

SEQUENCE NO. (MDE USE ONLY)
 C1 16620
 1 2 3 6
 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
 FILL IN THIS FORM COMPLETELY PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45-DAYS AFTER WELL IS COMPLETED.
 COUNTY NUMBER B3

ST/CO USE ONLY DATE Received MM DD YY 06 05 12
 DATE WELL COMPLETED MM DD YY 05 29 12 AC.
 Depth of Well 22 278 26 6/14/12
 (TO NEAREST FOOT) (KX)
 PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-2257
 28 29 30 31 32 33 34 35 36 37

OWNER Group P Williamsburg
 WELL SITE ADDRESS 11986 Hall Shop Rd. TOWN Clarksville
 SUBDIVISION BLUEWINS PRD SECTION LOT 87

WELL LOG
 Not required for driven wells

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

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Yel-red Loamy	0	9	
Yel-Brown	9	17	
Dark Brown	17	21	
Gray mica	21	40	
Dark Brown Gray mica	40	63	
gray gneiss	63	66	
Fracture	66	258	✓
gray gneiss	258	278	

GROUTING RECORD yes no
 WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N
 TYPE OF GROUTING MATERIAL (Circle one)
 CEMENT CM BENTONITE CLAY BC
 NO. OF BAGS ^{45 46} 33 NO. OF POUNDS ^{45 46} 3122
 GALLONS OF WATER 198
 DEPTH OF GROUT SEAL (to nearest foot)
 from 0 48 TOP 52 ft. to 78 54 BOTTOM 58 ft.
 (enter 0 if from surface)

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)
 3T 06 80
 60 61 63 64 66 70

OTHER CASING (if used)
 diameter inch depth (feet) from to
 E A C H I N G

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

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

C 2 DEPTH (nearest ft.)
 1 HO 80 278
 E A C H S C R E E N
 8 9 11 15 17 21
 23 24 26 30 32 36
 38 39 41 45 47 51
 SLOT SIZE 1 2 3
 DIAMETER OF SCREEN (NEAREST INCH)
 56 60
 from to

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 SD 009
 DRILLERS SIGNATURE [Signature]
 (MUST MATCH SIGNATURE ON APPLICATION)
 LIC. NO. 1 D

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
 70 72 74 75 76

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

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3 PUMPING TEST
 HOURS PUMPED (nearest hour) 03
 8 9
 PUMPING RATE (gal. per min.) 4.
 11 15
 METHOD USED TO MEASURE PUMPING RATE 1906
 WATER LEVEL (distance from land surface)
 BEFORE PUMPING 47 ft.
 17 20
 WHEN PUMPING 138 ft.
 22 25
 TYPE OF PUMP USED (for test)
 A air P piston T turbine
 C centrifugal R rotary O other (describe below)
 J jet S submersible

PUMP INSTALLED
 DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO
 IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.
 TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29
 CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35
 PUMP HORSE POWER 37 41
 PUMP COLUMN LENGTH (nearest ft.) 43 47
 CASING HEIGHT (circle appropriate box and enter casing height)
 + above } LAND SURFACE
 - below } 02 (nearest foot)
 49 50 51

LATITUDE 3 9.11.1339
 LONGITUDE 7 6.55.5472
 (DEFAULT COORD. WGS 84)
 NOTES:

Yield Test Data Sheet

County File # _____

MD Well Permit #: H0-95-2257

Subdivision Name: BLEVINS PRO.

Section _____ Lot # 8-7

Street Address: 11986 Hall shop rd

Measuring Point (MP) Description: Top of casing
(for ex. "Top of casing")

Distance from MP to ground surface 2 ft.

Well Depth 278' ft.

Well Driller: Fogles

Must be submitted with the State of Maryland Well Completion Report

Submit to:

Pump Start Time <u>10:00</u>	Static Water level: <u>47</u> ft.	Pumping Rate () Time to fill <u>1</u> gal. bucket () Flow meter reading (if used)	Calculated Flow (gallons per minute) <u>12</u>
TIME	WATER LEVEL BELOW M.P.		

