

C1 3774 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.

COUNTY NUMBER 13 A516084

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

ST/CO USE ONLY DATE Received MM DD YY

DATE WELL COMPLETED MM DD YY 5/29/07

Depth of Well 22 400 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-94-4003

OWNER Winchester Homes last name STREET OR RFD Castlebridge Road first name TOWN Ellicott City SUBDIVISION Riverwood SECTION 1 LOT 2

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. Rows include Top soil, clay, Brown shale, Brown mica, Sand stone, Gray mica, Brown mica, Gray mica opening, Gray mica.

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 13 NO. OF POUNDS 300 GALLONS OF WATER 78 DEPTH OF GROUT SEAL (to nearest foot) from 0 TOP 52 ft. to 32 BOTTOM 58 ft.

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) 5 6 40

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

C 3 PUMPING TEST

HOURS PUMPED (nearest hour) 3 PUMPING RATE (gal. per min.) 12 METHOD USED TO MEASURE PUMPING RATE Bucket WATER LEVEL (distance from land surface) BEFORE PUMPING 25 ft. WHEN PUMPING 171 ft. TYPE OF PUMP USED (for test) A air P piston T turbine C centrifugal R rotary O other 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 - below LAND SURFACE 2 (nearest foot)

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES Y NO N

CIRCLE APPROPRIATE LETTER 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. MW D 040

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. D 038

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

C 2 DEPTH (nearest ft.)

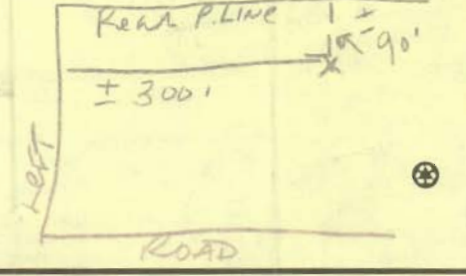
1 40 38 400 8 9 11 15 17 21 23 24 26 30 32 36 38 39 41 45 47 51 SLOT SIZE 1 2 3 DIAMETER OF SCREEN (NEAREST INCH) 56 60 from to

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

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 9704

SEQUENCE NO. (MDE USE ONLY)

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

STATE PERMIT NUMBER HO -94 -4003 fill in this form completely

Date Received (APA)

OWNER INFORMATION 9754

8 MM DD YY 13 Winchester Homes, Inc 15 Last Name Owner First Name 34 36 6905 Rockledge Drive, Suite 800 Street or RFD 55 57 Bethesda, Md 20817 Town 70 State 72 Zip 76

B 3 LOCATION OF WELL

8 COUNTY Howard 23 SUBDIVISION Riverwood 42 SECTION 1 44 46 LOT 2 48 50 Clarksville 52 NEAREST TOWN 71 MILES FROM TOWN (enter 0 if in town) 73 3 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 George F. Easterday Signature Date 6/28/04

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX) Castlebridge Rd 11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH SOUTH WEST EAST 34 300 37 DISTANCE FROM ROAD ENTER FT OR MI 38 39 TAX MAP: 29 BLK: 10 PARCEL 28

B 2 WELL INFORMATION

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

USE FOR WATER (CIRCLE APPROPRIATE BOX)

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

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard 13 A516084 COUNTY NAME COUNTY NO. STATE SIGNATURE INSERT S DATE ISSUED 8/20/2004 Brian Baber 8/20/2005 CO SIGNATURE EXP. DATE NORTH GRID 513 0 0 0 EAST GRID 828 0 0 0

