

C1 16673

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.

DATE RECEIVED MM 08 DD 13 YY 14

MM 01 DD 11 YY 14

22 225 26 (TO NEAREST FOOT)

FROM "PERMIT TO DRILL WELL" 9/9/14 HO-95-2695

OWNER Mrs Highland Reserve, WELL SITE ADDRESS Point Ridge Dr., TOWN Highland, SUBDIVISION Reagan Property, SECTION, LOT 3

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 (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Rows include: BROWN shale (0-32), Gray Limestone (52-210), White Gray (210-225).

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES (Y) NO (N). TYPE OF GROUTING MATERIAL (Circle one) CEMENT (CM) BENTONITE CLAY (BC). NO. OF BAGS 20 NO. OF POUNDS 1880. GALLONS OF WATER 120. DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 61 ft.

CASING RECORD

casings types insert appropriate code below. MAIN CASING TYPE ST (STEEL) Nominal diameter top (main) casing (nearest inch) 06 Total depth of main casing (nearest foot) 63.

OTHER CASING (if used)

Table for OTHER CASING with columns: diameter inch, depth (feet) from, to.

SCREEN RECORD

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

DEPTH (nearest ft.)

Table for DEPTH (nearest ft.) with columns: 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

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) 3. PUMPING RATE (gal. per min.) 8.5. METHOD USED TO MEASURE PUMPING RATE 1 gal. WATER LEVEL (distance from land surface) BEFORE PUMPING 312 ft. WHEN PUMPING 72 ft. TYPE OF PUMP USED (for test) C centrifugal, 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) above 49 below 02 (nearest foot).

LATITUDE 3 9.1884727 LONGITUDE 76.9411926 (DEFAULT COORD. WGS 84) NOTES:

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES (Y) NO (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 SD 009 DRILLERS SIGNATURE Allen Empte (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. D

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

B 1 20731
1 2 3 6

SEQUENCE NO.
(MDE USE ONLY)

STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

HO - 95 - 2695

70 fill in this form completely 79

546366-A please type

Date Received (APA)

04 10 14
8 MM DD YY 13

OWNER INFORMATION

MB Highland Reserve LLC
15 Last Name Owner First Name 34

11686 E. Gude DR
36 Street or RFD 55

Rockville md. 20850
57 Town 70 State 72 Zip 76

B 3

LOCATION OF WELL

Howard
8 COUNTY 21

Regan Property
23 SUBDIVISION 42

SECTION 44 46 LOT 3 48 50

Highland
52 NEAREST TOWN 71

DRILLER INFORMATION

Allen Compton M SD 009
Driller's Name 76 License No. 81

Fogles Well Drilling, LLC
Firm Name

P.O. Box 202 Woodbine 21797
Address

Allen Compton 4-10-14
Signature Date

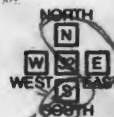
B 4

SOURCES OF DRILLING WATER

1. Point Ridge Dr.
STREET ADDRESS 30

2. ON WHICH SIDE OF ROAD
(CIRCLE APPROPRIATE BOX)

3. 34 300 37
DISTANCE FROM ROAD 38 39



ENTER FT OR MI

TAX MAP: 34 BLK: 24 PARCEL 200

B 2

WELL INFORMATION

APPROX. PUMPING RATE 5
(GAL. PER MIN.) 8 12

AVERAGE DAILY QUANTITY NEEDED 500
(GAL. PER DAY) 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 A530307 -13
COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S →

DATE ISSUED

43 MM DD YY 48 CO SIGNATURE EXP. DATE

05/27/2014 RKT 5/27/15

APPROXIMATE DEPTH OF WELL 300 FEET
24 28

APPROXIMATE DIAMETER OF WELL 6 INCH
NEAREST INCH

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
- 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

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

APPROP. PERMIT NUMBER HQ 2014G002

PERMIT No. HO - 95 - 2695
70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

* Radium sampling must be done at the *
time of yield test.



