

C1 6929 SEQUENCE NO. (MDE USE ONLY)

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.

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

COUNTY NUMBER A 520 414

ST/CO USE ONLY DATE Received MM DD YY

DATE WELL COMPLETED MM DD YY 15 25 2007

Depth of Well 22 340 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-0713

OWNER Winchester Homes Inc STREET OR RFD Withhorn Way SUBDIVISION Rivelwood Phase 2 SECTION TOWN Ellicott City LOT 68

WELL LOG Not required for driven wells

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

Table with columns: DESCRIPTION (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Includes handwritten entries: Sand 0-25, Gray Granite 25-340.

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES Y NO N TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC NO. OF BAGS 9 NO. OF POUNDS 346 GALLONS OF WATER 54 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 36 ft.

CASING RECORD

MAIN CASING TYPE SF Nominal diameter top (main) casing (nearest inch) 6 Total depth of main casing (nearest foot) 29

OTHER CASING (if used) diameter inch depth (feet) from to

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

NUMBER OF UNSUCCESSFUL WELLS: 0 WELL HYDROFRACTURED YES Y NO 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

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. 1 M S D O 24 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. 1 D

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

DEPTH (nearest ft.) table with columns 1-21 and handwritten values: 27, 340.

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 TELESCOPE CASING LOG INDICATOR OTHER DATA

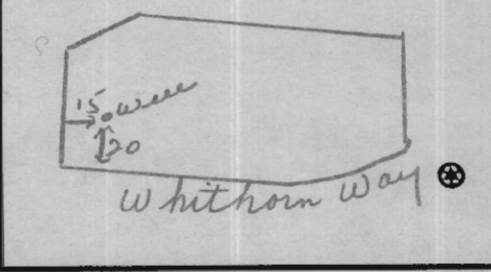
PUMPING TEST

HOURS PUMPED (nearest hour) 3 PUMPING RATE (gal. per min.) 10 METHOD USED TO MEASURE PUMPING RATE Bucket WATER LEVEL (distance from land surface) BEFORE PUMPING 30 ft. WHEN PUMPING 66 ft. TYPE OF PUMP USED (for test) 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)

LOCATION OF WELL ON LOT SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



B 1 9878

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type 525693

STATE PERMIT NUMBER

40-95-0713 fill in this form completely 79

Date Received (APA) 2/1/07

OWNER INFORMATION

Winchester Homes Inc. 6905 Rockledge Dr. Suite 800 Bethesda MD 20817

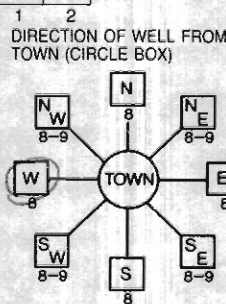
LOCATION OF WELL

Howard COUNTY Riverwood Phase 2 SECTION 44 LOT 68 Ellicott City NEAREST TOWN MILES FROM TOWN 5

DRILLER INFORMATION

Joseph L Mayne MS D 024 Driller's Name License No. 76 81 Joseph L Mayne Well Drillers Firm Name 5512 Ridge Rd Mt Airy Md 21771 Address Joseph L Mayne 1-30-07 Signature Date

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Whithorn way NEAR WHAT ROAD ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) DISTANCE FROM ROAD 25 FT ENTER FT OR MI TAX MAP: 29 BLK: 3 PARCEL 20

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 (D) FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION (F) INDUSTRIAL, COMMERCIAL, DEWATERING (I) PUBLIC WATER SUPPLY WELL (P) TEST, OBSERVATION, MONITORING (T) GEO-THERMAL (G)

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard COUNTY NAME A520414 COUNTY NO. STATE SIGNATURE DATE ISSUED 2/14/07 CO SIGNATURE EXP. DATE 1/14/08 NORTH GRID 515 000 EAST GRID 0826 000

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

METHOD OF DRILLING (circle one)

- BORED (or Augered) AIR-ROTary JETTED AIR-PERCussion ROTARY (Hydraulic Rotary) CABLE REVERSE-ROTary DRIVE-POINT other

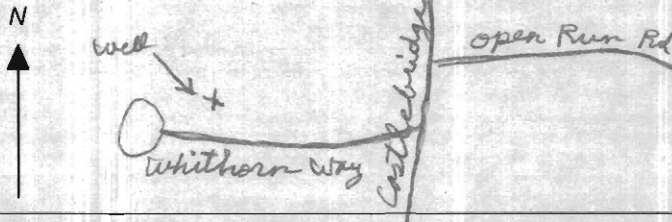
REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- THIS WELL WILL NOT REPLACE AN EXISTING WELL (N) THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED (Y) THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS (S) THIS WELL WILL DEEPEMED AN EXISTING WELL (D) PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41

