

C1 3816

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

DATE WELL COMPLETED 11/11/04

Depth of Well 22 200 26 1/24/05

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-94-4037

OWNER Winchester Homes, Inc. STREET OR RFD Open Run Road TOWN Ellicott City SUBDIVISION Riverwood SECTION 1 LOT 16

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, FEET (FROM, TO), check if water bearing. Includes entries like Topsoil, brown rocky clay, Sandstone, etc.

GROUTING RECORD

WELL HAS BEEN GROUTED (Y) (N) TYPE OF GROUTING MATERIAL (CM) (BC) NO. OF BAGS 25 NO. OF POUNDS 2500

CASING RECORD

MAIN CASING TYPE (ST) Nominal diameter top (main) casing 6 Total depth of main casing 77

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

SCREEN RECORD

screen type or open hole (ST) (BR) (HO) (PL) (OT)

DEPTH (nearest ft.)

Table with columns: E A C H S C R E E N, 1-21, 23-26, 30-32, 38-41, 45-47, 51

SLOT SIZE 1 2 3 DIAMETER OF SCREEN (NEAREST INCH) 56 60

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

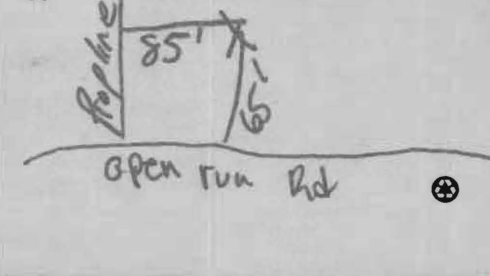
C 3 PUMPING TEST

HOURS PUMPED (nearest hour) 3 PUMPING RATE (gal. per min.) 17 METHOD USED TO MEASURE PUMPING RATE Bucket

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) 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

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)



NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED (Y) (N)

CIRCLE APPROPRIATE LETTER A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

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 MWD 040 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 JWD 727 SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

B 1 9718
1 2 3 6

SEQUENCE NO.
(MDE USE ONLY)

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

STATE PERMIT NUMBER

40-94-4037
70 fill in this form completely 79

Date Received (APA)

OWNER INFORMATION 9767

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

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 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 5

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500

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

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST

METHOD OF DRILLING (circle one)

- BORED (or Augered) AIR-ROTary
- JETTED AIR-PERcussion
- Jetted & DRIVEN ROTARY (Hydraulic Rotary)
- 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)

APPROP. PERMIT NUMBER H02004G007
PERMIT No. H0-94-4037

B 3 HOWARD LOCATION OF WELL

8 COUNTY 21

Riverwood

23 SUBDIVISION 42

SECTION 1 LOT 16

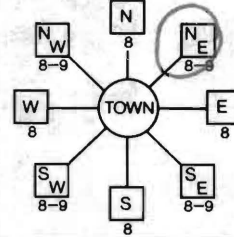
44 46 48 50

Clarksville

52 NEAREST TOWN 71

MILES FROM TOWN (enter 0 if in town) 3 M I

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Open Run Road

11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)



34 25 37 DISTANCE FROM ROAD Ft.

ENTER FT OR MI 38 39

TAX MAP 29 BLK: 4 PARCEL 20

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard 13 A516084

COUNTY NAME COUNTY NO.

STATE SIGNATURE INSERT S

DATE ISSUED 10/14/2004 Brian Baker 10/14/2005

43 MM DD YY 48 CO SIGNATURE EXP. DATE

NORTH GRID 516 000 EAST GRID 828 000

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

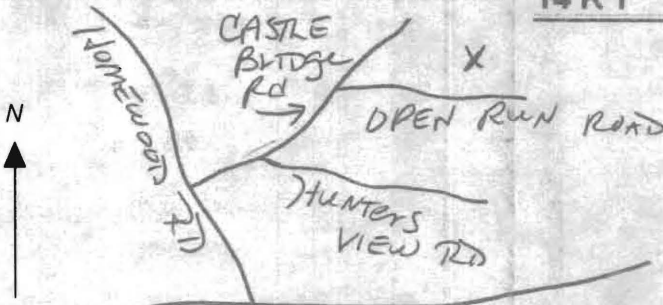
SOURCES OF DRILLING WATER

- 1. wells
- 2.
- 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 828
N 516

