

C1 42330

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)

FILL IN THIS FORM COMPLETELY PLEASE TYPE

COUNTY NUMBER

ST/CO USE ONLY

DATE RECEIVED MM 10 DD 03 YY 14

DATE WELL COMPLETED

MM 9 DD 15 YY 14

DEPTH OF WELL

22 500 26 (TO NEAREST FOOT)

OK 10/5/16 SC

PERMIT NO. FROM "PERMIT TO DRILL WELL"

H0-15-0284

OWNER Morgan Anthony + Christine
WELL SITE ADDRESS 11506 Fox River DR. TOWN Ellicott City
SUBDIVISION Hopewood Crossing SECTION LOT 84

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 Mica, Grey schist, White, Grey schist, White, Grey schist.

GROUTING RECORD

WELL HAS BEEN GROUTED (Y) (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 44 ft.

CASING RECORD

ST (STEEL) CO (CONCRETE) PL (PLASTIC) OT (OTHER)
MAIN CASING TYPE ST Nominal diameter top (main) casing (nearest inch)! 08 Total depth of main casing (nearest foot) 46

OTHER CASING (if used)

Table with columns: diameter inch, depth (feet) from, to

SCREEN RECORD

ST (STEEL) BR (BRASS) HO (OPEN HOLE) PL (PLASTIC) OT (OTHER)

C2 DEPTH (nearest ft.)

HO 46 500
A C H S R E N
1 8 9 11 15 17 21
2 23 24 26 30 32 36
3 38 39 41 45 47 51
SLOT SIZE 1 2 3
DIAMETER OF SCREEN (NEAREST INCH) 56 60

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 TELESCOPE CASING LOG INDICATOR OTHER DATA

C3

PUMPING TEST

HOURS PUMPED (nearest hour) 3
PUMPING RATE (gal. per min.) 3
METHOD USED TO MEASURE PUMPING RATE 1 gal
WATER LEVEL (distance from land surface) BEFORE PUMPING 29 ft. WHEN PUMPING 105 ft.
TYPE OF PUMP USED (for test) S (submersible)

PUMP INSTALLED

DRILLER INSTALLED PUMP (YES) (NO)
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. 29
CAPACITY: GALLONS PER MINUTE (to nearest gallon) 10
PUMP HORSE POWER 1.5
PUMP COLUMN LENGTH (nearest ft.) 480
CASING HEIGHT (circle appropriate box and enter casing height) + above LAND SURFACE - below 02 (nearest foot)

LATITUDE 39.2345123 LONGITUDE 76.9094222 (DEFAULT COORD. WGS 84)

Pursuant to §10-624 of the State Govt. Article of the Maryland Code personal info. requested on this form is used in processing this form pursuant to COMAR 26.04.04.

DRILLERS LIC. NO. 1 M SD 0009
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)
LIC. NO. 1 D

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

B 1 29471

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type

STATE PERMIT NUMBER

HO -15 -0284 fill in this form completely

Date Received (APA)

06 28 16

OWNER INFORMATION

Morgan Anthony & Christine 11506 Fox River Dr. Ellicott City, Md 21043

B 3 LOCATION OF WELL

Howard COUNTY 21 Homewood Crossing SUBDIVISION 42 SECTION 44 46 LOT 84 48 50 Clarksville NEAREST TOWN 71

DRILLER INFORMATION

Allen Compton MS D 009 Driller's Name License No. Fogles Well Drilling, LLC Firm Name P.O. Box 202 Woodbine, Md 21797 Address Signature Date 6-28-16

B 4 SOURCES OF DRILLING WATER

11506 Fox River Dr. STREET ADDRESS 30 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH WEST SOUTH EAST DISTANCE FROM ROAD 30 FT ENTER FT OR MI TAX MAP: 0029 BLK 0009 PARCEL 0028

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 NAME 13 COUNTY NO. STATE SIGNATURE DATE ISSUED 07/26/2016 CO SIGNATURE EXP. DATE 7/26/17

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

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 8 INCH NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) AIR-ROTARY JETTED AIR-PERCussion ROTARY (Hydraulic Rotary) CABLE REVERSE-ROTARY DRIVE-POINT

