

C1 26528

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 4520 385 4520 448

DATE RECEIVED MM 08 DD 01 YY 14

DATE WELL COMPLETED MM 05 DD 12 YY 14

DEPTH OF WELL 22 185 26

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-2624

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-2624

OWNER Bassler Venture LLC WELL SITE ADDRESS CAPITAL CRY TOWN CLARKSVILLE SUBDIVISION WALNUT CREEK PHASE III SECTION LOT 92

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Top Soil, Clay, Sand, Sandstone, Mica, etc.

GROUTING RECORD form with fields for material type (CM, BC), bags, pounds, gallons, and depth of seal.

CASING RECORD form with fields for casing type (ST, PL, CO, OT), diameter, and depth.

OTHER CASING (if used) form with fields for diameter and depth.

SCREEN RECORD form with fields for screen type (ST, BR, PL, HO, OT) and diameter.

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED: YES (Y) NO (N)

CIRCLE APPROPRIATE LETTER: A, E, P

DRILLERS LIC. NO. M SD 117, DRILLERS SIGNATURE, LIC. NO. 5000

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

DEPTH (nearest ft.) table with columns 1-51 and rows A-E-N

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

PUMPING TEST form with fields for hours pumped (3), pumping rate (10), method (Bucket), water level, and pump type (S).

PUMP INSTALLED form with fields for driller installed pump (NO), pump type (S), capacity, and pump column length.

LATITUDE 39.23889, LONGITUDE 76.95406 (DEFAULT COORD. WGS 84)

NOTES: Radium 21

B 1 14993

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

Ho - 95 - 2624

545163-G please type

fill in this form completely

Date Received (APA)

10 03 13

OWNER INFORMATION

Bassler Venture LLC

PO BOX 482

Lisbon MD 21765

B 3

LOCATION OF WELL

Howard COUNTY

Walnut Creek

PHASE 3 SECTION 44 46 LOT 48 50

CLARKESVILLE NEAREST TOWN

DRILLER INFORMATION

Ralph Mayne MS D 112

Ralph Mayne Well Drilling

17024 Hardy Rd Mt Airy MD 21771

Signature Date 10-4-13

B 4

SOURCES OF DRILLING WATER

- 1. well

CATALPA CT. STREET ADDRESS

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)



240 DISTANCE FROM ROAD

ENTER FT OR MI

TAX MAP: 28 BLK: PARCEL 49

B 2 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 (circled)
- Farming (Livestock Watering & Agricultural Irrigation)
- Industrial, Commercial, Dewatering
- Public Water Supply Well
- Test, Observation, Monitoring
- Open Loop Geothermal
- Closed Loop Geothermal

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard COUNTY NAME 13 COUNTY NO.

STATE SIGNATURE INSERT S

DATE ISSUED 1/6/14 CO SIGNATURE 1/6/15 EXP. DATE

APPROXIMATE DEPTH OF WELL 150 FEET

APPROXIMATE DIAMETER OF WELL 64 NEAREST INCH

METHOD OF DRILLING (circle one)

- Bored (or Augered) AIR-ROTary (circled)
- JETTED AIR-PERCussion
- Jetted & DRIVEN ROTARY (Hydraulic Rotary)
- CABLE REVerse-ROTary
- DRive-POINT
- other

