



Bureau of Environmental Health
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Peter L. Jøilenson, M.D.; M.P.H., Health Officer

INTERIM CERTIFICATE OF POTABILITY
PERMANENT DEVIATION FOR RADIUM

Expiration Date – November 17, 2012

May 17, 2012

Homeowner
6494 Prestwick Drive
Highland, MD 20777

RE: Willow Pond, Lot #4
6494 Prestwick Drive
Building Permit: B11001809
Well Permit: HO-95-1911

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 08/22/2011. Final approval of the well line connection to the dwelling was granted on 08/04/2012. The well construction was completed on 06/23/2010. Water samples were collected on 05/02/2012.

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 03/17/2011. Results showed a Gross Alpha level of 23.8 ± 3.7 pCi/L and Gross Beta level of 18.1 ± 2.6 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(kitchen tap reverse osmosis system), post-treatment water samples were collected on 04/21/2011 and indicated a Gross Alpha level of 7.2 ± 4.5 pCi/L, a Gross Beta level of 5.7 ± 3.9 pCi/L, and a Radium 226/228 level of 2.2 ± 1.0 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-95-1911. 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,



Dana Bernard, REHS/RS
Environmental Sanitarian
Well & Septic Program

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



TRACE LABORATORIES, INC
 5 North Park Drive
 Hunt Valley, MD 21030 USA
 Telephone: 410/584-9099 / Fax: 410/584-9117
 Website: www.traceclabs.com / Email: info@traceclabs.com

Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester:

Greenfield Homes
 6656 Luster Drive
 Highland, Maryland 20777

S/O Number: 85108

Report Date: May 3, 2012

Potability Testing

Property Sampled: 6494 Prestwick Drive, 21029
Sample Location: Pressure Tank Tap ✓
Residual Chlorine: <0.1 mg/L

Building Permit #: B11001809
Sampler ID #: 0765AR
Samples Iced: Yes

County: Howard
Map: 34

Subdivision: Willow Pond
Parcel: 444

Map: 4

Date/Time Collected in Field: May 2, 2012 @ 12:55 pm
Date/Time Received in Lab: May 2, 2012 @ 3:50 pm

Well Tag #: HO-95-1911 ✓
Well Condition: 2-Piece Cap, Satisfactory ✓

OK 5/10/12
 JW

Water Treatment/Conditioning: Softener, Reverse Osmosis (R/O)

PARAMETER	METHOD	MCL/*SMCL	RESULT	PASS/FAIL
Total Coliform	SM 9223B	Absent	Absent ✓	Pass
E. coli	SM 9223B	Absent	Absent ✓	Pass
Nitrate	SM 4500D	10 mg/L as N	<1.0 mg/L as N ✓	Pass
Turbidity	EPA 180.1	10 NTU	4.4 NTU ✓	Pass
pH	EPA 150.1	*6.5-8.5 Units	8.7 Units ✓	***
Sand		Absent	Absent ✓	Pass

The results in this report relate only to those items tested. If any additional information or clarification of this report is required, please contact us. This test report shall not be reproduced except in full without the written approval of Trace Laboratories Inc.

Katherine C. Higgs
 Katherine C. Higgs
 Manager – Drinking Water Testing

MCL: Maximum Contamination Level, an enforceable level established by the EPA
 *SMCL: Secondary Maximum Contamination Level, a level recommended by the EPA
 ***A non-enforceable parameter that may cause cosmetic effects or aesthetic effects (such as taste, color or odor) in drinking water.



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Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester:

S/O Number: 85108-2

Greenfield Homes
 6656 Luster Drive
 Highland, Maryland 20777

Report Date: May 8, 2012

Radium Testing

Property Sampled: 6494 Prestwick Drive, 21029
Sample Location: R/O Tap ✓
Residual Chlorine: <0.1 mg/L

Building Permit #: B11001809
Sampler ID #: 0765AR
Samples Iced: Yes

County: Howard
Map: 34

Subdivision: Willow Pond
Parcel: 444

Map: 4

Date/Time Collected in Field: May 2, 2012 @ 12:15 pm
Date/Time Received in Lab: May 2, 2012 @ 3:50 pm

Well Tag #: HO-95-1911 ✓
Well Condition: 2-Piece Cap, Satisfactory ✓

Water Treatment/Conditioning: Softener, Reverse Osmosis (R/O)

*OK 5/10/12
 GW*

PARAMETER	METHOD	MDL (pCi/L)	MCL* (pCi/L)	RESULT (pCi/L)	ACCEPTABILITY
Gross Alpha	EPA 900.0	1.0	15	1.1 ± 0.7 ✓	Acceptable
Gross Beta	EPA 900.0	1.8	50	<1.8 ± 1.2 ✓	Acceptable

*Note: There are no established limits set forth by the EPA for radionuclide particles in private well water. The limits for public water are instead provided as MCLs in this report and the acceptability of this sample is based on these requirements. Gross Alpha levels under 5 pCi/L are acceptable. Levels between 5 and 15 pCi/L are considered moderate, and levels greater than 15 pCi/L are considered high. When levels are moderate or high, treatment or further testing is recommended and in certain cases may be required by the health department.