Water level and pumping rate must be recorded every 15 minutes

TIME	WATER LEVEL BELOW M.P.	PUMPING RATE	CALCULATED FLOW (GPM)
1 10:00	47 ft.	5	12 GPM
2 10:15	121 ft.	5	12 GPM
3 10:30	138 ft.	15	4 GPM
4 10:45	138 ft.	15	4 GPM
5 11:00	138 ft.	15	4 GPM
6 11:15	138 ft.	15	4 GPM
7 11:30	138 ft.	15	4 GPM
8 11:45	138 ft.	15	4 GPM
9 12:00	138 ft.	15	4 GPM
10 12:15	138 ft.	15	4 GPM
11 12:30	138 ft.	15	4 GPM
12 12:45	138 ft.	15	4 GPM
13 1:00	138 ft.	15	4 GPM
14 1:15	138 ft.	15	4 GPM
15 1:30	138 ft.	15	4 GPM
16	ft.		GPM
17	ft.		GPM
18	ft.		GPM
19	ft.		GPM
20	ft.		GPM
21	ft.		GPM
22	ft.		GPM
23	ft.		GPM
24	ft.		GPM
25	ft.		GPM
26	ft.		GPM
27	ft.		GPM
28	ft.		GPM
29	ft.		GPM
30	ft.		GPM

OK

NOTES:

0618

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

140-95-2257

536720 please type

fill in this form completely

Date Received (APA)

02 03 12

OWNER INFORMATION

Williamsburg Homes, 5485 Hoppers Farm Rd Suite 200, Columbia, md 21044

B 3

LOCATION OF WELL

Howard County, Blevins Property, Clarksville

DRILLER INFORMATION

Allen Compton, M S D 009, Fogles Well Drilling, 500 Obrecht rd, Allen Compton 2-2-12

B 4

SOURCES OF DRILLING WATER

11 Hall shop rd

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)



1000, 1000, ENTER FT OR MI

TAX MAP: 35 BLK: 19 PARCEL 310

WELL INFORMATION

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

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

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard County, State Signature, Date Issued 2/9/12, CO Signature, Exp. Date 2/9/13

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

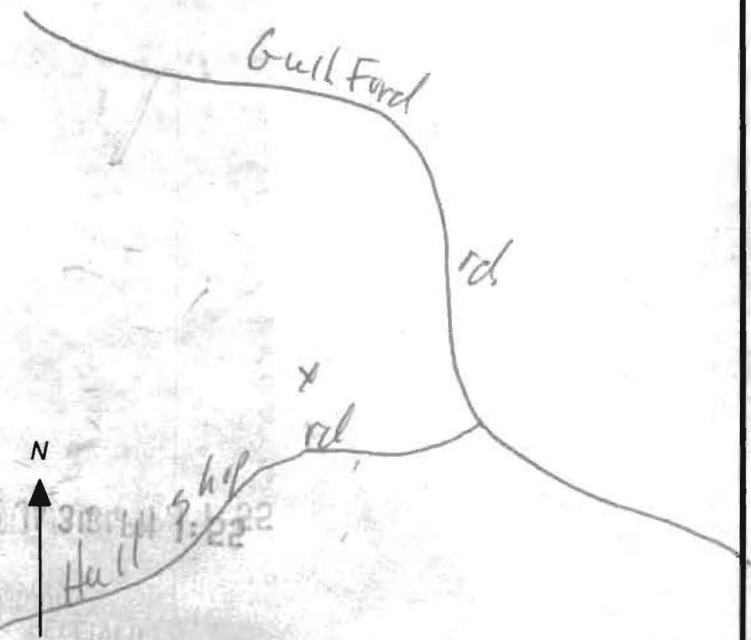
METHOD OF DRILLING (circle one)

- Bored (or Augered), Jetted, Jetted & Driven, Air-Rotary, Air-PerCussion, 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 deepen an existing well

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



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

APPROP. PERMIT NUMBER G

PERMIT No. 140-95-2257

SPECIAL CONDITIONS Test wells good for 60 Days, unless converted to production well. SEE attached memo...

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

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

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

Company Name: Fogles Well Drilling, LLC Telephone #: 410-795-5670
Address: PO Box 202
Woodbine, MD 21797

(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 P. Fogle License # MSD 226

*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: Williamsburg Group Telephone #: 2257
Subdivision: Estates @ Clarksville Lot #: 7 Well Tag #: HO-95-~~2277~~ 2277
Site Address: 11022 Blevins Dr
Clarksville, MD

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>Grundfos</u>	Make: <u>Campro II</u>	Two piece watertight cap: <u>YES</u>
Model #: <u>1550E07-180</u>	Model #: <u>N/A</u>	Screened, vented well cap: <u>YES</u>
Pump Capacity: <u>15</u> GPM	Depth: <u>36</u> " (36" min)	Cap secured to casing: <u>YES</u>
Well Yield: <u>17</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>200</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 N/A

