

C1 6916

SEQUENCE NO.  
(MDE USE ONLY)STATE OF MARYLAND  
WELL COMPLETION REPORT  
FILL IN THIS FORM COMPLETELY  
PLEASE TYPETHIS REPORT MUST BE SUBMITTED WITHIN  
45 DAYS AFTER WELL IS COMPLETED.COUNTY  
NUMBER

A520414

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

ST/CO USE ONLY

DATE RECEIVED  
MM DD YY

8 13

DATE WELL COMPLETED

MM DD YY  
8 1 2007

Depth of Well

22 150 26  
(TO NEAREST FOOT)

PERMIT NO.

FROM "PERMIT TO DRILL WELL"

28 29 30 31 32 33 34 35 36 37  
Ho - 95 - 0716

OWNER

STREET OR RFD

SUBDIVISION

Winchester Homes Inc

Whithorn Way

Rivewood Phase 2

first name

TOWN

Celtic City

SECTION

LOT

71

## WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR  
COLOR, DEPTH, THICKNESS AND IF WATER BEARINGDESCRIPTION (Use  
additional sheets if needed)

FEET

FROM

TO

check  
if water  
bearing

Sand

0 44

Gray Granite 44 150 ✓

## GROUTING RECORD

yes no

WELL HAS BEEN GROUTED  
(Circle Appropriate Box)Y N  
44 44

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT CM

BENTONITE CLAY BC

NO. OF BAGS 44

NO. OF POUNDS 1316

GALLONS OF WATER 84

DEPTH OF GROUT SEAL (to nearest foot)

from 48 TOP 0 ft. to 45 BOTTOM 58 ft.  
(enter 0 if from surface)

## CASING RECORD

casing  
types  
insert  
appropriate  
code  
belowST  
STEELCO  
CONCRETEPL  
PLASTICOT  
OTHERMAIN  
CASING  
TYPENominal diameter  
top (main) casing  
(nearest inch)Total depth  
of main casing  
(nearest foot)

St

6

48

60 61

63 64

66 70

## OTHER CASING (if used)

diameter

depth (feet)

inch

from to

E  
A  
C  
H  
C  
A  
S  
I  
N  
Gscreen type  
or open hole

## SCREEN RECORD

(insert  
appropriate  
code  
below)ST  
STEELBR  
BRASSHO  
OPEN  
HOLEPL  
BRONZEOT  
OTHER

PLASTIC

C 2

DEPTH (nearest ft.)

1 2

E A C H

1 8 9 11 15 17 21

2 23 24 26 30 32 36

3 38 39 41 45 47 51

S R E E

N

SLOT SIZE 1 2 3

DIAMETER

OF SCREEN

(NEAREST  
INCH)56 60  
from toGRAVEL PACK  
IF WELL DRILLED  
WAS FLOWING WELL  
INSERT F IN BOX 68

68

MDE USE ONLY

(NOT TO BE FILLED IN BY DRILLER)

T

(E.R.O.S.)

W Q

70

72

74 75 76

TELESCOPE  
CASINGLOG  
INDICATOR

OTHER DATA

C 3

## PUMPING TEST

HOURS PUMPED (nearest hour)

3

PUMPING RATE (gal. per min.)

20

METHOD USED TO  
MEASURE PUMPING RATE

Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING

34

ft.

WHEN PUMPING

41

ft.

TYPE OF PUMP USED (for test)

A air

P piston

T turbine

C centrifugal

R rotary

O other  
(describe  
below)

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.