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 8246 N 5145

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



7/25/07 Water Sample Collected During Yield Test (Radium) (BB)

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

APPROP. PERMIT NUMBER H0 2004 G 007 PERMIT No. H0-95-0713

SPECIAL CONDITIONS NEED RADIUM SAMPLE

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 #: 301-854-1353
Address: P.O. Box 138
Ashton, MD 20860

(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# P10MS

\*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 #: 301-803-4174
Subdivision: RIVERWOOD Lot #: 68 Well Tag #: HO-95-0713
Site Address: 11280 Withthorn Way
Ellicott City

Submersible Pump Data
Make:
Model #:
Pump Capacity GPM
Well Yield: GPM

Pitless Adapter
Make: Campbell
Model #: PA 300
Depth: 48" (36" min)
NSF approved: YES

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: 60 (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 CPS
Safety rope, if used, attached to inside of well casing with eye bolt N/A

Piping to house
Type: Poly
PSI: 160 (160 psi min)
Depth of supply line: 4' (36" min)

House Connection
PVC sleeved to undisturbed soil at wall penetration: YES
Approximate length of sleeve: 5'
Sleeve caulked and sealed properly: YES

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

7/31/12
date

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

Date Insp. Requested: 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



**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: \_\_\_\_\_ 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: Riverwood Lot #: 68 Well Tag #: HO - 95 - 0713  
Site Address: 1220 Withhorn Way

**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**

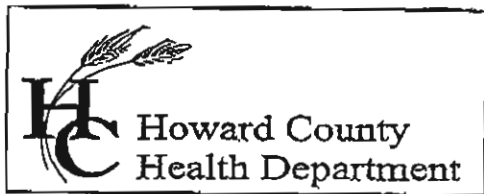
PVC sleeved to undisturbed soil at wall penetration: \_\_\_\_\_  
Approximate length of sleeve: \_\_\_\_\_  
Sleeve caulked and sealed properly: \_\_\_\_\_

**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: 8/1/12 Date Insp. Approved: 10/4/2012 **BB/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 Floor*  
Adequate grout observed below pitless adapter



7178 Columbia Gateway Drive, Columbia, MD 21046  
 (410) 313-2640 Fax (410) 313-2648  
 TDD (410) 313-2923 Toll Free 1-866-313-6300  
 website: www.hchealth.org

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

TO ALL INTERESTED PARTIES

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

Well Site Location:

Riverwood Phase II 43-77 Castlebridge Rd, Hunters View Road  
 Subdivision/Property Name Lot# Road Name  
Open Run Road & Withorn Way

The well site has been staked by Benchmark Eng,  
 (professional land surveyor or company employing professional land surveyors)  
 on \_\_\_\_\_ (date) and does not require a site inspection.