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION 14K1



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 Sr 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 KYCKE 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 Telephone #: _____
 Subdivision: KINGWOOD Lot #: 16 Well Tag #: HO-94-4037
 Site Address: 12048 OPEN RUN RD
ELLICOTT CITY

Submersible Pump Data	Pitless Adapter	Well Cap and Electric Conduit
Make: <u>GRUNDFOS</u>	Make: <u>BIL</u>	Two piece watertight cap: <input checked="" type="checkbox"/>
Model #: <u>15 54510-220</u>	Model#: <u>PAV0</u>	Screened, vented well cap: <input checked="" type="checkbox"/>
Pump Capacity <u>15</u> GPM	Depth: <u>42"</u> (36" min)	Cap secured to casing: <input checked="" type="checkbox"/>
Well Yield: <u>17</u> GPM	NSF/WSC approved: <input checked="" type="checkbox"/>	Conduit min 18" B.G.: <input checked="" type="checkbox"/>
Depth of well encountered at time of pump installation: <u>200</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

Piping to house
 Type: _____
 PSI: 160 (160 psi min)
 Depth of supply line: 48" (36" min)

House Connection
 PVC sleeve to undisturbed soil at wall penetration:
 Approximate length of sleeve: 6'
 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.

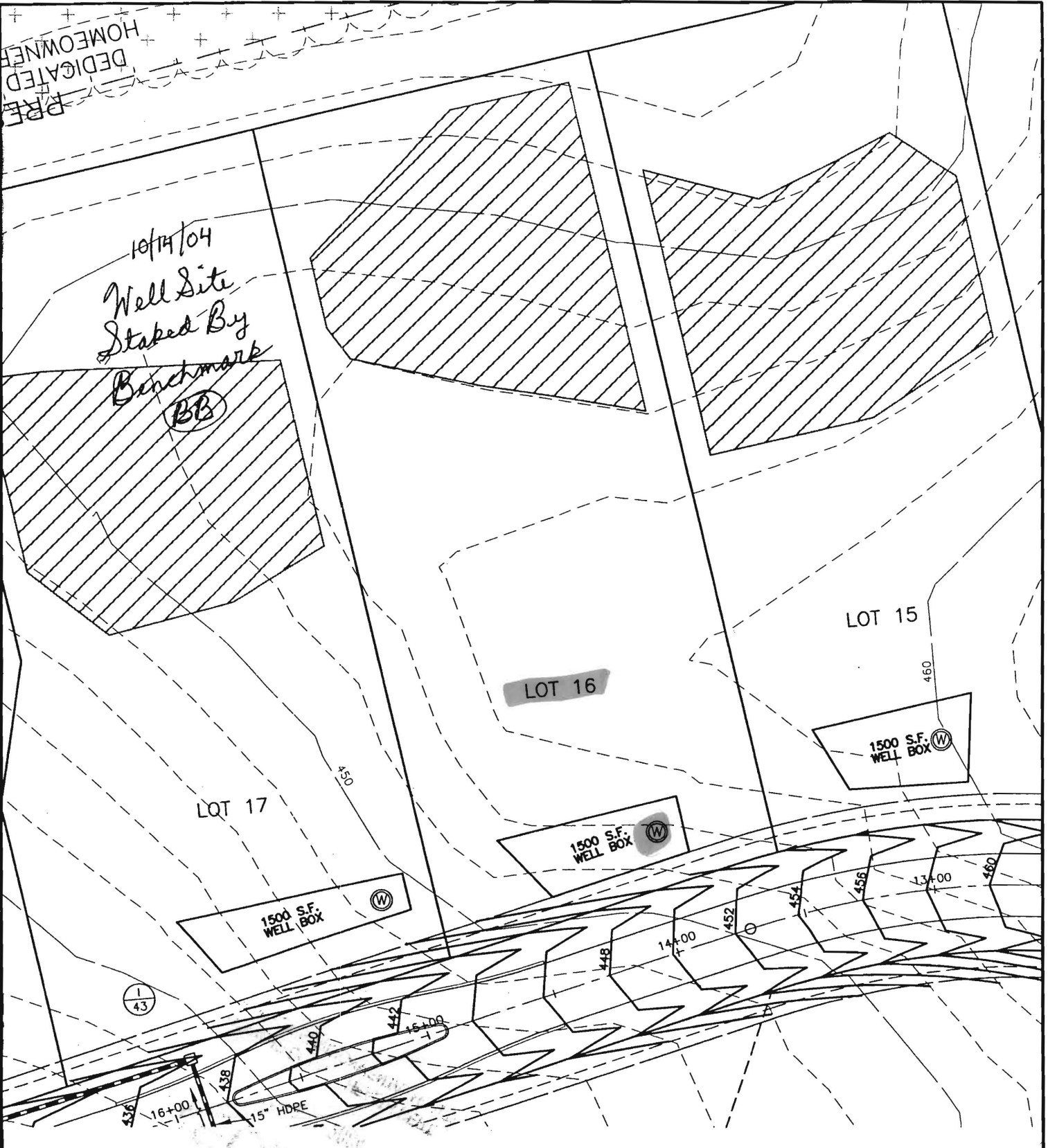
Signature of company representative responsible for installation _____ date 2/3/07