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)

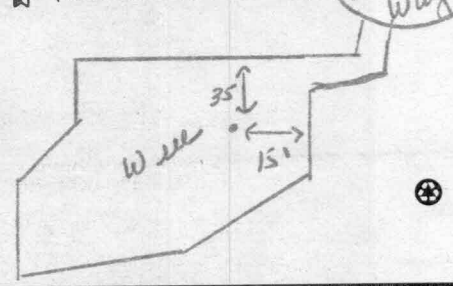
+ above

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)

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED

yes no  
Y 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  
WELLI 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 MS D 024

DRILLER'S SIGNATURE

(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 MS D 027

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

B 1		9881		SEQUENCE NO. (MDE USE ONLY)		STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL		STATE PERMIT NUMBER 40-95-0716 fill in this form completely			
1 2 3		6				525693 please type					
Date Received (APA) 2/1/07 8 MM DD YY 13				OWNER INFORMATION Winchester Homes Inc. 15 Last Name Owner First Name 34 6905 Rockledge Dr Suite 800 36 Street or RFD 55 Bethesda Md 20817 57 Town 70 State 72 Zip 76				B 3 LOCATION OF WELL Howard 8 COUNTY 21 Rinewood Phase 2 23 SUBDIVISION 42 SECTION 44 46 LOT 71 48 50 Ellicott City 52 NEAREST TOWN 71 MILES FROM TOWN (enter 0 if in town) 5 M I 73 76 77 78			
DRILLER INFORMATION Joseph L Mayne M S D O 24 Driller's Name 76 License No. 81 Joseph L Mayne Well Drilling Firm Name 5512 Ridge Rd Mt Airy Md 21111 Address Joseph L Mayne 1-30-07 Signature Date				B 4 1 2 DIRECTION OF WELL FROM TOWN (CIRCLE BOX) N W N E 8-9 8-9 W TOWN E 8 8 S W S E 8-9 8-9 8 8 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) 11 NEAR WHAT ROAD 30 Whithorn way ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH N W 32 E WEST EAST S SOUTH 34 200 37 DISTANCE FROM ROAD FT ENTER FT OR MI 38 39 TAX MAP: 29 BLK: 3 PARCEL 20							
B 2 WELL INFORMATION 1 2 APPROX. PUMPING RATE 5 (GAL. PER MIN.) 8 12 AVERAGE DAILY QUANTITY NEEDED 500 (GAL. PER DAY) 14 20				USE FOR WATER (CIRCLE APPROPRIATE BOX) 22 <input checked="" type="checkbox"/> D DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION <input type="checkbox"/> F FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) <input type="checkbox"/> I INDUSTRIAL, COMMERCIAL, DEWATERING <input type="checkbox"/> P PUBLIC WATER SUPPLY WELL <input type="checkbox"/> T TEST, OBSERVATION, MONITORING <input type="checkbox"/> G GEO-THERMAL				NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL Howard 13 A520414 COUNTY NAME COUNTY NO. STATE SIGNATURE INSERT S 41 DATE ISSUED 2/14/07 / Kim Wall 2/14/08 43 MM DD YY 48 CO SIGNATURE EXP. DATE NORTH GRID 515 000 55 EAST GRID 0826 000 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 SOURCES OF DRILLING WATER 1. well 2. 3.			
METHOD OF DRILLING (circle one) 30 BORED (or Augered) JETTED Jetted & DRIVEN AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary) 37 CABLE REVerse-ROTary Drive-POINT other				WRITE THE BOX NUMBER FROM THE MAP HERE E 826 N 515				8/7/08 Water (Radium) Sample Collected During Yield Test (BB)			
REPLACEMENT OR DEEPEENED WELLS (CIRCLE APPROPRIATE BOX) 39 <input checked="" type="checkbox"/> N THIS WELL WILL NOT REPLACE AN EXISTING WELL <input type="checkbox"/> Y THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED <input type="checkbox"/> S THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS <input type="checkbox"/> D THIS WELL WILL DEEPEEN AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEENED (IF AVAILABLE) 41 52				DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION Ellicott City well Whithorn way Cottlebridge Rd Open Run Rd							
Not to be filled in by driller (MDE OR COUNTY USE ONLY) APPROP. PERMIT NUMBER 40 2004 G 007 PERMIT No. 40-95-0716 70 71 72 73 74 75 76 77 78 79											
SPECIAL CONDITIONS NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED NEED RADIUM SAMPLE											

