

B 1 20712

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER HO-95-2700

54636-F please type

fill in this form completely

Date Received (APA)

04/10/14

OWNER INFORMATION

M3 Highland Reserve LLC, Noble E. Bude Dr, Rockville MD 20850

B 3

LOCATION OF WELL

Howard County, Regan Property, Highland

DRILLER INFORMATION

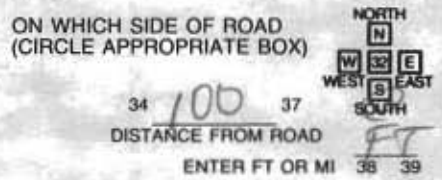
Allen Compton MS D009, Fogle's Well Drilling LLC, PO Box 202 Woodbine, MD 21797

B 4

SOURCES OF DRILLING WATER

1. Well

Point Ridge Dr



B 2

WELL INFORMATION

APPROX. PUMPING RATE 5 GAL PER MIN, AVERAGE DAILY QUANTITY NEEDED 500 GAL PER DAY

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard County AS30307, DATE ISSUED 05/27/2014, CO SIGNATURE R-Rt, EXP. DATE 5/27/15

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION, FARMING, INDUSTRIAL, COMMERCIAL, DEWATERING, PUBLIC WATER SUPPLY WELL, TEST, OBSERVATION, MONITORING, OPEN LOOP GEOTHERMAL, CLOSED LOOP GEOTHERMAL

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) AIR-ROTary, JETTED AIR-PERCussion, Jetted & DRIVEN ROTARY (Hydraulic Rotary), CABLE REVERSE-ROTary, DRIVE-POINT

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

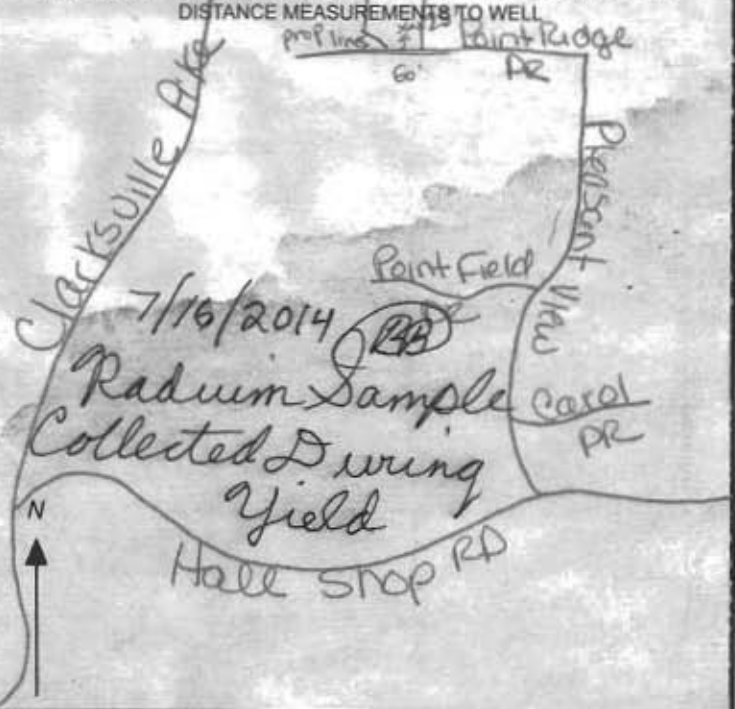
- THIS WELL WILL NOT REPLACE AN EXISTING WELL, THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED, THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS, THIS WELL WILL DEEPEM AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

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

APPROX. PERMIT NUMBER HO 2014 6002, PERMIT No HO-95-2700

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



SPECIAL CONDITIONS

Radium Sample required @ the yield test

**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: _____ Telephone #: _____
Address: _____

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

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

Name (Print): _____ License# _____

*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: _____ Telephone #: _____
Subdivision: _____ Lot #: _____ Well Tag #: HO-95-2700
Site Address: _____

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: _____	Make: _____	Two piece watertight cap: _____
Model #: _____	Model#: _____	Screened, vented well cap: _____
Pump Capacity _____ GPM	Depth: _____ (36" min)	Cap secured to casing: _____
Well Yield: _____ GPM	NSF/WSC approved: _____	Conduit min 18" B.G.: _____
Depth of well encountered at time of pump installation: _____ (feet)	Conduit secured to well cap: _____	
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 <u>inside of well casing</u>		

<u>Piping to house</u>	<u>House Connection</u>
Type: _____	PVC sleeve to undisturbed soil at wall penetration: _____
PSI: _____ (160 psi min)	Length of sleeve (3" minimum from foundation): _____
Depth of supply line: _____ (36" min)	Sleeve sealed properly: _____

