

**C1** **6515**  
 SEQUENCE NO. (MDE USE ONLY)  
 1 2 3 4 5 6 7 8  
 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

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

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.  
 COUNTY NUMBER 1517420

ST/CO USE ONLY  
 DATE Received  
 MM DD YY  
 8 13

DATE WELL COMPLETED  
 MM DD YY  
 09 28 05  
 Depth of Well  
 22 200 26  
 (TO NEAREST FOOT)

PERMIT NO.  
 FROM "PERMIT TO DRILL WELL"  
 HO - 94 - 4183  
 28 29 30 31 32 33 34 35 36 37

OWNER Goodier Builders  
 STREET OR RFD Holly Brook Ln TOWN Chesapeake  
 SUBDIVISION Whitcomb Lakes SECTION 24/16/74 LOT 63

**WELL LOG**  
 Not required for driven wells

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

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Top Soil	0	1	
Clay	1	11	
Sand Stone	11	20	✓
White mica	20	35	
Sand Stone	35	40	
White mica	40	95	
Sand Stone	55	100	✓
White mica	100	200	

**GROUTING RECORD** yes no  
 WELL HAS BEEN GROUTED  Y  N  
 (Circle Appropriate Box) 44 44  
 TYPE OF GROUTING MATERIAL (Circle one)  
 CEMENT  CM BENTONITE CLAY  BC  
 NO. OF BAGS 19 NO. OF POUNDS 1500  
 GALLONS OF WATER 114  
 DEPTH OF GROUT SEAL (to nearest foot)  
 from 0 TOP 52 ft. to 30+ BOTTOM 58 ft.  
 (enter 0 if from surface)

**CASING RECORD**  
 casing types insert appropriate code below  
 ST STEEL  CO CONCRETE  
 PL PLASTIC  OT OTHER  
 MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot)  
PL 6 45  
 60 61 63 64 66 70

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

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

NUMBER OF UNSUCCESSFUL WELLS: 0  
 WELL HYDROFRACTURED  Y  N  
 CIRCLE APPROPRIATE LETTER  
**A** A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED  
**E** ELECTRIC LOG OBTAINED  
**P** TEST WELL CONVERTED TO PRODUCTION WELL

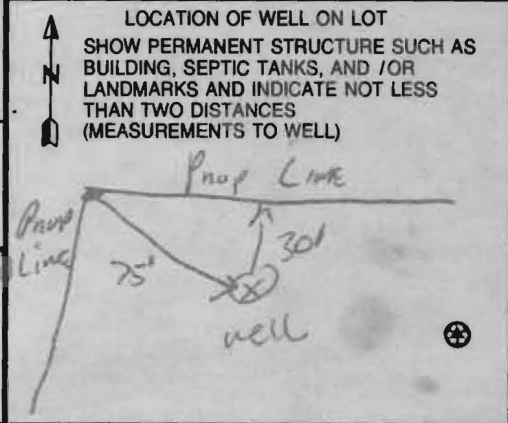
**C2** DEPTH (nearest ft.)  
 1 2  
 1 HO 43 200  
 8 9 11 15 17 21  
 23 24 26 30 32 36  
 38 39 41 45 47 51  
 R E E  
 SLOT SIZE 1 2 3  
 DIAMETER OF SCREEN (NEAREST INCH)  
 from 56 to 60

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.  
 DRILLERS LIC. NO. M SD 113  
 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)  
 LIC. NO. D

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68  
 MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)  
 T (E.R.O.S.) W Q  
 70 72 74 75 76

**C3** **PUMPING TEST**  
 HOURS PUMPED (nearest hour) 2  
 PUMPING RATE (gal. per min.) 15  
 METHOD USED TO MEASURE PUMPING RATE Bucket  
 WATER LEVEL (distance from land surface)  
 BEFORE PUMPING 19 ft.  
 WHEN PUMPING 200 ft.  
 TYPE OF PUMP USED (for test)  
 A air  P piston  T turbine  
 C centrifugal  R rotary  O other (describe below)  
 J jet  S submersible

**PUMP INSTALLED**  
 DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES  NO   
 IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.  
 TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29  
 CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35  
 PUMP HORSE POWER 37 41  
 PUMP COLUMN LENGTH (nearest ft.) 43 47  
 CASING HEIGHT (circle appropriate box and enter casing height)  
 + above } LAND SURFACE  
 - below } 2 (nearest foot)



SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)  
 TELESCOPE CASING LOG INDICATOR OTHER DATA

B 1 9199  
1 2 3 6

SEQUENCE NO.  
(MDE USE ONLY)

STATE OF MARYLAND  
PERMIT TO DRILL WELL

STATE PERMIT NUMBER

HO-94-4183  
70 fill in this form completely 79

522054 please print or type

Date Received (APA)

03 28 05  
8 MM DD YY 13

OWNER INFORMATION

15 Last Name Owner First Name 34  
GOODIER Builders Inc  
10705 CHARTER DR.  
36 Street or RFD 55  
Columbia MD. 21044  
57 Town 70 State 72 Zip 76