REPLACEMENT OR DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

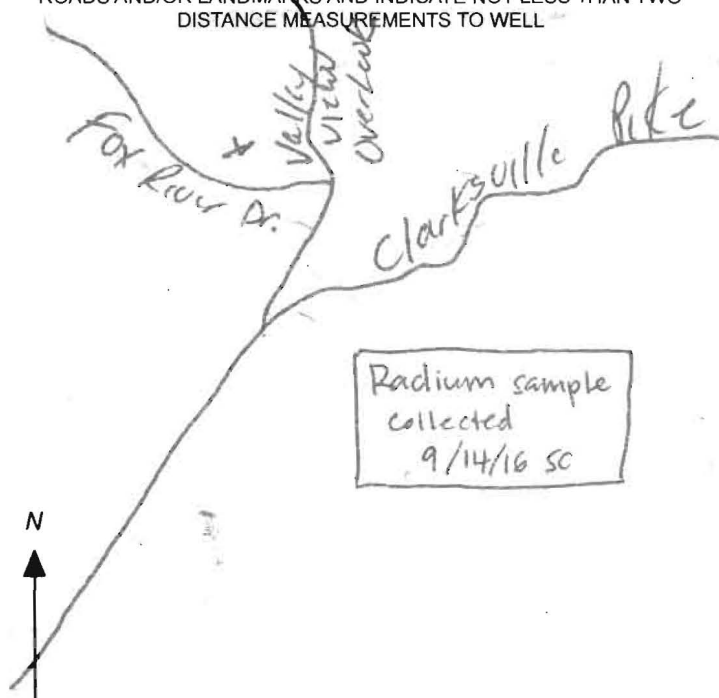
- THIS WELL WILL NOT REPLACE AN EXISTING WELL THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS THIS WELL WILL DEEPEIN AN EXISTING WELL

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

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

APPROX. PERMIT NUMBER G PERMIT No. HO -15 -0284

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

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

Radium sample required @ 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: Fogle's 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 C. 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: Anthony Morgan Telephone #: 301-7-208-7006  
 Subdivision: Homewood Crossing Lot #: 84 Well Tag #: HO-15-0784  
 Site Address: 11506 Fox River Dr  
Ellicott City, MD 21043

Submersible Pump Data

Make: Grundfos  
 Model #: 1050E15-330  
 Pump Capacity 10 GPM  
 Well Yield: 5 GPM

Pitless Adapter

Make: Campbell  
 Model #: N/A  
 Depth: 36" (36" min)  
 NSF/WSC approved: YES

Well Cap and Electric Conduit

Two piece watertight cap: YES  
 Screened, vented well cap: YES  
 Cap secured to casing: YES  
 Conduit min 1 1/2" B.G.: YES  
 Conduit secured to well cap: YES

Depth of well encountered at time of pump installation: 500 (feet)

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Torque arrestors, Cable guards, or other acceptable method used— Must circle one

Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing 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

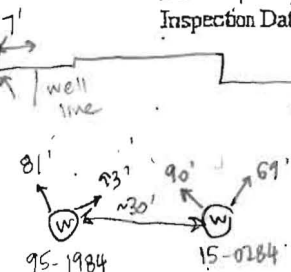
The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

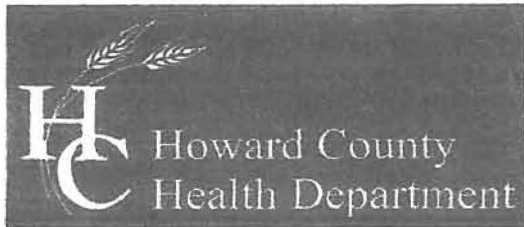
Signature of company representative responsible for installation: Dave Fogle date: 9/27/16

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

Date Insp. Requested: 9/27/16 Date Insp. Approved: 9/27/16 Inspector: SC  
 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 1 1/2" below grade/attached to cap properly ✓  
 Safety rope not outside of well cap/casing ✓  
 Correct well tag attached properly and casing 8" above finished grade ✓  
 Water supply line sleeved adequately at house connection ✓  
 Adequate grout observed below pitless adapter ✓

8" steel casing





Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

Main: 410-313-2640 | Fax: 410-313-2648

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

www.hchealth.org

Facebook: www.facebook.com/hocohealth

Twitter: HowardCoHealthDep

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

TO ALL INTERESTED PARTIES

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

Well Site Location:

Homewood Crossing Subdivision/Property Name, 84 Lot #, 11506 Fox River Dr. Road Name

