

C1 8647

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

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

COUNTY NUMBER 13 A518599

ST/CO USE ONLY

DATE WELL COMPLETED

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

DATE Received MM DD YY

4 1 07

22 100 26

5/31/07 O.K. BB

40-95-0123

OWNER Peddicord David STREET OR RFD Sheppard Manor Drive TOWN Ellicott City SUBDIVISION Sheppard Manor SECTION LOT

WELL LOG

Not required for driven wells

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 28 NO. OF POUNDS 2632

GALLONS OF WATER 168

DEPTH OF GROUT SEAL (to nearest foot)

from 0 ft. to 45 ft. (enter 0 if from surface)

CASING RECORD

STEEL [ST] CONCRETE [CO] PLASTIC [PL] OTHER [OT]

MAIN CASING TYPE [ST] Nominal diameter top (main) casing (nearest inch): 06 Total depth of main casing (nearest foot): 48

OTHER CASING (if used)

ST 5 inch diameter from 75 to 66 depth (feet)

SCREEN RECORD

STEEL [ST] BRASS [BR] OPEN HOLE [HO] PLASTIC [PL] OTHER [OT]

DEPTH (nearest ft.)

HO 48 100

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 28.04.04 "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 M SD 005

DRILLERS SIGNATURE

LIC. NO. 1 D

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 TELESCOPE CASING 72 LOG INDICATOR 74 75 76 OTHER DATA

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

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) 03

PUMPING RATE (gal. per min.) 15

METHOD USED TO MEASURE PUMPING RATE 1900

WATER LEVEL (distance from land surface)

BEFORE PUMPING 9 ft.

WHEN PUMPING 14 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

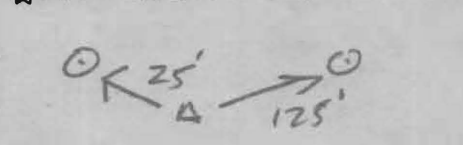
PUMP COLUMN LENGTH (nearest ft.) 43 47

CASING HEIGHT (circle appropriate box and enter casing height)

above [ ] below [ ] LAND SURFACE 01 (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)



B 1 5815

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL please type 526205

STATE PERMIT NUMBER HO-95-0723 fill in this form completely

Date Received (APA)

OWNER INFORMATION

8 MM DD YY 13 15 Last Name First Name 34 5485 Harpers Farm rd 36 Street or RFD 55 57 Columbia MD 21044 70 State 72 Zip 76

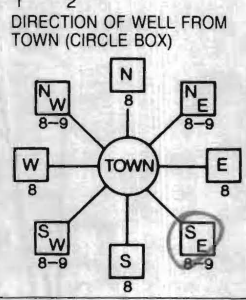
LOCATION OF WELL

B 3 8 COUNTY Howard 21 23 SUBDIVISION Sheppard Manor 42 SECTION 44 46 LOT 48 50 52 NEAREST TOWN West Friendship 71 MILES FROM TOWN (enter 0 if in town) 3 M I 73 76 77 78

DRILLER INFORMATION

Driller's Name Allen Compton 76 License No. MS D 009 81 Firm Name Fogles Well Drilling Address 580 Obrecht rd. Signature Date 1-22-07

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



11 NEAR WHAT ROAD Sheppard Lane 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH WEST EAST SOUTH DISTANCE FROM ROAD 65 FT ENTER FT OR MI 38 39

WELL INFORMATION

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

TAX MAP: 29 BLK: 1 PARCEL 268

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) A518599 COUNTY NAME COUNTY NO. STATE SIGNATURE INSERT S DATE ISSUED 2/28/2008 Bruce Baker 2/28/2008 CO SIGNATURE EXP. DATE NORTH GRID 515 000 EAST GRID 818 000

APPROXIMATE DEPTH OF WELL 300 FEET

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 DEEPEINED WELLS (CIRCLE APPROPRIATE BOX)