B 3 LOCATION OF WELL

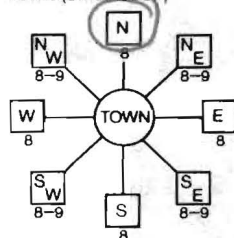
8 COUNTY 21  
Howard  
WALNUT GROVE  
23 SUBDIVISION 42  
SECTION 44 46 LOT 63 48 50  
CLARLSVILLE  
52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 2  
73 76 77 78

DRILLER INFORMATION

Driller's Name 76 License No. 81  
Ralph E. MAYNE M S D 117  
Firm Name  
Ralph E. Mayne Inc  
Address  
17024 Handy Rd. NATAing MD. 21771  
Signature Date  
Ralph E. Mayne 3-26-05

B 4  
1 2  
DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



HOLLY Creek LA.  
11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)  
NORTH  
WEST EAST  
SOUTH  
34 150 37  
DISTANCE FROM ROAD  
ENTER FT OR MI 38 39  
TAX MAP: 28 BLK: 18 PARCEL 74

B 2 WELL INFORMATION  
1 2  
APPROX. PUMPING RATE (GAL. PER MIN.) 5  
8 500 12  
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
- FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
- INDUSTRIAL, COMMERCIAL, DEWATERING
- PUBLIC WATER SUPPLY WELL
- TEST, OBSERVATION, MONITORING
- GEO-THERMAL

NOT TO BE FILLED IN BY DRILLER  
HEALTH DEPARTMENT APPROVAL

Howard #517420  
COUNTY NAME COUNTY NO.  
STATE SIGNATURE INSERT S 41  
DATE ISSUED 4/25/05  
43 MM DD YY 48 CO SIGNATURE EXP. DATE  
NORTH GRID 509 000 EAST GRID 915 000  
50 55 57 63

APPROXIMATE DEPTH OF WELL 150  
24 28 FEET

APPROXIMATE DIAMETER OF WELL 6" NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN  
30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)  
37 CABLE REVerse-ROTary DRive-POINT  
other

REPLACEMENT OR DEEPEMED WELLS  
(CIRCLE APPROPRIATE BOX)

- THIS WELL WILL NOT REPLACE AN EXISTING WELL
  - THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
  - 39  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 DEEPEM AN EXISTING WELL
- PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 52

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

APPROP PERMIT NUMBER G  
PERMIT No. HO-94-4183  
70 71 72 73 74 75 76 77 78 79

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER

- 1. well
- 2.
- 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 510 015  
N 815 509  
000  
000

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SPECIAL SHEETS WHEN NEEDED

Well to be converted to potable supply  
GAP is needed



HOWARD COUNTY HEALTH DEPARTMENT  
 BUREAU OF ENVIRONMENTAL HEALTH  
 WATER AND SEWERAGE PROGRAM  
 TEL: (410)313-2640 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: Castaway Plumbing Telephone #: 240-674-5652  
 Address: 9210 Rainsford Rd  
Frederick md 21704

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer  
 License # and name of individual responsible for the field installation:  
 Name (Print): Scott Gross-Kowalski License# 22009  
 \*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: Ryan Calahan Telephone #: 242-246-1936  
 Subdivision: Walnut Grove Lot #: 63 Well Tag #: HO-94-9183  
 Site Address: 5115 Holly Creek Ln

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>Jacuzzi</u>	Make: <u>Campbell</u>	Two piece watertight cap: <input checked="" type="checkbox"/>
Model #: <u>255075-2W30</u>	Model #: <u>3008</u>	Screened, vented well cap: <input checked="" type="checkbox"/>
Pump Capacity: <u>7</u> GPM	Depth: <u>36"</u> (36" min)	Cap secured to casing: <input checked="" type="checkbox"/>
Well Yield: <u>75</u> GPM	NSP/WSC approved: <input checked="" type="checkbox"/>	Conduit min 18" B.C.: <input checked="" type="checkbox"/>
Depth of well encountered at time of pump installation: <u>20</u> (feet)		Conduit secured to well cap: <input checked="" type="checkbox"/>

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.3.4  
 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

<u>Pipinx to house</u>	<u>House Connection</u>
Type: <u>Polly</u>	PVC sleeve to undisturbed soil at well penetration: <input checked="" type="checkbox"/>
PSI: <u>200</u> (100 psi min)	Approximate length of sleeve: <u>10'</u>
Depth of supply line: <u>40</u> (30" min)	Sleeve caulked and sealed properly: <input checked="" type="checkbox"/>

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

Signature of company representative responsible for installation: [Signature] date: 10/13/11

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

Date Insp. Requested: \_\_\_\_\_ Date Insp. Approved: \_\_\_\_\_ Inspector: \_\_\_\_\_  
 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 seen outside of well cap/casing \_\_\_\_\_  
 Correct well tag attached properly and casing 3" above finished grade \_\_\_\_\_  
 Water supply line sleeved adequately at house connection \_\_\_\_\_  
 Adequate grout observed below pitless adapter \_\_\_\_\_

**HOWARD COUNTY HEALTH DEPARTMENT  
BUREAU OF ENVIRONMENTAL HEALTH  
WATER AND SEWERAGE PROGRAM  
TEL: (410)313-2640 FAX: (410)313-2648**