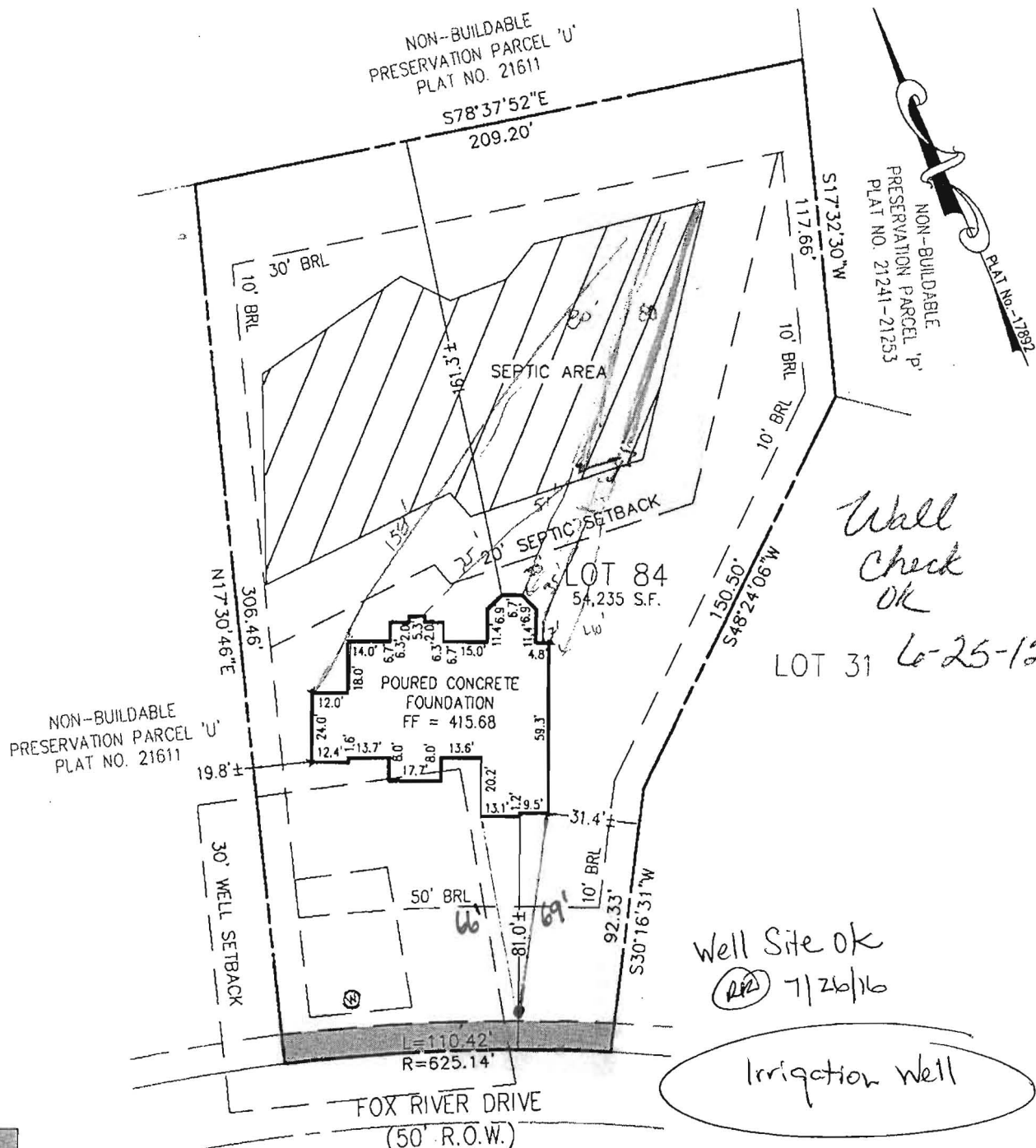
The well site has been staked by (professional land surveyor or company employing professional land surveyors) on (date) and does not require a site inspection.

The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location.

Inspector met driller on 7/26/16 to stake site

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

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/8/13.



NON-BUILDABLE PRESERVATION PARCEL 'U' PLAT NO. 21611

NON-BUILDABLE PRESERVATION PARCEL 'U' PLAT NO. 21611

NON-BUILDABLE PRESERVATION PARCEL 'P' PLAT NO. 21241-21253

Wall Check OK

LOT 31 6-25-12

Well Site OK (RP) 7/26/16

Irrigation Well



= EX. PUBLIC TREE MAINTENANCE EASEMENT

BUILDING SETBACKS (B.R.L.'s) SHOWN HEREON PER SITE DEVELOPMENT PLAN SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.