Piping to house

Type: 1" poly pipe
PSI: 200 (160 psi min)

Depth of supply line: 36" (36" min)

House Connection

PVC sleeve to undisturbed soil at wall penetration: YES

Length of sleeve (5" minimum from foundation): 6"

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: Dave Fogle date: 8-19-15

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

Date Insp. Requested: 8/19/15 Date Insp. Approved: 8/19/15 Inspector: SC

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

Send Report To:

Bert Nixan

Howard County Health Department
Bureau of Environmental Health
7178 Columbia Gateway Drive
Columbia, Maryland 21046

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Chemistry
RADIATION LABORATORY

201 W. Preston Street, Baltimore, Maryland 21201
John M. DeBoy, Dr. P. H., Director

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: H0952257 No. B: - Field Blank Bottle No. 1: FBKW31512 No B: -

Plant/Site Name: Blevins' Prop - Lot 8 County: Howard

Sample Source: Hall Shop Rd. Location: H0-95-2257
(well no, lab sink, sample tap, etc.)

County: 1 3 Plant No.

CHECK (one per box)

Drinking Water
Landfill
Stream
Other

Community
Non-community
Private
Other

Source (raw water)
Distribution (treated)
MCL

Emergency
Routine
Recheck
Special

Collector: K. Wolf

Telephone No.: 410 313 2645

Date Collected: 3/14/12

Time Collected: _____ a.m. 1:00 p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code:

Federal Project:

Field Data: _____
pH Chlorine

Remarks: Sample pH preserved to < 2.0. Taken @ end to yield.

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000				
✓	Gross Beta	4100				
	Radon-222 Bottle A	4004				
	Radon-222 Bottle B	4004				
	Field Blank #A	4004				
	Field Blank #B	4004				
	Tritium					
	Ra - 226	4020				
	Ra - 228	4030				
	Total Uranium	4006				

Date Received: ___/___/___

Supervisor: _____



Bureau of Environmental Health
7178 Gateway Drive Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Peter L. Beilenson, M.D., M.P.H., Health Officer

IMPORTANT

MEMORANDUM

TO: Fogle's Well Drilling
Attn: Allen Compton MSD009
FILE

FROM: Kevin M Wolf, R.S., R.E.H.S. *KMW*
Well and Septic Program
Groundwater Mgmt. Sec.

DATE: February 8th, 2012

RE: **Monitoring Wells**
Blevins Property, 11986 Hall Shop Rd.

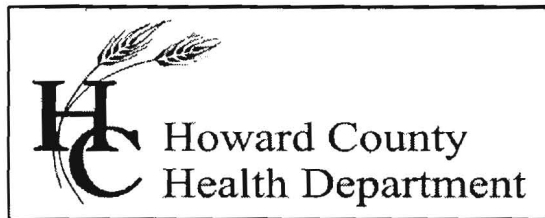
The following comments apply the above aforementioned monitoring well applications:

In order to preserve the quality of ground drinking water, a special condition has been set for these two monitoring wells. Health Department must be on site during drilling. The Health Department will be working with the Well Driller to determine where the depths of the fractures are encountered, type of rock encountered, depths to bedrock etc... These determinations may require upper strata to be sealed off temporary or for life of well. The final observations for these wells may include sampling from that particular water bearing fracture(s). Any deviations to this condition are to be prior approved by the Health Department.

Remember, pursuant to *COMAR 26.04.04.06 F. Procedure for Authorizing Conversions of Test Wells*, the Permittee of these test wells will have 60 days after completion to convert these two test wells into production wells. Applicant will need to provide written request to the Health Department for approval. After the 60 day period, if not converted to production wells, the test wells shall be sealed in accordance with Regulation *26.04.04.11*.

KMW

Cc: Bob Corbett, bobcorbett@williamsburgllc.com
file



Bureau of Environmental Health

8930 Stanford Blvd., Columbia, MD 21046-2147

Main: 410-313-1774 | Fax: 410-313-2648

TDD 410-313-2323 | Toll Free 1-866-313-6300

www.hchealth.org

Facebook: www.facebook.com/hocohealth

Twitter: [HowardCoHealthDep](https://twitter.com/HowardCoHealthDep)

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

INTERIM CERTIFICATE OF POTABILITY

Expiration Date – MAY 9, 2016

November 9, 2015

Homeowner
11022 Blevins Drive
Clarksville, MD 21029

**RE: Blevins Property, Lot 7
11022 Blevins Drive
Building Permit: B15000726
Well Permit: HO-95-2257**

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 **11/5/2015**. Final approval of the well line connection to the dwelling was granted on **8/19/2015**. The well construction was completed on **5/3/2012**. Water samples were collected on **10/08/2015 & 10/21/2015**.

