

EMERGENCY/TEMP NO. IF ANY STATE PERMIT NUMBER SEQUENCE NO. STATE OF MARYLAND (MDE USE ONLY) HO APPLICATION FOR PERMIT TO DRILL WELL -14 -0040 please type fill in this form completely LOCATION OF WELL Date Received (APiA) B 3 OWNER INFORMATION 13 COUNT 8 er enture LCC WALnut 15 Last Name First Name SUBDIVISION 23 42 0 0 36 Street or RFD 55 SECTION L 46 11 mp 21265 LAYKSU State 70 72 Town NEAREST TOWN 71 DRILLER INFORMATION MSD B 4 License No. SOURCES OF DRILLING WATER WILD OLIVE CH E The IL STREET ADDRESS 30 NORTH 10 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) Address WZE Signature Date 34 150 37 B 2 WELL INFORMATION DISTANCE FROM ROAD APPROX. PUMPING RATE 2 ENTER FT OR MI 38 39 (GAL. PER MIN.) 12 TAX MAP: 28 BLK: 11 PARCEL AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20 NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL USE FOR WATER (CIRCLE APPROPRIATE BOX) D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION A520385 Howan FARMING (LIVESTOCK WATERING & AGRICULTURAL A520448 F IRRIGATION) COUNTY NAME COUNTY NO. STATE INDUSTRIAL, COMMERCIAL, DEWATERING 1 22 INSERT S P PUBLIC WATER SUPPLY WELL 41 DATE ISSUED TEST, OBSERVATION, MONITORING 15 T 0 06/11/201 EXP. DATE **OPEN LOOP GEOTHERMAL** 43 MM CO SIGNATURE 0 DD 48 CLOSED LOOP GEOTHERMAL C PROPOSED LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURES SUCH AS BUILDINGS, SEPTIC SYSTEM, APPROXIMATE DEPTH OF WELL | FEET 28 ROADS AND/OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCE MEASUREMENTS TO WELL NEAREST GF APPROXIMATE DIAMETER OF WELL INCH METHOD OF DRILLING (circle one) Jetted & DRIVEN BORED (or Augered) JETTED AIR-ROTar **AIR-PERcussion ROTARY (Hydraulic Rotary)** ATALPA CH CABLE **REVerse-ROTary DRive-POINT** other REPLACEMENT OR DEEPENED WELLS Hann Kann (CIRCLE APPROPRIATE BOX) N THIS WELL WILL NOT REPLACE AN EXISTING WELL THIS WELL WILL REPLACE A WELL THAT WILL BE Y ABANDONED AND SEALED THIS WELL WILL REPLACE A WELL THAT WILL BE USED S 39 AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY WILD OLIVE FOR POLICY ON STANDBY WELLS D THIS WELL WILL DEEPEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPENED ٨ (IF AVAILABLE) 41 Not to be filled in by driller (MDE OR COUNTY USE ONLY) uell 006 GQ APPROP. PERMIT NUMBER PERMIT No SPECIAL CONDITIONS all wells must be at 1 goar + east 100 . ee APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED= NOTE

@ COUNTY

Page of Date OGF 10 20	014	• • •	Review	
		FIELD DATA SHE HOWARD COUNTY WELL Y		
Denth of	Lang Creek A Lang Creek A Supp Mayne	ILA OLIVE 4, HASE TIL Lot Owner	109 Block Plac BASSLER Venture c	Sec
Distance	of measuring poi	int (M.P.) above gro L.) below M.P. 33	und 2 <sup>fr</sup>	
Time pump Total time		O. reach pumping water	Pumping rate 156PL level 32 ft. b recorded every 15 minut	
TIME (in 15 minute in- tervals	WATER LEVEL below M.P.	PUMPING RATE time to fill T gallon bucket	FLOW METER READING (if used)	CALCULATED FLOW (gallons per minute)
8:00	33 A.	4 Se		15 6Pm
			TEST STARtey	
8:15	37 Ft	4 Ser		15 6Pm
81.30	37 H	4 Sec		15 Grm
8145	37 4	4 SPC		15 GPM
9:00	37. 11	4 4		15 1
9:15	37 11	4 10		15 ''
5:30	37 "	Y 11		15 1
5:45	37 H	4 Sec		15 GAM
10:00	37 A	4 Sa		15 Fipm
10:15	37 4	4 Sec		15 (ipm 15 (ipm 15 (ipm 15 (i
10:30	3.7 11	4 4		15 11
10:45	37 1	4 11		15 0
10:30 10:45 11:00	37 A	4 Sec		15 6Pm
11:15	37 4	4 Sac	-	15 GPm

