



Bureau of Environmental Health  
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Peter L. Beilenson, M.D., M.P.H., Health Officer

October 17, 2007

Winchester of Howard County  
6905 Rockledge Drive  
Suite 800  
Bethesda, Maryland 20817

RE: Riverwood Lot 45  
Well Tag: HO - 95 - 0690

To Whom It May Concern:

A sample was collected from a yield test on August 14, 2007 and submitted to the Department of Health & Mental Hygiene Laboratory 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  $16.0 \pm 3.0$  picocuries/liter (pCi/L); while the **Gross Beta** level was  $8.0 \pm 3.0$  pCi/L. The **Gross Alpha** result exceeded 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).

Since the **Gross Alpha** finding exceeded its MCL, additional testing for **Gross Alpha**, **Gross Beta** and **Radium** will be necessary prior to occupancy to verify existing levels. Alternatively, you may install treatment designed to reduce **Gross Alpha**, **Gross Beta** and **Radium**, plus provide post treated results (for all 3 parameters) confirming that levels are in conformance with existing standards. These tests are **in addition** to the standard parameters required for Use & Occupancy.

**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.

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 to discuss additional testing requirements.

Sincerely,

  
Bert Nixon, Director

Bureau of Environmental Health

cc: 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. Mehseu Joseph, Ph.D., Director

**LABORATORY ANALYSIS REQUEST**

R45BB950690

Sample Bottle No. A: 1 No. B: \_\_\_\_\_ Field Blank Bottle No. 1: \_\_\_\_\_ No. 2: \_\_\_\_\_

Plant/Site Name: Riverwood-Lot 45 County: Howard

Sample Source: Castlebridge Road Location: H0-95-0690  
(well no., lab sink, sample tap, etc.)

County: ☒ 1 ☒ B Plant No. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Collector: Brian Baker Telephone No.: (410) 313-2643

Date Collected: 8/14/2007 Time Collected: \_\_\_\_\_ a.m. 12 p.m.

Nitric Acid Preserved: Yes ☒ No ☐ Iced: Yes ☐ No ☒

Submitters Code: ☐ ☐ Federal Project: ☒ S Field Data: \_\_\_\_\_ pH \_\_\_\_\_ Chlorine \_\_\_\_\_

Remarks: Sample Collected During Yield Test

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	0399	16 ± 3	08/16/07
✓	Gross Beta	4100	0399	8 ± 2	
	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: 08/14/07

Section Chief: S. Whose

Need files for

Riverwood Lot 45 – Castlebridge Road

Riverwood II Lot 70 – Whithorn Way

Lot 72 “

Parcel BB “