*all lots will be staked by 12/29/06*

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 3/11/05

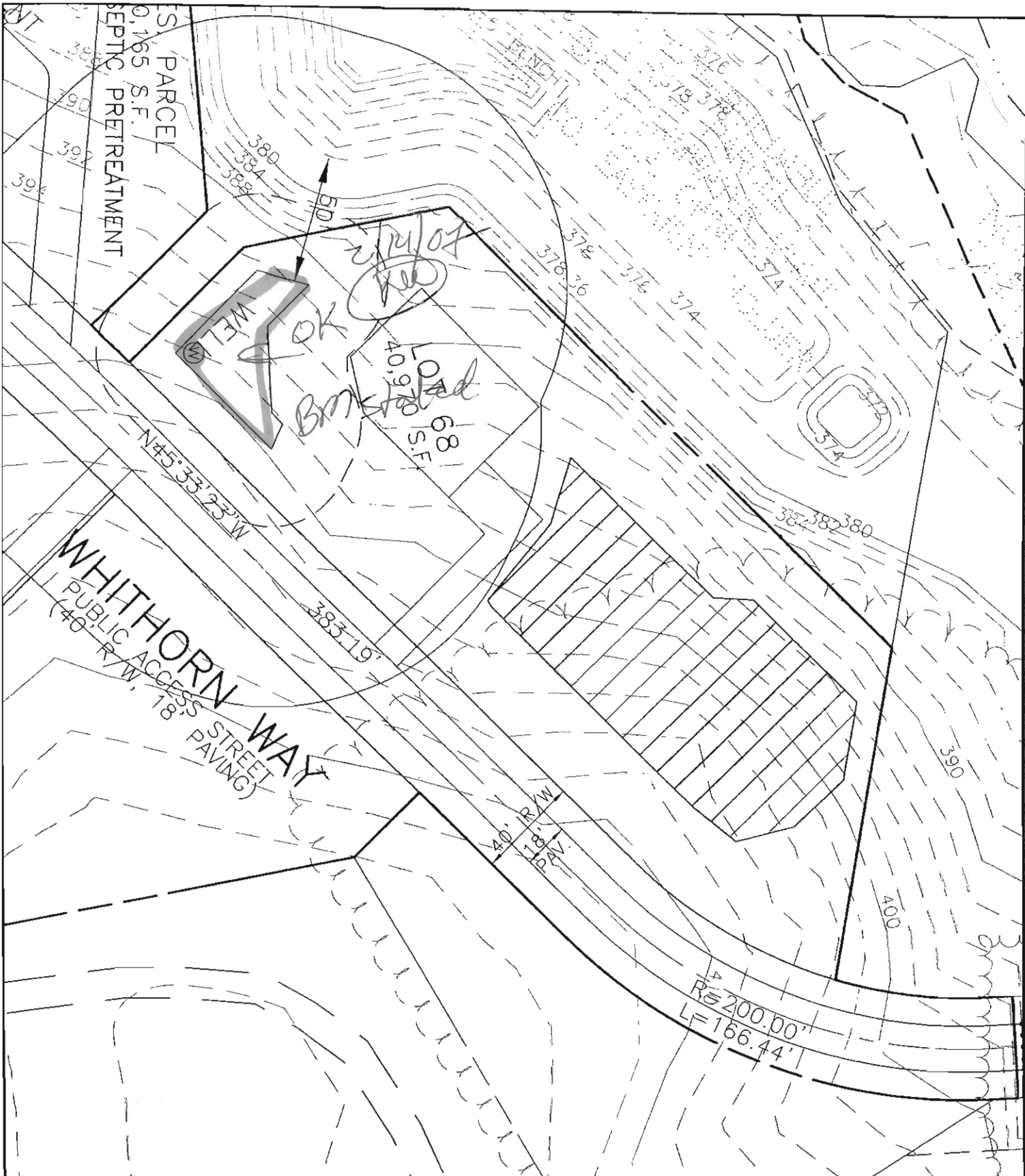
*Contact is:*

*Easterday*

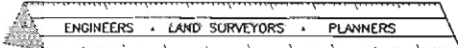
*301-829-1440*

2006 DE 18 PM 2:32

ENVIRONMENTAL HEALTH



BENCHMARK



ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MD 21043

PHONE: 410-465-6195 FAX: 410-465-6644

DATE: 1/25/2007 8:19 AM

PL1132 Homewood Inc. 7011025198

RIVERWOOD, PHASE 2

LOT 68

FORTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE: 1" = 50' DATE: 1/24/07



Bureau of Environmental Health  
7178 Columbia Gateway Drive, Columbia, MD 21046-2147  
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)  
Twitter: HowardCoHealthDep

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

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## INTERIM CERTIFICATE OF POTABILITY

Expiration Date – April 22<sup>nd</sup>, 2013

October 22, 2012

Homeowner  
11220 Whithorn Way  
Ellicott City, MD 21042

**RE: Riverwood II, Lot 68**  
**11220 Whithorn Way**  
**Building Permit: B12002049**  
**Well Permit: HO-95-0713**

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 **10/10/2012**. Final approval of the well line connection to the dwelling was granted on **10/4/2012**. The well construction was completed on **7/25/2007**. Water samples were collected on **10/17/2012 & 10/10/2012**.

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 **7/25/2007**. Results showed a Gross Alpha level of **7.0 ± 2.0 pCi/L** and Gross Beta level of **9.0 ± 2.0 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.

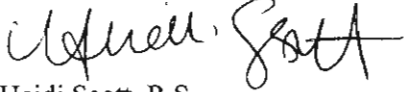
This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit HO-95-0713. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

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,

A handwritten signature in black ink, appearing to read "Heidi Scott". The signature is written in a cursive, flowing style.

Heidi Scott, R.S.  
Environmental Sanitarian  
Well & Septic Program

cc: Howard County Dept. of Inspections, Licenses, and Permits  
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 #: 86732 Account #: 3123  
Reference: Riverwood Lot 68 Company: National Water Servicing  
Location: 11220 Whithorn Way Requested By: Dave Rycke  
Ellicott City, MD 21042 Source: Well Water  
Date/ Time Collected: 10/17/2012 1126 Site: Pressure Tank  
Date/Time Rec'd: 10/17/2012 1223 Treatment: Softener/Neutralizer/Sediment Filter\*\*  
Chlorine ppm: Free: ND Total: ND pH: 5.9  
Collected By: J. Yeager 6176JY Well #: HO-95-0713

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	10/18/2012 / 0900 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	10/18/2012 / 0900 / CCH