HD-224

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MARYLAND DEPARTMENT OF THE ENVIRONMENT; W			TRATION	
* 1800 Washington Blvd., Baltimore, Maryl	and 21230	(410) 537-3784	*****	
WATER WELL ABANDONMENT	-SEALIN	G REPORT FORM	*****	****
UBMIT COPIES OF COMPLETED FORM TO: COUNTY EVIRONMENTAL AGENCY (contact MDE, WMA if address	s needed)		14	
WELL OWNER		(	Doules M	
MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGR	RAM	C	Peri	
ATE WELL ABANDONED: OCF 10 2019 (mor	nth/day/ye	ear)		
PERMIT NUMBER OF ABANDONED WELL (if any)		140 - 1	4 _ 0	0040
PERMIT NUMBER OF REPLACEMENT WELL:		140 - 1	4 -00	OY O
PERSON ABANDONING WELL: RALph E. MAYNE WE	ELL DRII	LER'S LICENSE NUI	MBER:	
OWNER'S NAME: 34 SSLER DEUTURE LCC		CIRCLE: M	IWD / MSD / I	MGD
WELL LOCATION; COUNTY: How and		SITE LOCA	ATION MAP	
NEAREST TOWN: CLARKSUILLE				
TAX MAP 28 BLOCK // PARCEL 45 SUBDIVISION: WALKS CREEK (AASE 3		9		
SECTION: LOT: 109		V4		2
STREET ADDRESS		436	ANI	
LATITUDE 3 $9 \cdot 2 \cdot 3 \cdot 2 \cdot 2 \cdot 2$		WILDOLIVECH	And franze	way
LONGITUDE 7 6. 9 5 2 5 6		WILDOLIU		
	XAE	1150		
	1	8		
	12			
TYPE OF WELL BEING ABANDONED:	111-			
DRILLED JETTED BORED HAND DUG		LOG OF SE.	ALING MATH	ERIAL
OTHER (specify)			FI	EET
		MATERIAL	FROM	то
USE CODE: DOMESTICMUNICIPAL/PUBLIC	1	1011 Cash inc	100	20
TEST/OBSERVATION INDUSTRIAL GEOTHERMAL	u	eu Cuttings Eurat.		
	C	enat.	20	2
TYPE OF CASING:	1	Tup Soil	2	0
STEELPLASTIC CONCRETE OTHER (specify)				
NO CASIM				
ZE OF CASING: $\frac{k}{4}$ INCHES IN DIAMETER				
EPTH OF WELL: 100 FEET DEEP				
AS ANY CASING REMOVED? YES VNO		VOLUME O	F MATERIAI	USED
If yes, length removed, in feet:		7 BAYS CPM	cuti	
AS CASING RIPPED OR PERFORATED?YESNO	10	0-00/1		
	L			

COUNTY

IHS'