1"-50'

ADDRESS: 11506 FOX RIVER DRIVE ELLICOTT CITY, MD 21043

SURVEYOR'S NOTE

THIS WALLCHECK WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT. THIS PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS, RIGHT-OF-WAYS, COVENANTS, AND RESTRICTIONS, ETC. OF RECORD, SOME OR ALL OF WHICH MAY OR MAY NOT BE SHOWN AND/OR REFERENCED HEREON. BEARINGS AND DISTANCES OF THE PROPERTY BOUNDARY LINES SHOWN HEREON ARE PER AVAILABLE RECORDS AND HAVE NOT BEEN FIELD VERIFIED. THIS IS NOT A "LOCATION DRAWING" AND IS NOT TO BE USED FOR SETTLEMENT PURPOSES.

*Michael J. Fox* 21328 6/5/12

WALL CHECK LOT #84  
**HOMWOOD CROSSING**

D.B. 9808, PG. 204  
 PLAT No. 17892  
 THIRD ELECTION DISTRICT  
 HOWARD COUNTY

11-84.dwg GCOUGHEN





Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

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

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Maura Rossman, M.D., Health Officer

October 19, 2016

Mr. and Mrs. Anthony Morgan  
11506 Fox River Drive  
Ellicott City, Maryland 21043

RE: Homewood Crossing Lot 84  
11506 Fox River Drive  
Well Tag: HO - 15 - 0284

Dear Mr. and Mrs. Morgan:

A sample was collected during a yield test on September 14, 2016 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  $3.7 \pm 1.2$  picocuries/liter (pCi/L), while the **Gross Beta** level was  $13.2 \pm 2.3$  pCi/L. The **Gross Alpha** result was below its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its targeted 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 is within EPA regulatory standards. Additional testing **for these parameters** will not be required to secure the future Use & Occupancy. **Please note** that other standard testing parameters (bacteria, nitrate, turbidity and sand) will still be 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 black ink that reads 'Bert Nixon'.

Bert Nixon, Director

Bureau of Environmental Health

Enclosure

✓ cc: Property file

SEND REPORT TO: Bert Nixon  
 Howard Co. Health Dept.  
 Bureau of Environmental Health  
 8930 Stanford Blvd.  
 Columbia, MD 21045

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

05-593261  
 Lab No. \_\_\_\_\_  
 5000567 5159

LABORATORY ANALYSIS REQUEST FORM

Plant/Site Name: Homewood Crossing - Lot 84 County: Howard PH 3 PART 2  
 Sample Source: 11506 Fox River Dr. ELLICOTT CITY MD 21043 Location: 110-15-0284  
 (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: S. Collins Telephone No.: 410-313-6287  
 Date Collected: 9/14/16 Time Collected: \_\_\_\_\_ a.m. 3 p.m.  
 Field pH: \_\_\_\_\_ Field Chlorine: \_\_\_\_\_  
 Nitric Acid Preserved: Yes  No  Iced: Yes  No

Remarks: Sample collected during yield test

| TEST  | EPA Code | Lab No. | Method No. | Results (pCi/L) | Date Analyzed | Analyst | Date Reported |
|---|----------|---------|------------|-----------------|---------------|---------|---------------|
| <input checked="" type="checkbox"/> Gross Alpha | 4000     | 0567    | EPA900.0   | 3.7±1.6         | 9/16/16       | IT      | 9/20/16       |
| <input checked="" type="checkbox"/> Gross Beta  | 4100     | 0567    | EPA9100.0  | 13.2±2.3        | 9/16/16       | IT      | 9/20/16       |
| <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: 9/16/16 Received By: J. J. J.  
 Data Release Signature: \_\_\_\_\_ Date: 9-21-2016

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

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

SEND REPORT TO: Bert Nixon  
 Howard Co. Health Dept.  
 Bureau of Environmental Health  
 2930 Stanford Blvd.  
 Columbia, MD 21045

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

Lab No.  
 E000566-152

**LABORATORY ANALYSIS REQUEST FORM**

Plant/Site Name: Field Blank County: Howard

Sample Source: dH<sub>2</sub>O Location: HCHD Lab

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

Radon-222 Bottle A \_\_\_\_\_ 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: S. Collins Telephone No.: 410-313-6287

