

C1 3838 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 7516084

ST/CO USE ONLY
DATE RECEIVED
MM DD YY
8 13

DATE WELL COMPLETED
MM DD YY
4 29 05

Depth of Well
22 230 26
(TO NEAREST FOOT)

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
10/26/05
OK (GAS)
40-94-4059
28 29 30 31 32 33 34 35 36 37

OWNER Winchester Farms
STREET OR RFD Kinsale Ct TOWN Elkton City
SUBDIVISION River Road SECTION 1 LOT 37

WELL LOG
Not required for driven wells

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box)
TYPE OF GROUTING MATERIAL (Circle one)

C 3
PUMPING TEST

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

DESCRIPTION (Use additional sheets if needed)	FEET		check if water bearing
	FROM	TO	
Top Soil mica	0	2	
Brown shale	2	50	
Quartz	50	55	
Gray mica/quartz	55	105	✓
Quartz	105	110	
Gray mica	110	115	
Quartz	115	130	
Gray mica	130	175	
Quartz	180	195	✓
Gray mica	195	205	
Gray mica w/ quartz	205	220	

CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 57 NO. OF POUNDS 5700
GALLONS OF WATER 342
DEPTH OF GROUT SEAL (to nearest foot)
from 0 TOP 52 ft. to 35 BOTTOM 58 ft.
(enter 0 if from surface)

HOURS PUMPED (nearest hour) 3
PUMPING RATE (gal. per min.) 15
METHOD USED TO MEASURE PUMPING RATE Bucket
WATER LEVEL (distance from land surface)

CASING RECORD
casing types insert appropriate code below
ST STEEL CO CONCRETE PL PLASTIC OT OTHER

BEFORE PUMPING 27 ft.
WHEN PUMPING 68 ft.
TYPE OF PUMP USED (for test)

MAIN CASING TYPE
Nominal diameter top (main) casing (nearest inch)!
Total depth of main casing (nearest foot)
ST 6 90

A air P piston T turbine
C centrifugal R rotary O other (describe below)
J jet S submersible

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

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

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

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

NUMBER OF UNSUCCESSFUL WELLS: 0

DEPTH (nearest ft.)

PUMP COLUMN LENGTH (nearest ft.) 43 47

WELL HYDROFRACTURED Y N

1 Ho 88 220
EACH CASING 8 9 11 15 17 21

CASING HEIGHT (circle appropriate box and enter casing height)

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

2 23 24 26 30 32 36
S EACH CASING
3 38 39 41 45 47 51
R EACH CASING
E SLOT SIZE 1 2 3

LAND SURFACE
below (nearest foot) 2

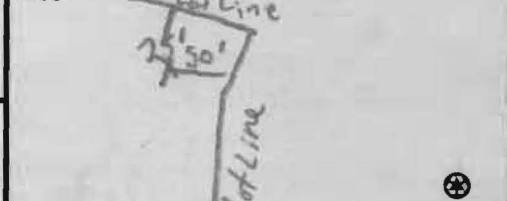
I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DIAMETER OF SCREEN (NEAREST INCH)
56 60
from to

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)

DRILLERS LIC. NO. 1 MDD 040
George F. Easterday
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)
LIC. NO. 1 AWD 798

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



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

TELESCOPE CASING LOG INDICATOR OTHER DATA

B 1 9729

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

70-94-4059 fill in this form completely 79

520762 please type

Date Received (APA) 07/06/04

OWNER INFORMATION 9778

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 CC#

8 COUNTY 21 Riverwood 23 SUBDIVISION 1 37 SECTION 44 46 LOT 48 50 Clarksville Ellicott City 52 NEAREST TOWN 71 MILES FROM TOWN (enter 0 if in town) 3 73 76 77 78

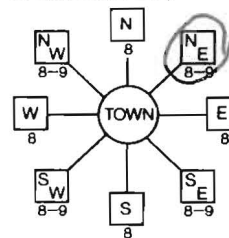
DRILLER INFORMATION

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 Date 6/28/04

B 4

1 2 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Kinsale Court

11 NEAR WHAT ROAD 30 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH SOUTH 34 400 37 DISTANCE FROM ROAD Ft. ENTER FT OR MI 38 39 TAX MAP: 23 BLK: 21 PARCEL 26

