

C1 1138

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.

COUNTY NUMBER A 520415

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

ST/CO USE ONLY DATE Received MM: 11 DD: 01 YY: 10

DATE WELL COMPLETED MM: 10 DD: 7 YY: 2010

Depth of Well 22 340 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" 12/10/2010 Ho- 95-2005

OWNER Greenfield Homes Inc STREET OR RFD Pasture Dr - Access Dr TOWN Clarksville SUBDIVISION Willow Pond SECTION LOT 7

WELL LOG Not required for driven wells

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

Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes entries for Sand (0-45) and Ceray Mica Rock (45-340) with water bearing noted at 260'.

GROUTING RECORD

WELL HAS BEEN GROUTED (Y/N) TYPE OF GROUTING MATERIAL (Cement CM, Bentonite Clay BC) NO. OF BAGS 14 NO. OF POUNDS 1316 GALLONS OF WATER 84 DEPTH OF GROUT SEAL (to nearest foot) from 0 to 51 ft.

CASING RECORD

MAIN CASING TYPE ST Nominal diameter top (main) casing 6 Total depth of main casing 60

Table for OTHER CASING (if used) with columns for diameter and depth.

SCREEN RECORD

screen type or open hole (ST, BR, HO, PL, OT) DEPTH (nearest ft.) 58, 340

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED (Y/N)

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

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT...

DRILLERS LIC. NO. 1 MSD024 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 D

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

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

PUMPING TEST

HOURS PUMPED (nearest hour) 3 PUMPING RATE (gal. per min.) 7.5 METHOD USED TO MEASURE PUMPING RATE Bucket WATER LEVEL (distance from land surface) BEFORE PUMPING 35 ft. WHEN PUMPING 166 ft. TYPE OF PUMP USED (for test) S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES 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 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)

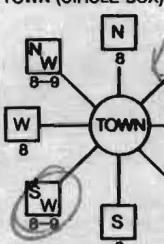
See attached well location

B 1 3405 SEQUENCE NO. (MDE USE ONLY) **STATE OF MARYLAND** STATE PERMIT NUMBER HO-95-2005
 1 2 3 6 70 fill in this form completely 79
APPLICATION FOR PERMIT TO DRILL WELL
534010 please type

OWNER INFORMATION
 Date Received (APA) 08 30 10
 8 MM DD YY 13
 15 Last Name Greenfield Homes Inc Owner First Name 34
 36 Street or RFD 6656 Luster Drive 55
 57 Town Highland Md 70 State 20977 72 Zip 76

B 3 LOCATION OF WELL
 8 COUNTY Howard 21
 23 SUBDIVISION Willow Pond 42
 SECTION 44 46 LOT 7 48 50
 52 NEAREST TOWN Highland Clarksville 71
 MILES FROM TOWN (enter 0 if in town) 1 M I 73 76 77 78

DRILLER INFORMATION
 Driller's Name Joseph L. Mayne M SD 024 License No. 81
 Firm Name Joseph L. Mayne Well Drilling
 Address 5512 Ridge Rd Mt. Airy Md 21771
 Signature Joseph L. Mayne Date 8-24-2010


B 4
 1 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)

 2 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
 11 NEAR WHAT ROAD Presturick Drive 30
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
 34 550 37
 DISTANCE FROM ROAD 550 FT
 ENTER FT OR MI 38 39
 TAX MAP: 34 BLK: 17 PARCEL 382

B 2 WELL INFORMATION
 1 APPROX. PUMPING RATE 4 GAL. PER MIN. 8 12
 AVERAGE DAILY QUANTITY NEEDED 500 GAL. PER DAY 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)
 DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
 FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
 INDUSTRIAL, COMMERCIAL, DEWATERING
 PUBLIC WATER SUPPLY WELL
 TEST, OBSERVATION, MONITORING
 GEO-THERMAL

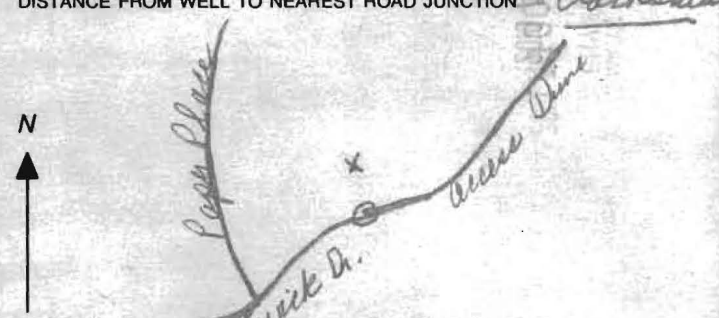
NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL
 COUNTY NAME Howard COUNTY NO. 13
 STATE SIGNATURE _____ INSERT S → 41
 DATE ISSUED 9/24/2010
 43 MM DD YY 48 CO SIGNATURE Brian Baker EXP. DATE 7/24/2011
 NORTH GRID 496 0 0 0 EAST GRID 813 0 0 0
 50 55 57 63

APPROXIMATE DEPTH OF WELL 400 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.
 WRITE THE BOX NUMBER FROM THE MAP HERE
 E 8103
 N 496
 000
 000
 10/5/2010 Radium Sample Collected.