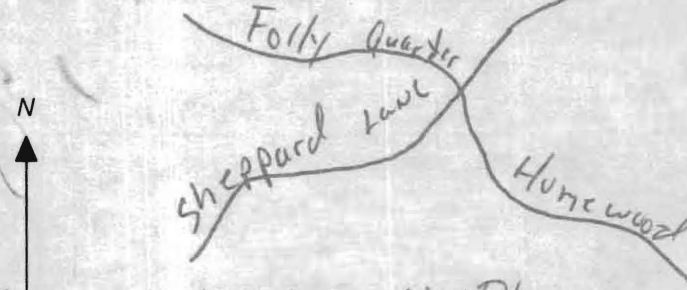
- [N] THIS WELL WILL NOT REPLACE AN EXISTING WELL [Y] THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED [S] THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS [D] THIS WELL WILL DEEPEIN AN EXISTING WELL PERMIT NUMBER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

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER 1. 2. 3.

WRITE THE BOX NUMBER FROM THE MAP HERE E 8108 N 5195

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



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

APPROP. PERMIT NUMBER HO2005G007 PERMIT No. HO-95-0723

SPECIAL CONDITIONS Wells Must Be Drilled Per Approved Shared Septic Plan Health Dept. Must Get Water Sample During Yield Test



**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: \_\_\_\_\_ 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: Sheppard Manor Dr Lot #: 1 Well Tag #: HO - 95 - 0723  
Site Address: \_\_\_\_\_

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

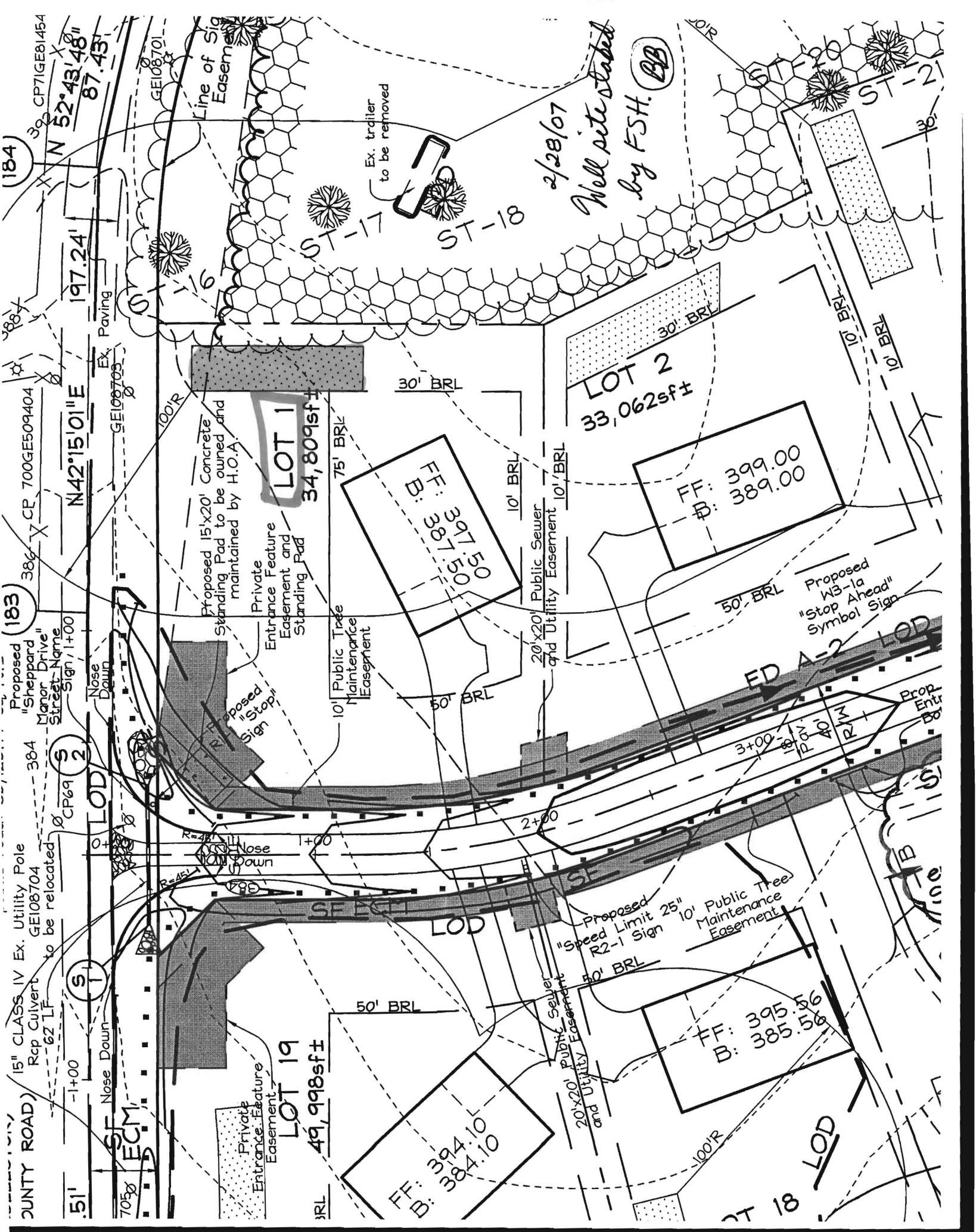
**The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.**