B 2 WELL INFORMATION APPROX. PUMPING RATE (GAL. PER MIN.) 5 8 500 12

AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 14 20

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard (73) 1516089 COUNTY NAME COUNTY NO. STATE SIGNATURE INSERT S DATE ISSUED 10/27/04 10/27/05 CO SIGNATURE EXP. DATE NORTH GRID 513 000 EAST GRID 827 000 50 55 57 63

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

APPROXIMATE DEPTH OF WELL 300 FEET 24 28

APPROXIMATE DIAMETER OF WELL 6 INCH NEAREST INCH

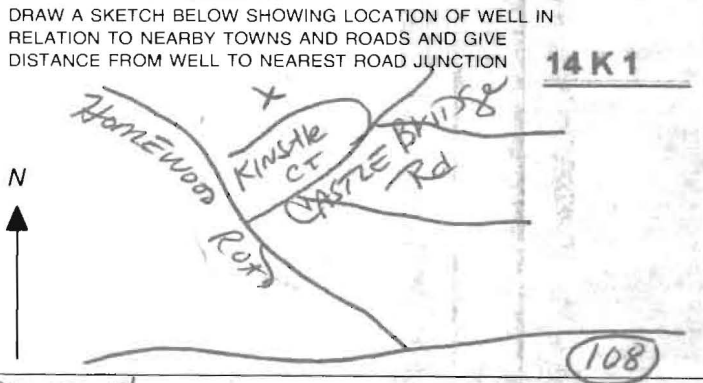
METHOD OF DRILLING (circle one)

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 DEEPEM AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 52

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X 5/2/05 About Noon SOURCES OF DRILLING WATER 1. wells 2. 3. WRITE THE BOX NUMBER FROM THE MAP HERE E 827 000 N 820 513 000



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

APPROP PERMIT NUMBER HO 2004 G 007 PERMIT No HO-94-4059 70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS

**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 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 RYCKE License# PI 0145

*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 #: 37 Well Tag #: HO-94-4057
Site Address: 11234 KINGSAR CT
ELICOTT CITY, MD

Submersible Pump Data

Make: GRUNDfos
Model #: 15 SQE 07-180
Pump Capacity: 15 GPM
Well Yield: 15 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: 220 (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.