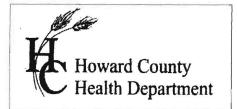
K 130' 90' € Wed Mar 9 04:30:26 2011

#### 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 Orgunary approval.

Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.
Company Name: T(1 County lung JeNil Tac Telephone #: 30-831-8331
Address: 611 Old Norking 100
Bansbary Ma 21713
- Countra un
(Must circle one) (Licensed Plumber Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation:
Name (Print): William F. Griffet License# 20135
*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: Crafmark Homes Telephone # 703-932-0573
Subdivision: Using Creek Lot #: 109 Well Tag #: HO - 19 - 0090
Flucetche Ma
Submersible Pump Data Pitless Adapter Well Cap and Electric Conduit
Make: Stra (U) Make: AmenienGrandy Two piece watertight cap: ye)
Model #: S7P4HS0522) Model#: T840 Screened, vented well cap: 40
Pump Capacity GPM Depth:(36" min) Cap secured to casing:
Well Yield: GPM NSF/WSC approved: <u>V()</u> Conduit min 18" B.G.: <u>V()</u>
Depth of well encountered at time of pump installation: 115 (feet) Conduit secured to well cap: 49
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 House Connection
Type: Koly PVC sleeve to undisturbed soil at wall penetration: V-5
PSI: 116 (160 psi min) Length of sleeve(5' minimum from foundation): 1.5
Depth of supply line: (36" min) Sleeve sealed properly:
The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping,
distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for
approval prior to installation. Will E DIL 911-2015
Signature of company representative responsible for installation date
or Paring of some may represent to report the manual of any
For Health Department Use Only - Not to be completed by Installer
Date Insp. Requested: 9/24/15 Date Insp. Approved: 9/29/16 Inspector: 50
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 driverway
- Andreie Broth opact for one hundry multich
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 7178 Columbia Gateway Dr., 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. Bielenson, M.D., M.P.H., Health Officer

## TO ALL INTERESTED PARTIES

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

Well Site Location:

Walnut Creek Phase 3109Subdivision/Property NameLot #Road Name

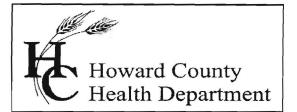
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The well site has been staked byFisher, Collins and Carter, Inc.(professional land surveyor or company employing professional land surveyors)on09/18/14 (date)and does not require a site inspection.

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 3/11/07



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

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

#### **INTERIM CERTIFICATE OF POTABILITY** Expiration Date – JUNE 18, 2016

December 18, 2015

Homeowner 4983 Wild Olive Court Ellicott City, MD 21042

RE: Walnut Creek, Lot 109 4983 Wild Olive Court Building Permit: B15002173 Well Permit: HO-14-0040

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 12/18/2015. Final approval of the well line connection to the dwelling was granted on 9/29/2015. The well construction was completed on 10/10/2014. Water samples were collected on 12/8/2015.

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 10/17/2014. Results showed a Gross Alpha level of  $2.0 \pm 0.0 \text{ pCi/L}$  and Gross Beta level of  $5.9 \pm 1.8 \text{ pCi/L}$ . The Gross Alpha was below the maximum contaminant level (MCL) of 15 pCi/L and the Gross Beta was below the target level of 50pCi/L (roughly equivalent to the annual dose rate of 4 millirems per year). At the time of testing and with respect to these parameters, the well water is safe for all uses.

This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit HO-14-0040. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

This Interim Certificate of Potability will expire six months from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will be issued. Failure to submit an additional sample and obtain a Final Certificate of Potability will result in a Notice of Violation and is punishable as a misdemeanor under the Annotated Code of Maryland, Environment Article, 9-1311, subject to a fine of up to \$500 or imprisonment not to exceed three months. Please contact (410) 313-1773 to schedule a final water sample appointment or contact a certified water quality laboratory to schedule a water sample. A list of laboratories certified by the state of Maryland may be found at the following website: http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf

Approving Authority,

the a Walt

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

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



Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045 Main: 410-313-2640 | Fax: 410-313-2648 TDD 410-313-2323 | Toll Free 1-866-313-6300 www.hchealth.org Facebook: www.facebook.com/hocohealth

Maura Rossman, M.D., Health Officer

December 5, 2014

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

> RE: Walnut Creek Lot 109 Wild Olive Court Well Tag: HO - 14 - 0040

Dear Mr. Feaga:

A sample was collected during a yield test on October 17, 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  $< 2.0 \pm 0.0$  picocuries/liter (pCi/L), while the Gross Beta level was  $5.9 \pm 1.8$  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 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