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

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

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

Company Name: NATIONAL WATER 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): JOSH 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-95-2695
 Site Address: _____

Submersible Pump Data

Make: _____ Model #: _____ Pump Capacity _____ Well Yield: _____
 Make: _____ + Model#: _____ GPM Depth: _____ (36" min)
 GPM NSF/WSC approved: _____
 Depth of well encountered at time of pump installation: _____ (feet)

Well Cap and Electric Conduit

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

Piping to house

Type: _____
 PSI: _____ (160 psi min)
 Depth of supply line: _____ (36" min)

House Connection

PVC sleeve to undisturbed soil at wall penetration: _____
 Length of sleeve(5' minimum from foundation): _____
 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: 01/2/2019 Date Insp. Approved: 01/02/2019 Inspector: [Signature]

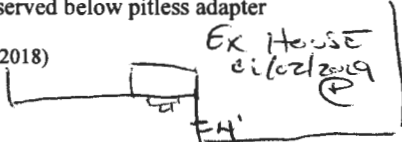
Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade

- 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

36" 01/02/2019 (u)
31" 01/02/2019 (u)
36" 01/02/2019 (u)
36" 01/02/2019 (u)
 WL UNDER FOOTER

Adequate grout observed below pitless adapter

(Revised form 10/24/2018)



INTERIM CERTIFICATE OF POTABILITY
PERMANENT DEVIATION FOR RADIUM

Expiration Date – *MAY 1st*, 2019

April 2, 2019

Homeowner
12340 Point Ridge Drive
Fulton, MD 20759

RE: Highland Reserve, Lot 3
12340 Point Ridge Drive
Building Permit: B18002901
Well Permit: HO-95-2695

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 **1/3/2019**. Final approval of the well line connection to the dwelling was granted on **1/2/2019**. The well construction was completed on **7/11/2014**. Water samples were collected on **3/7/2019**.

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 **7/15/2014**. Results showed a Gross Alpha level of **11.3 ± 2.2 pCi/L** and a Gross Beta level of **13.8 ± 2.4 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 **3/7/2019** and indicated a combined Radium 226/228 level of **1.5 pCi/L** which is below the MCL of 5 pCi/L.

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

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

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

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

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

This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit HO-95-2695. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

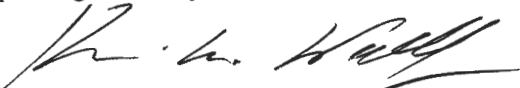
This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will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

Please contact (410) 313-1773 to schedule a final water sample appointment or contact a Maryland certified water quality laboratory to schedule a water sample. A list of laboratories certified by the state of Maryland may be found at the following website:

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

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

Approving Authority,



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

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

9106 Philadelphia Road
Suite 106
Rosedale, MD 21237



HOME LAND ENVIRONMENTAL HEALTH LABS

"Healthy Homes Start Here"

State Certified
Water Quality
Laboratory #353

Certificate of Analysis

Property Address: 12340 Point Ridge Drive, Lot 3 HR Fulton, MD 20759 Well Tag Number: HO-95-2695 Building Permit # B-18002901	Name: Well Water Solutions Phone Number: (410) 935-7185 Email: jemoseman@wellwatersolutions.net
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Date & Time Sampled: 3/7/2019 11:30 AM Date & Time Received: 3/8/2019 10:30 AM Sampled By: Janet Walker Sampler ID: 9006JW Sample Location: Post-treatment kitchen sink, Bacteria – First floor hallway bathroom sink post-treatment	pH: 6.0 Chlorine Residual: 0.0 Clarity: Clear Sand: None Preservation: Cool, 4°C	Well Type: Not noted Well Height: Not noted Cap Type: Not noted Casing: Not noted Conduit: Not noted
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Water Conditioning Appears to Be: **Water Softener**
Note: **All samples collected post-treatment from a tap after the water treatment – the only water treatment on the property and in use at time of collection noted was a water softener**