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)
 THIS WELL WILL NOT REPLACE AN EXISTING WELL
 THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
 THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
 THIS WELL WILL DEEPEMED AN EXISTING WELL
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (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


Not to be filled in by driller (MDE OR COUNTY USE ONLY)
 APPROP. PERMIT NUMBER _____ G _____
 PERMIT No. HO-95-2005
 70 71 72 73 74 75 76 77 78 79

SPECIAL CONDITIONS
 NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED
Radium Sample Needed, Minimum of 50' of steel Casing Required
 © COUNTY

Faxed 6-6-13

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: Gartland Plumbing, Inc Telephone #: 410-825-5303
Address: 1620 W. Old Liberty Rd
Sykesville, MD 21284

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation:
Name (Print): Joe Gartland License# 6352

*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: Greenfield Homes Telephone #: 410-365-3702
Subdivision: Willow Pond Lot #: 7 Well Tag #: HO-95-2005
Site Address: 6501 Prestwick Dr
Clarksville, MD 21029

Submersible Pump Data	Pitless Adapter	Well Cap and Electric Conduit
Make: <u>Goulds</u>	Make: <u>American Greenby</u>	Two piece watertight cap: <input checked="" type="checkbox"/>
Model #: <u>10GSP</u>	Model#: <u>304Stain</u>	Screened, vented well cap: <input checked="" type="checkbox"/>
Pump Capacity <u>10</u> GPM	Depth: <u>48"</u> (36" min)	Cap secured to casing: <input checked="" type="checkbox"/>
Well Yield: <u>10</u> GPM	NSF approved: <u>Yes</u>	Conduit min 18" B.G.: <input checked="" type="checkbox"/>
Depth of well encountered at time of pump installation: <u>360</u> (feet)		Conduit secured to well cap: <input checked="" type="checkbox"/>

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4
Torque arrestors or Cable guards are required - Must circle one
Safety rope, if used, attached to inside of well casing with eye bolt Yes

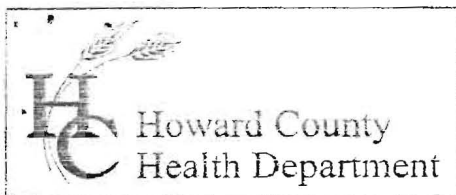
Piping to house	House Connection
Type: <u>Poly 1/4</u>	PVC sleeved to undisturbed soil at wall penetration: <u>Yes</u>
PSI: <u>160</u> (160 psi min)	Approximate length of sleeve: <u>8'</u>
Depth of supply line: <u>48</u> (36" min)	Sleeve caulked and sealed properly: <u>Yes</u>

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] Signature of company representative responsible for installation
6-6-13 date

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

Date Insp. Requested: _____ Date Insp. Approved: 5-31-13 (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



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

October 27, 2011

Greenfield Homes, Inc.
1818 Liberty Road
Eldersburg, Maryland 21784

RE: Willow Pond Lot 7 Follow-up
Prestwick Drive
Well Tag: HO - 95 - 2005

To Whom It May Concern:

A series of follow-up samples were collected during a simulated yield test on September 13, 2011 and submitted to the Department of Health & Mental Hygiene Laboratories (DHMH) and Florida Radiochemistry (FRC), to help assess the level of treatment necessary to address high **Gross Alpha** and **Gross Beta** findings from the initial yield test back in October 2010. A portable treatment set-up was constructed to enable a series of samples to be collected after a sediment filter and prior to and after a softener system to determine what level or combination of treatment would be needed to adequately address existing contaminant levels.

Pre-treatment short term results from this screening revealed a **Gross Alpha** of 36.3 ± 4.4 picocuries/liter (pCi/L); while the **Gross Beta** level was 25.1 ± 2.6 pCi/L. The **Gross Alpha** result was well above 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**).

Post-treatment long term results (after water softener only) revealed a **Gross Alpha** of 14.9 ± 2.4 pCi/L; while the **Gross Beta** level was 18.0 ± 1.8 pCi/L. With the Margin of Error, the **Gross Alpha** result was above the **MCL** of **15 pCi/L**, while the **Gross Beta** level remained below the targeted value of **50 pCi/L**.

A post-treatment **Radium** sample was taken (after the softener system) to assess the presence of **Radium 226** or **Radium 228** following treatment. These naturally occurring isotopes of radium are considered the most important due to their longer half-lives and health significance. Results (post softener) revealed a **Radium 226** level of 1.5 ± 0.2 pCi/L; while the **Radium 228** level was 9.6 ± 1.1 pCi/L. Here the **combined Radium 226 / 228** was above the **MCL** of **5 pCi/L** (with **Radium 228** itself above).