70  
426

**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 direct supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification.**

Name of Property Owner: \_\_\_\_\_ Telephone #: \_\_\_\_\_  
Subdivision: \_\_\_\_\_ Lot #: 63 Well Tag #: HO-95-4183 ✓  
Site Address: \_\_\_\_\_

**Submersible Pump Data**

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

**Pitless Adapter**

Make: \_\_\_\_\_  
Model#: \_\_\_\_\_  
Depth: \_\_\_\_\_ (36" min)  
NSF 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 or Cable guards are required - Must circle one  
Safety rope, if used, attached to inside of well casing with eye bolt \_\_\_\_\_

**Piping to house**

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

**House Connection**

PVC sleeved to undisturbed soil at wall penetration: \_\_\_\_\_  
Approximate length of sleeve: \_\_\_\_\_  
Sleeve caulked and sealed properly: \_\_\_\_\_

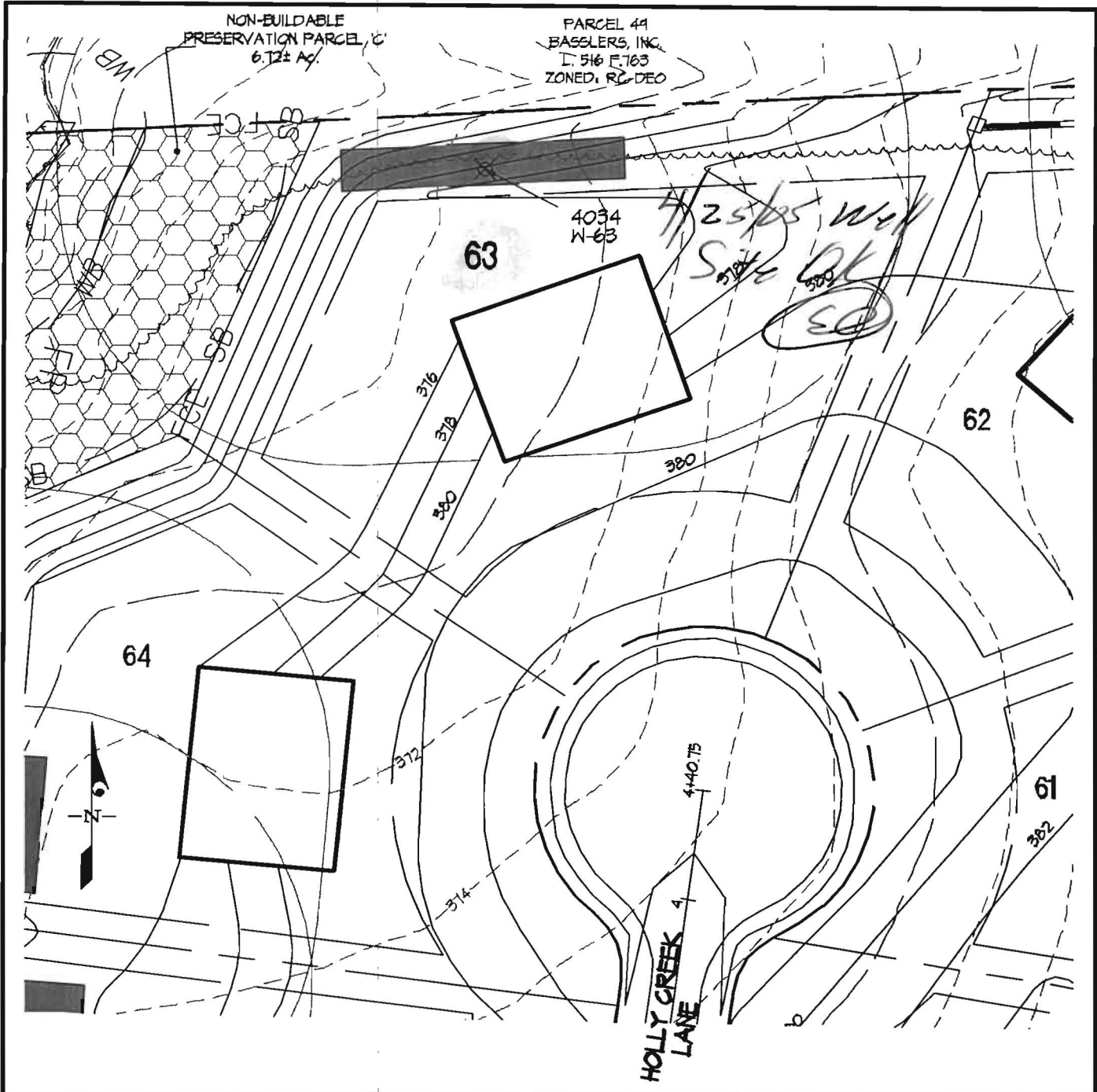
**The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.**

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

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

Date Insp. Requested: 6/14/11 Date Insp. Approved: \_\_\_\_\_  
Inspection Data: Pitless adapter and 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 installed inside of well 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 \_\_\_\_\_ ✓