FIELD DATA SHEET  
HOWARD COUNTY WELL YIELD TEST

Well Permit No. HO - 95-0716  
Location of property (road) Whithorn Way  
Subdivision Rivewood Phase 2 Lot 21 Block        Plat        Sec.         
Well Driller Joseph L. Mayne Owner Winchester Homes

Depth of well 150  
Distance of measuring point (M.P.) above ground 2½  
Static water level (S.W.L.) below M.P. 34'

1. High rate pumping -- reservoir drawdown

Time pump started 10:15 Pumping rate 20 gpm  
Total time 5 min to reach pumping water level 4 1/2 ft. below M.P.

ii. Recovery pump test data - observations to be recorded every 15 minutes

[illegible]



**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 #: 301-854-1339  
Address: P.O. Box 138  
ASHTON

(Must circle one) Licensed Plumber      Licensed Well Driller  
License # and name of individual responsible for the field installation:

Licensed Well Pump Installer

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: WINGHAMSTER HOMES Telephone #: 301-803-4174  
Subdivision: RIVERWOOD Lot #: 71 Well Tag #: HO-95-0716  
Site Address: 11237 WHITHORN WAY  
ELLSOTT CITY

**Submersible Pump Data**

Make: GRUND  
Model #: 155GG 07-180  
Pump Capacity: 15 GPM  
Well Yield: 20 GPM

**Pitless Adapter**

Make: CAMPBELL  
Model #: PA 850  
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: 150 (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: PV  
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 2/8/12

**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

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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: \_\_\_\_\_ Lot #: \_\_\_\_\_ Well Tag #: HO - 95-0716  
Site Address: 11267 Whithorn Way  
11237

**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: \_\_\_\_\_

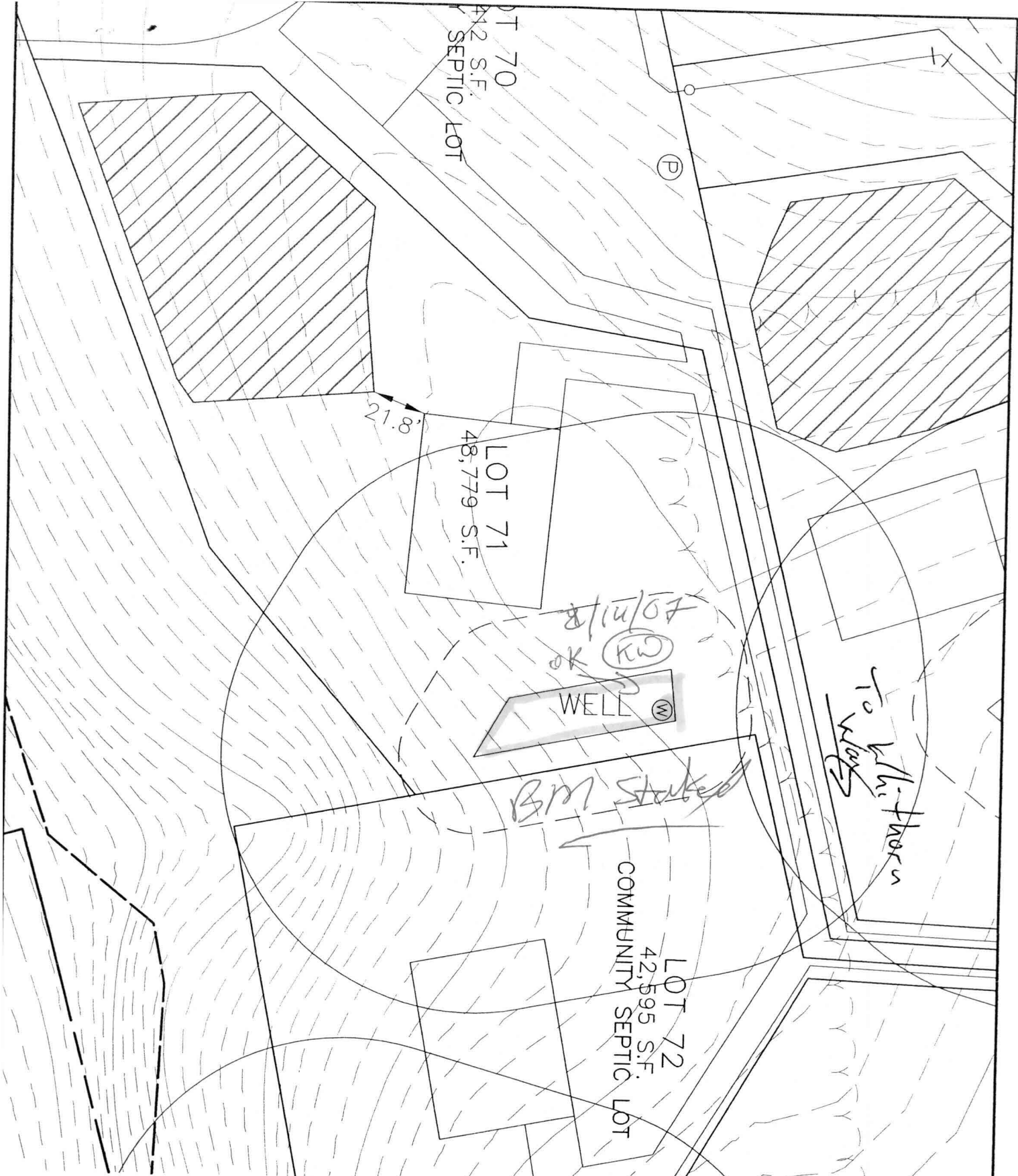
The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this **cannot** be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation \_\_\_\_\_ date \_\_\_\_\_