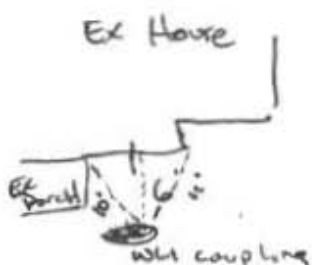
The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation _____ date _____

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

Date Insp. Requested: 12/01/2017 Date Insp. Approved: 12/01/2017 Inspector: (D)
 Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade 41"
 Two piece cap installed and attached to casing securely
 Elec. conduit extends at least 18" below grade/attached to cap properly 34"
 Safety rope not outside of well cap/casing
 Correct well tag attached properly and casing 8" above finished grade 20"
 Water supply line sleeved adequately at house connection
 Adequate grout observed below pitless adapter

12/01/2017 (D)
 * 48" From Well Cap, there is a Fernco Coupling. Property was regraded and pitless adapter was moved lower. Fernco coupling over old pitless adapter.
 * well line coupling 1ft from pitless adapter
 * Well line coupling 6' from House
 * WLI House connect under footer



**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WATER AND SEWERAGE PROGRAM
TEL: (410)313-2640 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: NATIONAL WATER SERVICE Telephone #: 301-854-1335
Address: P.O. Box 138
ASHTON, MD 20861

(Must circle one) Licensed Plumber Licensed Well Driller **Licensed Well Pump Installer**
License # and name of individual responsible for the field installation:
Name (Print): DAVID RYCKE License# PI 0145

*A licensed individual must perform the actual installation. Apprentices must be under the direct supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification.

Name of Property Owner: Mitchel & Best Telephone # 240-203-1357
Subdivision: Highland Reserve Lot #: 8 Well Tag #: HO-95-2700 ✓ 09/13/2017
Site Address: 12341 Point Ridge Dr
FULTON, MD (Je)

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>Grundfos</u>	Make: <u>Campbell</u>	Two piece watertight cap: <u>✓</u>
Model #: <u>1530E15-290</u>	Model #: <u>PA 800</u>	Screened, vented well cap: <u>✓</u>
Pump Capacity: <u>15</u> GPM	Depth: <u>48</u> (36" min)	Cap secured to casing: <u>✓</u>
Well Yield: <u>5</u> GPM	NSF approved: <u>✓</u>	Conduit min 18" B.G.: <u>✓</u>
Depth of well encountered at time of pump installation: <u>520</u> (feet)		Conduit secured to well cap: <u>✓</u>

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4
Torque arrestors or Cable guards are required - Must circle one
Safety rope, if used, attached to inside of well casing with eye bolt N/A

Piping to house
Type: Poly
PSI: 200 (160 psi min)
Depth of supply line: 4 (36" min)

House Connection
PVC sleeved to undisturbed soil at wall penetration: YES
Approximate length of sleeve: 5'
Sleeve caulked and 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 _____ date 9-13-17

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

Date Insp. Requested: 09/12/2017 Date Insp. Approved: 09/13/2017 (Je)
Inspection Data: Pitless adapter and water supply line at least 36" below grade ✓ 40" 09/13/2017 (Je)
Two piece cap installed and attached to casing securely ✓
Elec. conduit extends at least 18" below grade/attached to cap properly ✓ 36" 09/13/2017 (Je)
Safety rope installed inside of well casing ✓
Correct well tag attached properly and casing 8" above finished grade ✓ 32" 09/13/2017 (Je)
Water supply line sleeved adequately at house connection ✓ 6' 09/13/2017 (Je)
Adequate grout observed below pitless adapter ✓

HD-215 (Rev. 8/00)



*House connection under footer
WLI coupling 6' from house

INTERIM CERTIFICATE OF POTABILITY
PERMANENT DEVIATION FOR RADIUM
Expiration Date – JULY 17, 2018

January 17, 2018

Homeowner
12341 Point Ridge Drive
Fulton, MD 20759

RE: Highland Reserve, Lot 8
12341 Point Ridge Drive
Building Permit: B17002137
Well Permit: HO-95-2700

Dear Homeowner:

This is to advise you that the septic system installation and water well construction for the above referenced property have been inspected and approved. Final approval of the septic system was granted on 9/11/2017. Final approval of the well line connection to the dwelling was granted on 9/13/2017. The well construction was completed on 8/27/2014. Water samples were collected on 12/19/2017.