Parameter	Method	Result	Pass/Fail	Units	Min	Max	Agency	Expire
Total Coliform	Colitag	Absent	Pass	Per/100mL	Present	1.0	KMB	3/9/2019
<i>E. Coli</i>	Colitag	Absent	Pass	Per/100mL	Present	1.0	KMB	3/9/2019
Nitrate-Nitrite	EPA 353.2	ND	Pass	mg/L	10.0	0.5	KMB	3/8/2019
Turbidity	EPA 180.1	1.72	Pass	NTU	10.0	0.5	KMB	3/11/2019
Gross Alpha	EPA 900.0	1.7	Pass	pCi/L	15.0	1.2	FRC*	3/14/2019
Gross Beta	EPA 900.0	3.3	Pass	pCi/L	50.0	2.1	FRC*	3/14/2019
Radium 226	EPA 903.1	0.7	N/A	pCi/L	N/A	0.1	FRC*	3/19/2019
Radium 228	EPA Ra-05	<0.8	N/A	pCi/L	N/A	0.8	FRC*	3/18/2019
Combined Radium 226 & 228	EPA 903.1 & EPA Ra-05	<1.5	Pass	pCi/L	5.0	-	FRC*	3/20/2019

Approved By: Kevin Barnaba Kevin Barnaba, Lab Director

Report Date: 3/20/2019



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 3

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 Eliza John ("the Owner").

WHEREAS, the Owner owns a tract of land at street address 12340 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 # 05-597436 ("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 HO95-2695 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.

DocuSigned by: <i>Eliza Anna John</i>	6/13/2018 11:03:53 AM EDT	DocuSigned by: <i>Shelly Perry</i>	6/12/2018 5:23:58 PM EDT
OVERSEER: SD702D413...	Date	Witness	Date

<i>Bev Nifan</i>	8/20/2018		
Howard County Health Department	Date	Witness	Date

(K)

SEND REPORT TO:

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Laboratories Administration

201 W. Preston St., Baltimore, MD 21201

Robert A. Myers, Ph.D., Director

Lab No.

0000154 = 16 =

Howard County Health Department

Bureau of Environmental Health

8930 Stanford Blvd.

Columbia, Maryland 21045

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Field Blank

County: Howard

Sample Source: Distilled H2O (HC0000)

Location: EH Lab

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

Radon-222 Bottle A _____

Radon-222 Field Blank

Bottle A _____

Bottle B _____

Bottle B _____

County 113

Plant No. _____

CHECK (one per Box)

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

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

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

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

Submitters Code: _____

Federal Project: S

Collector: R. Rappaport

Telephone No.: 410-313-1781

Date Collected: 7/15/14

Time Collected: _____ a.m. 4 p.m.

Field pH: _____

Field Chlorine: _____

Nitric Acid Preserved: Yes No

Iced: Yes No

Remarks: sample taken in lab w/ distilled water

TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/> Gross Alpha	4000	0154	EPA 9000	<2.0	7/17/14	MA	7/21/14
<input checked="" type="checkbox"/> Gross Beta	4100	0154	"	<4.0	"	"	"
<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"/>							

Date Received: 07/16/14 Received By: C. Watty-Boyd Date: 7/21/14
 Data Release Signature: Deborah Miller-Jones

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



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

August 21, 2014

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

RE: Regan Property Lot 3
Point Ridge Drive
Well Tag: HO - 95 - 2695

To Whom it May Concern:

A sample was collected during a yield test on July 15, 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 11.3 ± 2.2 picocuries/liter (pCi/L), while the **Gross Beta** level was 13.8 ± 2.4 pCi/L. With the margin of error, the **Gross Alpha** result was below (but near) 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 **may not meet** EPA regulatory standards. Given some of the elevated readings on other nearby lots, 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

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

Laboratories Administration
 201 W. Preston St., Baltimore, MD 21201
 Robert A. Myers, Ph.D., Director

Lab No. _____

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Regan Property - Lot 3 County: Howard

Sample Source: Well - "Point Ridge Dr." Hc 2695 Location: H0-95-2695
(Well no., lab sink, sample tap, etc.)

Radon-222 Bottle A _____ Radon-222 Field Blank Bottle A _____
 Bottle B _____ Bottle B _____

County 13 Plant No. _____

CHECK (one per Box)

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

Submitters Code: _____ Federal Project: 5

Collector: R. Rappaport Telephone No.: 410-313-1781

Date Collected: 7/15/14 Time Collected: 11 a.m. _____ p.m.