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

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

Date Insp. Requested: 8/16/11 Date Insp. Approved: 8/17/11 OK 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  only 1" above casing  
Water supply line sleeved adequately at house connection   
Adequate grout observed below pitless adapter



(184)  
39 CP71GE81454  
N 52°43'48" 87.43'

187  
CP 700GE509404  
N 42°15'01" E 197.24'

(183)  
Proposed "Sheppard Manor Drive" Street Name Sign, 1+00  
Nose Down

384  
CP69  
Nose Down

(1)  
Nose Down

(2)  
Nose Down

(5)  
Nose Down

Line of Sight Easement  
GEI08701

Ex. trailer to be removed  
ST-17  
ST-18

Proposed 15'x20' Concrete Standing Pad to be owned and maintained by H.O.A.  
Private Entrance Easement and Standing Pad  
LOT 1  
34,809sf±

Public Tree Maintenance Easement  
10' Public Tree Maintenance Easement  
75' BRL

Public Sewer and Utility Easement  
20'x20' Public Sewer and Utility Easement  
10' BRL

Proposed "Speed Limit 25" R2-1 Sign  
Proposed 25" Public Tree Maintenance Easement  
50' BRL

Prop. Entrance  
LOT 19  
49,998sf±

Well site staked by FSH. (PBA) 2/28/07

LOT 2  
33,062sf±  
FF: 399.00  
B: 389.00

FF: 397.50  
B: 387.50

FF: 395.56  
B: 385.56

FF: 394.10  
B: 384.10

LOT 18

LOT 18

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 FSH Associates on 1-26-07 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



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

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

**INTERIM CERTIFICATE OF POTABILITY**  
**PERMANENT DEVIATION FOR BACTERIA**  
**PERMANENT DEVIATION FOR NITRATES**

Expiration Date –June 15<sup>th</sup>, 2011

December 15<sup>th</sup>, 2011

Homeowner  
4603 Sheppard Manor Dr.  
Ellicott City, MD 21042

**RE: Sheppard Manor, Lot 1**  
**4603 Sheppard Manor Dr.**  
**Building Permit: B09001828**  
**Well Permit: HO-95-0723**

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 **11/15/2011**. Final approval of the well line connection to the dwelling was granted on **8/17/2011**. The well construction was completed on **4/4/2007**. Water samples were collected on **10/24/11, 11/2/11, 11/11/11 & 12/5/11**.

The untreated water sample results indicate that the water samples submitted for testing contained elevated levels of coliform bacteria at the time of sampling and the untreated water is **NOT** bacteriologically safe for drinking.

After installation of a water disinfection device (UV light disinfection system), a post-treatment water sample was collected on **12/5/2011** and indicated that the treated water was free from coliform bacteria and is bacteriologically safe for drinking.

This Department will grant a **permanent deviation** to the Interim Certificate of Potability on condition that the water disinfection system effectively maintains the water free from bacteria.