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 8/27/2014. Results showed a Gross Alpha level of 41.7 ± 4.5 pCi/L and a Gross Beta level of 11.1 ± 2.3 pCi/L. **This exceeds the maximum contaminant level (MCL) combined Radium 226 and 228 of 5.0 pCi/L.**

After installation of a radionuclide removal device (Water Softener), post-treatment water samples were collected on 12/19/2017 and indicated a combined Radium 226/228 level of 2.41 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.

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.**

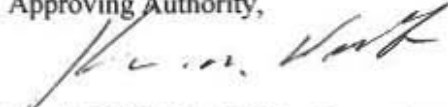
This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit HO-95-2700. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

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 Septic System. You will also find a link to Maryland Department of the Environments website which describes in further detail operation and maintenance of your system.

Approving Authority,



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

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



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

Lot 8

**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 Samir D. and Shall Patel ("the Owner").

WHEREAS, the Owner owns a tract of land at street address 12341 Point Ridge Drive
Fulton, MD 20759 and the deed and subdivision plat of the property is recorded
among the Land Records of Howard County, Maryland, Tax Map # 34, Block # 24, Parcel #
200, Deed Reference # _____ and Tax Account # 05-597441 ("the Property").

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 HQ95-2700 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).

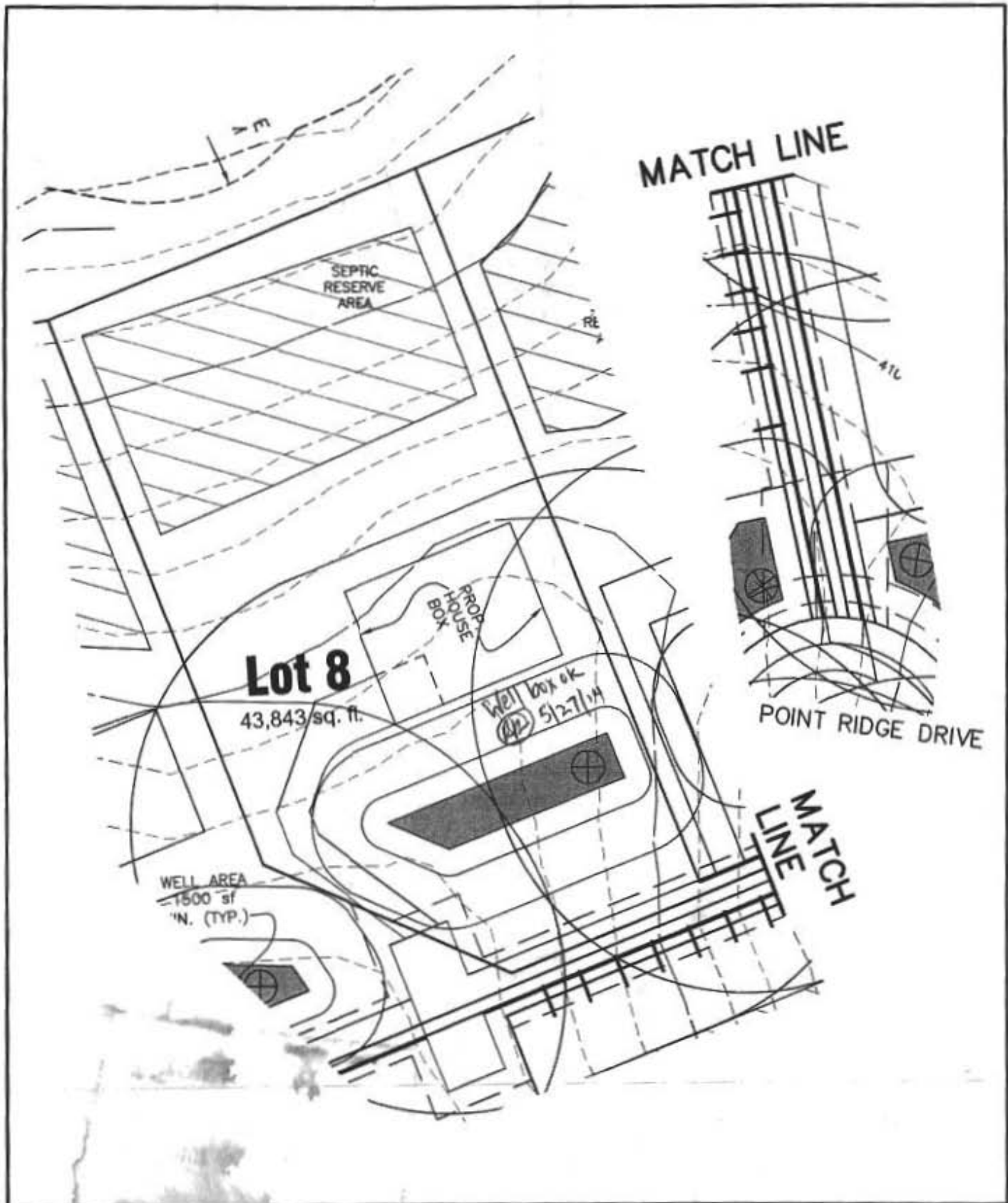
3. The Health Department shall issue a Certificate of Potability for the well once follow-up sampling shows acceptable gross alpha, gross beta (short and long term) and radium 226 / 228 levels.
4. The Owner agrees that there shall be no liability on part of the Health Department for any immediate or 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.