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

Date Insp. Requested: _____ Date Insp. Approved: 10/16/08 Inspector: (PBB)
 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

PRE-DEDICATED HOMEOWNER

10/14/04
Well Site
Staked By
Benchmark
(BB)



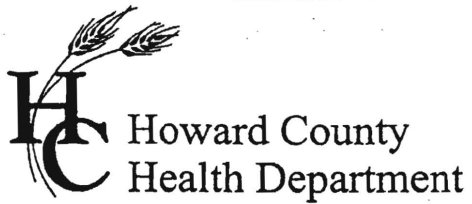
RIVERWOOD

LOT 16

BENCHMARK
 ENGINEERS • LAND SURVEYORS • PLANNERS
ENGINEERING, INC.

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

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



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 Columbia Gateway Drive Columbia, Maryland 21046-2132
(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

February 3, 2009

Occupant
12048 Open Run Road
Ellicott City, MD 21042

RE: Riverwood I, Lot 16
12048 Open Run Road
BP# B08002044
Well Tag #: HO-94-4037

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 11/07/2008. Final approval of the well line connection to the dwelling was approved on 10/16/2008.**

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.

Gross Alpha and Beta samples were also collected on 01/12/2009. Both findings were below the maximum limit suggested by the EPA. At the time of the 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 and Occupancy.

Enclosed with this certificate, are copies of the septic permit and the septic 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.

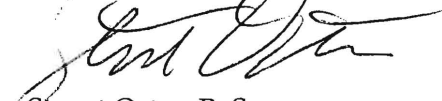
INTERIM CERTIFICATE OF POTABILITY

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-94-4037. 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: 01/09/2009, 01/15/2009 & 01/22/2009
Date of Samples for Gross Alpha & Gross Beta: 01/12/2009
Date of Well Completion: 11/11/2004

Approving Authority



Stuart Oster, R. S.
Well & Septic Program

cc: Building Inspector's Office
Community Health Services
File

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1013 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	69974	Account #:	3123
Reference:	Riverwood Lot 16	Company:	National Water Servicing
Location:	12048 Open Run Road Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	1/12/2009 1026	Source:	Well Water
Date/Time Rec'd:	1/12/2009 1200	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	J. Yeager 6176JY	pH:	5.8
		Well #:	HO-94-4037

PARAMETERS RESULTS UNITS REFERENCE METHOD DATE/TIME/ANALYST

Gross Alpha	3.5	pCi/L	15	900.0	1/16/2009 / 0703 / MJN
Gross Beta	11.2	pCi/L	50	900.0	1/16/2009 / 0711 / MJN