**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 bacteriological analysis perform a yearly potability 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.**

The untreated water sample collected on 11/2/2011 indicated a nitrate level of **10.8 mg/L**. **This exceeds the maximum contaminant limit of 10 mg/L set forth in COMAR 26.04.04.09.** After installation of a nitrate removal device (reverse osmosis system), a post-treatment water sample was collected on 12/5/2011 and indicated a nitrate level of **1.1 mg/L**.

This Department will grant a **permanent deviation** to the Interim Certificate of Potability on condition that the nitrate removal system effectively maintains a nitrate-nitrogen contaminant level of **10 mg/L or less**.

**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 nitrates analysis perform a yearly nitrate 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.**

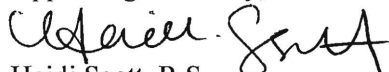
Gross Alpha and Beta samples were also collected on 4/4/2007. Results showed a Gross Alpha level of **1.0 ± 1.0 pCi/L** and **Gross Beta** level of **3.0 pCi/L**. The Gross Alpha was below the maximum contaminant level (MCL) of 15 pCi/L and the Gross Beta was below the MCL of 50pCi/L. At the time of testing and with respect to these parameters, the well water is safe for all uses.

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-95-0723. 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>

Approving Authority,



Heidi Scott, R.S.  
Environmental Sanitarian  
Well & Septic Program

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

# Environmental Testing Lab Inc.

108 Old Solomons Island Rd  
Annapolis, MD 21401



3430 Rockefeller Ct  
Waldorf, MD 20602

State Certified Water Quality  
Laboratory # 106

State Certified Water Quality  
Laboratory # 139

## Certificate of Analysis

Water Doctor-MD Water Cond.  
10983-E Gilford Road  
Annapolis Junction, MD 20701

Project  
Date Received 12/6/2011  
Date Reported 12/8/2011

Sample No: 99832-01      Sampled: 12/5/2011 12:23:0      Sampler: RBateman2246RB (Exp. 03/2013)  
Location: 4603 Sheppard Manor Dr      Preservation: Ice  
Ellicott City, MD 21042      Sample Point: 1st FI Powder Room/R/O(Chemicals)

Parameter	Method	Result	Qualifiers	Units	RL	Test Date	Analyst
Bacteria-Total Coliform	Colitag Test	Absent/Pass		Per/100ml	1	12/06/2011	LH
Bacteria-E.coli	Colitag Test	Absent/Pass		Per/100ml	1	12/06/2011	LH
Iron	HACH 8008	Not Detected		mg/l	0.05	12/08/2011	RM
Turbidity	EPA 180.1	Not Detected		NTU	0.5	12/08/2011	RM
Nitrate + Nitrite as N	EPA 353.2	Not Detected		mg N/L	1.1	12/08/2011	DB
pH	Field	7.4		pH Units	1	12/05/2011	Sampler

Field Test(s) for chlorine are reported on the attached COC form. "NT" means Not Tested.

- Nitrate  
ANAL taken from  
Kitchen tap (R/O tap),  
rest from powder room tap  
- R/O services kitchen sink &  
refrigerator.

Approved By

Daniel J. Brumsted, Laboratory Director

Annapolis

Ph 410-224-4304 Fax 443-926-0586

Waldorf

Ph 410-224-4304 Fax 443-926-0586

**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 #: 81864  
 Reference: Williamsburg Group LLC  
 Location: 4603 Sheppard Manor Drive  
 Ellicott City, MD 21042  
 Date/ Time Collected: 10/24/2011 1211  
 Date/Time Rec'd: 10/24/2011 1345  
 Chlorine ppm: Free: ND Total: ND  
 Collected By: J.Yeager 6176JY  
 Account #: 4470  
 Company: Williamsburg Group LLC  
 Requested By: Chip Lundy/ Bob Corbett  
 Source: Well Water  
 Site: Pressure Tank  
 Treatment: None  
 pH: 7.0  
 Well #: HO-95-0723

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	>200.5	MPN/ 100 ml	<1.0	SM18 9223	10/25/2011 / 0800 / KME
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	10/25/2011 / 0800 / KME
Nitrate	9.97	mg/L	10	601	10/24/2011 / 1700 / CCH
Turbidity	2.01	NTU	<10	SM18 2130B	10/24/2011 / 1415 / KME
Sand	NS	mg/L	5	Visual/Gravimetric	10/24/2011 / 1415 / 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 = None 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 Visual well check: Sealed, vented cap
- 8 pH and Chlorine level tested on site

Reason for Test : Use & Occupancy  
 Building Permit #: 09001828

*Per How Co. Health Dept*  
 1. UV LIGHT FOR COLIFORM  
 2. Reverse Osmosis system for NITRATES.