[Signature] 3/11/17 [Signature] 5/3/17
Owner Date Witness Date

[Signature] 3/17/17 _____ _____
Owner Date Witness Date

[Signature] 5/8/2017
Howard County Health Department Date



BENCHMARK

ENGINEERS • LAND SURVEYORS • PLANNERS

ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 315 • ELLICOTT CITY, MD 21043
 PHONE: 410-465-6105 FAX: 410-465-6644

**WELL EXHIBIT
 REGAN PROPERTY**

LOT 8

FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE: 1" = 50' DATE: 3/11/2014



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

Maura Rossman, M.D., Health Officer

November 3, 2014

MB Highland Reserve, LLC
1686 Gude Drive
Rockville, Maryland 20850

RE: Regan Property Lot 8
Point Ridge Drive
Well Tag: HO - 95 - 2700

To Whom it May Concern:

A sample was collected during a yield test (after hydro-fracturing) on August 27, 2014 and submitted to the Department of Health & Mental Hygiene 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 41.7 ± 4.5 picocuries/liter (pCi/L), while the **Gross Beta** level was 11.1 ± 2.3 pCi/L. The **Gross Alpha** result was above its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its targeted value 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 future well water supply **does not meet** EPA regulatory standards. Given elevated readings for **Gross Alpha**, additional testing for these **parameters** will be required to secure the future Use & Occupancy. The installation of a water softener system and / or a reverse osmosis system may be necessary. If treatment is installed, **pre and post short and long term Gross Alpha and Beta, plus a post Radium 226 / 228** will be needed to properly evaluate the effectiveness of the installed treatment(s). Alternatively, you may collect raw water samples for **short and long term Gross Alpha and Beta, plus Radium 226 / 228** to see if all values are below existing standards. Given that it typically takes up to one month to perform and receive back the **Radium** analyses, plan accordingly. **Please note** that other standard testing parameters (bacteria, nitrate, turbidity and sand) will still be required 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,

A handwritten signature in cursive script that reads 'Bert Nixon'.

Bert Nixon, Director

Bureau of Environmental Health

✓ Enclosure

cc: Property file

SEND REPORT TO: Bert Nixon
Howard Co. Env. Health
8930 Stanford Blvd.
Columbia, MD 21045

DEPARTMENT OF HEALTH AND MENTAL HYGIENE
 Laboratories Administration
 201 W. Preston St., Baltimore, MD 21201
 Robert A. Myers, Ph.D., Director

Lab No. 0509 8-32

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Regan Property - Lot 8 County: Howard
 Sample Source: Point Ridge Drive Location: HO-95-2700
(Well no., lab sink, sample tap, etc.)
 Radon-222 Bottle A 95-2700 Radon-222 Field Blank Bottle A Radium Blank
 Bottle B _____ Bottle B _____
 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 type="checkbox"/>
Stream <input type="checkbox"/>	Private <input checked="" type="checkbox"/>	MCL <input type="checkbox"/>	Recheck <input checked="" type="checkbox"/>
Other <input type="checkbox"/>	Other <input type="checkbox"/>		Special <input type="checkbox"/>

Submitters Code: _____ Federal Project: _____
 Collector: Brian Telephone No.: (410) 313-2643
 Date Collected: 8/27/2014 Time Collected: _____ a.m. 1:00 p.m.
 Field pH: _____ Field Chlorine: _____
 Nitric Acid Preserved: Yes No Iced: Yes No

Remarks: Sample Collected During Yield Test After Hydrofracturing

TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/> Gross Alpha	4000	0509	EPA 900.0	41.7 ± 4.5	9/6/14	MS	9/8/14
<input checked="" type="checkbox"/> Gross Beta	4100	0509	↓	11.1 ± 2.3	↓	↓	↓
<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 - Conf		0109	EPA 900.0	35.8 ± 4.3	9/9/14	MS	9/10/14
<input checked="" type="checkbox"/> Gross Beta - Conf		0509	↓	14.2 ± 2.5	↓	↓	↓

Date Received: 9/3/14 Received By: Melody Scott
 Data Release Signature: Deborah Miller - JWR Date: 9/10/14

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.: (410) 767-5537 •Fax No.: (410) 333-5373

SEND REPORT TO:

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Howard Co.