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

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

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

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

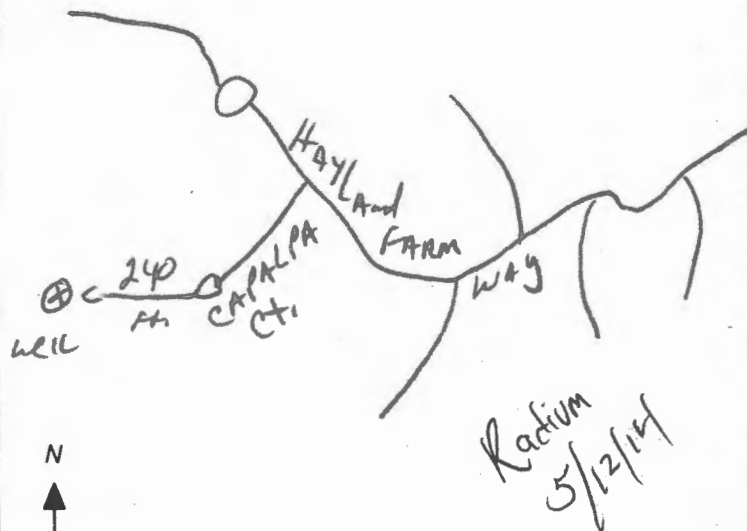
APPROP. PERMIT NUMBER H02206G020

PERMIT No. Ho - 95 - 2624

SPECIAL CONDITIONS

NOTE APPROVING AUTHORITIES SHOULD USE SEPARATE PERMIT IF NEEDED Radium - vac sample req'd. wells must be 100' apart

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





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

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

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

Company Name: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_

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

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

Name (Print): \_\_\_\_\_ License# \_\_\_\_\_

**\*A licensed individual must perform the actual installation. Apprentices must be under the supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification. Unlicensed individuals may be reported to the appropriate licensing agency.**

Name of Property Owner: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
Subdivision: \_\_\_\_\_ Lot #: \_\_\_\_\_ Well Tag #: HO-95-2624  
Site Address: \_\_\_\_\_

Submersible Pump Data

Make: \_\_\_\_\_  
Model #: \_\_\_\_\_  
Pump Capacity \_\_\_\_\_ GPM  
Well Yield: \_\_\_\_\_ GPM

Pitless Adapter

Make: \_\_\_\_\_  
Model#: \_\_\_\_\_  
Depth: \_\_\_\_\_ (36" min)  
NSF/WSC approved: \_\_\_\_\_

Well Cap and Electric Conduit

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

Depth of well encountered at time of pump installation: \_\_\_\_\_ (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

Piping to house

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

House Connection

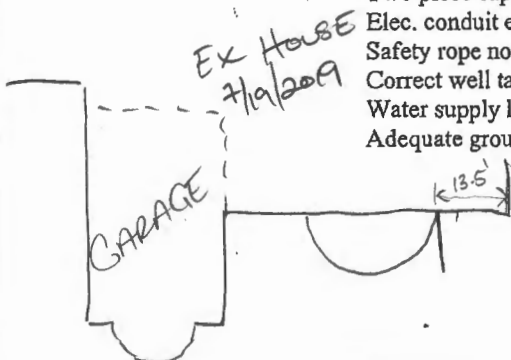
PVC sleeve to undisturbed soil at wall penetration: \_\_\_\_\_  
Length of sleeve(5' minimum from foundation): \_\_\_\_\_  
Sleeve sealed properly: \_\_\_\_\_

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

Signature of company representative responsible for installation \_\_\_\_\_ date \_\_\_\_\_

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

Date Insp. Requested: 07/19/2019 Date Insp. Approved: 07/19/2019 Inspector: (Signature)  
Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade ✓ 47" 07/19/2019 (Signature)  
Two piece cap installed and attached to casing securely ✓  
Elec. conduit extends at least 18" below grade/attached to cap properly ✓ 38" 07/19/2019 (Signature)  
Safety rope not outside of well cap/casing ✓  
Correct well tag attached properly and casing 8" above finished grade ✓ 29" 07/19/2019 (Signature)  
Water supply line sleeved adequately at house connection ✓ 13" 07/19/2019 (Signature)  
Adequate grout observed below pitless adapter ✓



**INTERIM CERTIFICATE OF POTABILITY**  
Expiration Date – MAY 5, 2020

November 5, 2019

Homeowner  
5328 Catalpa Court  
Ellicott City, MD 21042

**RE: Walnut Creek, Lot 92**  
**5328 Catalpa Court**  
**Building Permit: B18001795**  
**Well Permit: HO-95-2624**

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 **7/30/2019**. Final approval of the well line connection to the dwelling was granted on **7/19/2019**. The well construction was completed on **5/12/2014**. Water samples were collected on **10/24/2019**.