*410-792-0762*

Post-it® Fax Note	7671	Date	11/14/11	# of pages	3
To	Bob Corbett	From	Cass		
Co./Dept.		Co.	FVAL		
Phone #		Phone #	410-848-1014		
Fax #	410-997-4358	Fax #			

Date Reported: 10/25/2011

**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 #:	82015	Account #:	4470
Reference:	Williamsburg Group LLC	Company:	Williamsburg Group LLC
Location:	4603 Sheppard Manor Drive Ellicott City, MD 21042	Requested By:	Chip Lundy/ Bob Corbett
Date/ Time Collected:	11/2/2011 1100	Source:	Well Water
Date/Time Rec'd:	11/2/2011 1152	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	J. Yeager 6176JY	pH:	7.1
		Well #:	HO-95-0723

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	47.8	MPN/ 100 ml	<1.0	SM18 9223	11/3/2011 / 0800 / BCD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	11/3/2011 / 0800 / BCD
Nitrate	10.8	mg/L	10	601	11/2/2011 / 1530 / CCH
Turbidity	8.50	NTU	<10	SM18 2130B	11/2/2011 / 1315 / KME
Sand	NS	mg/L	5	Visual/Gravimetric	11/2/2011 / 1315 / KME

**NOTES**

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- 3 NS = None 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 Visual well check: Sealed, vented cap
- 8 pH and Chlorine level tested on site

Reason for Test : Use & Occupancy  
 Building Permit # : 09001828

Date Reported: 11/3/2011

**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 #:	82169	Account #:	4470
Reference:	Williamsburg Group LLC	Company:	Williamsburg Group LLC
Location:	4603 Sheppard Manor Drive Ellicott City, MD 21042	Requested By:	Chip Lundy/ Bob Corbett
Date/ Time Collected:	11/11/2011 1245	Source:	Well Water
Date/Time Rec'd:	11/11/2011 1515	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	K. Eichstedt 2870KE	pH:	7.1
		Well #:	HO-95-0723

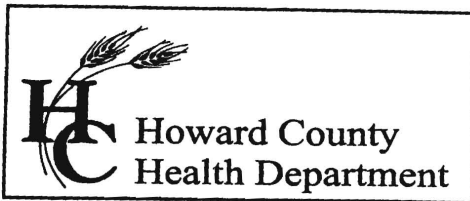
PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	88.5	MPN/ 100 ml	<1.0	SM18 9223	11/12/2011 / 0930 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	11/12/2011 / 0930 / CCH
Nitrate	9.74	mg/L	10	601	11/11/2011 / 1600 / CCH
Turbidity	1.91	NTU	<10	SM18 2130B	11/11/2011 / 1545 / KME
Sand	NS	mg/L	5	Visual/Gravimetric	11/11/2011 / 1545 / KME

**NOTES**

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- 6 ND:None Detected
- 7 Visual well check: Scaled, vented cap
- 8 pH and Chlorine level tested on site

Reason for Test : Use & Occupancy  
 Building Permit # : 09001828

Date Reported: 11/14/2011



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

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

May 16, 2007

Williamsburg Group LLC  
5485 Harpers Farm Road  
Columbia, Maryland 21044

RE: Sheppard Manor, Lot#1  
Well Tag: HO-95-0723

To Whom It May Concern:

A sample was collected from a yield test on April 4, 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  $1.0 \pm 1.0$  picocuries/liter (pCi/L); while the **Gross Beta** level was  $<3.0$  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:

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: HO-95-0723 No. B: \_\_\_\_\_ Field Blank Bottle No. A: \_\_\_\_\_ No. B: \_\_\_\_\_

Plant/Site Name: Sheppard Manor Lot 1 County: Howard

Sample Source: Sheppard Manor Dr. Location: HO-95-0723  
(well no., lab sink, sample tap, etc.)