Laboratories Administration

201 W. Preston St., Baltimore, MD 21201

Robert A. Myers, Ph.D., Director

Lab No.

000500 5-3#

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Reg. Property

County: Howard County

Sample Source: Field Blank

Location: _____

(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 type="checkbox"/>
Other	<input type="checkbox"/>

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

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

Submitters Code: _____

Federal Project: _____

Collector: Brian

Telephone No.: _____

Date Collected: _____

Time Collected: _____ a.m. _____ 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	0508	AP4900.0	<2.0	9/6/14	MS	9/8/14
<input checked="" type="checkbox"/> Gross Beta	4100	0508		<4.0		I	
<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: 9/3/14

Received By: Melody Swift

Data Release Signature: Delvank Miller

Date: 9/10/14

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.: (410) 767-5537 •Fax No.: (410) 333-5373

Wolf, Kevin

From: Wolf, Kevin
Sent: Wednesday, January 10, 2018 12:48 PM
To: 'Mike Lancaster'
Subject: RE: U&O for: Lot 8- 12341 Point Ridge Drive Fulton, MD 20759

Mike,
That is fine. The only thing that i am concerned with here is the water analysis report. There is no indication on the report showing any type of treatment. The Chain of Custody states a "post treatment" sample but does not reference what kind of treatment.

I have made this very clear in the past that the water test analysis report must indicate the sample location, treatment devices (if any), and if the sample was taken pre or post treatment. Once I get clarification of this, I can release the ICOP.

Kevin

-----Original Message-----

From: Mike Lancaster [<mailto:mlancaster@mitchellbest.com>]
Sent: Wednesday, January 10, 2018 6:38 AM
To: Wolf, Kevin
Subject: FW: U&O for: Lot 8- 12341 Point Ridge Drive Fulton, MD 20759

Kevin,

Is there anyway to get the ICPO letter for this house without the long term? They think they'll have it early next week, but I would really like to get my U&O this week.

Thank you,

Mike Lancaster

-----Original Message-----

From: Janet Bieber [<mailto:jbieber@wellwatersolutions.net>]
Sent: Tuesday, January 9, 2018 11:32 AM
To: Howard County Martin, Sharhonda <smmartin@howardcountymd.gov>
Cc: jemoseman@wellwatersolutions.net; Mike Lancaster <mlancaster@mitchellbest.com>
Subject: U&O for: Lot 8- 12341 Point Ridge Drive Fulton, MD 20759

Sharhonda,

Please refer to the attached passing Potability and Short Term Radium results. We are still waiting on the Long Term 226/228 Radium Results for:

- * Lot 8- 12341 Point Ridge Drive Fulton, MD 20759
- * HO-95-2700

Mitchell and Best is looking to obtain a U&O Permit for this location. The Lab is currently taking approximately 21 business days for Long term Radium and the results are due back next week. Can a temporary U&O be obtained until the long Term Radium results come in?

Should you need any additional information please let us know as soon as you can.

Thank you,
Janet Bieber
Well Water Solutions, Inc.
301-674-3137
410-935-7185
www.wellwatersolutions.net
www.facebook.com/wellwatersolutions.net

Well Water Solutions, Inc. is the answer for all of your well concerns.
Ask us about our Well Warranty, Inspections and Services for Residential and Real estate transactions

Environmental Testing Lab Inc.

108 Old Solomons Island Rd
Annapolis, MD 21401

State Certified Water Quality
Laboratory # 106



3430 Rockefeller Ct
Waldorf, MD 20602

State Certified Water Quality
Laboratory # 139

Certificate of Analysis

Well Water Solutions, Inc.
5163 Darting Bird Lane
Columbia, MD 20144

Project
Date Received 12/19/2017
Date Reported 1/9/2018
Well Permit No. HO 95 2700

This report is the sole property of Well Water Solutions, Inc.. Any questions about the report MUST be directed to Well Water Solutions, Inc. at (410) 935-7185.

Environmental Testing Lab is not at liberty to discuss this report without written consent from Well Water Solutions, Inc..

Sample No: 157157-01 Sampled: 12/19/2017 11:45: Sampler: JWalker9006JW (Exp. 8/6/2018)
Location: Lot 8 12341 Point Ridge Dr. Preservation: Ice
Fulton, MD 20759 Sample Point: Bathroom / Kitchen

Parameter	Method	Result	Qualifiers	Units	RL	Test Date	Analyst
Gross Alpha-Radium	EPA 900.0	<0.836		pCi/l	0.836	12/21/2017	EMSL-331

If Gross Alpha Radium results are below 5 pCi/L no further action is recommended. If between 5-15 pCi/L further testing for Radium 226 and 228 is recommended. If Gross Alpha Radium result exceeds 15 pCi/L consider a water treatment system.

