

B 1 **9725** SEQUENCE NO. (MDE USE ONLY) STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 520762 please type STATE PERMIT NUMBER HO - 94 - 4055 fill in this form completely

Date Received (APA) **9774**
 OWNER INFORMATION
 8 MM DD YY 13
Winchester Homes, Inc
 15 Last Name Owner First Name 34
6905 Rockledge Drive, Suite 800
 36 Street or RFD 55
Bethesda, Md 20817
 57 Town 70 State 72 Zip 76

B 3 **Howard** LOCATION OF WELL
 8 COUNTY 21
Riverwood
 23 SUBDIVISION 42
 SECTION 1 LOT 23
 44 46 48 50
Clarksville Ellicott City
 52 NEAREST TOWN 71
 MILES FROM TOWN (enter 0 if in town) 3 M I
 73 76 77 78

DRILLER INFORMATION
George F. Easterday M W D 040
 Driller's Name 76 License No. 81
L. Franklin Easterday, Inc.
 Firm Name
9265 Brown Church Rd., MT. Airy, Md. 21771
 Address
 Signature *George F. Easterday* Date **6/28/04**

B 4
 1 2 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)
 11 NEAR WHAT ROAD 30
Open Run Road
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
 NORTH SOUTH WEST EAST
 34 350 37
 DISTANCE FROM ROAD Ft.
 ENTER FT OR MI 38 39
 TAX MAP: 29 BLK: 4 PARCEL 20

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

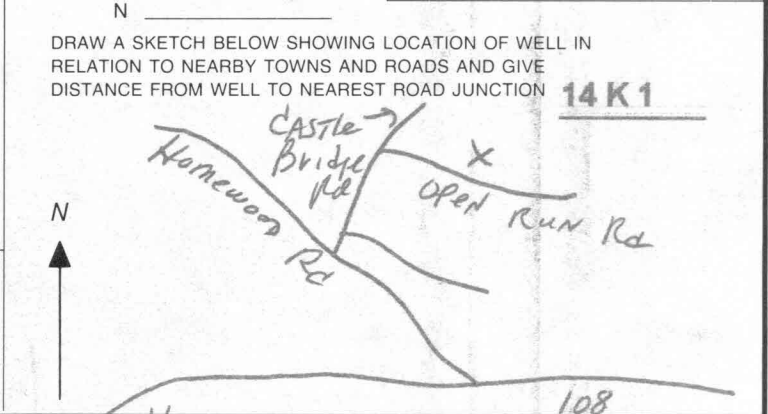
NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL
Howard (13) 1516084
 COUNTY NAME COUNTY NO.
 STATE SIGNATURE INSERT S
 DATE ISSUED *10/27/04* *Stuart D...* 10/27/05
 43 MM DD YY 48 CO SIGNATURE 827 EXP. DATE
 NORTH GRID 50 55 EAST GRID 57 63

APPROXIMATE DEPTH OF WELL 300 FEET
 24 28
 APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST INCH

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X
 4/21/05 *Grant*
 SOURCES OF DRILLING WATER
 1. wells
 2. Well Grouted
 3. **BB** X
 WRITE THE BOX NUMBER FROM THE MAP HERE
 E 310 ↓ 927
 000
 000
 N ← 4826 516

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
 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)
 APPROX. PERMIT NUMBER HO 2004 G 007
 PERMIT No. HO - 94 - 4055
 70 71 72 73 74 75 76 77 78, 79

SPECIAL CONDITIONS
 NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF 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: NATIONAL WATER SVC Telephone #: 301-854-1333
Address: P.O. BOX 138
ASHTON, MD

(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# P1 0145

*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: WINCHESTER HOMES Telephone #:
Subdivision: RIVERWOOD Lot #: 23 Well Tag #: HO-94-4055
Site Address: 4884 CASTLE BRIDGET RD
ELICOTT CITY, MD

Submersible Pump Data

Make: BRUNNEN
Model #: 1536ED7-180
Pump Capacity 15 GPM
Well Yield: 15 GPM

Pitless Adapter

Make: Campbell
Model#: PA 800
Depth: 48" (36" min)
NSF/WSC 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: 660 (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 CPS
Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing N/A

Piping to house

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

House Connection

PVC sleeve 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 _____ date 5-3-11

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

Date Insp. Requested: 3/8/11 Date Insp. Approved: 3/9/11 Inspector: OK (KW)
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 8" above finished grade
Water supply line sleeved adequately at house connection
Adequate grout observed below pitless adapter
Under Footer

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WATER AND SEWERAGE PROGRAM
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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: Rinwood Lot #: 23 Well Tag #: HO-94-4055
Site Address: _____

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: _____	Make: _____	Two piece watertight cap: _____
Model #: _____	Model#: _____	Screened, vented well cap: _____
Pump Capacity _____ GPM	Depth: _____ (36" min)	Cap secured to casing: _____
Well Yield: _____ GPM	NSF approved: _____	Conduit min 18" B.G.: _____
Depth of well encountered at time of pump installation: _____ (feet)		Conduit secured to well cap: _____
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 _____		

<u>Piping to house</u>	<u>House Connection</u>
Type: _____	PVC sleeved to undisturbed soil at wall penetration: _____
PSI: _____ (160 psi min)	Approximate length of sleeve: _____
Depth of supply line: _____ (36" min)	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: 3/2/11 Date Insp. Approved: 3/9/11 ^{OK} ^(KW) 3/8/11
 Inspection Data: Pitless adapter and water supply line at least 36" below grade ^{could not see}
 Two piece cap installed and attached to casing securely ^{AS}
 Elec. conduit extends at least 18" below grade/attached to cap properly ^{H20 in track}
 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