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking.

Gross Alpha and Beta samples were also collected on **3/3/2015**. Results showed a Gross Alpha level of **1.3 ± 0.8 pCi/L** and Gross Beta level of **5.3 ± 1.4 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-95-2624. 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.**

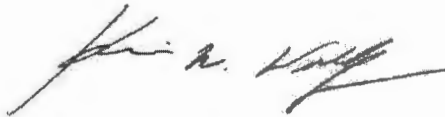
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Maura J. Rossman, M.D., Health Officer

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>

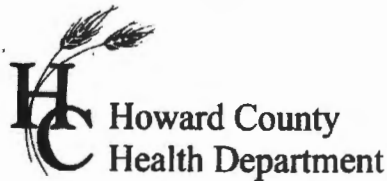
In closing, please refer to our "Homeowner Fact Sheet" for understanding your onsite sewage disposal system. You will also find a link to Maryland Department of the Environments website which elaborates in further detail operation and maintenance of your Septic System.

Approving Authority,



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

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



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. Bielson, 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:

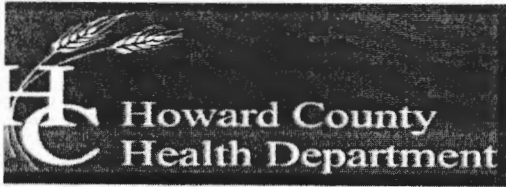
Well Site Location:

<u>Walnut Creek (Phase Three)</u>	<u>92</u>	<u>Catalpa Court</u>
<b>Subdivision/Property Name</b>	<b>Lot #</b>	<b>Road Name</b>

- The well site has been staked by Fisher Collins and Carter,  
(professional land surveyor or company employing professional land surveyors)  
on Sept. 19, 2013 (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 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](http://www.hchealth.org)

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

Maura Rossman, M.D., Health Officer

July 8, 2014

~~Basslor Venture~~

Attn. Tim Feaga

15950 North Avenue, P.O. Box 482

Lisbon, Maryland 21765

RE: Walnut Creek Lot 92

Catalpa Court

Well Tag: HO - 95 - 2624

Dear Mr. Feaga:

A sample was collected during a yield test on May 15, 2014 and submitted to the Department of Health & Mental Hygiene Laboratories to assess the possible presence of **Gross Alpha** and **Gross Beta** in the future well water supply. **Gross Alpha** and **Gross Beta** measure the total alpha and beta particle activity in a water supply. These naturally occurring radioactive nuclides have been demonstrated to be present in a certain type of geologic formation known as the Baltimore Gneiss which exists in your area of development within the County.

Results from this screening revealed a **Gross Alpha** of  $41.3 \pm 4.0$  picocuries/liter (pCi/L), while the **Gross Beta** level was  $6.1 \pm 2.2$  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. Additional testing **for these parameters, plus Radium 226 and Radium 228** will be required to secure the future Use & Occupancy. Given the elevated finding for **Gross Alpha**, the installation of a water softener system and / or a reverse osmosis system may likely 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 also 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:

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

Lab No.

RADIATION ANALYSIS REQUEST FORM

2002641 E 16 E

Plant/Site Name: \_\_\_\_\_

County: HOWARD

Sample Source: FIELD BLANK

Location: \_\_\_\_\_

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

Radon-222 Bottle A \_\_\_\_\_  
Bottle B \_\_\_\_\_

Radon-222 Field Blank Bottle A \_\_\_\_\_  
Bottle B \_\_\_\_\_

County

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 checked="" 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:

Collector: B BAKER

Telephone No.: \_\_\_\_\_

Date Collected: 5/15/14

Time Collected: \_\_\_\_\_ a.m. \_\_\_\_\_ p.m.