Bert Nixon, Director Bureau of Environmental Health

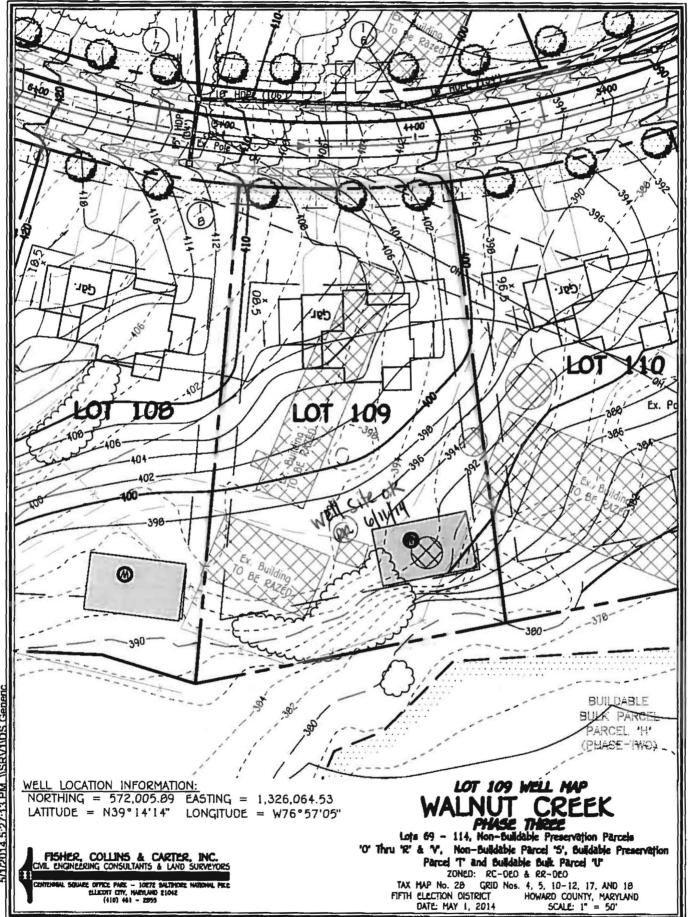
Enclosure cc: Property file

SEND REPORT TO: Howard County Health L Bureau of Environmenta 8930 Stanford Blvd. Columbia, Maryland 210	l Health	ent 201 v	NT OF HEALTH AN Laboratories Admi W. Preston St., Baltin Robert A. Myers, Ph.	nistration nore, MD 21201 <i>D., Director</i>			
Plant/Site Name: Walnut			1	A Coun	ty: <u>HC</u>	oward	
Sample Source:	Nild (	Olive C+"	(HCOOHO	) Locat		H - 00L ell no., lab sink, sam	to
Radon-222 Bottle A Bottle B			Radon-2	222 Field Blank	Bottle	A B	
County			Plant N	0.			5
CHECK (one per Box)							
Type       Drinking Water     >d       Landfill     □       Stream     □       Other     □				Point of Collection ee (Raw) ibution (treated)	₩ □	Testing Emergency Routine Recheck Special	
Submitters Code:	_	]	E	ederal Project:	5		
Collector: R Re	opa	pait	2	elephone No.:	410	213-1	181
Date Collected:	1.71	H L		ime Collected:	10	a.m.	p.m.
Field pH:	1.4			ield Chlorine:			f
Nitric Acid Preserved:	Yes	No		ed: Yes	No	6	
Remarks: <u>Sav</u>	1	taken	during		d test	$\sim$	
TEST	EPA	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date
N C ALL	Code	25			L'acci I Baller y L'C'A	ALL CAL YOU	
Gross Alpha	4000	12831	EPA 900.0	<2.0			Reported
Gross Beta	4000 4100	083	EPA 900.0	<2.0 5,9±1.8	10/22/14	M 5	
Gross Beta     Radium-226	4100 4020		EPA 900.0				Reported
Gross Beta C Radium-226 Radium-228	4100 4020 4030		EPA 900.0				Reported
Gross Beta         Radium-226         Radium-228         Total Uranium	4100 4020 4030 4006		EPA 900.0				Reported
Gross Beta         Radium-226         Radium-228         Total Uranium         Radon-222 (Bottle A)	4100 4020 4030 4006 4004		EPA 900.0				Reported
Gross Beta         Radium-226         Radium-228         Total Uranium         Radon-222 (Bottle A)	4100 4020 4030 4006		EPA 900.0				Reported
Gross Beta         Radium-226         Radium-228         Total Uranium         Radon-222 (Bottle A)         Radon-222 (Bottle B)         Radon Field Blank A         Radon Field Blank B	4100 4020 4030 4006 4004 4004		EPA 900.0				Reported
Cross Beta         Radium-226         Radium-228         Total Uranium         Radon-222 (Bottle A)         Radon-222 (Bottle B)         Radon Field Blank A	4100 4020 4030 4006 4004 4004 4004		EPA 900.0				Reported
Gross Beta         Radium-226         Radium-228         Total Uranium         Radon-222 (Bottle A)         Radon-222 (Bottle B)         Radon Field Blank A         Radon Field Blank B	4100 4020 4030 4006 4004 4004 4004		EPA 900.0				Reported
Image: Construct of the system       Gross Beta         Image: Construct of the system       Radium-226         Image: Construct of the system       Total Uranium         Image: Construct of the system       Total Uranium         Image: Construct of the system       Radon-222 (Bottle A)         Image: Construct of the system       Radon-222 (Bottle B)         Image: Construct of the system       Radon Field Blank A         Image: Construct of the system       Tritium	4100 4020 4030 4006 4004 4004 4004		EPA 900.0				Reported