APPROXIMATE DEPTH OF WELL 24 300 28 FEET

APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

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

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

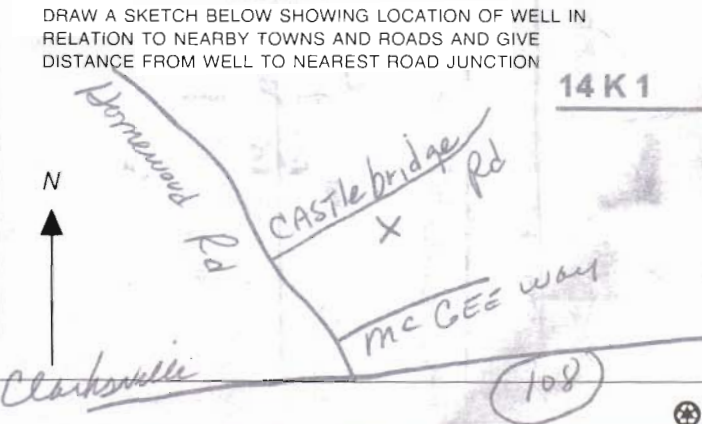
- N THIS WELL WILL NOT REPLACE AN EXISTING WELL
Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
D THIS WELL WILL DEEPEMED AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 52

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

APPROP. PERMIT NUMBER HO 2004 G007 PERMIT No. HO -94 -4003

SPECIAL CONDITIONS

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X SOURCES OF DRILLING WATER 1. wells 2. 3. WRITE THE BOX NUMBER FROM THE MAP HERE E 828 N 513



**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: PO 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 RYCKO License# PT 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: Camberley - Riverwood Lot #: 2 Well Tag #: HO-94-4003
Site Address: 4830 CASTLE BRIDGE RD
ELLICOTT CITY

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>Grundfos</u>	Make: <u>BZL</u>	Two piece watertight cap: <input checked="" type="checkbox"/>
Model #: <u>2230815-222</u>	Model#: <u>PA100</u>	Screened, vented well cap: <input checked="" type="checkbox"/>
Pump Capacity <u>22</u> GPM	Depth: <u>42</u> (36" min)	Cap secured to casing: <input checked="" type="checkbox"/>
Well Yield: <u>12</u> GPM	NSF/WSC approved: <u>YES</u>	Conduit min 18" B.G.: <input checked="" type="checkbox"/>
Depth of well encountered at time of pump installation: <u>120</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, 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>Piping to house</u>	<u>House Connection</u>
Type: <u>BLACK POLY</u>	PVC sleeve to undisturbed soil at wall penetration: <u>YES</u>
PSI: <u>160</u> (160 psi min)	Approximate length of sleeve: <u>5</u>
Depth of supply line: <u>42</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 9/25/07

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

Date Insp. Requested: 9/28/07 Date Insp. Approved: 11/10/08 Inspector: (Signature)
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