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

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

Nitric Acid Preserved: Yes  No

Iced: Yes  No

Remarks: \_\_\_\_\_

TEST	EPA Code	Lab No.	Method No.	Results (pCi/L)	Date Analyzed	Analyst	Date Reported
<input checked="" type="checkbox"/> Gross Alpha	4000	2641	EPA 900.0	22.0	5/28/14	COB	5/30/14
<input type="checkbox"/> Gross Beta	4100	2641	"	24.0			
<input type="checkbox"/> Radium-226	4020						
<input type="checkbox"/> Radium-228	4030						
<input type="checkbox"/> Total Uranium	4006						
<input type="checkbox"/> Radon-222 (Bottle A)	4004						
<input type="checkbox"/> Radon-222 (Bottle B)	4004						
<input type="checkbox"/> Radon Field Blank A	4004						
<input type="checkbox"/> Radon Field Blank B	4004						
<input type="checkbox"/> Tritium							
<input type="checkbox"/>							

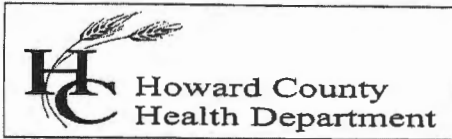
Date Received: 5/16/14 Received By: C WATTY-BOYD  
Data Release Signature: Deborah Miller-JACK Date: 5/30/14

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

ORIG. MAILED 6/14

# Invoice



Bureau of Environmental Health  
Attn: Bert Nixon, Director

DATE: JUNE 16, 2014  
DATES OF SERVICE: MAY 15 & 21, 2014  
INVOICE #: 2014-009

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

**BILL TO** Heritage Reality and Land Development  
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
05/15/14	Gross alpha/beta testing performed for Walnut Creek, Lots 92,93 and 94 HO - 95 - 2624, HO - 95 - 2628 and HO - 95 - 2625		\$135.00
05/21/14	Gross alpha/beta testing performed for Walnut Creek Lot # 31 HO - 95 - 2693		\$45.00
			<b>AMOUNT DUE</b>
			\$180.00

Please detach and return with payment.

REMITTANCE	
Invoice #	2014-009
Site Information	Walnut Creek Lots 31, 92, 93 and 94
Amount Due	\$180.00

Receipt # 54526  
pd 6/25/14

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

# 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 #: 133680 Account #: 1933  
Reference: Cairn Custom Homes Company: Fogles Well Pump & Treatment  
Location: 5328 Catalpa Court Requested By: Dave Fogle  
Ellicott City, MD 21042 Source: Well Water  
Date/ Time Collected: 10/24/2019 1040 Site: Kitchen Sink Tap  
Date/Time Rec'd: 10/24/2019 1145 Treatment: None  
Chlorine ppm: Free: ND Total: ND pH: 6.2  
Collected By: B. Wilkerson 9315BW Well #: HO-95-2624

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	10/25/2019 / 0930 / CRS
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM20 9223B	10/25/2019 / 0930 / CRS
Nitrate	3.15	mg/L	10	601	10/24/2019 / 1615 / RER
Turbidity	0.86	NTU	<10	SM20 2130B	10/24/2019 / 1625 / RER
Sand	NS	mg/L	5	Visual/Gravimetric	10/24/2019 / 1625 / RER

### 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 Sample collected by client, analyzed as received
- 7 ND:None Detected
- 8 Visual well check: Sealed, vented cap
- 9 pH and Chlorine level tested in lab (pH tested after recommended holding time)

Reason for Test : Use & Occupancy

Building Permit # : 18001795

Date Reported: 10/25/2019



**Bureau of Environmental Health**  
 8930 Stanford Boulevard, Columbia, MD 21045  
 Main: 410-313-2640 | Fax: 410-313-2648  
 TDD 410-313-2323 | Toll Free 1-866-313-6300  
 www.hchealth.org  
 Facebook: [www.facebook.com/hocohealth](http://www.facebook.com/hocohealth)