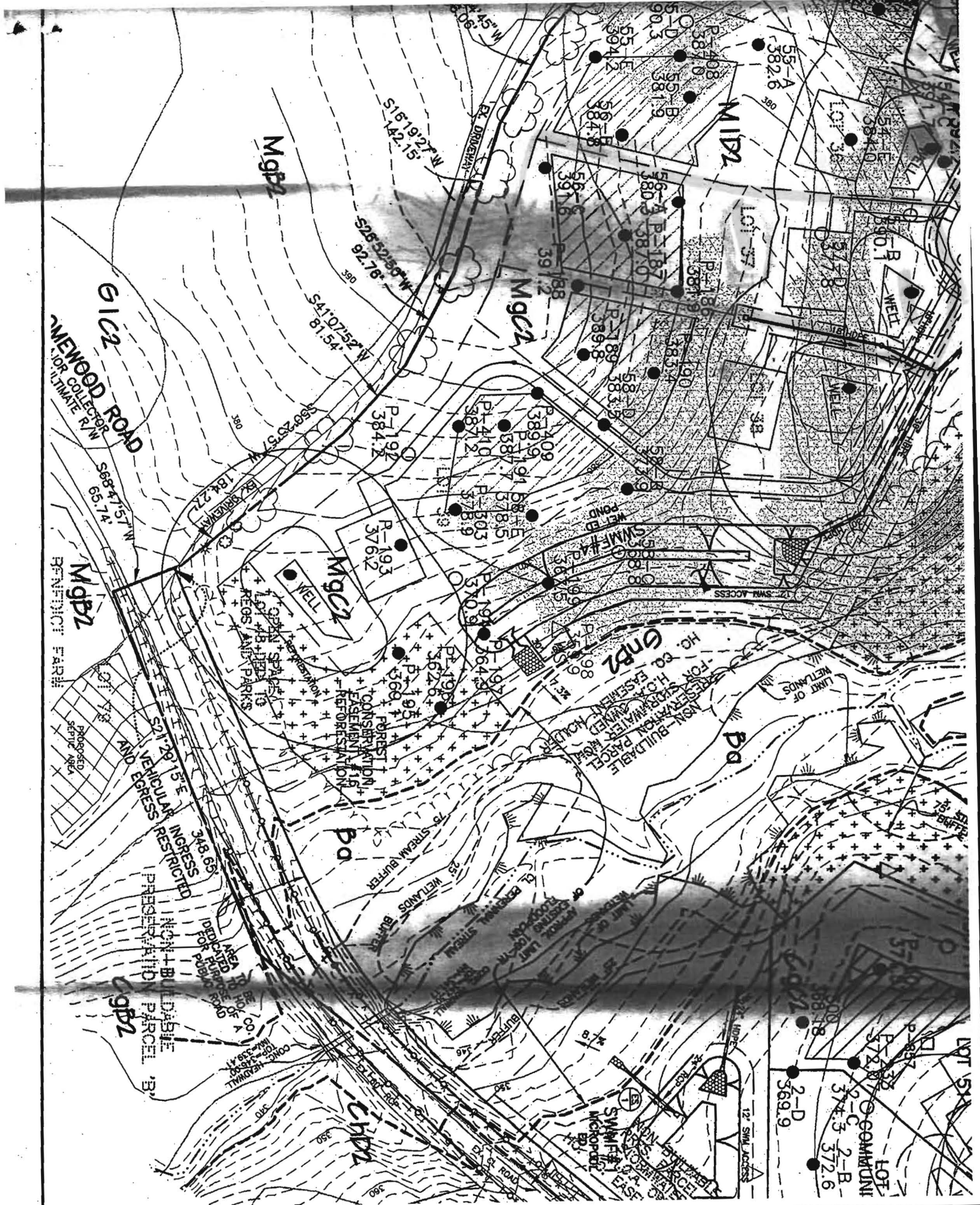
Signature of company representative responsible for installation: _____ date: 11/30/10

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

Date Insp. Requested: _____ Date Insp. Approved: 9/15/2010 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
- Adequate grout observed below pitless adapter