Should be signed
Called a p.i. below
2/10/03

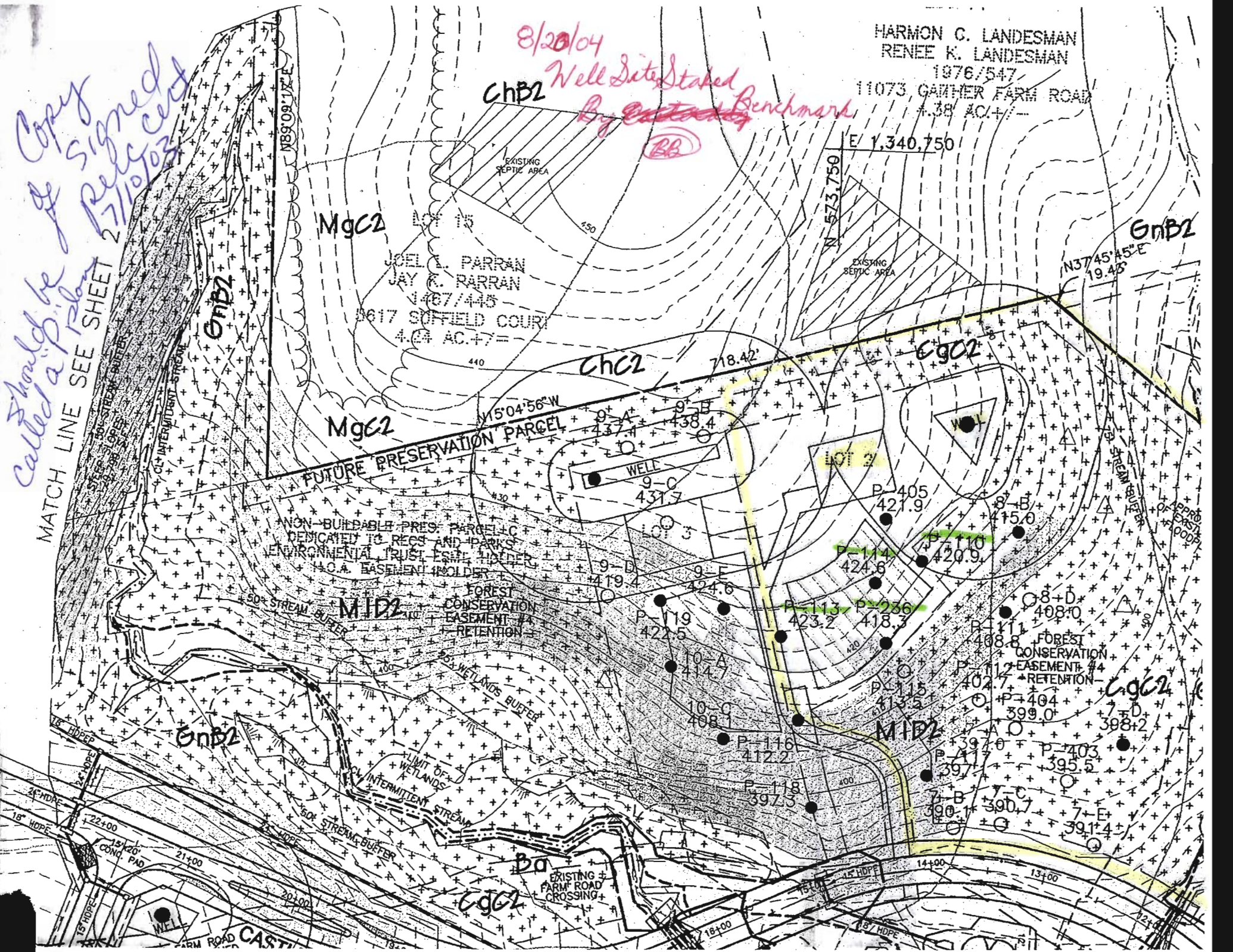
8/20/04

ChB2 Well Site Staked
By ~~Estimate~~ Benchmark

BB

HARMON G. LANDESMAN
RENEE K. LANDESMAN
1976/547
11073 GAMHER FARM ROAD
4.38 AC +/-

MATCH LINE SEE SHEET 2



M9C2

EnB2

M9C2

ChC2

C9C2

EnB2

M1D2

M1D2

EnB2

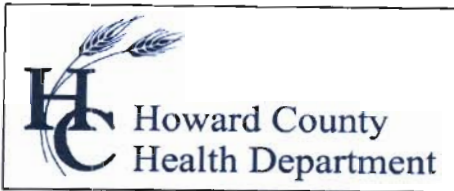
Bo

C9C2

C9C2

ARM ROAD CAST

12+00



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

1/10/2008

Homeowner
4830 Castlebridge Rd.
Ellicott City, MD 21042

RE: Riverwood, Lot 2
4830 Castlebridge Rd.
BP # B07002278
Well Permit # HO-9~~5~~^H-4003

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 10/19/2007. Final approval of the well line connection to the dwelling was approved on 1/10/2008.**

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.