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

April 28, 2015

**Land Marketing Consultants, Inc.**  
**Attn. Tim Feaga**  
**15950 North Avenue, P.O. Box 482**  
**Lisbon, Maryland 21765**

**RE: Walnut Creek Lot 92**  
**Catalpa Court**  
**Well Tag: HO - 95 - 2624**

Dear Mr. Feaga:

Follow-up sampling was collected at the well head on March 3<sup>rd</sup> and April 7<sup>th</sup>, 2015 and submitted to NTS Laboratory to verify/confirm the presence of **Gross Alpha, Gross Beta, Radium 226/228 and Uranium** in the future well 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 and in some instances, detected during earlier sampling of this future supply.


Results from this follow-up short-term screening (sample collected April 7, 2015) revealed a **Gross Alpha** of  $1.3 \pm 0.8$  picocuries/liter (pCi/L), while the **Gross Beta** level was  $5.3 \pm 1.4$  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**).

Long-term testing performed on March 3, 2015 revealed a **Gross Alpha** of  $< 1.4 \pm 1.1$  pCi/L, while the **Gross Beta** level was  $6.7 \pm 1.4$  pCi/L. Here the **Gross Alpha** result was below its **MCL** of **15 pCi/L**, while the **Gross Beta** level was below its targeted value of **50 pCi/L**.

Additionally, testing for **Radium 226/228** and **Uranium** was also performed on March 3, 2015. This testing revealed a **Radium 226** level of  $0.4 \pm 0.1$  pCi/L; while the **Radium 228** level was  $1.2 \pm 0.6$  pCi/L. These naturally occurring isotopes of radium are considered the most important due to their longer half-lives and health significance. Here the **combined Radium 226 / 228** was below the **MCL** of **5 pCi/L**. With respect to **Uranium**, the finding of  $< 0.5 \pm 0.3$  pCi/L was well below the **MCL** of **30 µg/L** (approx. **20 pCi/L**).

At the time of testing and with respect to these parameters, the future well water supply **currently** meets EPA regulatory standards. Additional testing **for these parameters** will not be required to secure the future Use & Occupancy. Please also note that other standard testing parameters (bacteria, nitrate, turbidity and sand) will still be required to help secure Use & Occupancy.

A copy of each test report 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

✓ Enclosures  
 cc: Property file



Maryland State Certified Laboratory #318

NTS - BALTIMORE  
Formerly Trace Laboratories, Inc.  
5 North Park Drive  
Hunt Valley, MD 21030 USA  
Telephone: 410/584-9099 / Fax: 410/584-9117  
www.nts.com

LETTER OF RESULTS

Requester:

Land Marketing Consultants, Inc.  
P.O. Box 482  
Lisbon, Maryland 21765

S/O Number: 98951-1A

Report Date: April 13, 2015

Listed below are results of drinking water analyses on a sample collected by client and delivered to National Technical Systems (NTS) for analysis:

Date/Time Collected in Field: April 7, 2015 7:00 am  
Date/Time Received in Lab: April 7, 2015 2:15 pm

Information Provided By Client:

Property Location: Walnut Creek Lot 92  
Sample Location: Wellhead  
Well Tag #: HO-95-2624  
Sampler ID #: Ralph Mayne

PARAMETER	METHOD	MCL	RESULT (pCi/L)	COMMENT
Gross Alpha (Short-Term)	EPA 900.0	15 pCi/L	1.3 ± 0.8	Pass
Gross Beta (Short-Term)	EPA 900.0	50 pCi/L	5.3 ± 1.4	Pass

MCL: Maximum Contamination Level, an enforceable level established by the EPA

Note: The primary sources of gross alpha activity in water are Radium-224, Radium-226, and/or Uranium. Gross alpha levels between 5 and 15 pCi/L are considered moderate, and levels greater than 15 pCi/L are considered high. When levels are moderate or high, treatment or further testing is recommended and in certain cases may be required by the health department. Gross beta activity in water may be due to Radium-228 or any combination of beta-emitting elements.