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Katherine C. Higgs
 Katherine C. Higgs
 Manager – Drinking Water Testing

MDL: Method Detection Limit
 MCL: Maximum Contamination Level, an enforceable level established by the EPA
 Analysis completed by Laboratory #278

LAYOUT _____ INSP 4 _____
 INSP 2 _____ INSP 5 _____
 INSP 3 _____ INSP 6 _____

ISSUE DATE: 7/28/11
 APPROVAL DATE: _____

PERMIT

P 535923
 A 531965

Tax ID #
ON-SITE SEWAGE DISPOSAL SYSTEM
HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH

Coffman & Sons Excavation IS PERMITTED TO INSTALL ALTER
 ADDRESS: 342 LANAFIELD CIRCLE PHONE NUMBER: 301-712-7847
BOWLES BORO MD 21713
 SUBDIVISION: Willow Pond LOT NUMBER: 4
 ADDRESS: 12738 Clarksville Pike PROPERTY OWNER: Greenfield Homes Inc.
 SEPTIC TANK CAPACITY (GALLONS): 2000 OUTLET BAFFLE FILTER REQUIRED
 PUMP CHAMBER CAPACITY (GALLONS): _____ COMPARTMENTED TANK REQUIRED
 NUMBER OF BEDROOMS: 4 APPLICATION RATE: 0.8
 SQUARE FOOTAGE OF HOUSE: +3,500 60' + 95' Trench
 LINEAR FEET OF TRENCH REQUIRED: 155'

TRENCHES:	Trenches to be 3.0 feet wide. Inlet 3.0 feet below original grade. Bottom maximum depth 6.0 feet below original grade. Effective area begins at 4.0 feet below original grade with 3.0 feet of stone below distribution pipe.
LOCATION:	Run 2 x 78' trenches on contour.
NOTES:	Do not order the septic tank until after layout inspection and Sanitarian approval. Stake easement corners. Call for layout inspection. Mark utilities. Gravel tickets must be available for Environmental Sanitarians. Stone must be approved by the Howard County Health Department. A written variance request is required for tanks deeper than 3 feet. A traffic bearing lid is required for tanks deeper than 4 feet.

PLANS APPROVED: Heidi Scott DATE: 6/24/11

- NOTE: PERMIT VOID AFTER 2 YEARS
- NOTE: CONTRACTOR RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION INSPECTION FOR ALL INSTALLATIONS
- NOTE: WATERTIGHT SEPTIC TANKS REQUIRED
- NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE 100 FEET FROM ANY WATER WELL
- NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS

NEITHER THE HOWARD COUNTY COUNCIL OR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM
PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT
CALL 410-313-1771 FOR INSPECTION OF SEPTIC SYSTEM

C1 1109	SEQUENCE NO. (MODE 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 4 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)		COUNTY NUMBER	
ST/CO USE ONLY DATE Received MM DD YY	DATE WELL COMPLETED	Depth of Well 22 440' 28 05 5/22/11 (TO NEAREST FOOT)	PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-1911
OWNER Greenfield Homes Inc	STREET OR RFD Pleasure Lane - Access D	TOWN Highland	
SUBDIVISION Willow Pond	SECTION	LOT 4	
WELL LOG Not required for driven wells		GROUTING RECORD WELL HAS BEEN GROUTED (Circle Appropriate Box) <input checked="" type="radio"/> Y <input type="radio"/> N	
STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING		TYPE OF GROUTING MATERIAL (Circle one) CEMENT <input checked="" type="radio"/> BENTONITE CLAY <input type="radio"/>	
DESCRIPTION (Use additional sheets if needed)	FEET FROM TO	NO. OF BAGS 9	NO. OF POUNDS 896
Sand 0 17		GALLONS OF WATER 54	
Mica Rock 17 440		DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 3/ Not 50 48 TOP 52 ft. to 54 BOTTOM 58 ft. (enter 0 if from surface)	
Steel casing 14" in rock - 120'		CASING RECORD casing type insert appropriate code below <input checked="" type="radio"/> STEEL <input type="radio"/> CONCRETE <input type="radio"/> PLASTIC <input type="radio"/> OTHER	
Day well backfilled 500-40 Drilling material 40-0 cement		MAIN CASING TYPE ST 6 33 60 61 63 64 66 70	
		OTHER CASING (if used) EACH CASING diameter depth (feet) inch from to	
		SCREEN RECORD screen type or open hole insert appropriate code below <input checked="" type="radio"/> ST <input type="radio"/> BR <input type="radio"/> HO STEEL BRASS OPEN HOLE <input type="radio"/> PL <input type="radio"/> OT PLASTIC OTHER	
NUMBER OF UNSUCCESSFUL WELLS: 1		C2 DEPTH (nearest ft.) 110 31 440 8 9 11 13 17 21 23 24 26 30 32 36 38 39 41 45 47 51	
WELL HYDROFRACTURED <input checked="" type="radio"/> YES <input type="radio"/> NO		SLOT SIZE 1 2 3 DIAMETER OF SCREEN (NEAREST INCH) 56 60 From To	
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		GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 66	
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.		MODE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W O	
DRILLERS LIC. NO. 1 MSD024 Joseph L. Moore DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. 1 MSD027 Kerry Moore		70 72 74 75 76 TELESCOPE CASING LOG INDICATOR OTHER DATA	
SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)		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) See attached locations -	