Cross Beta         Radium-226         Radium-228         Total Uranium         Radon-222 (Bottle A)         Radon-222 (Bottle B)         Radon Field Blank A         Radon Field Blank B         Tritium         Date Received:	4100 4020 4030 4006 4004 4004 4004 4004		Received By:		dy Sult		Reported
Gross Beta  Radium-226  Radium-228  Total Uranium  Radon-222 (Bottle A)  Radon-222 (Bottle B)  Radon Field Blank A  Radon Field Blank B  Tritium	4100 4020 4030 4006 4004 4004 4004 4004			5,9±1.8	10/22/14		Reported
Gross Beta         Radium-226         Radium-228         Total Uranium         Radon-222 (Bottle A)         Radon-222 (Bottle B)         Radon Field Blank A         Radon Field Blank B         Tritium         Date Received:         Data Release Signature:	4100 4020 4030 4006 4004 4004 4004 4004	eland		5,9±1.8 Melo v - Jur	dy Sult		Reported
Gross Beta         Radium-226         Radium-228         Total Uranium         Radon-222 (Bottle A)         Radon-222 (Bottle B)         Radon Field Blank A         Radon Field Blank B         Tritium         Date Received:         Data Release Signature:         Lab         Sample Intact upon arrival?	4100 4020 4030 4006 4004 4004 4004 4004	eland	Received By:	5,9±1.8 Melo v - Jur	dy Sulf Date:		Reported
Gross Beta         Radium-226         Radium-228         Total Uranium         Radon-222 (Bottle A)         Radon-222 (Bottle B)         Radon Field Blank A         Radon Field Blank B         Tritium         Date Received:         Data Release Signature:	4100 4020 4030 4006 4004 4004 4004 4004	eland	Received By:	5,9±1.8 Melo v - Jur	dy Sulf Date:		Reported

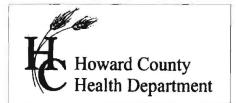
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CUSTOMER COPY II

5 B



12004/04001/dwg/PHASE THREE FINALS/04001 Phase Three WELL MAPS Lots 87-89, Lots 95-97, Lots 101-104 & Lots 107-114.dwg. 5/1/2014 5-27-13 PM ///SRV1/DS Generic



 7178 Columbia Gateway Dr., 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. Bielenson, M.D., M.P.H., Health Officer

## TO ALL INTERESTED PARTIES

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

Well Site Location:

Walnut Creek Phase 3109Wild Olive Ct.Subdivision/Property NameLot #Road Name

Х

The well site has been staked byFisher, Collins and Carter, Inc.(professional land surveyor or company employing professional land surveyors)on05/07/14 (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 3/11/07** 



KO20 Ventrie Court ● P.O. BOX 245 ■ Myeraville, MO 21773 ● 800-832-3340 ● FAX 301-293-2366 www.fredericktownelaba.com ● info@fredericktownelaba.com