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



E 1,340,250

RECEIVED
OCT 15 2004

RIVERWOOD

LOT ~~22~~ 23

BENCHMARK
ENGINEERS • LAND SURVEYORS • PLANNERS

ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE • SUITE 418 • ELLICOTT CITY, MD 21043
PHONE: 410-465-6105 FAX: 410-465-6644

THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE: 1" = 50' DATE: 10/12/04



7178 Columbia Gateway Drive, Columbia Maryland 21046
(410) 313-1771 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

May 31, 2011

Homeowner
4884 Castle Bridge Road
Ellicott City, MD 21042

RE: Riverwood, Lot 23
4884 Castle Bridge Road
Ellicott City, MD 21042
BP #: B11000170
Well Permit # HO-95-4055

Dear Sir/Madam:

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 05/10/2011. Final approval of the well line connection to the dwelling was approved on 03/09/2011.**

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. **(Note: Results from water sample indicated passing nitrates but were very closed to failing. Builder has been notified and instructed to inform homeowner.)**

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-95-4055. 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.

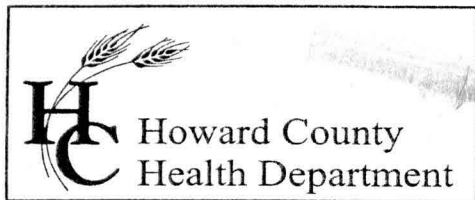
This certificate may become final upon completion of the second bacteriological test, which is to be taken by the county health department within six months of receipt of this letter. **Please contact (410) 313-1773 to schedule a final water sample appointment. Currently, there is no charge for this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

Date of Water Samples: 05/06/2011
Date of Well Completion: 04/22/2005

Approving Authority,

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

cc: Building Inspector's Office
Community Health Services
File



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

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 23
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 ± 1 picocuries/liter (pCi/L); while the **Gross Beta** level was 5 ± 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. Mehseu Joseph, Ph.D., Director

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: HO-6C-4055 No. B: _____ Field Blank Bottle No. 1: _____ No. 2: _____

Plant/Site Name: _____ County: Howard

Sample Source: Open Run Road Lot #23 Location: Yield Test
(well no., lab sink, sample tap, etc.)

County: 1 3 Plant No.

Collector: GCraighton Telephone No.: 410 313 1784

Date Collected: 4 / 25 / 2005 Time Collected: 1045 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	2076	3 ± 1	04/27/05
✓	Gross Beta	4100	2076	5 IR	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: B. Weiss

Send Report To:

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

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

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: HO-CC-4055 No. B: _____ Field Blank Bottle No. 1: _____ No. 2: _____

Plant/Site Name: _____ County: Howard

Sample Source: Open Run Road / Lot #23 Location: Field 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: 10:45 a.m. _____ p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code:

Federal Project: S

Field Data: 6.6 pH 0.0 Chlorine

Remarks: _____

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	2076	3±1	04/27/05
✓	Gross Beta	4100	2076	SIR	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: [Signature]

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 #:	79358	Account #:	3123
Reference:	Riverwood Lot 23	Company:	National Water Servicing
Location:	4884 Castlebridge Rd Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	5/6/2011 1217	Source:	Well Water
Date/Time Rec'd:	5/6/2011 1350	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	**Sediment Filter/Softener/Neutralizer
Collected By:	J.Yeager 6176JY	pH:	6.9
		Well #:	HO-94-4055

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Radon	380.0	pCi/L	---	913	5/9/2011 / --- / ASL

NOTES

- 1 **Sample collected prior to treatment
- 2 pCi/L = picocuries per liter
- 3 Sub-contracted to Lab
- 4 ND:None Detected
- 5 Visual well check: Sealed, vented cap
- 6 pH & Chlorine level tested in lab

Reason for Test : Use & Occupancy
Building Permit # : B-11000170

Date Reported: 5/11/2011

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REPORT OF ANALYSIS

Laboratory ID #: 79357 Account #: 3123
Reference: Riverwood Lot 23 Company: National Water Servicing
Location: 4884 Castlebridge Rd Requested By: Dave Rycke
Ellicott City, MD 21042 Source: Well Water
Date/ Time Collected: 5/6/2011 1217 Site: Pressure Tank
Date/Time Rec'd: 5/6/2011 1350 Treatment: **Sediment Filter/Softener/Neutralizer
Chlorine ppm: Free: ND Total: ND pH: 6.9
Collected By: J.Yeager 6176JY Well #: HO-94-4055

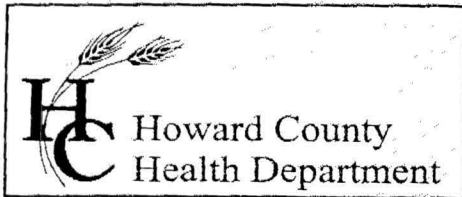
PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	5/7/2011 / 1000 / KME
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	5/7/2011 / 1000 / KME
Nitrate	<1.0	mg/L	10	601	5/6/2011 / 1600 / CCH
Turbidity	2.27	NTU	<10	SM18 2130B	5/6/2011 / 1730 / KME
Sand	NS	mg/L	5	Visual/Gravimetric	5/6/2011 / 1730 / KME

NOTES

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

Reason for Test : Use & Occupancy
Building Permit # : B-11000170

Date Reported: 5/9/2011



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(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

May 9, 2005

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6905 Rockledge Drive, Suite 800
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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