Under Footer



NEWWOOD ROAD
FOR COLLECTOR
ULTIMATE R/W

AND VEHICULAR RESTRICTED
PRESERVE AND PARCEL 'B'
NON-BUILDABLE
IDIOSyncRAsy

Mgb2

MgC2

MID2

Gnb2

Pa

Gpb2

WELL

2-D

2-B

2-C

LOT 5X

CONSERVATION
EASEMENT
RESTORATION

NON-BUILDABLE
FOR SUBDIVISION PARCEL
H.O. EQ EASEMENT HOLDER

GREEN SPACES
TOPGARDENS
TREES AND PARKS

WETLANDS BUFFER

STREAM BUFFER

WETLANDS

WETLANDS

WETLANDS

WETLANDS

WETLANDS

PROPOSED
SEPTIC AREA

WELL

WELL

WELL

WELL

WELL

WELL

WELL

WELL

PROPOSED
SEPTIC AREA

WELL

WELL

WELL

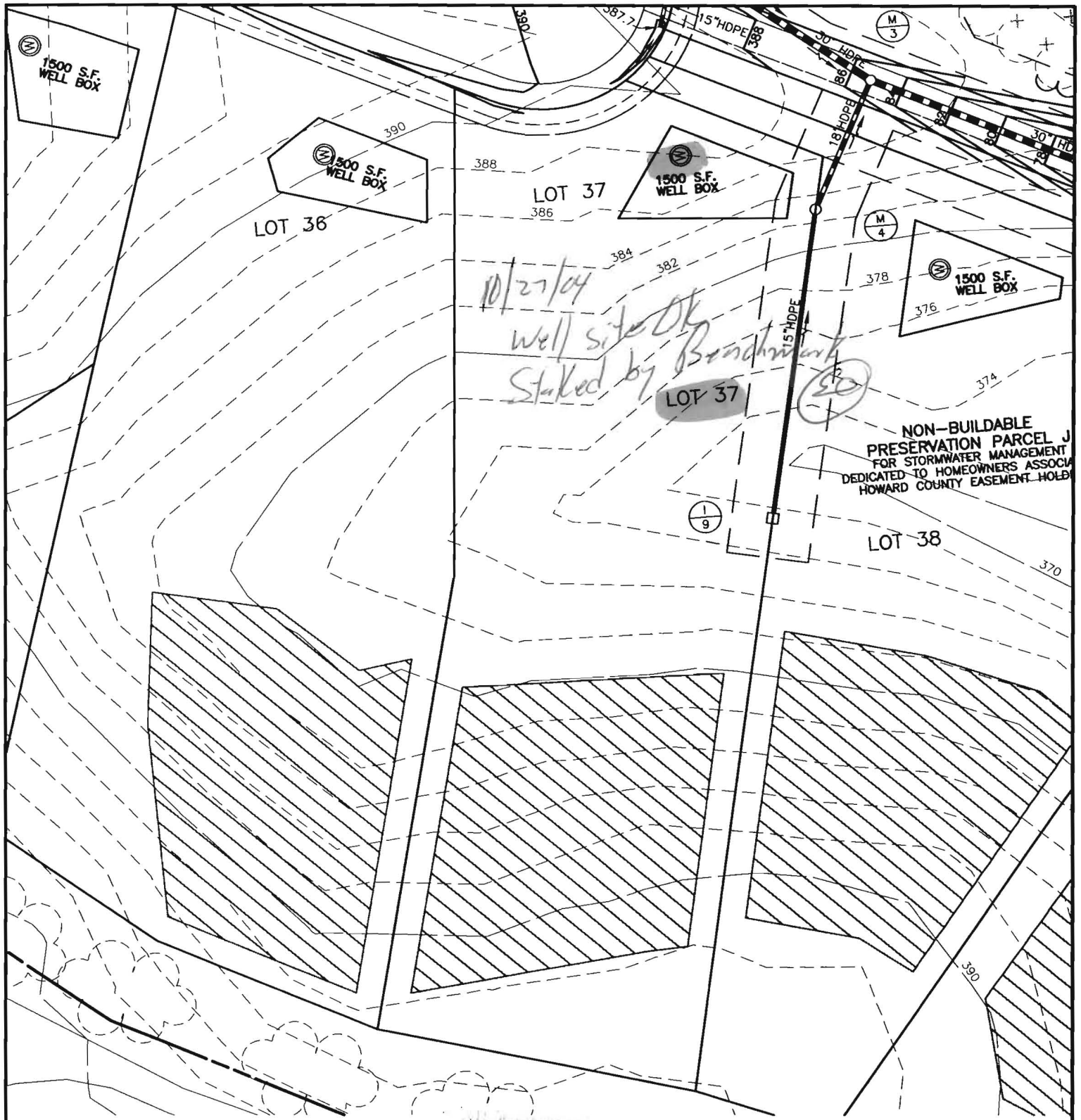
WELL

WELL

WELL

WELL

WELL



RIVERWOOD

LOT 37

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



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

LOTS

1-10

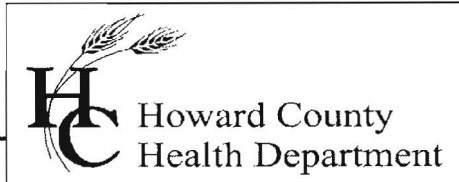
Phase I

12-23

Riverwood

34-41

All are staked



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

December 1, 2010

Homeowner
11234 Kinsale Court
Ellicott City, MD 21042

RE: Riverwood, Lot 37
11234 Kinsale Court
BP #: B10002331
Well Tag: HO-94-4059

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 11/19/2010. Final approval of the well line connection to the dwelling was approved on 09/15/2010.**

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 Gross Beta samples were collected on 05/03/2005. Results showed a Gross Alpha level was 4.0+- 2.0 pCi/L and Gross Beta level was 6.0+- 2.0 pCi/L. This is explained in more detail from the Radium letter issued 05/31/2005 for the aforementioned property.