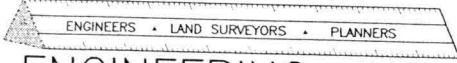
**For Health Department Use Only - Not to be completed by Installer**

Date Insp. Requested: \_\_\_\_\_ 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 ☒

1/24/2012 (BB)



BENCHMARK



ENGINEERING, INC.

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

PHONE: 410-465-6105 FAX: 410-465-6644  
1132 Homewood Ave. SE, Suite 100, Atlanta, GA 30316  
nc, Kyocera Mita KM-2530 KX.pc3

RIVERWOOD, PHASE 2

LOT 71

FORTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

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



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

## 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 & Whitman 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 DEC 18 PM 2:32



Howard County  
Health Department

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](http://www.hchealth.org)

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

**INTERIM CERTIFICATE OF POTABILITY**  
**PERMANENT DEVIATION FOR RADIUM**

Expiration Date – August 24, 2012

February 24, 2012

Homeowner  
11237 Whithorn Way  
Ellicott City, MD 21042

**RE: RIVERWOOD II, Lot 71**  
**11237 Whithorn Way**  
**Building Permit: B11003163**  
**Well Permit: HO-95-0716**

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 **1/23/2012**. Final approval of the well line connection to the dwelling was granted on **1/24/2012**. The well construction was completed on **8/7/2007**. Water samples were collected on **1/30/2012**.

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 **8/7/2007**. Results showed a Gross Alpha level of  **$13.0 \pm 2.0$  pCi/L** and Gross Beta level of  **$8.0 \pm 2.0$  pCi/L**. **This exceeds the maximum contaminant level (MCL) of 15 pCi/L and/or 50 pCi/L, respectively.**

After installation of a radionuclide removal device (water softener), post-treatment water samples were collected on **1/30/2012** and indicated a Gross Alpha level of  **$1.9 \pm *$  pCi/L**, a Gross Beta level of  **$2.5 \pm *$  pCi/L**, and a Radium 226/228 level of  **$< 1.1 \pm *$  pCi/L**.

This Department will grant a **permanent deviation** to the Interim Certificate of Potability on condition that the radionuclide removal system effectively maintains a Gross Alpha level of less than **15 pCi/L**, a Gross Beta level of less than **50 pCi/L**, and a Radium 226/228 level of less than **5 pCi/L**.