*Bacteria  
OK 10-22-12  
HS*

### NOTES

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

Reason for Test : Use & Occupancy

Building Permit # : B12002049

Date Reported: 10/18/2012

# 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 #: 86649 Account #: 3123  
Reference: Riverwood Lot 68 Company: National Water Servicing  
Location: 11220 Whithorn Way Requested By: Dave Rycke  
Ellicott City, MD 21042 Source: Well Water  
Date/ Time Collected: 10/10/2012 1100 Site: Pressure Tank  
Date/Time Rec'd: 10/10/2012 1845 Treatment: Softener/Neutralizer/Sediment Filter  
Chlorine ppm: Free: ND Total: ND pH: 5.7  
Collected By: J. Yeager 6176JY Well #: HO-95-0713

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	16.4	MPN/ 100 ml	<1.0	SM18 9223	10/11/2012 / 1315 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	10/11/2012 / 1315 / CCH
Nitrate	3.04	mg/L	10	601	10/11/2012 / 1020 / CCH
Turbidity	1.17	NTU	<10	SM18 2130B	10/11/2012 / 0956 / JKW
Sand	NS	mg/L	5	Visual/Gravimetric	10/11/2012 / 0955 / JKW

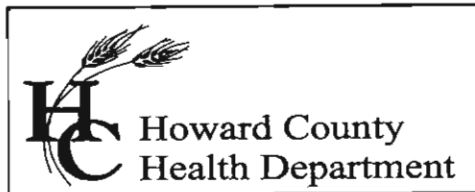
*Need bacteria retest!*  
*Nitrates, turbidity, sand OK*  
*10/22/12 JK*

### 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 # : B12002049

Date Reported: 10/15/2012



Bureau of Environmental Health  
7178 Columbia 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 30, 2007

Winchester of Howard County  
6905 Rockledge Dr.  
Suite 800  
Bethesda, MD 20817

RE: Riverwood Subdivision, Lot# 68  
Well Tag: HO-95-0713

To Whom It May Concern:

A sample was collected from a yield test July 25, 2007 and submitted to Department of Health and 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. In turn, this can provide information regarding naturally occurring radiation (i.e., Radionuclides) that may exist in your area of development within the County.

Results from this screening revealed a **Gross Alpha** of  $7.0 \pm 2.0$  picocuries/liter (pCi/L); while the **Gross Beta** level was  $9.0 \pm 2.0$  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 target 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 appears safe for all uses. No additional testing for these parameters will be required to secure the future Use & Occupancy. However, other standard (potability) testing will still be necessary.

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, Deputy Director  
Bureau of Environmental Health

cc: Eric Dougherty, MDE Water Mgmt., Groundwater  
✓ Well & Septic File

Send Report To: \_\_\_\_\_

State of Maryland

DHMH - Laboratories Administration

Division of Environmental Chemistry

**RADIATION LABORATORY**

201 W. Preston Street, Baltimore, Maryland 21201

John M. DeBoy, Dr. P.H., Director

**LABORATORY ANALYSIS REQUEST**

Sample Bottle No. A: R68BB950713 No. B: \_\_\_\_\_ Field Blank Bottle No. A: \_\_\_\_\_ No. B: \_\_\_\_\_

Plant/Site Name: Riverwood - Lot 68 County: Howard

Sample Source: Whitehorn Way Location: HO-95-0713  
(well no., lab sink, sample tap, etc.)

County:   Plant No.

CHECK (one per box)

Drinking Water	<input checked="" type="checkbox"/>
Landfill	<input type="checkbox"/>
Stream	<input type="checkbox"/>
Other	<input type="checkbox"/>

Community	<input type="checkbox"/>
Non-community	<input type="checkbox"/>
Private	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

Source (raw water)	<input checked="" type="checkbox"/>
Distribution (treated)	<input type="checkbox"/>
MCL	<input type="checkbox"/>

Emergency	<input type="checkbox"/>
Routine	<input checked="" type="checkbox"/>
Recheck	<input type="checkbox"/>
Special	<input type="checkbox"/>

Collector: Brian Baker

Telephone No: (410) 313-2643

Date Collected: 7/25/07

Time Collected: 10 a.m. \_\_\_\_\_ p.m.

Nitric Acid Preserved: Yes  No

Iced: Yes  No

Submitters Code:   Federal Project:  Field Data: \_\_\_\_\_

Remarks: Sample Collected During Yield Test <sup>pH</sup> Chlorine

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	0250	7 ± 2	7/30/07
✓	Gross Beta	4100	0250	9 ± 2	
	Radon-222 Bottle A	4004			
	Radon-222 Bottle B	4004			
	Field Blank A	4004			
	Field Blank B	4004			
	Tritium				
	Ra - 226	4020			
	Ra - 228	4030			
	Total Uranium	4006			

Date Received: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Supervisor: \_\_\_\_\_