6/14/11 -  
Need to  
correct grading  
issue around  
well - MS



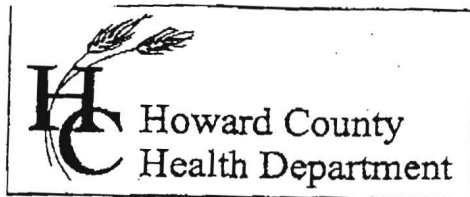
<b>LEGEND</b>	
	CONCEPTUAL HOUSE BOX
	WELL BOX
	WELL SURVEY POINT

**WELL LOCATION EXHIBIT - LOT 63**

**WALNUT GROVE**  
 Lots 1 thru 8B, and Preservation Parcels "A" thru "G"  
 and Non-Buildable Bulk Parcel "H"

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20886  
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

SCALE: 1"=50'	ZONING: RC/RR-DEO	TAX MAP/GRID: 28-18/17	GLW JOB NO: 00153	APR., 2005	1 OF 1
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3525 H Ellicott Mills Drive • Ellicott City, MD 21043  
(410) 313-2640 Fax (410) 313-2648  
TDD (410) 313-2323 Toll Free 1-866-313-6300  
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

## ATTENTION WELL DRILLERS!!!

When submitting a well application for a new or replacement well, please indicate one of the following:

- The well site has been staked by Gutschick, Little & Weber on 3/16/05 and is ready for site inspection.
- \_\_\_\_\_ will call the Health Department for a time to meet in the field to verify a well location.
- Site plan for new well is attached to well permit application.

Please attach this sheet when submitting your green application. This should help improve communication allowing a more timely service for our citizens.

KN



Howard County  
Health Department

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

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

September 28, 2011

Homeowner  
5115 Holly Creek Lane  
Clarksville, MD 21029

RE: Walnut Grove, Lot 63  
5115 Holly Creek Lane  
BP #: B10001953  
Well Tag: HO-94-4183

Dear Sir:

This is to advise you that the septic system for the above referenced property has been installed and inspected. **Final approval of the septic system was granted on 8/25/2011. Final approval of the well line connection to the dwelling was approved on 08/29/2011.**

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. The water sample results were found to be in compliance with COMAR water quality standards.

Gross Alpha and Beta samples were also collected on 09/14/2011. Results showed a Gross Alpha level of **0.5+-0.4 pCi/L** and **Gross Beta** level of **1.5+-0.9 pCi/L**. The **Gross Alpha** was below the maximum contaminant level (MCL) of 15 pCi/L, while the Gross Beta was below the MCL of 50pCi/L. Future well water supply appears safe for all uses.

Enclosed with this certificate, is a copy of the septic permit and the as-built along with important information regarding the use and maintenance of your septic system. Please read through carefully and thoroughly. Any questions regarding your well and/or septic, please call this office for guidance 410-313-1771.

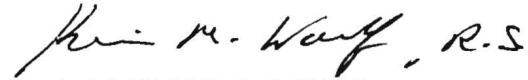
#### **INTERIM CERTIFICATE OF POTABILITY**

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-94-4183. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies. Based upon satisfactory investigation and evaluation, the Howard County Health Department as authorized by the Maryland Department of the Environment accepts this well system as required by COMAR 26.04.04.

This certificate may become final upon completion of the second bacteriological test, which is to be taken by the county health department within six months of receipt of this letter. **Please contact (410) 313-1773 to schedule a final water sample appointment. Currently, there is no charge for this final sampling.**

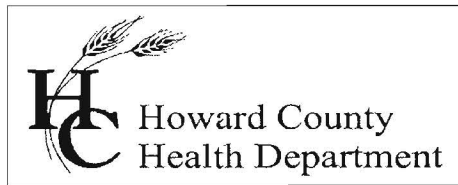
Date of Water Samples: 07/20/2011, 08/01/2011, 08/15/2011, 09/14/2011  
Date of Radium Samples: 08/01/2011, 08/15/2011, 08/19/2011, 09/14/2011  
Date of Well Completion: 09/28/2005

Approving Authority,



Kevin M. Wolf, R.S., R.E.H.S.  
Environmental Sanitarian  
Well & Septic Program

cc: Building Inspector's Office  
Community Hygiene Program  
File



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

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

August 31, 2011

Homeowner  
5115 Holly Creek Lane  
Clarksville, MD 21029

RE: Walnut Grove, Lot 63  
5115 Holly Creek Lane  
BP #: B10001953  
Well Permit # HO-94-4183

Dear Sir:

This is to advise you that the septic system for the above referenced property has been installed and inspected. **Final approval of the septic system was granted on 08/25/2011.**  
**Final approval of the well line connection to the dwelling was approved on 08/29/2011.**

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. The water sample results were found to be in compliance with COMAR water quality standards.

### **TEMPORARY INTERIM CERTIFICATE OF POTABILITY**


This is a **Temporary Deviation** to allow additional time for radium testing to be done, and if needed appropriate treatment installed so that levels meet EPA recommendations.

This temporary deviation is good for **30 days** to allow time for radium testing. An Interim Certificate of Potability will be issued upon submission of a water sample report that documents a **Gross Alpha, Gross Beta, short and long term (Before treatment)**.