**Furthermore, it will be necessary for you to comply with the following conditions:**

1. The system must be properly operated and maintained continuously in accordance with the service contract for the life of the residence.
2. It is recommended that a Maryland certified water laboratory certified for radionuclide analysis perform a yearly radionuclide analysis.
3. If you decide to sell or rent your home in the future, you must make any potential buyer/tenant aware of this permanent deviation. **A person who fails to make this**



**disclosure is subject to the penalties set out in COMAR 26.04.04.12F *Enforcement and Environment Article 9-1311, Annotated Code of Maryland.***

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-95-0716. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

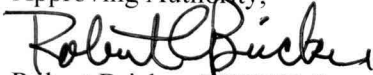
This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will 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 Maryland 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>

\* Standard of Deviation for Alpha and Beta particles, and for Radium was not determined for sample taken on 1/30/2012.

Approving Authority,



Robert Bricker, REHS/R.S.  
Environmental Sanitarian  
Well & Septic Program

cc: Howard County Dept. of Inspections, Licenses, and Permits  
Community Hygiene Program  
File

## REPORT OF ANALYSIS

Laboratory ID #: 83070  
Reference: Riverwood Lot 71  
Location: 11237 Whithorn Way  
Ellicott City, MD 21042  
Date/ Time Collected: 1/30/2012 1045  
Date/Time Rec'd: 1/30/2012 1212  
Chlorine ppm: Free: ND Total: ND  
Collected By: J. Yeager 6176JY  
Account #: 3123  
Company: National Water Servicing  
Requested By: Dave Rycke  
Source: Well Water  
Site: Test Port after Treatment  
Treatment: Sediment Filter/ Softener/ Neutralizer  
pH: 6.6  
Well #: HO-95-0716

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Gross Alpha, Short Term	1.9	pCi/L	15	900.0	2/1/2012 / 1011 / MJN
Gross Beta, Short Term	2.5	pCi/L	50	900.0	2/1/2012 / 1011 / MJN
Radium-226	0.3	pCi/L	****	903.1	2/10/2012 / 1001 / MJN
Radium-228	<0.8	pCi/L	****	Ra-05	2/10/2012 / 1050 / SN

### NOTES

- 1 \*\*\*\*Radium 226 and Radium 228 combined have a reference of 5 pCi/L
- 2 Gross Alpha Detection Limit: 1.3 pCi/L; Gross Beta Detection Limit: 2.0 pCi/L
- 3 pCi/L = picocuries per liter
- 4 Radium 226 Detection Limit: 0.1 pCi/L; Radium 228 Detection Limit: 0.8 pCi/L
- 5 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 6 Subcontracted to Reference Lab# 278
- 7 ND:None Detected
- 8 Visual well check: Sealed, vented cap
- 9 pH tested on-site

Reason for Test : Use & Occupancy  
Building Permit # : B11003163

Date Reported: 2/10/2012

**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 #:	83069	Account #:	3123
Reference:	Riverwood Lot 71	Company:	National Water Servicing
Location:	11237 Whithorn Way	Requested By:	Dave Rycke
	Ellicott City, MD 21042	Source:	Well Water
Date/ Time Collected:	1/30/2012 1045	Site:	Pressure Tank
Date/Time Rec'd:	1/30/2012 1212	Treatment:	***
Chlorine ppm:	Free: ND Total: ND	pH:	6.2
Collected By:	J. Yeager 6176JY	Well #:	HO-95-0716

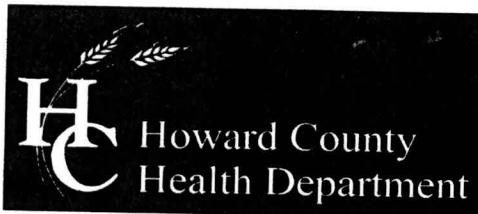
PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	1/31/2012 / 0945 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	1/31/2012 / 0945 / CCH
Nitrate	3.47	mg/L	10	601	1/31/2012 / 1400 / CCH
Turbidity	4.44	NTU	<10	SM18 2130B	1/31/2012 / 1254 / BMC
Sand	NS	mg/L	5	Visual/Gravimetric	1/30/2012 / 1222 / BMC