Field pH: _____ Field Chlorine: _____

Nitric Acid Preserved: Yes No Iced: Yes No

Remarks: Sample taken 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						
<input checked="" type="checkbox"/> Gross Beta	4100						
<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"/>							

Date Received: _____ Received By: _____ Date: _____
 Data Release Signature: _____

Lab Use Only	Yes	No	N/A
Sample Intact upon arrival?			
Sample pH <2.0?			
Received within holding time?			

SEND REPORT TO: Bert Nixon DEPARTMENT OF HEALTH AND MENTAL HYGIENE

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

Laboratories Administration
201 W. Preston St., Baltimore, MD 21201
Robert A. Myers, Ph.D., Director

Lab No.
E000155-162

RADIATION ANALYSIS REQUEST FORM

Plant/Site Name: Reagan Property - Lot 3

County: Howard

Sample Source: Well - "Point Ridge Dr." HC 2695

Location: HO-95-2695
(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: R. Rappaport

Telephone No.: 410-313-1781

Date Collected: 7/15/14

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

Field pH: _____

Field Chlorine: _____

Nitric Acid Preserved: Yes No

Iced: Yes No

Remarks: Sample taken during yield test

<input type="checkbox"/>	TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/>	Gross Alpha	4000	0155	EPA 900-0	11.3 ± 2.2	7/19/14	MA	7/21/14
<input checked="" type="checkbox"/>	Gross Beta	4100	0155	"	13.8 ± 2.4	↓	↓	↓
<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"/>								

Date Received: 07/16/14

Received By: C Watty Boyd

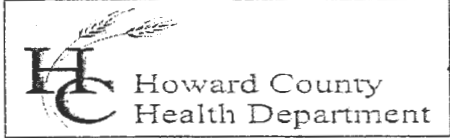
Data Release Signature: Deborah Miller-Jack Date: 7/21/14