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 **3/14/2012**. Results showed a Gross Alpha of **4.6 ± 1.7 pCi/L** and Gross Beta of **5.7 ± 2.1 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.

Volatile organic compound (VOC) sample was collected on **3/9/2012** respectively. This testing was performed to establish a baseline evaluation of the well water supply in the area due to known VOC ground water contamination concerns. Results from this sampling showed an action level for **Toluene** at **0.74**. The Maximum containment level for Toluene is 1000 ppb. As further precautionary methods, a Granulated Activated Carbon (GAC) has been installed to treat any further excess of VOC's in your well water. This treatment device must be operated and maintained by a qualified technician. With respect to the parameters and guidelines of the EPA National Primary Drinking Water Regulations, the future well water supply is currently 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-95-2257. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

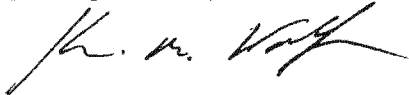
This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will 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>

In closing, please refer to our "Homeowner Fact Sheet" for understanding your Best Available Technology (BAT) for your onsite sewage disposal. You will also find a link to Maryland Department of the Environments website which elaborates in further detail operation and maintenance of your BAT.

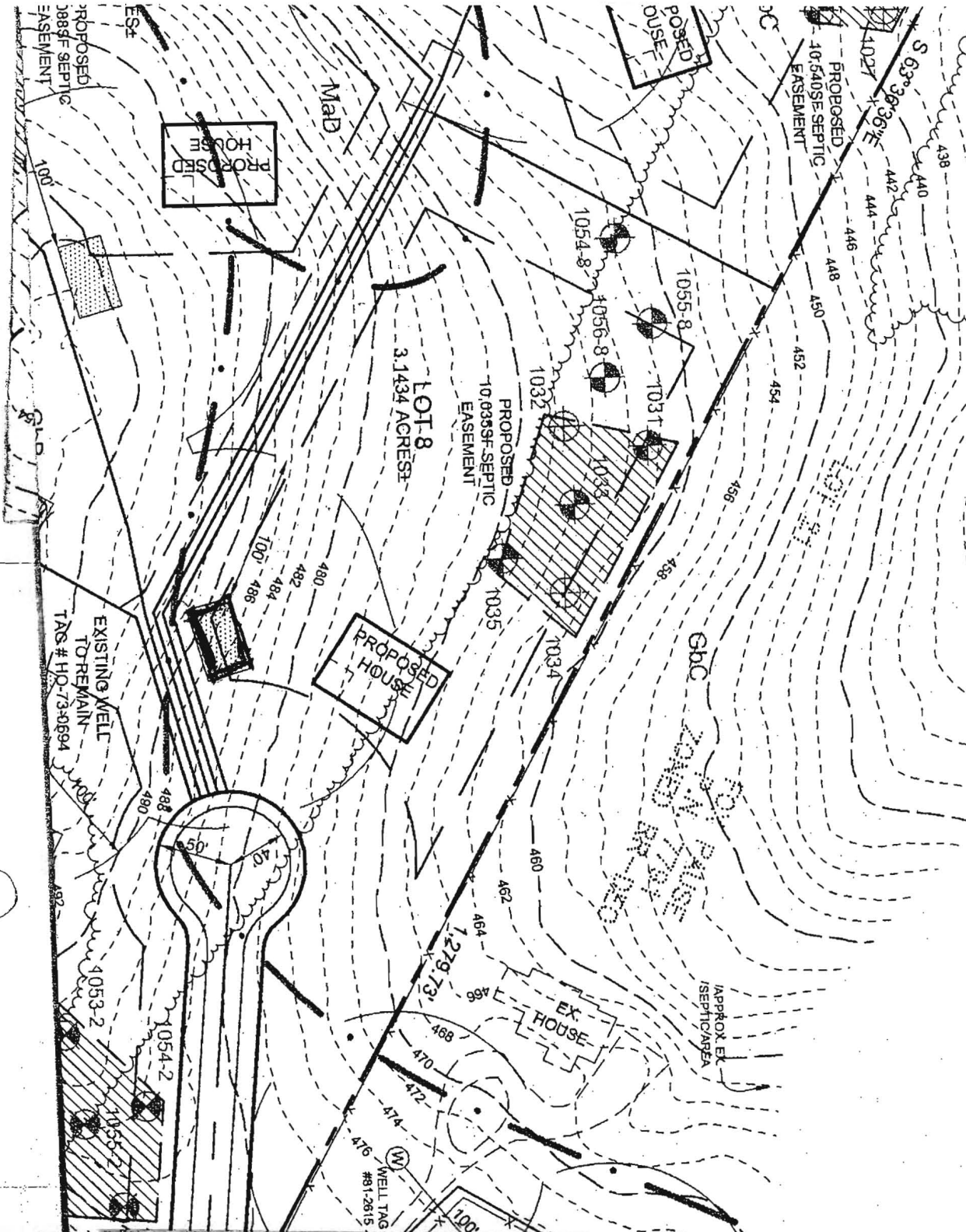
Approving Authority,



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
enclosures

2/8/12
Well Box
Approved for
Test Well.
Kmw



DO NOT REMOVE THIS TAG
DEPARTMENT OF THE ENVIRONMENT
WELL PERMIT NUMBER
HO-95-2257
INFORMATION-GIVE NUMBER AND WRITE
1800 WASHINGTON BLVD.
BALTIMORE, MARYLAND 21230



Bureau of Environmental Health
 7178 Columbia Gateway Drive, Columbia, MD 21046-2147
 (410) 313-2640 Fax (410) 313-2648
 TDD (410) 313-2323 Toll Free 1-866-313-6380
 website: www.hchealth.org

Peter L. Beilenson, M.D., M.P.H., Health Officer

TO ALL INTERESTED PARTIES

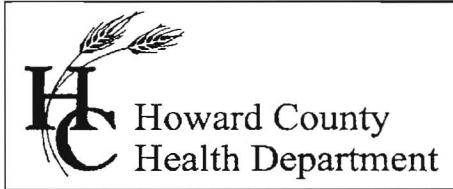
When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

Well Site Location:
Blevins Property #8 Hallshop Rd
 Subdivision/Property Name Lot# Road Name

- The well site has been staked by Sill-Adcock + Assoc.
 (professional land surveyor or company employing professional land surveyors)
