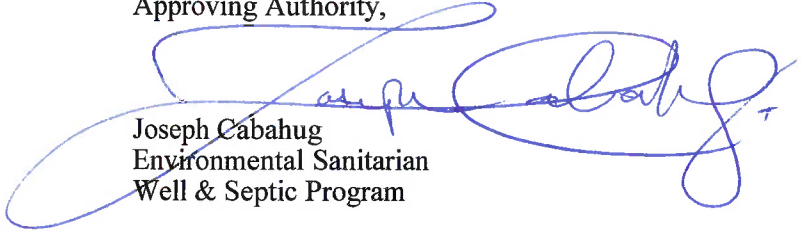
This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit HO-17-0340. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

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 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>

Approving Authority,



Joseph Cabahug  
Environmental Sanitarian  
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 #: 147516 Account #: 4035  
Reference: Estates at River Hill, Parcel A Client: Trinity Quality Homes, Inc.  
Location: 13616 Olivia Way Requested By: Michael Pfau  
Highland, MD 20777 Source: Well Water  
Date/ Time Collected: 9/23/2021 1030 Site: Pressure Tank  
Date/Time Rec'd: 9/23/2021 1430 Treatment: \*\*  
Chlorine ppm: Free: ND Total: ND pH: 7.0  
Collected By: J. Yeager 0819JY Well #: HO-17-0340

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	9/24/2021 / 0920 / CRS
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	9/24/2021 / 0920 / CRS

### NOTES:

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

Reason for Test : Use & Occupancy  
Building Permit # : B19003298

Date Reported: 9/24/2021

Reviewed By: 

# FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

## REPORT OF ANALYSIS

Laboratory ID #: 147221 Account #: 4035  
Reference: Estates at River Hill, Parcel A Client: Trinity Quality Homes, Inc.  
Location: 13616 Olivia Way Requested By: Michael Pfau  
Highland, MD 20777 Source: Well Water  
Date/ Time Collected: 9/14/2021 1332 Site: Kitchen Sink Tap  
Date/Time Rec'd: 9/14/2021 1500 Treatment: Softener/Sediment Filter  
Chlorine ppm: Free: ND Total: ND pH: 7.5  
Collected By: J. Yeager 0819JY Well #: HO-17-0340

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Gross Alpha, Short Term	2.2	pCi/L	15	900.0	9/20/2021 / 0849 / MJN
Gross Beta, Short Term	1.3	pCi/L	50	900.0	9/20/2021 / 0849 / MJN
Gross Alpha, Long Term	<1.3	pCi/L	15	900.0	9/28/2021 / 0643 / MJN
Gross Beta, Long Term	<1.3	pCi/L	50	900.0	9/28/2021 / 0643 / MJN
Radium-226	0.5	pCi/L	****	903.1	9/27/2021 / 0946 / MJN
Radium-228	0.9	pCi/L	****	Ra-05	9/27/2021 / 0948 / 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; Gross Alpha Error: +/- 1.1 pCi/L
- Long Term Gross Beta Detection Limit: 1.3 pCi/L; Gross Beta Error: +/- 0.9 pCi/L
- pCi/L = picocuries per liter
- Radium 226 Detection Limit: 0.2 pCi/L; Radium 226 Error: +/- 0.2 pCi/L
- Radium 228 Detection Limit: 0.7 pCi/L; Radium 228 Error: +/- 0.5 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: 1.2 pCi/L; Gross Alpha Error: +/- 1.3 pCi/L
- ND:None Detected
- pH & Chlorine level tested on site
- Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy  
Building Permit # : B19003298

Date Reported: 9/29/2021

Reviewed By: 

# FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

## REPORT OF ANALYSIS

Laboratory ID #: 147220 Account #: 4035  
Reference: Estates at River Hill, Parcel A Client: Trinity Quality Homes, Inc.  
Location: 13616 Olivia Way Requested By: Michael Pfau  
Highland, MD 20777 Source: Well Water  
Date/ Time Collected: 9/14/2021 1315 Site: Pressure Tank  
Date/Time Rec'd: 9/14/2021 1500 Treatment: \*\*  
Chlorine ppm: Free: ND Total: ND pH: 7.4  
Collected By: J. Yeager 0819JY Well #: HO-17-0340

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Gross Alpha, Short Term	3.3	pCi/L	15	900.0	9/20/2021 / 0849 / MJN
Gross Beta, Short Term	4.9	pCi/L	50	900.0	9/20/2021 / 0849 / MJN
Gross Alpha, Long Term	3.0	pCi/L	15	900.0	9/28/2021 / 0643 / MJN
Gross Beta, Long Term	4.4	pCi/L	50	900.0	9/28/2021 / 0643 / MJN
Radium-226	0.7	pCi/L	****	903.1	9/27/2021 / 0946 / MJN
Radium-228	1.2	pCi/L	****	Ra-05	9/27/2021 / 0948 / 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; Gross Alpha Error: +/- 1.5 pCi/L
- Long Term Gross Beta Detection Limit: 1.2 pCi/L; Gross Beta Error: +/- 1.1 pCi/L
- pCi/L = picocuries per liter
- pH & chlorine tested on site
- Radium 226 Detection Limit: 0.1 pCi/L; Radium 226 Error: +/- 0.2 pCi/L
- Radium 228 Detection Limit: 0.8 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: 1.1 pCi/L; Gross Alpha Error: +/- 1.5 pCi/L
- Short Term Gross Beta Detection Limit: 1.2 pCi/L; Gross Beta Error: +/- 1.2 pCi/L
- ND:None Detected
- \*\*Sample collected prior to Softener/Sediment Filter
- Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy  
Building Permit # : B19003298

