



B 1 9723

SEQUENCE NO. (MDE USE ONLY)

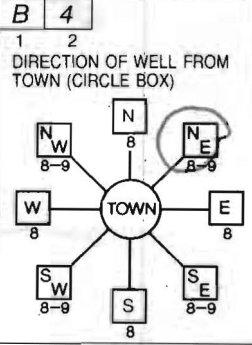
STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type 520762

STATE PERMIT NUMBER HO - 94 - 4053 fill in this form completely

OWNER INFORMATION 9772 Winchester Homes, Inc 6905 Rockledge Drive, Suite 800 Bethesda, Md 20817

LOCATION OF WELL HOWARD Riverwood 21 Clarksville Ellinor City

DRILLER INFORMATION George F. Easterday L. Franklin Easterday, Inc. 9265 Brown Church Rd., MT. Airy, Md. 21771



Open Run Road NEAR WHAT ROAD 30 ON WHICH SIDE OF ROAD 34 350 37 DISTANCE FROM ROAD Ft. ENTER FT OR MI 38 39 TAX MAP: 29 BLK: 4 PARCEL 20

WELL INFORMATION APPROX. PUMPING RATE 5 (GAL. PER MIN.) AVERAGE DAILY QUANTITY NEEDED 500 (GAL. PER DAY)

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL HOWARD A 516084 COUNTY NAME COUNTY NO. STATE SIGNATURE DATE ISSUED 10/27/04 CO SIGNATURE EXP. DATE 10/27/05

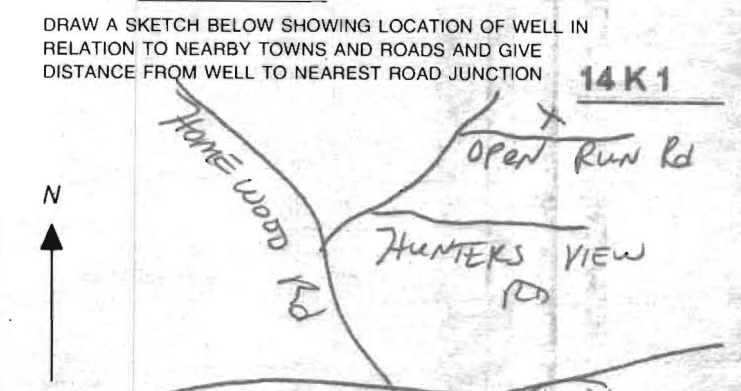
USE FOR WATER (CIRCLE APPROPRIATE BOX) DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION

APPROXIMATE DEPTH OF WELL 300 FEET APPROXIMATE DIAMETER OF WELL 6 INCH

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X 4/21/05 Great AK SOURCES OF DRILLING WATER 1. wells 2. 3. WRITE THE BOX NUMBER FROM THE MAP HERE 828 516

METHOD OF DRILLING (circle one) BORED (or Augered) AIR-ROTary CABLE

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX) THIS WELL WILL NOT REPLACE AN EXISTING WELL



Not to be filled in by driller (MDE OR COUNTY USE ONLY) APPROP. PERMIT NUMBER HO 2004 G 007 PERMIT No. HO - 94 - 4053

SPECIAL CONDITIONS NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

4-25-05

8.0

FIELD DATA SHEET  
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - 94-4053  
 Location of property (road) Open Run Rd  
 Subdivision Riverwood Lot 21 Block 4 Plat 29 Sec. 1  
 Well Driller Kosterday Owner Winchester Homes

Depth of well 600 13/4  
 Distance of measuring point (M.P.) above ground 2'  
 Static water level (S.W.L.) below M.P. 30.8

I. High rate pumping -- reservoir drawdown Pump set 380'  
 Time pump started 9:15 Pumping rate 10.6 gpm  
 Total time 45 min to reach pumping water level 192.3 ft. below M.P.