 on 2-6-12 (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 3/11/05



1
Bureau of Environmental Health
7178 Gateway Drive Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Peter L. Beilenson, M.D., M.P.H., Health Officer

April 24, 2012

Williamsburg Homes
Attn. Bob Corbett
5485 Harpers Farm Road, Suite 200
Columbia, Maryland 21044

RE: Blevin's Property Lot 7
Hall Shop Road
Well Tag: HO - 95 - 2257

Dear Mr. Corbett:

A sample was collected during a yield test on March 14, 2012 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 4.6 ± 1.7 picocuries/liter (pCi/L), while the **Gross Beta** level was 5.7 ± 2.1 pCi/L. The **Gross Alpha** result was below its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its targeted 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 meets EPA regulatory standards. Additional testing for these parameters will **not** be necessary to help secure Use & Occupancy. However, 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,

Bert Nixon, Director
Bureau of Environmental Health

Enclosure
cc: Barry Glotfelty, MDE Water Mgmt.
Well & Septic property file

Send Report To:

Bert Nixon
Howard County Health Department
Bureau of Environmental Health
7178 Columbia Gateway Drive
Columbia, Maryland 21046

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Chemistry
RADIATION LABORATORY
201 W. Preston Street, Baltimore, Maryland 21201
John M. DeBoy, Dr. P. H., Director

E002327 154

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: H0952257 No. B: Lot 7 Field Blank Bottle No. 1: FBKW31512 No B: -

Plant/Site Name: Plover's Pop - Lot 8 County: Howard

Sample Source: Hall Shop Rd. Location: H0-95-2257
(well no, lab sink, sample tap, etc.)

County: 1 3 Plant No.

CHECK (one per box)

Drinking Water
Landfill
Stream
Other

Community
Non-community
Private
Other

Source (raw water)
Distribution (treated)
MCL

Emergency
Routine
Recheck
Special

Collector: K. Wolf

Telephone No.: 410 313 2645

Date Collected: 3/14/12 *cont*

Time Collected: _____ a.m. 1:00 p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code:

Federal Project:

Field Data: _____
pH Chlorine

Remarks: Sample pH preserved to 2.0 Taken @ end to yield

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000	2327	4.6 ± 1.7	3/20/12	3/21/12
✓	Gross Beta	4100	2327	5.7 ± 2.1	"	"
	Radon-222 Bottle A	4004				
	Radon-222 Bottle B	4004				
	Field Blank #A	4004				
	Field Blank #B	4004				
	Tritium					
	Ra - 226	4020				
	Ra - 228	4030				
	Total Uranium	4006				