Date Collected: 9/14/16 Time Collected: \_\_\_\_\_ a.m. 12:30 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 |
|--------------------------|----------------------|----------|---------|------------|-----------------|---------------|---------|---------------|
| ✓                        | Gross Alpha          | 4000     | 0566    | EPA900.0   | <2.0            | 9/16/16       | JJ      | 9/20/16       |
| ✓                        | Gross Beta           | 4100     | 0566    | EPA900.0   | 4.5 ± 1.7       | 9/16/16       | JJ      | 9/20/16       |
| <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: 09/15/16 Received By: \_\_\_\_\_

Data Release Signature: \_\_\_\_\_ Date: 9-21-2016

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

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



**Bureau of Environmental Health**

8930 Stanford Boulevard, Columbia, MD 21045

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

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

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

October 19, 2016

**Bassler Venture  
Attn. Tim Feaga  
15950 North Avenue, P.O. Box 482  
Lisbon, Maryland 21765**

**RE: Walnut Creek Lot 110  
Replacement Well  
4979 Wild Olive Court  
Well Tag: HO - 15 - 0301**

Dear Mr. Feaga:

A sample was collected during a yield test on September 27, 2016 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  $2.7 \pm 1.2$  picocuries/liter (pCi/L), while the **Gross Beta** level was  $5.2 \pm 1.8$  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 required to secure the future Use & Occupancy. **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. Health Dept.  
 Bureau of Environmental Health  
 8930 Stanford Blvd.  
 Columbia, MD 21045

State of Maryland  
 DHMH - Laboratories Administration  
 Division of Environmental Chemistry  
**RADIATION LABORATORY**  
 1770 Ashland Avenue  
 Baltimore, Maryland 21205  
**LABORATORY ANALYSIS REQUEST FORM**

05-597919  
 Lab No. E000671 8-20-16  
 WALNUT CREEK  
 PHASE 3

Plant/Site Name: Walnut Creek - Lot 110 County: Howard

Sample Source: 4979 Wild Olive Ct Location: 110-15-0301

(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 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: S. Collins Telephone No.: 410-313-6287

Date Collected: 9/27/16 Time Collected: 11 a.m. \_\_\_\_\_ p.m.

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

Nitric Acid Preserved: Yes  No  Iced: Yes  No

Remarks: Sample collected during yield test (REPLACEMENT WELL)

| TEST  | EPA Code | Lab No. | Method No. | Results (pCi/L) | Date Analyzed | Analyst | Date Reported |
|---|----------|---------|------------|-----------------|---------------|---------|---------------|
| <input checked="" type="checkbox"/> Gross Alpha | 4000     | 0671    | EPA900.0   | 2.7±1.2         | 9/29/16       | IJ      | 10/3/16       |
| <input checked="" type="checkbox"/> Gross Beta  | 4100     | 0671    | EPA900.0   | 5.2±1.8         | 9/29/16       | IJ      | 10/3/16       |
| <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: 09/28/16 Received By: Jn Ji

Data Release Signature: \_\_\_\_\_ Date: 10/3/16

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

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

SEND REPORT TO: Bert Nixon  
 Howard Co. Health Dept.  
 Bureau of Environmental Health  
 8930 Stanford Blvd.  
 Columbia, MD 21045

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

Lab No. E000670 820

**LABORATORY ANALYSIS REQUEST FORM**

Plant/Site Name: Field Blank County: Howard

Sample Source: d11,0 Location: HCHD 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 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 checked="" type="checkbox"/> |
| Recheck   | <input type="checkbox"/>            |
| Special   | <input type="checkbox"/>            |

Submitters Code: \_\_\_\_\_ Federal Project: 5

Collector: S. Collins Telephone No.: 410-313-6287

Date Collected: 9/27/16 Time Collected: \_\_\_\_\_ a.m. 3:45 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     | 0670    | EPA900.0   | <2.0            | 09/29/16      | JT      | 10/3/16       |
| <input checked="" type="checkbox"/> | Gross Beta           | 4100     | 0670    | EPA900.0   | 5.5 ± 1.6       | 09/29/16      | JJ      | 10/3/16       |
| <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: 09/28/16 Received By: JT JJ

Data Release Signature: \_\_\_\_\_ Date: 10-3-16

| 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"/> |    |     |

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