**The Health Department has no objection to the issuance of temporary Use and Occupancy for the above referenced property.**

Date of Water Samples: 07/20/2011 & 08/15/2011  
Gross A/B short term pre treatment: 03/12/2007, 08/01/2011  
Gross A/B short term post treatment: 8/15/2011  
Gross A/B long term pre and post treatment: pending  
Radium 226/228 post treatment: pending  
Date of Well Completion: 09/28/2005

Approving Authority,

  
Kevin M. Wolf, Sanitarian  
Well & Septic Program

For:

cc: Building Inspector's Office  
Community Health Services  
File



**TRACE LABORATORIES, INC**  
 5 North Park Drive  
 Hunt Valley, MD 21030 USA  
 Telephone: 410/584-9099 / Fax: 410/584-9117  
 Website: www.traceclabs.com / Email: info@traceclabs.com

Maryland State Certified Laboratory #318

**CERTIFICATE OF ANALYSIS**

**Requester:** Woodbridge Homes  
 11406 Woodbridge Court  
 Hagerstown, Maryland 21742

**S/O Number:** 82023

**Report Date:** July 21, 2011

**Property Sampled:** 5115 Holly Creek Lane, 21029  
**Sample Location:** Pressure Tank  
**Residual Chlorine:** <0.1 mg/L

**Building Permit #:** B10001953  
**Sampler ID #:** 9813AM  
**Samples Iced:** Yes

**County:** Howard  
**Map:** 28

**Subdivision:** Walnut Grove  
**Parcel:** 74

**Lot #:** 63

**Date/Time Collected in Field:** July 20, 2011 @ 12:40 pm  
**Date/Time Received in Lab:** July 20, 2011 @ 3:00 pm

**Well Tag #:** HO-94-4183  
**Well Condition:** 2-Piece Cap, Satisfactory

**Water Treatment/Conditioning:** None

PARAMETER	METHOD	MCL/*SMCL	RESULT	PASS/FAIL
Total Coliform	SM 9223B	Absent	Absent	Pass
E. coli	SM 9223B	Absent	Absent	Pass
Nitrate	SM 4500D	10 mg/L as N	<1.0 mg/L as N	Pass
Turbidity	EPA 180.1	10 NTU	<1.0 NTU	Pass
pH	EPA 150.1	*6.5-8.5 Units	8.0 Units	***
Sand		Negative	Negative	

*Katherine C. Higgs*  
 Katherine C. Higgs  
 Administrative Assistant

MCL: Maximum Contamination Level, an enforceable level established by the EPA  
 \*SMCL: Secondary Maximum Contamination Level, a level recommended by the EPA  
 \*\*\*A non-enforceable parameter that may cause cosmetic effects or aesthetic effects (such as taste, color or odor) in drinking water.



Bureau of Environmental Health  
7178 Columbia Gateway Drive, Columbia, MD 21046-2147  
(410) 313-2640 Fax (410) 313-2648  
TDD (410) 313-2323 Toll Free 1-866-313-6300  
website: www.hchealth.org

Peter L. Beilenson, M.D., M.P.H., Health Officer  
December 19, 2007

Jeremy Rutter  
Heritage Realty & Land Development  
P.O. Box 482  
Lisbon, Maryland 21765

RE: Radium & Uranium Results for:  
Walnut Grove Lot 15, HO – 95 – 0572  
Walnut Grove Lot 19, HO – 95 – 0575  
Walnut Grove Lot 30, HO – 95 – 0584  
Walnut Grove Lot 41, HO – 95 – 0594  
Walnut Grove Lot 45, HO – 94 – 4187  
Walnut Grove Lot 51, HO – 94 – 4181  
Walnut Grove Lot 53, HO – 95 – 0598  
✓ Walnut Grove Lot 63, HO – 94 – 4183  
Walnut Grove Lot 87, HO – 95 – 0618

Dear Mr. Rutter:

You have requested that I review and comment upon sample results from the aforementioned lots at the Walnut Grove Sub Division, all taken on July 11, 2007 and sent to Trace Laboratories for analysis of Radium 226 / 228 and Uranium. My comments would be used to help confirm whether or not treatment to address these parameters, would be needed on any of these well water supplies.

Let me first state that no information was provided on how long the wells were purged prior to the sample being collected. From looking at the sample reports, wells were sampled at 10 – 15 minute intervals, suggesting little to no purging on some (or all) of these wells. Additionally, without the benefit of short and long term Gross Alpha & Beta components, the interpretation of some results is less clear. Because of this, I will “err” on the side of caution in my conclusions.

In general, my interpretation of these results is similar to those reached by Allison Milburn, Manager – Drinking Water Testing for Trace Laboratories. **Lots 19, 45, 53 and 87** are water supplies in which no additional treatment for these parameters would be anticipated. Alternatively, **Lots 15 (based upon Uranium), 51 and 63** are lots that additional treatment (i.e., softeners and/or reverse osmosis systems) will be needed. The remaining two lots (**30 and 41**), though not strictly reaching or exceeding the maximum contaminant level (MCL) of 5 picocuries/liter, are close enough that with variability (and a lack of additional information), will at this point be required to have treatment.