Date Received: 3/15/12

Supervisor: [Signature]

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

RECEIVED
MAY 15 2012

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. • Westminster, MD 21158 • MD State Certification #133

(410) 848-1014 • (410) 876-4554 • FAX (410) 848-0298

VOLATILE ORGANIC WATER ANALYSIS REPORT

LAB ID # **83536**

Location: Williamsburg Group LLC
 11986 Hall Shop Road
 Clarksville, MD 21029

Date & Time Collected: 03/09/12 1000

Collected by: C. Holland 0547CH

Work Order # 45187

Requested by Bob Corbett

Source: Well, HO-95-2257, Lot 8 ⁷ *Bedrock fracture*

Site: Raw Well/ Bailer

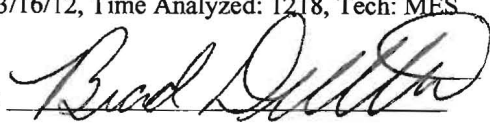
Treatment: None

CONTAMINANT	EPA CONT ID	MCL (PPB)	ACTUAL LEVEL	CONTAMINANT	EPA CONT ID	ACTUAL LEVEL
REGULATED				UNREGULATED		
Benzene	2990	5	ND	Bromobenzene	2993	ND
Carbon Tetrachloride	2982	5	ND	Bromochloromethane	2430	ND
o-Dichlorobenzene	2968	600	ND	Bromomethane	2214	ND
p-Dichlorobenzene	2969	75	ND	n-Butylbenzene	2422	ND
1,2-Dichloroethane	2980	5	ND	Sec-butylbenzene	2428	ND
1, 1-Dichloroethene	2977	7	ND	Tert-butylbenzene	2426	ND
cis-1,2-Dichloroethene	2380	70	ND	Chloroethane	2216	ND
trans-1,2-Dichloroethene	2979	100	ND	o-Chlorotoluene	2965	ND
Dichloromethane	2964	5	ND	p-Chlorotoluene	2966	ND
1,2-Dichloropropane	2983	5	ND	m-Dichlorobenzene	2967	ND
Ethylbenzene	2992	700	ND	1,1-Dichloroethane	2978	ND
Monochlorobenzene	2989	100	ND	1,3-Dichloropropane	2412	ND
Styrene	2996	100	ND	2,2-Dichloropropane	2416	ND
Tetrachloroethene (PCE)	2987	5	ND	1,1-Dichloropropene	2410	ND
Toluene	2991	1000	0.74	cis-1,3-Dichloropropene	2413	ND
1,2,4-Trichlorobenzene	2378	70	ND	trans-1,3-Dichloropropene	2413	ND
1,1,1-Trichloroethane	2981	200	ND	Dichlorodifluoromethane	2212	ND
1,1,2-Trichloroethane	2985	5	ND	Hexachlorobutadiene	2246	ND
Trichloroethene (TCE)	2984	5	ND	Isopropylbenzene	2994	ND
Vinyl Chloride	2976	2	ND	p-Isopropyltoluene	2030	ND
Xylenes (Total)	2955	10000	ND	MTBE	2251	ND
TRIHALOMETHANES				Naphthalene	2248	ND
Bromodichloromethane	2943		ND	n-Propylbenzene	2998	ND
Bromoform	2942		ND	1,1,1,2-Tetrachloroethane	2986	ND
Chloroform	2941		ND	1,1 2,2-Tetrachloroethane	2988	ND
Dibromochloromethane	2944		ND	1,2,3-Trichlorobenzene	2420	ND
ADDITIONAL COMPOUNDS				Trichlorofluoromethane	2218	ND
TAME			ND	1 2,3-Trichloropropane	2414	ND
Chloromethane			ND	1,2,4-Trimethylbenzene	2418	ND
				1,3,5-Trimethylbenzene	2424	ND
				m, p-xylene	2995	ND
				o-xylene	2997	ND

NOTES:

- 1) MCL: Maximum Contaminant Level
- 2) Detection limit: 0.50 PPB (except for Xylenes, meta/para:1.0 PPB; and Xylenes total:1.5 PPB)
- 3) ND: None Detected
- 4) PPB: Parts Per Billion (micrograms per liter)
- 5) Sub-contracted to Lab #128, method EPA 524.2, Date Analyzed: 03/16/12, Time Analyzed: 1218, Tech: MES