**NOTES**

- 1 \*\*\*Sample collected prior to Sediment Filter/ Softener/ Neutralizer
- 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 tested on-site

Reason for Test : Use & Occupancy  
 Building Permit # : B11003163

Date Reported: 1/31/2012



Bureau of Environmental Health  
7178 Columbia Gateway Drive, Columbia, MD 21046-2147  
(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

November 21, 2007

Winchester of Howard County  
6905 Rockledge Drive  
Suite 800  
Bethesda, Maryland 20817

RE: Riverwood II Lot 71  
Withorn Way  
Well Tag: HO - 95 - 0716

To Whom It May Concern:


A sample was collected from a yield test on August 7, 2007 and submitted to the Department of Health & Mental Hygiene Laboratory 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. These naturally occurring radioactive nuclides have been demonstrated to be present in a certain type of geologic formation known as the Baltimore Gneiss which exists in your area of development within the County.

Results from this screening revealed a **Gross Alpha** of  $13.0 \pm 2.0$  picocuries/liter (pCi/L); while the **Gross Beta** level was  $8.0 \pm 2.0$  pCi/L. With the margin of error, the **Gross Alpha** result was at its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its targeted value of 50 pCi/L (roughly equivalent to the **annual dose rate** of 4 millirems/year).

Since the **Gross Alpha** finding was at its **MCL**, additional testing for **Gross Alpha**, **Gross Beta** and **Radium** will be necessary prior to occupancy to verify existing levels. Alternatively, you may install treatment designed to reduce **Gross Alpha**, **Gross Beta** and **Radium**, plus provide post treated results (for all 3 parameters) confirming that levels are in conformance with existing standards. These tests are **in addition** to the standard parameters required for Use & Occupancy.

**Additionally**, the owners will be required to sign an "AGREEMENT FOR APPROVAL OF AN INDIVIDUAL DRINKING WELL WITH AN ON-SITE TREATMENT SYSTEM" as part of the Use and Occupancy process.

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 to discuss additional testing requirements.

Sincerely,  
  
Bert Nixon, Director  
Bureau of Environmental Health

cc: 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: R71BB950716 No. B: \_\_\_\_\_ Field Blank Bottle No. 1: \_\_\_\_\_ No. 2: \_\_\_\_\_

Plant/Site Name: Riverwood-Lot 71 County: Howard

Sample Source: Withorn Way Location: H0-95-0716  
(well no., lab sink, sample tap, etc.)

County: ☒ 1 ☒ 3 Plant No. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Collector: Brian Baker Telephone No.: (410)313-2643

Date Collected: 8/17/2007 Time Collected: \_\_\_\_\_ a.m. 1 p.m.

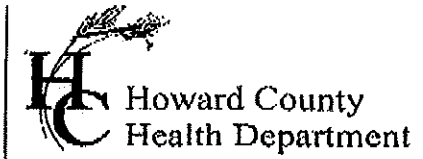
Nitric Acid Preserved: Yes ☒ No ☐ Iced: Yes ☐ No ☒

Submitters Code: ☐ ☐ Federal Project: ☒ S Field Data: \_\_\_\_\_

Remarks: Sample Collected During Yield Test pH \_\_\_\_\_ Chlorine \_\_\_\_\_

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	0346	13±2	08/10/07
✓	Gross Beta	4100	0346	8±2	"
	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: 08/08/07  
Section Chief: S. Wise



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

**AGREEMENT FOR APPROVAL OF AN INDIVIDUAL DRINKING WELL WITH AN  
ON-SITE TREATMENT SYSTEM**

This agreement is entered into by and between the Howard County Health Department ("the Health Department") and DAVID LOEB ("the Owner").