If you have questions or wish to discuss further, please contact me at (410) 313 – 1774.

Sincerely,

A handwritten signature in cursive script that reads 'Bert Nixon'.

Bert Nixon, Director  
Bureau of Environmental Health

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

March 23, 2007

Walnut Grove, LLC  
10705 Charter Drive  
Suite 320  
Columbia, Maryland 21044

RE: Walnut Grove Subdivision, Lot 63  
Well Tag: HO - 95 - 4183

94

To Whom It May Concern:

A sample was collected during a yield test on March 12, 2007 and submitted to GPL Laboratories to assess the possible presence of **Gross Alpha** and **Gross Beta** in the future well water supply. **Gross Alpha** and **Gross Beta (GAGB)** 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  $24.3 \pm 2.7$  picocuries/liter (pCi/L); while the **Gross Beta** level was  $11.1 \pm 1.5$  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 target value of 50 pCi/L (roughly equivalent to the **annual dose rate** of 4 millirem/year).

Since the **Gross Alpha** finding exceeded its **MCL**, additional testing for **Radium** will be necessary to verify existing levels prior to occupancy. Alternatively, you may install treatment designed to reduce **Gross Alpha**, **Gross Beta** and **Radium**, plus provide post treated results (short and long term **GAGB**, plus **Radium**) confirming that levels are in conformance with existing standards. **Additionally**, the owners will be required to sign an "AGREEMENT FOR APPROVAL OF AN INDIVIDUAL DRINKING WELL WITH AN ON-SITE TREATMENT SYSTEM" as part of the Use and Occupancy process. Moreover, keep in mind that the standard potability parameters required for occupancy will still be needed.

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 or concerns.

Sincerely,



Bert Nixon, Deputy Director  
Bureau of Environmental Health

cc: Eric Dougherty, MDE Water Mgmt., Groundwater  
/ Well & Septic property file



Bureau of Environmental Health  
7178 Columbia Gateway Drive, Columbia, MD 21046-2147  
(410) 313-2640 Fax (410) 313-2648  
TDD (410) 313-2323 Toll Free 1-866-313-6300  
website: www.hchealth.org

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

March 23, 2007

Walnut Grove, LLC  
10705 Charter Drive  
Suite 320  
Columbia, Maryland 21044

RE: Walnut Grove Subdivision, Lot 63  
Well Tag: HO - 95 - 4183  
94

To Whom It May Concern:

A sample was collected during a yield test on March 12, 2007 and submitted to GPL Laboratories to assess the possible presence of **Gross Alpha** and **Gross Beta** in the future well water supply. **Gross Alpha** and **Gross Beta (GAGB)** 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  $24.3 \pm 2.7$  picocuries/liter (pCi/L); while the **Gross Beta** level was  $11.1 \pm 1.5$  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 target value of 50 pCi/L (roughly equivalent to the **annual dose rate of 4 millirem/year**).

Since the **Gross Alpha** finding exceeded its **MCL**, additional testing for **Radium** will be necessary to verify existing levels prior to occupancy. Alternatively, you may install treatment designed to reduce **Gross Alpha, Gross Beta and Radium**, plus provide post treated results (short and long term **GAGB**, plus **Radium**) confirming that levels are in conformance with existing standards. **Additionally**, the owners will be required to sign an "AGREEMENT FOR APPROVAL OF AN INDIVIDUAL DRINKING WELL WITH AN ON-SITE TREATMENT SYSTEM" as part of the Use and Occupancy process. Moreover, keep in mind that the standard potability parameters required for occupancy will still be needed.

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 or concerns.

Sincerely,

A handwritten signature in cursive script that reads 'Bert Nixon'.

Bert Nixon, Deputy Director  
Bureau of Environmental Health

cc: Eric Dougherty, MDE Water Mgmt., Groundwater  
/ Well & Septic property file



**TRACE LABORATORIES, INC**  
 5 North Park Drive  
 Hunt Valley, MD 21030 USA  
 Telephone: 410/584-9099 / Fax: 410/584-9117  
 Website: www.tracelabs.com / Email: info@tracelabs.com

Maryland State Certified Laboratory #318

**CERTIFICATE OF ANALYSIS**

**Requester:** Woodbridge Homes  
 11406 Woodbridge Court  
 Hagerstown, Maryland 21742

**S/O Number:** 82641-2

**Report Date:** September 27, 2011

*Treated Sample*

**Property Sampled:** 5115 Holly Creek Lane, 21029  
**Sample Location:** Reverse Osmosis (R/O) Tap  
**Residual Chlorine:** <0.1 mg/L

**Building Permit #:** B10001953  
**Sampler ID #:** 9170DH  
**Samples Iced:** Yes

**County:** Howard  
**Map:** 28

**Subdivision:** Walnut Grove  
**Parcel:** 74

**Lot #:** 63

**Date/Time Collected in Field:** September 14, 2011 @ 1:19 pm  
**Date/Time Received in Lab:** September 14, 2011 @ 5:30 pm