County:   Plant No.

CHECK (one per box)

Drinking Water   
Landfill   
Stream   
Other

Community   
Non-community   
Private   
Other

Source (raw water)   
Distribution (treated)   
MCL

Emergency   
Routine   
Recheck   
Special

Collector: K. Wolf

Telephone No: 410-313-2645

Date Collected: 4/4/07

Time Collected: \_\_\_\_\_ a.m. \_\_\_\_\_ p.m.

Nitric Acid Preserved: Yes  No

Iced: Yes  No

Submitters Code:

Federal Project:

Field Data: \_\_\_\_\_

pH \_\_\_\_\_ Chlorine \_\_\_\_\_

Remarks: Sample taken during Yield test

✓	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: \_\_\_\_\_

ENVIRONMENTAL TESTING LAB, INC - CHAIN OF CUSTODY FORM

ANNAPOLIS  
410-224-4304 FAX 410-224-4307

WALDORF  
410-224-4304 FAX 301-932-7347

Company Name, Address Phone & Fax

Testing Address

99832

Water Doctor  
10983-E Guilford Road  
Annapolis Junction, MD 20701  
  
410-792-0327  
Fax 410-792-0762

4603 Sheppard Manor Drive  
STREET  
Ellicott City, MD 21042  
CITY STATE ZIP

Send Report By: Fax Postal Service  Email

THIS FORM WILL BE ATTACHED AS A PERMANENT PART OF YOUR FINAL REPORT

FIELD COLLECTION INFORMATION

Collected: Date 12/5/11 Time 12:23pm Well Tag #: HD 95 0723  
Collectors Name: Bob Bateman Certification # 2246 RB Expires 3/12  
Collectors Signature: [Signature] Circle One PRIVATE WELL or CITY WATER  
pH: 7.4 Chlorine Total mg/L: 0 Results for U & O Permit YES NO Sample Clear when drawn? YES NO  
Sand present? YES NO If "YES" submit one liter of sample to lab for testing  
Sample Tap Bacteria: 1st Floor Powder Room Sink Chemicals: R.D. Faucet Lead:

Bacteriological Test Next Day 11:30 Next Day 3:30  2 Day  
FULL Chemical Analysis (Iron, Nitrite, Nitrite/Nitrate, Nitrate, Turbidity, Lead) Next Day 3:30 2 Day 3 Day  
BASIC Chemical Analysis (Iron, Nitrite, Nitrite/Nitrate, Nitrate, Turbidity) Next Day 3:30 2 Day  3 Day  
Lead Arsenic Next Day 3:30 2 Day 3 Day  
Cadmium 2 Day 4 Day 6 Day  
Radium Gross Alpha One Week 2 Week

Special Instructions :

Released By: [Signature] Date: 12/6/11 Time 12:10 Received By: [Signature]  
Released By: [Signature] Date: 12-6-11 Time Received By: [Signature]

(\* TAT: is by Close of Business; Samples for chemical analysis received at 1:30 or later cannot be guaranteed "Next Day" results. TAT's are a good faith estimate and are not guaranteed. ALL SAMPLES FOR BACTERIOLOGICAL TESTING MUST BE DELIVERED BY 2:30 pm ON FRIDAY'S & HOLIDAY'S.