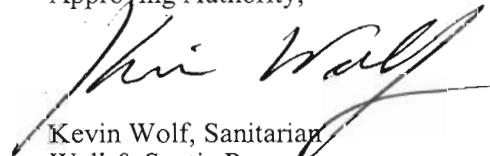
INTERIM CERTIFICATE OF POTABILITY

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-9~~5~~^H-4003. 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.**

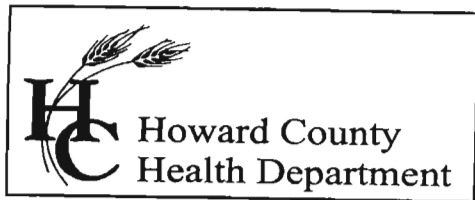
Date of Water Samples: 12/14/2007
Date of Radium Sample: 5/29/2007
Date of Well Completion: 5/29/2007

Approving Authority,



Kevin Wolf, Sanitarian
Well & Septic Program

cc: Building Inspector's Office
Community Health Services
File



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

June 28, 2007

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

RE: Riverwood Subdivison, Lot# 2
Well Tag: HO-94-4003

To Whom It May Concern:

A sample was collected from a yield test on May 29, 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 3.0 ± 1.0 picocuries/liter (pCi/L); while the **Gross Beta** level was 4.0 ± 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: Bert Nicks

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: H0-94-4003 No. B: _____ Field Blank Bottle No. A: _____ No. B: _____

Plant/Site Name: Riverwood Lot 2 County: Howard

Sample Source: Cuttle bridge rd Location: H0-94-4003
 (well no., lab sink, sample tap, etc.)

County: 1 2 Plant No.

CHECK (one per box)

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

Community	<input type="checkbox"/>
Non-community	<input checked="" type="checkbox"/>
Private	<input 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: K. Wolf Telephone No: 410-211-2625

Date Collected: 5/29/07 Time Collected: 11:15 a.m. _____ p.m.

Nitric Acid Preserved: Yes No Iced: Yes No

Submitters Code: Federal Project: Field Data: _____

Remarks: Sample collected @ Yald test pH _____ Chlorine _____

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000			
✓	Gross Beta	4100			
	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: _____

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 #:	66120	Account #:	3123
Reference:	Riverwood Lot 2	Company:	National Water Servicing
Location:	4830 Castle Bridge Road Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	12/14/2007 1011	Source:	Well Water
Date/Time Rec'd:	12/14/2007 1155	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	**
Collected By:	J. Yeager 6176JY	pH:	6.5
		Well #:	HO-94-4003

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223 B.	12/15/2007 / 1000 / BCD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223 B.	12/15/2007 / 1000 / BCD
Nitrate	<1.0	mg/L	10	601	12/14/2007 / 1340 / AD/BD
Turbidity	1.65	NTU	<10	SM18 2130B	12/14/2007 / 1230 / AD/BD
Sand	NS	mg/L	5	Visual/Gravimct	12/14/2007 / 1230 / AD/BD

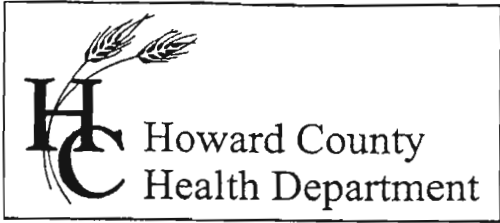
NOTES

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

Reason for Test : Use & Occupancy

Building Permit # : 07002278

Date Reported: 12/17/2007



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



L. FRANKLIN EASTERDAY, INC.

WELL DRILLING - TRENCHING - PUMPS & SERVICE

9265 Brown Church Rd., Mt. Airy, Maryland 21771

PHONE: 301-829-1640 • FAX: 301-829-2667

July 18, 2005

Howard County Health
7178 Columbia Gateway Drive
Ellicott City, Md. 21046

Re: State Well Permit extension
HO-94-4003 & HO-94-4004

Dear Sir:

Please extend the above referenced state well permits for another year. The permits are for lots 2 and 3 of Riverwood Subdivision Phase I on Castle Bridge Road.

Thank you for your prompt attention to this matter.

Very truly yours,

A handwritten signature in cursive that reads 'George F. Easterday'.

George F. Easterday, CWD/PI
President
MWD # 040

9/1/05

GFE/sve

O.K. to Extend
an Additional

6 months

(BB)