Date Reported: 9/29/2021

Reviewed By: 

# FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

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

## REPORT OF ANALYSIS

Laboratory ID #: 147219 Account #: 4035  
Reference: Estates at River Hill, Parcel A Client: Trinity Quality Homes, Inc.  
Location: 13616 Olivia Way Requested By: Michael Pfau  
Highland, MD 20777 Source: Well Water  
Date/ Time Collected: 9/14/2021 1315 Site: Pressure Tank  
Date/Time Rec'd: 9/14/2021 1500 Treatment: \*\*  
Chlorine ppm: Free: ND Total: ND pH: 7.4  
Collected By: J. Yeager 0819JY Well #: HO-17-0340

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	2.0	MPN/ 100 ml	<1.0	SM20 9223B	9/15/2021 / 1015 / CRS
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	9/15/2021 / 1015 / CRS
Nitrate	<1.0	mg/L	10	601	9/15/2021 / 0850 / CRS
Sand	ND	mg/L	5	Visual/Gravimetric	9/15/2021 / 0900 / CRS
Turbidity	1.01	NTU	<10	SM20 2130B	9/15/2021 / 0935 / CRS

### 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 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 \*\*Sample collected prior to Softener/Sediment Filter
- 8 Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy  
Building Permit # : B19003298

Date Reported: 9/15/2021

Reviewed By: Catherine C. Holland

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

March 29, 2019

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

**RE: Estates at River Hill Par. A**  
**Allnutt Lane**  
**Well Tag: HO – 17 – 0340**

Dear Mr. Keane:

A sample was collected during a yield test on February 5, 2019 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  $13.2 \pm 2.5$  picocuries/liter (pCi/L), while the **Gross Beta** level was  $5.1 \pm 1.9$  pCi/L. With the Margin of Error, the **Gross Alpha** result was above its **maximum contaminant level (MCL)** of **15 pCi/L**, while the **Gross Beta** level was below (though 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 **may 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: Bert Nixon  
~~Howard County Health Dept~~  
~~Bureau of Environmental Health~~  
~~8930 Stanford Blvd~~  
~~Columbia, MD 21045~~

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

Lab No. 011279-52

**LABORATORY ANALYSIS REQUEST FORM**

Plant/Site Name: Estates @ River Hill Per A County: Howard

Sample Source: Alluvial cone Highland Location: H0-17-0340  
(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A \_\_\_\_\_ Radon-222 Field Blank Bottle A \_\_\_\_\_  
 Bottle B \_\_\_\_\_ Bottle B \_\_\_\_\_

County 12 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:  Federal Project: 5

Collector: S Collins Telephone No.: 410-313-6787

Date Collected: 2/15/19 Time Collected: \_\_\_\_\_ a.m. 7:30 p.m.

Field pH: \_\_\_\_\_ Field Chlorine: \_\_\_\_\_

Nitric Acid Preserved: Yes  No  Iced: Yes  No

Remarks: Sample collected during yield test

✓	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/>	Gross Alpha	4000	1679	EPA900-0	13.2 ± 2.5	02/17/19	RH	02/15/19
<input checked="" type="checkbox"/>	Gross Beta	4100	1679	EPA900-0	5.1 ± 1.9	02/17/19	RH	02/15/19
<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 Dupp		1679	EPA900-0	10.5 ± 2.4	02/17/19	RH	02/15/19
<input checked="" type="checkbox"/>	Gross Beta Dupp		1679	EPA900-0	4.7 ± 1.9	02/17/19	RH	02/15/19

Date Received: 02/15/19 Received By: [Signature]  
 Data Release Signature: \_\_\_\_\_ Date: 2/15/19

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

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

SEND REPORT TO: Bert Nixon

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

Lab No.

Howard County Health Dept  
Bureau of Environmental Health  
8930 Stanford Blvd  
Columbia, MD 21045

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: Field Blank

County: Howard

Sample Source: dH<sub>2</sub>O

Location: HCHD Lab

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

Radon-222 Bottle A  
Bottle B

Radon-222 Field Blank

Bottle A

Bottle B

County: 13

Plant No.

CHECK (one per Box)

Type
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:

Federal Project: 5

Collector: S. Collins

Telephone No.: 410-311-6787

Date Collected: 2/5/19

Time Collected: a.m. 4 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	1678	EP4900.0	<2.0	02/7/19	RH	02/15/19
<input checked="" type="checkbox"/> Gross Beta	4100	1678	EP4900.0	<4.0	02/7/19	RH	02/15/19
<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: 02/16/19

Received By: [Signature]

Data Release Signature: [Signature]

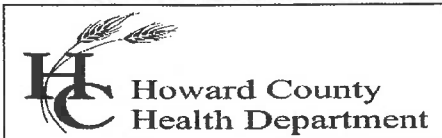
Date: 2/15/19

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

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

ORIG MAILED 3/1/19

# Invoice



Bureau of Environmental Health  
Attn: Bert Nixon, Director

DATE: MARCH 1, 2019  
DATES OF SERVICE: FEBRUARY 5,6, 2019  
INVOICE #: 2019-003

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
2/5/19	Gross Alpha/Beta testing performed for Parcel A Estates at River Hill HO - 17 - 0340		\$45.00
2/6/19	Gross Alpha/Beta testing performed for Lot 15 Estates at River Hill HO - 17 - 0339		\$45.00
			<b>AMOUNT DUE</b>
			\$90.00

Please detach and return with payment.

REMITTANCE	
Invoice #	2019-003
Site Information	Estates at River Hill Parcel A & Lot 15
Amount Due	\$90.00

Receipt 64810  
Rec'd 3/28/19

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

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

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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](mailto:SCollins@howardcountymd.gov) with any questions.

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