WHEREAS, the Owner owns a tract of land at street address 11237 Whitkorn Way, Ellicott City, MD and the deed and subdivision plat of the property is recorded among the Land Records of Howard County, Maryland, Tax Map # 29, Block # 4, Parcel # 20, Deed Reference # 1146400313 and Tax Account # 03-351602 ("the Property").

WHEREAS, the Property lacks an available public drinking water source and is required to have an individual well as the source of drinking water for the residence of the property.

WHEREAS, the Owner has installed a residential drinking well under well permit HO-95-0716 that has been tested by the Health Department (or a private laboratory certified to perform testing) for radionuclide particles. The results of the tests have shown that the gross alpha particle content and/or the gross beta particle content and/or the combined radium 226/228 levels exceeds the standards of 15 picocuries per liter (pCi/L), 4 millirems per year (mrem/yr) and/or 5pCi/L respectively.

WHEREAS, The Maryland Department of the Environment (MDE) has promulgated rules and regulations under which a Certificate of Potability may be issued and has delegated the authority to issue such Certificate to the Health Department.

WHEREAS, MDE regulations permit the Health Department to issue as a special condition, a permanent deviation to the Certificate of Potability for individual wells where treatment has been installed to meet the maximum contaminate levels (MCL's) for radionuclides.

WHEREAS, MDE has determined that radium can be effectively removed from the drinking water by the use of treatment devices (e.g., ion exchange or reverse osmosis).

WHEREAS, the Owner is requesting that the Health Department issue a Certificate of Potability contingent upon installation and maintenance of a water treatment device to reduce radionuclides.

WHEREAS, neither the Owner nor the Health Department has knowledge of an alternative safe source of water for the Property.

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NOW THEREFORE, the parties have agreed to the following terms and conditions.

1. The Owner will record this Agreement among the Land Records of Howard County, Maryland and provide confirmation to the Health Dept.
2. The Owner agrees to install and maintain a water treatment device, which effectively reduces the gross alpha, gross beta and radium levels to below their respective MCL. The Health Department shall verify that the treatment device is operating effectively and the Owner agrees to allow access to the Health Department to collect a follow-up sample(s).
3. The Health Department shall issue a Certificate of Potability for the well once follow-up sampling shows acceptable gross alpha, gross beta (short and long term) and radium 226 / 228 levels.
4. The Owner agrees that there shall be no liability on part of the Health Department for any immediate or long term impacts to health or property, under any circumstance or including, but not limited to, treatment device failure, improper maintenance or installation, or defect. The Health Department does not warrant nor guarantee that the device will adequately or properly function and the Owner agrees to implement and pay for any necessary changes or corrections.
5. The Owner acknowledges and agrees that neither the Health Department nor any of its agents or employees, either officially or individually, underwrites the operation of any system or treatment device.
6. This Agreement shall not be construed to limit any authority of the Health Department to protect the public health, safety or enjoyment of property or to issue any other orders to take any other action, which is now or may hereafter be within its authority.
7. This agreement contains the entire agreement and understanding between the Health Department and the Owner. There are no additional terms other than as contained in this Agreement. This Agreement may not be modified except in writing signed by each of the parties or their authorized representatives.
8. The Agreement shall run with the land and binds the Owner, his heirs, successors, and assigns. The owner agrees to provide a copy of this agreement to any purchaser or lessee of the property.
9. The laws of the State of Maryland govern the provisions of all transactions.

The parties have signed and sealed this Agreement on the dates set forth below.

2/12/2012  
Date

2/12/2012  
Date

2/22/2012  
Date

2/22/2012  
Date

[Signature]  
Witness

[Signature]  
Witness

2/12/2012 [Signature] / David Webb  
Owner  
Cheryl C. Webb / Cheryl Webb  
Owner  
[Signature]  
Howard County Health Department

RECEIVED  
FEB 23 2012  
HOWARD COUNTY  
HEALTH DEPARTMENT  
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