## **Certificate of Analysis**

### Acct. No. 3948 - 1427-1 Fleid Record

Site visit performed on: Tuesday, December 08, 2015 1:00 PM
by: Kevin Kretzer State ID No. 1511KK
Affiliation: Tri-County Pump Service
Property Owner: Craftmark Homes
Property Address: 4983 Wild Olive Court
Lot 109
Ellicott City, MD 21042
Sample Source: Kitchen Sink-
Treatment Devices Noted: 4x10 D+S Filter
Sample taken after treatment: Yes
Well No.: HO-14-0040
Field pH: 5.7
Total Free Res. Cl.: <0.1 mg/l

### Laboratory Report

Sample Received at lat	oratory: 12/8/2015	4:18 PM			
Bacteriological resu	<u>ilts:</u>	-Start -	End -		
Total Colif. (/100ml)	E.coli (/100ml)	Date Time	Date Time	Method	Analyst
<1	- <1	12/08/15-16:50	12/09/15-12:31	9223B	JD

Bacteriological analysis of this sample indicates the water is safe for human consumption and meets federal, state and local requirements. Analysis was performed according to the 20th edition of Standard Methods

#### Inorganic Chemical results:

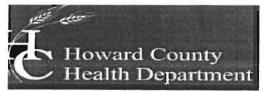
Parameter	Result Units	MCL	Date of Analysis	Method	<u>Analyst</u>
Nitrate-Nitrogen	3.5 mg/L/	10	12/9/2015	300.0	PH
Sand	<2 mg/l 🗸	5	12/9/2015	0.065mmFilter	JD
Turbidity	0.2 NTU'	10	12/9/2015	160.1	KB

the Mellor 12/11 Reported by:

Fredericktowne Labs, Inc. is a State Certified Water Quality Laboratory Maryland Cert. No. 116 Virginia Cert. No. 06444 MDOT WBE Cert. No.: 91-158

12/16/2015 4:57:39 PM

Page t of t FM



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 27, 2014

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

> RE: Walnut Creek Lot 109 Wild Olive Court Well Tag: HO - 14 – 0040

Dear Mr. Feaga:

A sample was collected during a yield test on July 1, 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  $24.4 \pm 3.2$  picocuries/liter (pCi/L), while the Gross Beta level was  $6.9 \pm 2.1$  pCi/L. The Gross Alpha result was above its maximum contaminant level (MCL) of 15 pCi/L, while the Gross Beta level was below its targeted value of 50 pCi/L (roughly equivalent to the annual dose rate of 4 millirems/year).

At the time of testing and with respect to these parameters, the future well water supply **does not meet** EPA regulatory standards. Given elevated reading for **Gross Alpha**, additional testing **for these parameters** will be required to secure the future Use & Occupancy. The installation of a water softener system and / or a reverse osmosis system may be necessary. If treatment is installed, **pre and post short and long term Gross Alpha and Beta, plus a post Radium 226 / 228** will be needed to properly evaluate the effectiveness of the installed treatment(s). Alternatively, you may collect raw water samples for **short and long term Gross Alpha and Beta, plus Radium 226 / 228** to see if all values are below existing standards. Given that it typically takes up to one month to perform and receive back the **Radium** analyses, plan accordingly. **Please note** that other standard testing parameters (bacteria, nitrate, turbidity and sand) will still be required to help secure Use & Occupancy.

A copy of the test results is enclosed for your information. Please call this office at **410-313-1773** if you have any further questions.

Sincerely

Bert Nixon, Director Bureau of Environmental Health

Enclosure cc: Property file

30	Javid Co. En Javid Co. En 30 Stan (or Jumbia, MD	1 B/	2111 201	CNT OF HEALTH A Laboratories Adm W. Preston St., Balti Robert A. Myers, Ph	inistration imore, MD 21201	Lab N	₀. 0047	≓-3≛
	,	2	RAD	ATION ANALY	SIS REQUEST F	ORM		
	nt/Site Name: 1/2/1	sut	Crec.	k-Lot Court		13	ward	- Ho
	lon-222 Bottle A _ Bottle B _	Lot	109			(W	A Radie B	
Cou	inty 13			Plant N	lo.			
	ECK (one per Box)		and the second					
Drin Lan Stre Othe	am 🗖	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	The Car - Cons. Pasto		Point of Collection ce (Raw) ! ibution (treated)	400	<u>Testin</u> Emergency Routine Recheck Special	0 2 18
	e Collected: d pH:		<u>⇒ 7//</u> ,	HILL THE ALL NOT	ime Collected:	11:00	a.m.	p.m.
Fiel Nitr Ren	d pH: ic Acid Preserved: narks: <u>Sam</u>	Yes [	> 7//, >> № Co/lect	F F Lad Du	ield Chlorine: ced: Yes	EldTe		
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FORM REVISED 01/13 DHMH 4540 01/13