II. Recovery pump test data - observations to be recorded every 15 minutes

TIME (in 15 minute intervals)	WATER LEVEL below M.P.	PUMPING RATE time to fill 5 gallon bucket	FLOW METER READING (if used)	CALCULATED FLOW (gallons per minute)
10:00	192.3	38 sec	bucket	1.58 gpm
10:15	192.3	38 "	"	1.58 gpm
10:30	192.3	38 "	"	"
10:45	192.5	38 "	"	"
11:00	192.5	38 "	"	"
11:15	192.6	38 "	"	"
11:30	192.7	38 "	"	"
11:45	192.7	38	"	"
12:00	192.9	38	"	"
12:15	193.0	38	"	"
12:30	193.1	38	"	"
12:45	180	30	"	12 gpm
1:00	180	30	"	12 gpm
1:15	180	30	"	2 gpm
1:30	180	30	"	2 gpm
1:45	180	30	"	2 gpm
2:00	180	30	"	2 gpm
2:15	180	30	"	2 gpm
2:30	180	30	"	2 gpm
2:45	180	30	"	2 gpm
3:00	180	30	"	2 gpm
3:15	180	30	"	2 gpm
3:30	180	30	"	2 gpm
3:45	180	30	"	2 gpm
HD-224 400	180	30	"	2 gpm



**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: NATIONAL WATER SVC Telephone #: 301-854-1333  
Address: P.O. Box 138  
Ashton, MD 20861

(Must circle one) Licensed Plumber      Licensed Well Driller      Licensed Well Pump Installer  
License # and name of individual responsible for the field installation:  
Name (Print): DAVID RYCKE      License # PI 0145

\*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: WINCHESTER HOMES Telephone #: \_\_\_\_\_  
Subdivision: RIVERWOOD Lot #: 21 Well Tag #: HO-99-4053  
Site Address: 12068 OPEN RUN RD  
ELICOTT CITY

<b>Submersible Pump Data</b>	<b>Pitless Adapter</b>	<b>Well Cap and Electric Conduit</b>
Make: <u>Grundfos</u>	Make: <u>Campbell</u>	Two piece watertight cap: <input checked="" type="checkbox"/>
Model #: <u>ISSQ415-290</u>	Model #: <u>PA 800</u>	Screened, vented well cap: <input checked="" type="checkbox"/>
Pump Capacity: <u>15</u> GPM	Depth: <u>48"</u> (36" min)	Cap secured to casing: <input checked="" type="checkbox"/>
Well Yield: <u>2</u> GPM	NSF approved: <u>YES</u>	Conduit min 18" B.G.: <input checked="" type="checkbox"/>
Depth of well encountered at time of pump installation: <u>600</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 17.8.4  
Torque arrestors or Cable guards are required - Must circle one CPS  
Safety rope, if used, attached to inside of well casing with eye bolt N/A

<b>Piping to house</b>	<b>House Connection</b>
Type: <u>Poly</u>	PVC sleeved to undisturbed soil at wall penetration: <u>YES</u>
PSI: <u>110</u> (160 psi min)	Approximate length of sleeve: <u>5'</u>
Depth of supply line: <u>4</u> (36" min)	Sleeve caulked and sealed properly: <u>YES</u>

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 8-1-11

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

Date Insp. Requested: \_\_\_\_\_ Date Insp. Approved: 5/31/11 (KW)

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 under footer  
Adequate grout observed below pitless adapter





Howard County  
Health Department

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 Benchmark Engineering on June '04 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 Winchester Homes

<u>LOTS</u>	<u>1-10</u>	<u>Phase I</u>
	<u>12-23</u>	<u>Riverwood</u>
	<u>34-41</u>	

All are staked



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*

August 18, 2011

Homeowner  
12068 Open Run Road  
Ellicott City, MD 21042

RE: Riverwood, Lot 21  
12068 Open Run Road  
BP #: B11001046  
Well Tag: HO-94-4053

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 08/12/2011. Final approval of the well line connection to the dwelling was approved on 05/31/2011.**

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 04/25/2005. Results showed a Gross Alpha level of  $3\pm 1$  pCi/L and **Gross Beta** level of  $5\pm 2$  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-94-4053. 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: 08/03/2011, 08/10/2011

Date of Radium Samples: 04/25/2005

Date of Well Completion: 04/21/2005

Approving Authority,

A handwritten signature in cursive script that reads "Brian Baker".