**Well Tag #:** HO-94-4183  
**Well Condition:** 2-Piece Cap, Satisfactory

*OK*

**Water Treatment/Conditioning:** Softener, Neutralizer, Reverse Osmosis (R/O)

PARAMETER	METHOD	DETECTION LIMIT	MCL*	RESULT	ACCEPTABILITY
Gross Alpha (Long Term)	EPA 900.0	0.5 pCi/L	15 pCi/L	<0.5 ± 0.4 pCi/L	Acceptable
Gross Beta (Long Term)	EPA 900.0	1.5 pCi/L	50 pCi/L	<1.5 ± 0.9 pCi/L	Acceptable
Radium 226	EPA 903.1	0.2 pCi/L	5 pCi/L Combined	<0.2 ± 0.1 pCi/L	Acceptable
Radium 228	EPA Ra-05	0.9 pCi/L		<0.9 ± 0.6 pCi/L	

\*Note: There are no established limits set forth by the EPA for radionuclide particles in private well water. The limits for public water are instead provided as MCLs in this report. The acceptability of this sample is based on these requirements

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



## TRACE LABORATORIES, INC

5 North Park Drive

Hunt Valley, MD 21030 USA

Telephone: 410/584-9099 / Fax: 410/584-9117

Website: www.tracelabs.com / Email: info@tracelabs.com

Maryland State Certified Laboratory #318

## CERTIFICATE OF ANALYSIS

## Requester:

Woodbridge Homes  
11406 Woodbridge Court  
Hagerstown, Maryland 21742

S/O Number: 82641-1

Report Date: September 27, 2011

*Raw Sample*

Property Sampled: 5115 Holly Creek Lane, 21029  
Sample Location: Pressure Tank Tap  
Residual Chlorine: <0.1 mg/L

Building Permit #: B10001953  
Sampler ID #: 9170DH  
Samples Iced: Yes

County: Howard  
Map: 28

Subdivision: Walnut Grove  
Parcel: 74

Lot #: 63

Date/Time Collected in Field: September 14, 2011 @ 1:18 pm  
Date/Time Received in Lab: September 14, 2011 @ 5:30 pm

Well Tag #: HO-94-4183  
Well Condition: 2-Piece Cap, Satisfactory

Water Treatment/Conditioning: Softener, Neutralizer, Reverse Osmosis (R/O)

PARAMETER	METHOD	DETECTION LIMIT	MCL*	RESULT	ACCEPTABILITY
Gross Alpha (Long Term)	EPA 900.0	1.6 pCi/L	15 pCi/L	57.7 ± 5.5 pCi/L	HIGH
Gross Beta (Long Term)	EPA 900.0	2.2 pCi/L	50 pCi/L	25.4 ± 2.2 pCi/L	Acceptable

\*Note: There are no established limits set forth by the EPA for radionuclide particles in private well water. The limits for public water are instead provided as MCLs in this report. The acceptability of this sample is based on these requirements

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



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 Hunt Valley, MD 21030 USA  
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Maryland State Certified Laboratory #318

**CERTIFICATE OF ANALYSIS**

**Requester:** Woodbridge Homes  
 11406 Woodbridge Court  
 Hagerstown, Maryland 21742

**S/O Number:** 82320

**Report Date:** August 19, 2011

**Property Sampled:** 5115 Holly Creek Lane, 21029  
**Sample Location:** Reverse Osmosis (R/O) Tap  
**Residual Chlorine:** <0.1 mg/L

**Building Permit #:** B10001953  
**Sampler ID #:** 9813AM  
**Samples Iced:** Yes

**County:** Howard  
**Map:** 28

**Subdivision:** Walnut Grove  
**Parcel:** 74

**Lot #:** 63

**Date/Time Collected in Field:** August 15, 2011 @ 10:30 am  
**Date/Time Received in Lab:** August 15, 2011 @ 3:20 pm

**Well Tag #:** HO-94-4183  
**Well Condition:** 2-Piece Cap, Satisfactory

**Water Treatment/Conditioning:** Softener, Neutralizer, Reverse Osmosis (R/O)

PARAMETER	METHOD	DETECTION LIMIT	MCL*	RESULT	ACCEPTABILITY
Gross Alpha	EPA 900.0	0.6 pCi/L	15 pCi/L	1.0 ± 0.7 pCi/L	Acceptable
Gross Beta	EPA 900.0	1.9 pCi/L	50 pCi/L	5.8 ± 1.4 pCi/L	Acceptable

\*Note: There are no established limits set forth by the EPA for radionuclide particles in private well water. The limits for public water are instead provided as MCLs in this report. The acceptability of this sample is based on these requirements.