CUSTOMER COPY I

Plant/Site Name: Fiel	ld B	RAL	DIATION ANALYS	SIS REQUEST F	ORM		
Sample Source:	ld B	lank					
				Cour	ity: How	ard	
		e		Tara			· · · ·
	540	2	A	Loca		I no., lab sink, san	unle tan etc.)
Radon-222 Bottle A			Radon-	222 Field Blank			
	1992 - 49		and a second				
County 3	, X	34 44	Plant N	o			
HECK (one per Box)							
Type       Drinking Water       andfill       tream       Dther	the state of the s			Point of Collection ce (Raw) ibution (treated)		<u>Testin</u> Emergency Routine Recheck Special	
ield pH: litric Acid Preserved: .emarks:	Yes [	No		ield Chlorine:	No 🖻		
TEST	EPA	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date
Gross Alpha	Code 4000	nus	FPA 900,0	<2.0	7/8/14	Gub	Reported 7110/14
Gross Beta	4100	045	1000	<40	12	J. J.	11:22
Radium-226	4020		國家 保護國際合計	STUDIE DO MAR	的复数 1.20	21 대한 관련	
Radium-228	4030			1. 1. 1. 22	and the second second		100 100 100 100 100 100 100 100 100 100
] Total Uranium	4006		建成 使 编成的它中	10世纪 11月4日	是空间和广告中国的	1.5 2 12	A MARCH
Radon-222 (Bottle A)	4004			1.1.1.1.1.7.2.	· 옥· 영국 · · · · · · · · · · · · · · · · · ·	W. C. MAR	
Radon-222 (Bottle B)	4004			(Carlot II)		14 m	
Radon Field Blank A	4004	A Contraction	<b>新市市 地址</b> 上的	《非常知识》 化、增	C. Bullence and		
Radon Field Blank B	4004	er sul sais	and states, take delighter private of	er ellersterner		112-1-2	1 1 1
] Tritium	C. B. S. S.				7. 花山、水	x x	1 1 1 A
	· .				and the second		
	10.05						
Radon Field Blank A         Radon Field Blank B         Tritium	4004 4004	2 - 1949 2 - 1949 - 484		ge ministration in the second s			
		The second s	THE REPORT OF A DEPARTMENT OF A	E Contraction of the second	· · · · · · · · · · · · · · · · · · ·		
] Tritium							

ORIG 17/1230 7/24/14

# Invoice

Howard County Health Department

Bureau of Environmental Health Attn: Bert Nixon, Director

DATE: JULY 24, 2014 DATES OF SERVICE: JUNE 25, 26,& JULY 1, 3 2014 INVOICE #: 2014-014

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

BILL Heritage Reality and Land Development TO Attn: Tim Feaga 15950 North Ave P.O. Box 482 Lisbon, MD 21765

COMMENTS Payment due upon receipt. Letter and results will be released upon receipt of payment.

DATE	DESCRIPTION	BALANCE	AMOUNT
06/25/14	Gross alpha/beta testing performed for Walnut Creek, Lots # 76 And 97 HO - 95 - 2667 HO - 14 - 0033		\$90.00
06/26/14	Gross alpha/beta testing performed for Walnut Creek Lot # 104 HO - 14 - 0037		\$45.00
07/01/14	Gross alpha/beta testing performed for Walnut Creek Lots # 108 And 109 HO - 14 - 0039 HO - 14 - 0040		\$90.00
07/03/14	Gross alpha/beta testing performed for Walnut Creek Lot # 96 HO - 14 - 0032		\$45.00
		1	
			AMOUNT DUE
			\$270.00

Please detach and	return with	payment.
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REMITTANCE	
Invoice #	2014-014
Site Information	Walnut Creek Lots 76, 96, 97, 104, 108, 109
Amount Due	\$270.00

Becerpt 54598 8/26/14

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