Brian Baker R.S.  
Environmental Sanitarian  
Well & Septic Program

cc: Building Inspector's Office  
Community Hygiene Program  
File

# 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 #: 80787 Account #: 3123  
Reference: Riverwood Lot 21 Company: National Water Servicing  
Location: 12068 Open Run Road Requested By: Dave Rycke  
Ellicott City, MD 21042 Source: Well Water  
Date/ Time Collected: 8/10/2011 1110 Site: Pressure Tank  
Date/Time Rec'd: 8/10/2011 1251 Treatment: None  
Chlorine ppm: Free: ND Total: ND pH: 6.2  
Collected By: J. Yeager 6176JY Well #: HO-94-4053

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	8/11/2011 / 0900 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	8/11/2011 / 0900 / CCH

### NOTES

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

**Reason for Test :** Use & Occupancy

**Building Permit # :** 11001046

Date Reported: 8/11/2011

# 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 #: 80698 Account #: 3123  
Reference: Riverwood Lot 21 Company: National Water Servicing  
Location: 12068 Open Run Road Requested By: Dave Rycke  
Ellicott City, MD 21042 Source: Well Water  
Date/ Time Collected: 8/3/2011 1215 Site: Pressure Tank  
Date/Time Rec'd: 8/3/2011 1715 Treatment: None  
Chlorine ppm: Free: ND Total: ND pH: 6.3  
Collected By: C. Holland 0547CH Well #: HO-94-4053

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN <b>(F)</b>	20.7	MPN/ 100 ml	<1.0	SM18 9223	8/4/2011 / 1130 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	8/4/2011 / 1130 / CCH
Nitrate	9.97	mg/L	10	601	8/3/2011 / 1730 / CCH
Turbidity	7.07	NTU	<10	SM18 2130B	8/3/2011 / 1730 / CCH
Sand	NS	mg/L	5	Visual/Gravimetric	8/3/2011 / 1730 / CCH

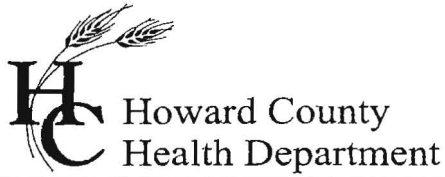
### NOTES

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

Reason for Test : Use & Occupancy

Building Permit # : 11001046

Date Reported: 8/4/2011



7178 Columbia Gateway Drive, Columbia, MD 21046  
(410) 313-2640 Fax (410) 313-2648  
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website: [www.hchealth.org](http://www.hchealth.org)

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

May 9, 2005

Winchester Homes, Inc.  
6905 Rockledge Drive, Suite 800  
Bethesda, MD 20817

RE: Riverwood Subdivision, lot 21  
Open Run Road

To Whom It May Concern:

Samples were taken from a yield test on April 25, 2005 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 activity in a water supply. In turn, this can provide information regarding naturally occurring radiation (i.e. Radionuclides) that may exist in your water supply.

Results from this screening revealed a **Gross Alpha** of  $3 \pm 1$  picocuries/liter (pCi/L); while the **Gross Beta** level was  $5 \pm 2$  pCi/L. The **Gross Alpha** result was below the respective **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** was below the **MCL** of 50 pCi/L.

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, Assistant Director  
Bureau of Environmental Health

Eric Dougherty, MDE, Water Mgmt., Groundwater  
Well & Septic Property File

Send Report To:

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

201 W. Preston Street, Baltimore, Maryland 21201  
J. Mehser Joseph, Ph.D., Director

### LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: <sup>HO GC 4053</sup> \_\_\_\_\_ No. B: \_\_\_\_\_ Field Blank Bottle No. 1: \_\_\_\_\_ No. 2: \_\_\_\_\_

Plant/Site Name: \_\_\_\_\_ County: Howard

Sample Source: Open Run Road Lot 21 Location: Yield Test  
(well no, lab sink, sample tap, etc.)

County:  1  3 Plant No.

Collector: G Creighton Telephone No.: 410 313 1784

Date Collected: 4 / 25 / 2005 Time Collected: 10 32 a.m. \_\_\_\_\_ p.m.

Nitric Acid Preserved: Yes  No  Iced: Yes  No

Submitters Code:   Federal Project:  S Field Data: 6.6 0.0  
pH Chlorine

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

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	2075	6±2	04/27/05
✓	Gross Beta	4100	2075	8±2	04/27/05
	Radon-222 Bottle A	4004			
	Radon-222 Bottle B	4004			
	Field Blank #1	4004			
	Field Blank #2	4004			
	Tritium				
	Ra - 226	4020			
	Ra - 228	4030			
	Total Uranium	4006			

Date Received: 04 / 25 / 05

Section Chief: S. Wise