LABORATORY SAMPLE RECEIPT INFORMATION

Samples Delivered on ICE: YES NO N/A Add Qualifiers: Non-Certified Holding Time Sample Volume Frozen  
Received in LAB By: [Signature] Date: 12/6/11 Time 2:10 pm



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

REQUEST FOR TEMPORARY DEVIATION TO  
 BACTERIA STANDARDS FOR CERTIFICATE OF POTABILITY

DATE: \_\_\_\_\_ WELL PERMIT #: HO - 95 - 0723

PROPERTY OWNER: \_\_\_\_\_  
 SUBDIVISION & LOT #: SHEPPARD MANOR - LOT 1  
 PROPERTY ADDRESS: 4603 SHEPPARD MANOR DRIVE  
ELLCOTT CITY, MD 21042

The water sample results recently submitted for evaluation indicate that the water sample contained coliform bacteria. This bacteria is used as an indicator species which can help measure the sanitary protection of the well and water supply. Coliform bacteria by themselves do not usually cause disease, but their presence may indicate that surface contamination (insects, organic material, surface water, etc.) may have entered the water supply and the water may be potentially unsafe. Coliform bacteria are also good indicators because they are killed by disinfection the same way that most disease-causing organisms are killed. With a few exceptions, a well that is properly disinfected causes the coliform bacteria to disappear, and in most cases disease causing organisms have also been killed.

TESTIMONIAL: (Steps taken thus far by the well owner or agent to make the well water supply bacteriologically safe)

STANDARD CHLORINATION RESULTING IN 3 FAILED TESTS ON  
10/24/11, 11/2/11, AND 11/11/11

PLEDGE: (Steps to be taken by the well owner or agent to bring the well water supply into compliance with COMAR 26.04.04.09 within fifteen (15) days)

INSTALL ULTRAVIOLET LIGHT SYSTEM PLUS WATER SOFTENING  
SYSTEM TO REDUCE IRON & HARDNESS IN WATER

CONDITIONS:

- 1) Within fifteen (15) days, the well installed under permit # HO - 95 - 0723 will meet the bacteria standard resulting from approved disinfection procedures.
- 2) If condition #1 is not met through disinfection techniques, then either:



Maryland Water Conditioning, Inc.  
P.O. Box 550  
10983-E Guilford Road  
Annapolis Junction, MD 20701



November 15, 2011

Bill McBride  
Williamsburg Builders

Ref: 4603 Sheppard Manor Road, Ellicott City, MD

Dear Mr. McBride:

The lab reports you faxed indicate Coliform Bacteria present in the well. Reportedly, you have chlorinated the well several times. To treat Coliform Bacteria, I recommend an **ATS DWS-15 Ultra Violet Light**. This is a 15 gallon per minute unit; no smaller would be recommended for this home. The regular price of this unit along with the 10" PreFilter is \$1400 installed. Your reduced price is \$1,200 installed. Your electrician must provide a 115V receptacle within 3 feet of the pump controller.

Unfortunately, this well has iron and hardness (as do the other wells on that street). The iron is 0.8 ppm and the hardness is 12 gpg. **The iron and hardness will deposit on the UV Crystal and prevent the UV Rays from shining through the water.** Within a month or so, the UV Lamp will not be effectively treating Bacteria. Within the first year the lamp will have a film on it. To remove iron and hardness, which will allow the UV Light to work, you will need a 45,000 Grain Fleck 2510 Meter Water Softener plumbed in 1"CPVC. Your reduced price on this unit is \$995 installed. (Will have 1.5 cubic feet of resin). Electric receptacle also needed. The owner will need to add crystal solar salt every 3-4 months.

### REVERSE OSMOSIS

Nitrates over 10 ppm are harmful to infants under six months old. You had asked about treating the nitrates with Reverse Osmosis. There are two different units: One which feeds a separate gooseneck faucet - \$595 installed (with Chrome faucet). The other feeds both the separate gooseneck faucet and the refrigerator - \$995 installed (chrome faucet). See details below for electric, space, etc. **YOU WILL NEED TO PROVIDE A 1" HOLE IN THE GRANITE** to accommodate for the extra faucet, we cannot drill thru the granite. If you want a special finish faucet (such as Brushed Stainless - the fee is \$85 more). You may have an independent lab, or the County do retest after the unit has made two batches of water.