Approved By

Daniel J. Brumsted, Laboratory Director

Annapolis

Ph 410-224-4304 Fax 443-926-0586

Waldorf

Ph 410-224-4304 Fax 443-926-0586

Environmental Testing Lab, Inc.

CASE NARRATIVE

For those not familiar with reading a laboratory report and putting the result(s) into a more meaningful light the following information may assist you in making any decisions based on the results of the sample(s) submitted for analysis.

Qualifiers – A note added to a result to provide the end user with additional information about the result or how it was obtained.

X = Parameter does NOT meet EPA Primary/Secondary Guidelines for Drinking Water.

BLANK (no qualifier) = Parameter DOES meet EPA Primary/Secondary Guidelines for Drinking Water.

RL- Reporting Limit this is the lowest concentration of parameter that we can detect.

ND – Not Detected, see RL

Maximum Contaminate Level - The EPA establishes a (MCL) which is the "highest level of a contaminate that is allowed in drinking water"

The U.S. Environmental Protection Agency (EPA) publishes the National Primary Drinking Water Standards which are divided into two categories'. **Primary Contaminates** which are health related, and for a "public" water systems, enforceable. These are identified with a "P" in the table. **Secondary Contaminates** are non-health related and non-enforceable, they may cause cosmetic and/or aesthetic effects and are identified with an "S". Some parameters are unregulated and are identified with a "U".

This table is not an official EPA document, it is intended to provide the user with some perspective and it is assumed the water is from a privately owned well.

Parameter	MCL mg/L	Type	Effects	Sources	Treatment (1)
Coliforms Total Fecal/E coli	Absent	P	Not a health threat itself used to indicate whether other potentially harmful bacteria may be present	Naturally present. Fecal coliforms & E. coli only come from human & animal waste.	Chlorinate the well. Install Chemical feeder or U/V light.
Arsenic	0.010	P	Skin damage, circulatory system problems, increased risk of cancer	Natural deposits	Reverse Osmosis (R/O). Ion exchange
Cadmium	0.005	P	Kidney damage	Natural deposits, galvanized pipes.	Reverse Osmosis (R/O).
Lead	0.015	P	Infants/children-developmental delays. Adults kidney problems & high blood pressure	Corrosion of household plumbing	Reverse Osmosis pH correction, pipe replacement
Nitrate+Nitrite-N	10	P	Infants less than 6 mo's can become Seriously ill.	Runoff from fertilizer, leaching from septic tanks, naturally occurring	Reverse Osmosis (R/O). Ion exchange
Radium Gross Alpha	5 pCi/L Note 2	P	Increased risk of cancer	Erosion of natural deposits	Reverse Osmosis Water Softener
Radium 226 + 228	5	P	Increased risk of cancer	Erosion of natural deposits	Reverse Osmosis Water Softener
Iron	0.3	S	Possible staining on plumbing fixtures and laundry	Naturally Occurring	Water Softener
pH	6.5-8.5	S	Water is acidic or basic	Naturally Occurring	Neutralizer
Turbidity (3)	10 NTU	S	Interferes with filtration	Naturally Occurring	Contact a Well Driller

NOTES:

- 1) The Treatment Column is from information provided from various water treatment companies that do business with us. More information is available from epa.gov/safewater.
- 2) If Gross Alpha is between 5-15 pCi/L test for Radium 226/228. If Gross Alpha is above 15 pCi/l consider water treatment equipment.
- 3) Turbidity is a parameter that is continuously monitored at a water treatment plant. Privately owned wells do not have a turbidity MCL. Local Health Departments have used 10 NTU as a level at which if exceeded, and not because of high iron, the well itself may need repair.

Environmental Testing Lab Inc.