Date Reported: 03/22/12

Reviewed by: 

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	103594	Account #:	4470
Reference:	Estates at Clarksville Lot 7	Company:	Williamsburg Homes LLC
Location:	11022 Blevins Drive Clarksville, MD 21029	Requested By:	Bob Corbett
Date/ Time Collected:	10/8/2015 1025	Source:	Well Water
Date/Time Rec'd:	10/8/2015 1320	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	J.M. Robbins 5606JR	pH:	7.0
		Well #:	HO-95-2257

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	1.0	MPN/ 100 ml	<1.0	SM18 9223	10/9/2015 / 0830 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	10/9/2015 / 0830 / CCH
Nitrate	<1.0	mg/L	10	601	10/9/2015 / 1045 / CRS
Turbidity	34.1	NTU	<10	SM18 2130B	10/9/2015 / 1135 / CRS
Sand	NS	mg/L	5	Visual/Gravimetric	10/9/2015 / 1135 / 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 NS = None Seen (NS indicates less than 5 mg/L)
- 4 NTU = Nephelometric Turbidity Units
- 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 pH & Chlorine level tested on site
- 8 Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy
Building Permit # : 15000726

Date Reported: 10/9/2015

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #: 103826 Account #: 4470
Reference: Estates at Clarksville Lot 7 Company: Williamsburg Homes LLC
Location: 11022 Blevins Drive Requested By: Bob Corbett
Clarksville, MD 21029 Source: Well Water
Date/ Time Collected: 10/21/2015 1130 Site: Basement Bathroom Sink
Date/Time Rec'd: 10/21/2015 1255 Treatment: Neutralizer
Chlorine ppm: Free: ND Total: ND pH: 8.7
Collected By: J. Yeager 6176JY Well #: HO-95-2257

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	10/22/2015 / 0800 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	10/22/2015 / 0800 / CCH
Turbidity	0.48	NTU	<10	SM18 2130B	10/21/2015 / 1440 / CRS

NOTES

- 1 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 2 NTU = Nephelometric Turbidity Units
- 3 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 4 ND:None Detected
- 5 pH & Chlorine level tested on site
- 6 Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy

Building Permit # : 15000726

Date Reported: 10/22/2015

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. • Westminster, MD 21158 • MD State Certification #133

(410) 848-1014 • (410) 876-4554 • FAX (410) 848-0298

VOLATILE ORGANIC WATER ANALYSIS REPORT

LAB ID # 103827

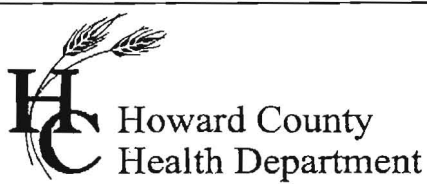
Location:	Estates at Clarksville Lot 7 11022 Blevins Drive Clarksville, MD 21029	Work Order # 66151 Client: Williamsburg Group LLC Requested by Bob Corbett Source: Well, HO-95-2257
Date & Time Collected:	10/21/15 1130	Site: Basement Bathroom
Collected by:	J. Yeager 6176JY	Treatment: Neutralizer