*Katherine C. Higgs*  
 Katherine C. Higgs  
 Administrative Assistant



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Maryland State Certified Laboratory #318

**CERTIFICATE OF ANALYSIS**

**Requester:**

Woodbridge Homes  
 11406 Woodbridge Court  
 Hagerstown, Maryland 21742

**S/O Number:** 82320

**Report Date:** August 19, 2011

**Property Sampled:** 5115 Holly Creek Lane, 21029  
**Sample Location:** Reverse Osmosis (R/O) Tap  
**Residual Chlorine:** <0.1 mg/L

**Building Permit #:** B10001953  
**Sampler ID #:** 9813AM  
**Samples Iced:** Yes

**County:** Howard  
**Map:** 28

**Subdivision:** Walnut Grove  
**Parcel:** 74

**Lot #:** 63

**Date/Time Collected in Field:** August 15, 2011 @ 10:30 am

**Date/Time Received in Lab:** August 15, 2011 @ 3:20 pm

*Short Term*

**Well Tag #:** HO-94-4183  
**Well Condition:** 2-Piece Cap, Satisfactory

**Water Treatment/Conditioning:** Softener, Neutralizer, Reverse Osmosis (R/O)

PARAMETER	METHOD	DETECTION LIMIT	MCL*	RESULT	ACCEPTABILITY
Gross Alpha	EPA 900.0	0.6 pCi/L	15 pCi/L	1.0 ± 0.7 pCi/L	Acceptable
Gross Beta	EPA 900.0	1.9 pCi/L	50 pCi/L	5.8 ± 1.4 pCi/L	Acceptable

\*Note: There are no established limits set forth by the EPA for radionuclide particles in private well water. The limits for public water are instead provided as MCLs in this report. The acceptability of this sample is based on these requirements.

*Katherine C. Higgs*  
 Katherine C. Higgs  
 Administrative Assistant



**TRACE LABORATORIES, INC**  
 5 North Park Drive  
 Hunt Valley, MD 21030 USA  
 Telephone: 410/584-9099 / Fax: 410/584-9117  
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Maryland State Certified Laboratory #318

**CERTIFICATE OF ANALYSIS**

**Requester:**

Woodbridge Homes  
 11406 Woodbridge Court  
 Hagerstown, Maryland 21742

**S/O Number:** 82169

**Report Date:** August 9, 2011

**Radium Testing**

**Property Sampled:** 5115 Holly Creek Lane, 21029  
**Sample Location:** Valve After Treatment  
**Residual Chlorine:** <0.1 mg/L

**Building Permit #:** B10001953  
**Sampler ID #:** 9813AM  
**Samples Iced:** Yes

**County:** Howard  
**Map:** 28

**Subdivision:** Walnut Grove  
**Parcel:** 74

**Lot #:** 63

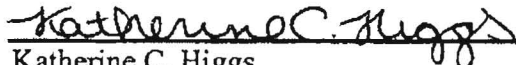
**Date/Time Collected in Field:** August 1, 2011 @ 2:40 pm  
**Date/Time Received in Lab:** August 1, 2011 @ 3:35 pm

**Well Tag #:** HO-94-4183  
**Well Condition:** 2-Piece Cap, Satisfactory

**Water Treatment/Conditioning:** Softener, Neutralizer

PARAMETER	METHOD	DETECTION LIMIT	MCL*	RESULT	ACCEPTABILITY
Gross Alpha	EPA 900.0	2.1 pCi/L	15 pCi/L	29.5 ± 4.4 pCi/L	HIGH
Gross Beta	EPA 900.0	2.4 pCi/L	50 pCi/L	6.2 ± 1.7 pCi/L	Acceptable

\*Note: There are no established limits set forth by the EPA for radionuclide particles in private well water. The limits for public water are instead provided as MCLs in this report. The acceptability of this sample is based on these requirements.

  
 Katherine C. Higgs  
 Administrative Assistant



**CERTIFICATE OF ANALYSIS**



Trace Laboratories, Inc.  
Maryland

5 North Park Drive  
Hunt Valley, MD 21030  
Telephone: 410/252-7742  
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Fax: 410/584-9117  
Email: [tracelab@connect.net](mailto:tracelab@connect.net)  
[www.tracelabs.com](http://www.tracelabs.com)

Maryland State Certified  
Water Quality Laboratory  
No. 318

ISO 9001:2000



Cert No. C2005-01504

**Requester:**  
Heritage Realty & Land Development  
Attn: Jeremy Rutter  
P.O. Box 482  
Lisbon, MD 21765

**S/O Number:** 64290-8  
**Report Date:** July 31, 2007

**Property Sampled:** Walnut Grove Property

**County:** Howard  
**Subdivision:** Walnut Grove  
**Lot #:** 63  
**Tax Map #:** N/A  
**Parcel #:** N/A

**Date/Time Collected:** July 11, 2007 at 1:50 pm  
**Date/Time Received:** July 11, 2007 at 3:40 pm

**Sample Location:** Pump  
**Sampler ID:** 6308KW  
**Samples Iced:** Yes  
**Residual Cl<sub>2</sub> <0.1 mg/L:** Yes

**Well Tag Number:** HO-94-4183  
**Well Condition :** N/A

**Water Conditioning/Treatment:** None

PARAMETER	RESULT	METHOD	DETECTION LIMIT
Radium 226	7.4 +/- 0.7 pCi/L	EPA 903.1	0.2 pCi/L
Radium 228	1.9 +/- 0.6 pCi/L	EPA Ra-05	0.8 pCi/L
Uranium	49.9 +/- 4.5 pCi/L	EPA 908.0	0.8 pCi/L

*Allison Milburn*

Allison R. Milburn  
Manager-Drinking Water Testing

Samples analyzed by Laboratory #E83033