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

ORIG MAILED 8/6/14

Invoice



Bureau of Environmental Health
 Attn: Bert Nixon, Director

DATE: AUGUST 6, 2014
 DATES OF SERVICE: JULY 9, 10, 15, 16 & 18, 2014
 INVOICE #: 2014-016

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

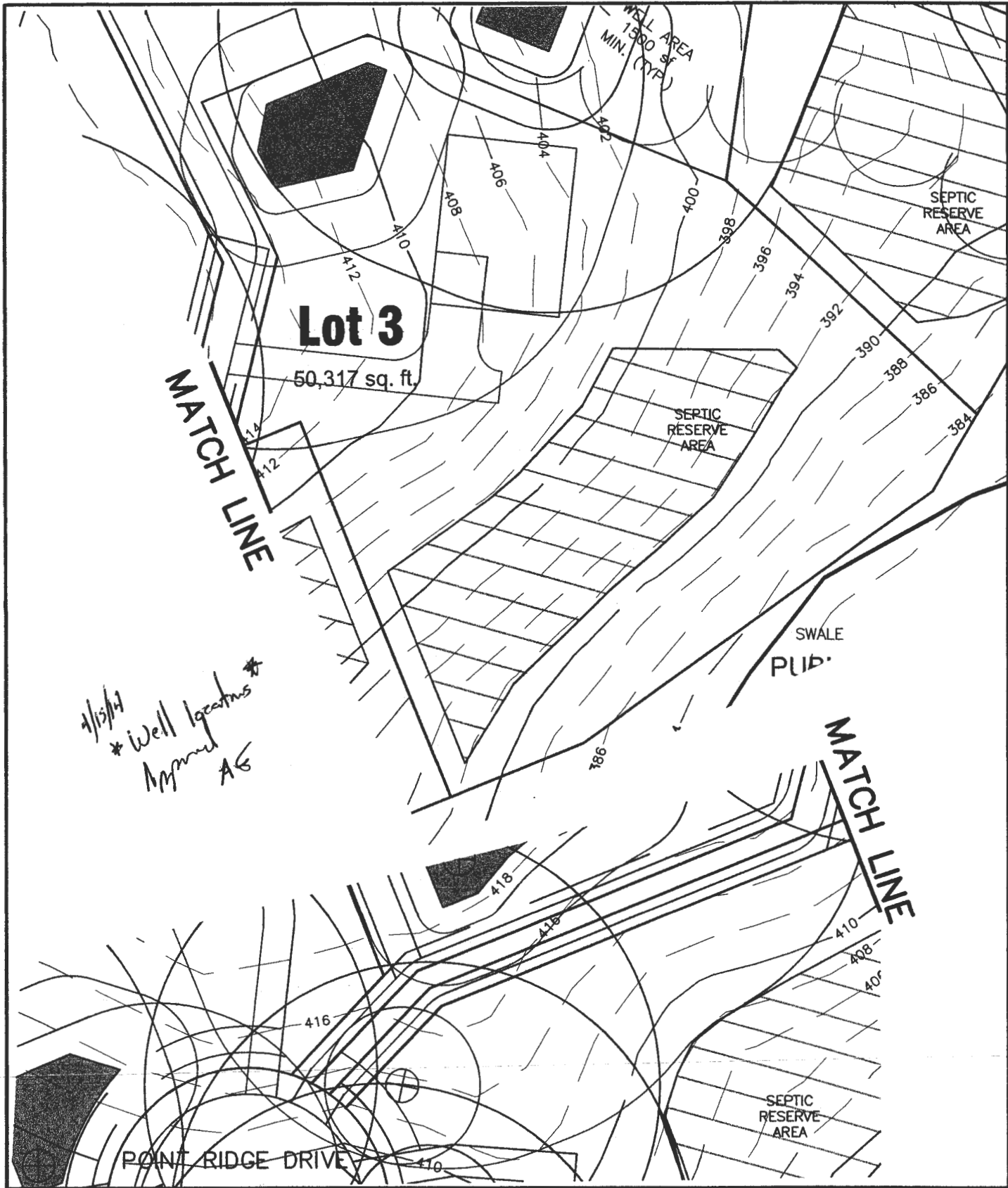
DATE	DESCRIPTION	BALANCE	AMOUNT
07/09/14	Gross alpha/beta testing performed for Reagan Property Lot 6 HO - 95 - 2698		\$45.00
07/10/14	Gross alpha/beta testing performed for Reagan Property, Lot 5 HO - 95 - 2697		\$45.00
07/15/14	Gross alpha/beta testing performed for Reagan Property, Lots 3 and 4 HO - 95 - 2695 HO - 95 - 2696		\$90.00
07/16/14	Gross alpha/beta testing performed for Reagan Property, Lot 9 HO - 14 - 0001		\$45.00
07/18/14	Gross alpha/beta testing performed for Reagan Property, Lots 7, 10 and 11 HO - 95 - 2699 HO - 14 - 0002 HO - 14 - 0003		\$135.00
			AMOUNT DUE
			\$360.00

Please detach and return with payment.

REMITTANCE	
Invoice #	2014-016
Site Information	Reagan Property Lots 3,4,5,6,7,9,10 and 11
Amount Due	\$360.00

Receipt B 54589
8/21/2014

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



4/15/14
 * Well location *
 Annual
 AG

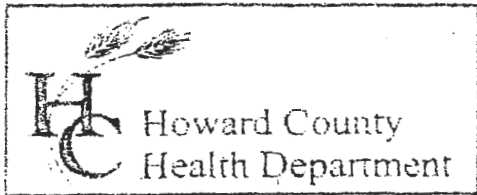
BENCHMARK
 ENGINEERS • LAND SURVEYORS • PLANNERS
ENGINEERING, INC.

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

WELL EXHIBIT
REGAN PROPERTY
LOT 3

FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

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



3525 H Ellicott Mills Drive, Ellicott City, MD 21043
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., 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:

- The well site has been staked by Benchmark Engineering
(professional land surveyor or company employing professional land surveyors)
on 4-4-14 (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.

Revised 6/10/03