CONTAMINANT	EPA CONT ID	MCL (PPB)	ACTUAL LEVEL	CONTAMINANT	EPA CONT ID	ACTUAL LEVEL
REGULATED				UNREGULATED		
Benzene	2990	5	ND	Bromobenzene	2993	ND
Carbon Tetrachloride	2982	5	ND	Bromochloromethane	2430	ND
o-Dichlorobenzene	2968	600	ND	Bromomethane	2214	ND
p-Dichlorobenzene	2969	75	ND	n-Butylbenzene	2422	ND
1,2-Dichloroethane	2980	5	ND	Sec-butylbenzene	2428	ND
1, 1-Dichloroethene	2977	7	ND	Tert-butylbenzene	2426	ND
cis-1,2-Dichloroethene	2380	70	ND	Chloroethane	2216	ND
trans-1,2-Dichloroethene	2979	100	ND	o-Chlorotoluene	2965	ND
Dichloromethane	2964	5	ND	p-Chlorotoluene	2966	ND
1,2-Dichloropropane	2983	5	ND	m-Dichlorobenzene	2967	ND
Ethylbenzene	2992	700	ND	1,1 -Dichloroethane	2978	ND
Monochlorobenzene	2989	100	ND	1,3-Dichloropropane	2412	ND
Styrene	2996	100	ND	2,2-Dichloropropane	2416	ND
Tetrachloroethene (PCE)	2987	5	ND	1,1 -Dichloropropene	2410	ND
Toluene	2991	1000	ND	cis-1,3-Dichloropropene	2413	ND
1,2,4-Trichlorobenzene	2378	70	ND	trans-1,3-Dichloropropene	2413	ND
1,1,1-Trichloroethane	2981	200	ND	Dichlorodifluoromethane	2212	ND
1,1,2-Trichloroethane	2985	5	ND	Hexachlorobutadiene	2246	ND
Trichloroethene (TCE)	2984	5	ND	Isopropylbenzene	2994	ND
Vinyl Chloride	2976	2	ND	p-Isopropyltoluene	2030	ND
Xylenes (Total)	2955	10000	ND	MTBE	2251	ND
TRihalOMETHANES				Naphthalene	2248	ND
Bromodichloromethane	2943		ND	n-Propylbenzene	2998	ND
Bromoform	2942		ND	1,1,1,2-Tetrachloroethane	2986	ND
Chloroform	2941		ND	1,1 2,2-Tetrachloroethane	2988	ND
Dibromochloromethane	2944		ND	1,2,3-Trichlorobenzene	2420	ND
ADDITIONAL COMPOUNDS				Trichlorofluoromethane	2218	ND
TAME			ND	1 2,3-Trichloropropane	2414	ND
Chloromethane			ND	1,2,4-Trimethylbenzene	2418	ND
				1,3,5-Trimethylbenzene	2424	ND
				m, p-xylene	2995	ND
				o-xylene	2997	ND

NOTES:

- 1) MCL: Maximum Contaminant Level
- 2) Detection limit: 0.50 PPB
- 3) ND: None Detected
- 4) PPB: Parts Per Billion (micrograms per liter)
- 5) Sub-contracted to Lab #128, method EPA 524.2, Date Analyzed: 10/27/15, Tech: CPK

Date Reported: 10/29/15



Bureau of Environmental Health
7178 Gateway Drive Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Peter L. Beilenson, M.D., M.P.H., Health Officer

April 24, 2012

Williamsburg Homes
Attn. Bob Corbett
5485 Harpers Farm Road, Suite 200
Columbia, Maryland 21044

RE: Blevin's Property Lot 8 Lot 7
Hall Shop Road
Well Tag: HO - 95 - 2257

Dear Mr. Corbett:

A sample was collected during a yield test on March 14, 2012 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 4.6 ± 1.7 picocuries/liter (pCi/L), while the **Gross Beta** level was 5.7 ± 2.1 pCi/L. The **Gross Alpha** result was below its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its targeted 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 meets EPA regulatory standards. Additional testing for these parameters will **not** be necessary to help secure Use & Occupancy. However, 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,

Bert Nixon, Director
Bureau of Environmental Health

Enclosure
cc: Barry Glotfelty, MDE Water Mgmt.
Well & Septic property file

Send Report To:

Bert Nixon
Howard County Health Department
Bureau of Environmental Health
7178 Columbia Gateway Drive
Columbia, Maryland 21046

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Chemistry
RADIATION LABORATORY
201 W. Preston Street, Baltimore, Maryland 21201
John M. DeBoy, Dr. P. H., Director

E002327E1512

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: H0952257 No. B: - Field Blank Bottle No. 1: FBIKW31512 No B: -

Plant/Site Name: Blenis Pop - L+8 County: Howard

Sample Source: Hall Shop Rd. Location: 140-95-2257
(well no, lab sink, sample tap, etc.)

County: 1 3 Plant No.

CHECK (one per box)

Drinking Water <input checked="" type="checkbox"/>	Community <input type="checkbox"/>	Source (raw water) <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"/>

Collector: K. Wolf Telephone No.: 410 313 2645

Date Collected: 3/14/12 ^{cont} Time Collected: - a.m. 1:00 p.m.

Nitric Acid Preserved: Yes No Iced: Yes No

Submitters Code: Federal Project: Field Data: - pH - Chlorine

Remarks: Sample pH preserved to 12.0. Taken @ end of yield

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000	2327	4.6 ± 1.7	3/20/12	3/21/12
✓	Gross Beta	4100	2327	5.7 ± 2.1	"	"
	Radon-222 Bottle A	4004				
	Radon-222 Bottle B	4004				
	Field Blank #A	4004				
	Field Blank #B	4004				
	Tritium					
	Ra - 226	4020				
	Ra - 228	4030				
	Total Uranium	4006				

Date Received: 3/15/12

Supervisor: [Signature]

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