108 Old Solomons Island Rd
Annapolis, MD 21401



3430 Rockefeller Ct
Waldorf, MD 20602

State Certified Water Quality
Laboratory # 106

State Certified Water Quality
Laboratory # 139

Certificate of Analysis

Well Water Solutions, Inc.
5163 Darting Bird Lane
Columbia, MD 20144

Project
Date Received 12/19/2017
Date Reported 12/22/2017
Well Permit No. HO 95 2700

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Sample No: 157157-01 Sampled: 12/19/2017 11:45: Sampler: JWalker9006JW (Exp. 8/6/2018)
Location: Lot 8 12341 Point Ridge Dr. Preservation: Ice
Fulton, MD 20759 Sample Point: Bathroom / Kitchen

Parameter	Method	Result	Qualifiers	Units	RL	Test Date	Analyst
Bacteria-Total Coliform	Colitag Test	Absent/Pass		Per/100ml		12/19/2017	CT-106
Bacteria-E.coli	Colitag Test	Absent/Pass		Per/100ml		12/19/2017	CT-106
Nitrate + Nitrite as N	EPA 353.2	Not Detected		mg/l	1	12/22/2017	BD-139
Turbidity	EPA 180.1	0.9		NTU	0.5	12/22/2017	RM-139

Field Test(s) such as chlorine and pH are reported on the attached COC form. "NT" means Not Tested

Approved By

Daniel J. Brumsted, Laboratory Director

Annapolis

Ph 410-224-4304 Fax 443-926-0586

Waldorf

Ph 410-224-4304 Fax 443-926-0586

ENVIRONMENTAL TESTING LAB, INC - CHAIN OF C
ANNAPOLIS

410-224-4304 FAX 443-926-0586

WALDORF

410-224-4304



Company Name, Address Phone & Fax

Well Water Solutions
5163 Darling Bird Lane
Columbia, MD 21044

Testing Address

Lot 8/12341 Point Ridge Drive
STREET
Fulton, MD 20759
CITY STATE ZIP

Send Report By: Fax Postal Service Email jermoseman@wellwatersolutions.net/
jbieber@wellwatersolutions.net

THIS FORM WILL BE ATTACHED AS A PERMANENT PART OF YOUR FINAL REPORT

FIELD COLLECTION INFORMATION

Collected: Date 12/19/18 Time 11:45 Well Tag #: HO-95-2700

Collectors Name: Janet Walker Certification # 9006JW Expires 08/7/18

Collectors Signature: [Signature] Circle One PRIVATE WELL or CITY WATER

pH: 7 Chlorine, Total mg/L: 0 Results for U & O Permit? YES ~~NO~~ Sample Clear, when drawn? YES ~~NO~~

Sand present? YES ~~NO~~ If "YES" submit one liter of sample to lab for testing

Sample Tap Bacteria: Bathroom sink Chemicals: Kitchen sink Lead: NI

Bacteriological Test Next Day 11:30 Next Day 3:30 2 Day

FULL Chemical Analysis (Iron, Nitrite, Nitrite/Nitrate, Nitrate, Turbidity, Lead) Next Day 3:30 2 Day 3 Day

BASIC Chemical Analysis (Iron, Nitrite, Nitrite/Nitrate, Nitrate, Turbidity) Next Day 3:30 2 Day 3 Day well set

Lead Arsenic Next Day 3:30 2 Day 3 Day

Cadmium 2 Day 4 Day 6 Day

Radium Gross Alpha One Week 2 Week

Special Instructions: well set + Radium short term + Radium Long term
X post treatment 206/208

Released By: [Signature] Date: 12/19/17 Time: 1:05 Received By: _____

Released By: _____ Date: _____ Time: _____ Received By: _____

(*) TAT: is by Close of Business; Samples for chemical analysis received at 1:30 or later cannot be guaranteed "Next Day" results. TAT's are a good faith estimate and are not guaranteed. ALL SAMPLES FOR BACTERIOLOGICAL TESTING MUST BE DELIVERED BY 2:30 pm ON FRIDAY'S & HOLIDAY'S.

LABORATORY SAMPLE RECEIPT INFORMATION

Samples Delivered on ICE, YES NO N/A Add Qualifiers: Non-Certified Holding Time _____ Sample Volume _____ Frozen _____

Received in LAB By: [Signature] Date: 12/19/17 Time: 1300

Environmental Testing Lab Inc.

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Annapolis, MD 21401



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Waldorf, MD 20602

State Certified Water Quality
Laboratory # 106

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Laboratory # 139

Certificate of Analysis

Well Water Solutions, Inc.
5163 Darting Bird Lane
Columbia, MD 20144

Project
Date Received 12/19/2017
Date Reported 1/16/2018
Well Permit No. HO 95 2700

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Location: Lot 8 12341 Point Ridge Dr. Preservation: Ice
Fulton, MD 20759 Sample Point: Bathroom / Kitchen