Enclosed with this certificate, is a copy of the septic permit and the 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-94-4059. 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: 11/19/2010
Date of Well Completion: 04/29/05

Approving Authority,



Brian Baker R.S.
Environmental Health
Well & Septic Program

cc: Building Inspector's Office
Community Hygiene Program
File

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Fairbrytown Rd., Westminster, MD, 21157-1014 (410) 848-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	77617	Account #:	3123
Reference:	Riverwood Lot 37	Company:	National Water Servicing
Location:	11234 Kinsale Court Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	11/19/2010 0915	Source:	Well Water
Date/Time Rec'd:	11/19/2010 1115	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	Prior to Sediment Filter
Collected By:	J.Yeager 6176JY	pH:	6.7
		Well #:	HO-94-4059

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME ANALYSIS
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	11/20/2010 / 1000 / BCD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	11/20/2010 / 1000 / BCD
Nitrate	<1.0	mg/L	10	601	11/19/2010 / 1605 / BCD
Turbidity	0.93	NTU	<10	SM18 2130B	11/19/2010 / 1145 / KME
Sand	NS	mg/L	5	Visual/Gravimetric	11/19/2010 / 1145 / KME

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 = Nonc 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 pH and Chlorine level tested on site
- 8 Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy
 Building Permit # : B10002331

Date Reported: 11/22/2010

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.
 1415 Old Lantytown Rd. Westminster, MD (410) 848-2014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	77618	Account #:	3123
Reference:	Riverwood Lot 37	Company:	National Water Servicing
Location:	11234 Kinsale Court Ellicott City, MD 21042	Requested By:	Dave Rycke
Date/ Time Collected:	11/19/2010 0915	Source:	Well Water
Date/Time Rec'd:	11/19/2010 1115	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	Prior to Sediment Filter
Collected By:	J.Yeager 6176JY	pH:	6.7
		Well #:	HO-94-4059

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME
Radon	1100.0	pCi/L	---	913	11/23/2010 / --- / ASL

NOTES

- 1 pCi/L = picocuries per liter
- 2 Subcontracted to Reference Lab
- 3 ND:None Detected
- 4 pH and Chlorine level tested on site
- 5 Visual well check: Sealed, vented cap

Reason for Test : Use & Occupancy
 Building Permit # : B-10002331

Date Reported: 11/29/2010



Howard County
Health Department

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 31, 2005

Winchester Homes, Inc.
6905 Rockledge Drive, Suite 800
Bethesda, MD 20817

RE: Riverwood Subdivision, lot 37
Open Run Road

To Whom It May Concern:

Samples were taken from a yield test on May 3, 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 4 ± 2 picocuries/liter (pCi/L); while the **Gross Beta** level was 6 ± 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. Mehsen Joseph, Ph.D., Director

Howard County Health Department
Bureau of Environmental Health
78 Columbia Gateway Drive
Columbia, Maryland 21046

LABORATORY ANALYSIS REQUEST

HO-GC-4059

Sample Bottle No. A: _____ No. B: _____ Field Blank Bottle No. 1: _____ No. 2: _____

Plant/Site Name: _____ County: Howard

Sample Source: Riverwood lot 37 Location: on lot (Hb-94405)
(well no., lab sink, sample tap, etc.)

County: 1 3 Plant No.

Collector: M. Goughen Telephone No.: 410-313-2775

Date Collected: 5/3/05 Time Collected: 9:45 a.m. _____ p.m.

Nitric Acid Preserved: Yes No Iced: Yes No

Submitters Code: Federal Project: S Field Data: 6.5 pH OC Chlorine

Remarks: PRE (YIELD TEST)

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	2144	4 ± 2	05/06/05
✓	Gross Beta	4100	2144	6 ± 2	05/06/05
	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: 05/03/05

Section Chief: S. Wise

• Tel. No.: (410) 767-5537 • Fax No.: (410) 333-5237