The results in this report relate only to those items tested. If any additional information or clarification of this report is required, please contact us. This test report shall not be reproduced except in full without the written approval of NTS.

*Katherine C. Higgs*  
Katherine C. Higgs  
Manager - Drinking Water Testing

NOTE: NTS is not responsible for the collection or the transportation of the sample  
Analyzed by Lab #278

NOTE: LABS 278 - FLORIDA RADIOCHEMISTRY



Maryland State Certified Laboratory #318

NTS - BALTIMORE
Formerly Trace Laboratories, Inc.
5 North Park Drive
Hunt Valley, MD 21030 USA
Telephone: 410/584-9099 / Fax: 410/584-9117
www.nts.com

LETTER OF RESULTS

Requester:

Land Marketing Consultants, Inc.
P.O. Box 482
Lisbon, Maryland 21765

S/O Number: 98951-1

Report Date: March 31, 2015

Listed below are results of drinking water analyses on a sample collected by client and delivered to National Technical Systems (NTS) for analysis:

Date/Time Collected in Field: March 3, 2015 8:00 am
Date/Time Received in Lab: March 4, 2015 10:22 am

Information Provided By Client:

Property Location: Walnut Creek Lot 92
Sample Location: Wellhead
Well Tag #: HO-95-2624
Sampler ID #: Ralph Mayne

Table with 5 columns: PARAMETER, METHOD, MCL, RESULT (pCi/L), COMMENT. Rows include Gross Alpha (Long-Term), Gross Beta (Long-Term), Radium 226, Radium 228, and Uranium.

MCL: Maximum Contamination Level, an enforceable level established by the EPA

[\*] According to EPA's Implementation Guidance for Radionuclides, 1 µg/L uranium is equal to 0.67 pCi/L.

Note: The primary sources of gross alpha activity in water are Radium-224, Radium-226, and/or Uranium. Gross alpha levels between 5 and 15 pCi/L are considered moderate, and levels greater than 15 pCi/L are considered high. When levels are moderate or high, treatment or further testing is recommended and in certain cases may be required by the health department. Gross beta activity in water may be due to Radium-228 or any combination of beta-emitting elements.

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Katherine C. Higgs
Katherine C. Higgs
Manager - Drinking Water Testing

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Analyzed by Lab #278

## Williams, Jeffrey

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**From:** Williams, Jeffrey  
**Sent:** Friday, May 16, 2014 12:16 PM  
**To:** Tim Feaga  
**Subject:** Walnut Creek Radium testing  
**Attachments:** Walnut Creek radium.pdf; Walnut Creek radium\_2.pdf

Hi Tim. I met with Bert regarding possible easement of radium testing at all lots in Walnut Creek. I've attached a map showing the additional lots that we would like to still be tested to ensure that there is not an area of concern in the remaining lots. The lots in the green cloud have been tested and passed. The lots in the red cloud are lots that we would like to be tested. The lots at the top corner (82-86, 90-94) fall within the radium testing boundary. We want the lots near the river tested to prove whether the stream is in fact acting as a natural buffer from the positive tests on the other side and the passing lots above them. Furthermore, we'd like some representative lots tested in the other section near the upper testing boundary to prove that there are no hot spots. If these are also passing, then we would likely be comfortable waiving the remaining.

We'd be happy to meet with you to discuss if you prefer. Thanks.

Jeff Williams  
Program Supervisor, Well & Septic Program  
Bureau of Environmental Health  
Howard County Health Dept.  
410-313-4261  
[jewilliams@howardcountymd.gov](mailto:jewilliams@howardcountymd.gov)