*Passes***NOTES**

- 1 Gross Alpha Detection Limit: 1.8 pCi/L
 - 2 Gross Beta Detection Limit: 2.1 pCi/L
 - 3 pCi/L = picocuries per liter
 - 4 pH tested on-site
 - 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 Subcontracted to Reference Lab #278
- Reason for Test : Client's Information

Date Reported: 1/30/2009

MD State Certification # 133

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 #:	70076	Account #:	3123
Reference:	Riverwood Lot 16	Company:	National Water Servicing
Location:	12048 Open Run Road Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	1/22/2009 1230	Source:	Well Water
Date/Time Rec'd:	1/22/2009 1345	Site:	Test Port After Treatment
Chlorine ppm:	Free: ND Total: ND	Treatment:	**
Collected By:	J.Yeager 6176JY	pH:	5.5
		Well #:	HO-94-4037

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Nitrate	<1.0	mg/L	10	601	1/23/2009 / 1100 / BCD

NOTES

- **Sediment Filter/ Softener/ Neutralizer/ Whole House Nitrate System
- mg/L = milligrams per liter (also, parts per million)
- Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- ND:None Detected
- Visual well check: Sealed, vented cap
- pH tested on-site

Reason for Test : Use & Occupancy retest 69961
 Building Permit # : B08002044

Date Reported: 1/23/2009

MD State Certification # 133

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 #:	70016	Account #:	3123
Reference:	Riverwood Lot 16	Company:	National Water Servicing
Location:	12048 Open Run Road Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	1/15/2009 1105	Source:	Well Water
Date/Time Rec'd:	1/15/2009 1425	Site:	Test Port After Treatment
Chlorine ppm:	Free: ND Total: ND	Treatment:	**
Collected By:	J.Yeager 6176JY	pH:	5.5
		Well #:	HO-94-4037

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Nitrate	21.0	mg/L	10	601	1/16/2009 / 1030 / CCH

NOTES

- **Sediment Filter/ Softener/ Neutralizer/ Whole House Nitrate System
- mg/L = milligrams per liter (also, parts per million)
- Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- ND:None Detected
- Visual well check: Sealed, vented cap
- pH tested on-site

Reason for Test : Use & Occupancy retest 69961
 Building Permit # : B08002044

Date Reported: 1/20/2009

MD State Certification # 133

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd., Westminster, MD (410) 848-1014 (410) 878-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	70015	Account #:	3123
Reference:	Riverwood Lot 16	Company:	National Water Servicing
Location:	12048 Open Run Road Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	1/15/2009 1057	Source:	Well Water
Date/Time Rec'd:	1/15/2009 1425	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	**
Collected By:	J. Yeager 6176JY	pH:	6.3
		Well #:	HO-94-4037

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	1/16/2009 / 0930 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	1/16/2009 / 0930 / CCH

NOTES

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

Reason for Test : Use & Occupancy retest 69961

Building Permit # : B08002044

Date Reported: 1/20/2009*MD State Certification # 133*

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd., Westminster, MD (410) 848-1014 (410) 876-4354 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	69961	Account #:	3123
Reference:	Riverwood Lot 16	Company:	National Water Servicing
Location:	12048 Open Run Road Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	1/9/2009 0755	Source:	Well Water
Date/Time Rec'd:	1/9/2009 1105	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	Sed.Filter/Softener/Neutralizer**
Collected By:	J.Yeager 6176JY	pH:	5.5
		Well #:	HO-94-4037

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	3.1	MPN/ 100 ml	<1.0	SM18 9223	1/10/2009 / 1000 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	1/10/2009 / 1000 / CCH
Nitrate	20.8	mg/L	10	601	1/9/2009 / 1130 / CCH
Turbidity	0.47	NTU	<10	SM18 2130B	1/9/2009 / 1430 / CCH
Sand	NS	mg/L	5	Visual/Gravimctr	1/9/2009 / 1430 / CCH

NOTES

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

Reason for Test : Use & Occupancy
 Building Permit # : B08002044

Date Reported: 1/20/2009

MD State Certification # 133