Parameter	Method	Result	Qualifiers	Units	RL	Test Date	Analyst
Radium 226	EPA 903.0	0.81		pCi/l	0.16	01/15/2018	EMSL-331
Radium 228	EPA 904.0	1.6		pCi/l	0.64	01/05/2018	EMSL-331
Gross Alpha-Radium	EPA 900.0	<0.836		pCi/l	0.836	12/21/2017	EMSL-331
✓ Bacteria-Total Coliform	Colitag Test	Absent/Pass		Per/100ml		12/19/2017	CT-106
✓ Bacteria-E.coli	Colitag Test	Absent/Pass		Per/100ml		12/19/2017	CT-106
✓ Nitrate + Nitrite as N	EPA 353.2	Not Detected		mg/l	1	12/22/2017	BD-139
✓ Turbidity	EPA 180.1	0.9		NTU	0.5	12/22/2017	RM-139

Field Test(s) such as chlorine and pH are reported on the attached COC form. "NT" means Not Tested

If Gross Alpha Radium results are below 5 pCi/L no further action is recommended. If between 5-15 pCi/L further testing for Radium 226 and 228 is recommended. If Gross Alpha Radium result exceeds 15 pCi/L consider a water treatment system.

The combined MCL for R-226 and R-228 is 5 pCi/L

According to the attached Chain of Custody, at the time of collection 12/19/17 @ 11:45am, the delivered samples were collected from a tap after the treatment system. The treatment system is a Water Softener. The pH was 7 tested at the Kitchen Sink and Radium, Nitrate, Nitrites, and Turbidity were collected from the Kitchen Sink. The Bacteria sample was collected from the Bathroom Sink.

Approved By

Daniel J. Brumsted, Laboratory Director

Annapolis

Ph 410-224-4304 Fax 443-926-0586

Waldorf

Ph 410-224-4304 Fax 443-926-0586

ENVIRONMENTAL TESTING LAB, INC - CHAIN OF C

ANNAPOLIS
410-224-4304 FAX 443-926-0586

WALDORF
410-224-4304



157157
Date Due:
Client: Well Water Solutions, Inc.
Project:

Company Name, Address Phone & Fax

Well Water Solutions
5163 Darling Bird Lane
Columbia, MD 21044

Testing Address

Lot 8/12341 Point Ridge Drive
STREET
Fulton, MD 20759
CITY STATE ZIP

Send Report By: Fax Postal Service Email jemooseman@wellwatersolutions.net/
jdieber@wellwatersolutions.net

THIS FORM WILL BE ATTACHED AS A PERMANENT PART OF YOUR FINAL REPORT

FIELD COLLECTION INFORMATION

Collected: Date 12/19/18 Time 11:45 Well Tag #: HO-95-2700
Collector Name: Janet Walker Certification # 9006JW Expires 08/7/18
Collector's Signature: [Signature] Circle One: PRIVATE WELL or CITY WATER
pH: 7 Chlorine, Total mg/L: 0 Results for U & O Permit? YES NO Sample Clear, when drawn? YES NO
Send present? YES NO If "YES" submit one liter of sample to lab for testing
Sample Tap Bacteric: Bathroom Sink Chemicals: Kitchen Sink Lead: NT

Bacteriological Test Next Day 11:30 Next Day 3:30 2 Day
FULL Chemical Analysis Next Day 3:30 2 Day 3 Day
(Iron, Nitrite, Nitrite/Nitrate, Nitrate, Turbidity, Lead)
BASIC Chemical Analysis Next Day 3:30 2 Day 3 Day well set
(Iron, Nitrite, Nitrite/Nitrate, Nitrate, Turbidity)
 Lead Arsenic Next Day 3:30 2 Day 3 Day
 Cadmium 2 Day 4 Day 6 Day
 Radium Gross Alpha One Week 2 Week

Special Instructions: well set * Radium short term * Radium Long term
X Post treatment 206/208

Released By: [Signature] Date: 12/19/17 Time: 1:05 Received By: _____
Released By: _____ Date: _____ Time: _____ Received By: _____

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TAT's are a good faith estimate and are not guaranteed. ALL SAMPLES FOR BACTERIOLOGICAL TESTING MUST BE
DELIVERED BY 2:30 pm ON FRIDAYS & HOLIDAYS.

LABORATORY SAMPLE RECEIPT INFORMATION

Samples Delivered on ICE: YES NO N/A Add Qualifiers: Non-Certified Holding Time _____ Sample Volume _____ Frozen _____
Received in LAB By: [Signature] Date: 12/19/17 Time: 1300

According to the Chain of Custody attached, at the time of collections 12/19/17 @ 11:45am, the samples were collected Post Treatment. The type of treatment is a Water Softener. The pH was 7 tested at the Kitchen Sink. Bacteria was collected from the Bathroom Sink. Radium, Nitrate, Nitrites, and Turbidity were collected from the Kitchen Sink.

[Signature]

*Please add the following note to the Water Analysis Report: 1/10/18