11/15/2011

### REVERSE OSMOSIS DETAILS:

If you want to reduce a wide range of contaminants from drinking water, then you should consider Reverse Osmosis. **The Water Factory SQC Reverse Osmosis** unit will reduce 75%-98% of the dissolved solids including: nitrates, lead, radium, arsenic, cadmium, cysts, and more. This unit is installed under the kitchen sink with a separate gooseneck faucet\* for cooking and drinking water. The cost of this unit is \$595 installed. This model does not need electric and makes no noise. For high usage water consumption you may want to store a pitcher of water in the refrigerator to have available while the unit produces more water (or see below).

If you want to filter water for a refrigerator/ice maker or if you want more available water, you will need to purchase the **SQC-PRO** which has it's own booster pump. This unit is \$995 installed and **it requires a 115V receptacle** (under the sink).

A 1" hole must be available to accommodate the gooseneck faucet. **We cannot drill through granite or similar hard surfaces.**

**\*The separate gooseneck faucet which comes with the Reverse Osmosis is a Chrome faucet.** If you want a special finish or color – additional fee \$85.

**SQC Reverse Osmosis Service Costs:** Yearly the prefilters and post filters are replaced; current cost \$85. The membrane is replaced every 3-6 years and is currently \$175. Labor is \$98 and is pro-rated to service ALL equipment in the house (i.e. UV Light, Softener, etc).

Reverse Osmosis does NOT treat bacteria (total coliform and fecal coliform). Therefore, a yearly bacteria test is still recommended; lab fees apply. There is no *single system* which treats "all" contaminants. Reverse Osmosis is one system that reduces the widest range of contaminants.

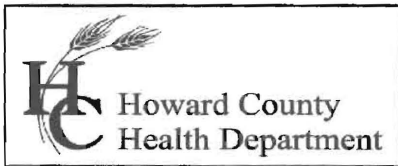
**Warranty:** All components of the unit have a ten (10) year warranty; excluding the filters and membrane. Labor and plumbing is one year.

Should you have any further questions, you may reach me at extension 206 at 410-792-0327.

Sincerely,



Vicky Burtis  
WQA Certified Water Specialist-IV



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

**REQUEST FOR PERMANENT DEVIATION TO  
 NITRATE STANDARDS FOR CERTIFICATE OF POTABILITY**

DATE: \_\_\_\_\_ WELL PERMIT #: HO - 95 - 0723

PROPERTY OWNER: \_\_\_\_\_  
 SUBDIVISION & LOT #: SHEPPARD MANOR LOT 1  
 PROPERTY ADDRESS: 4603 SHEPPARD MANOR DRIVE  
ELLICOTT CITY, MD 21042

**CONDITIONS:**

1) The well installed under permit # HO - 95-0723 has been documented to have a nitrate level of 10.8 ppm which exceeds the MCL of 10 ppm. As a result of installation and operation of a nitrate filtration system, this nitrate contamination has been reduced to 1.1 ppm at the primary drinking tap.

I hereby request that a Permanent Deviation to COMAR 26.04.04.09 be granted for the well installed under permit HO - 95-0723. I am fully aware of the conditions under which this deviation will be granted, and of my responsibilities as the well owner, which include advising any future buyer/ tenant of the installation, condition and maintenance responsibilities of the nitrate removal device.

Prospective Owner's Original Signature(s) [Person(s) that intend to live in the dwelling]

\_\_\_\_\_

Prospective Owner's Day Time Phone Number(s)

\_\_\_\_\_

- a) **PRIOR HEALTH DEPARTMENT APPROVAL IS REQUIRED BEFORE AN ULTRAVIOLET DISINFECTION SYSTEM CAN BE INSTALLED (which must be maintained by the homeowner continuously to ensure a bacteriologically safe water supply)**

**OR**

- b) An order to abandon and seal the well will be issued

I hereby request that a Fifteen-Day Temporary Deviation to COMAR 26.04.04.09 B3a be granted for the well installed under permit # HO - - . I am fully aware of the conditions under which this deviation will be granted, and of my responsibilities as the well owner which will include advising any future buyer/tenant of the installation, condition and maintenance responsibilities of an appropriate disinfection device if applicable.

Prospective Owner's Original Signature(s) **[Person(s) who intend to live in the dwelling]**

\_\_\_\_\_

Prospective Owner's Day Time Phone Number(s)

\_\_\_\_\_

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