At this time, your treated well water supply (for radium using the softener system) is **not** safe for all uses. When evaluating the pre and post-treatment levels, your softener system appears to be having a "mixed" effect on reducing (to varying degrees) some of these types of contaminants. The softener system, though seemingly effective in addressing **Radium 226**, was not effective in treating **Radium 228**. To address achieving future continuous safe levels, a reverse osmosis (R/O) system will need to be installed in combination with your softener system. Then to help ensure future safe levels, the systems should be serviced on a regular basis.

The Health Department will require additional pre-short term **Gross Alpha** and **Gross Beta**, plus post-treatment (softener and R/O) **Radium 226** or **Radium 228** testing to confirm the adequacy of treatment for this supply. Also, as previously noted, other standard testing parameters (bacteria, nitrate, turbidity and sand) will still be required to help secure Use and Occupancy.

A copy of each test report is enclosed for your information. Please call this office at (410) 313-1771 if you have any further questions or to discuss future testing needs.

Sincerely,

A handwritten signature in cursive script that reads "Bert Nixon".

Bert Nixon, Director
Bureau of Environmental Health

Enclosures

cc: Barry Glotfelty, MDE Water Mgmt.
Well & Septic property file

Send Report To:

Bert Nixon

Howard County Health Department
Bureau of Environmental Health
7178 Columbia Gateway Drive
Columbia, Maryland 21046

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

EC000116 0145

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: HOKW2005 DRE No. B: Field Blank Bottle No. 1: HOKW2005 F13 No B:

Plant/Site Name: Willow Pond - Lot 7 County: Howard

Sample Source: Well - Forstwick Drive Location: HO-95-2005
(well no, lab sink, sample tap, etc.)

County: 1 3 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: 9/13/11

Time Collected: a.m. 1:00 p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code:

Federal Project:

Field Data: pH Chlorine

Remarks: Sample not preserved < 20 min well purged prior to sampling
Duplicate 09/15/11 232.7 ± 4.0 B 23.6 ± 2.7

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000	0514	36.3 ± 4.4	09/15/11	09/16/11
✓	Gross Beta	4100	0514	25.1 ± 2.6	"	"
	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: 09/14/11

Supervisor: [Signature]

•Tel. No.: (410) 767 - 5537 •Fax No: (410) 333- 5373

Send Report To:

Bert Nixon

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

~~Howard County Health Department
Bureau of Environmental Health
7178 Columbia Gateway Drive
Columbia, Maryland 21046~~

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: 40KW 2005 PTLT WS No. B: Field Blank Bottle No. 1: 40KW 2005 FB No. B:

Plant/Site Name: Willow Pond - Lot 7 County: Howard

Sample Source: Prestwick Dr. - Well Location: 140-95-2005
(well no, lab sink, sample tap, etc.)

County: 1 3 Plant No.

CHECK (one per box)

Drinking Water	<input checked="" type="checkbox"/>
Landfill	<input type="checkbox"/>
Stream	<input type="checkbox"/>
Other	<input type="checkbox"/>

Community	<input type="checkbox"/>
Non-community	<input type="checkbox"/>
Private	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

Source (raw water)	<input checked="" type="checkbox"/>
Distribution (treated)	<input type="checkbox"/>
MCL	<input type="checkbox"/>

Emergency	<input type="checkbox"/>
Routine	<input checked="" type="checkbox"/>
Recheck	<input type="checkbox"/>
Special	<input type="checkbox"/>

Collector: K. Wolf

Telephone No.: 410.313.2645

Date Collected: 9/13/11

Time Collected: a.m. 1:00 p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code:

Federal Project:

Field Data: pH Chlorine

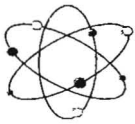
Remarks: Sample pH preserved < 2.0, well purged prior to sampling

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	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				
✓	Long term Gross Alpha		1109122-02	14.9	9/27/11	10/4/11
✓	Long-Term Gross Beta		1109122-02	277 18.0	9/27/11	10/4/11

Date Received: / /

Supervisor:

•Tel. No.: (410) 767 - 5537 •Fax No: (410) 333- 5373



Florida Radiochemistry Services, Inc.

Analysis Report

Lab Sample I.D.	1109122-01	1109122-02
Client I.D.	HOKW2005PTWS	HOKW2005PTLTWS
Gross Alpha		14.9
Error +/-		2.4
MDL		1.1
EPA Method		900.0
Prep Date		09/26/11
Prep Time		06:18
Analysis Date		09/27/11
Analysis Time		10:11
Analyst		MJN
Gross Beta		18.0
Error +/-		1.8
MDL		1.8
EPA Method		900.0
Prep Date		09/26/11
Prep Time		06:18
Analysis Date		09/27/11
Analysis Time		10:11
Analyst		MJN
Radium 226	1.5	
Error +/-	0.2	
MDL	0.2	
EPA Method	903.1	
Prep Date	09/26/11	
Prep Time	08:36	
Analysis Date	10/03/11	
Analysis Time	11:09	
Analyst	MJN	
Radium 228	9.6	
Error +/-	1.1	
MDL	0.8	
EPA Method	Ra-05	
Prep Date	09/26/11	
Prep Time	08:36	
Analysis Date	10/03/11	
Analysis Time	11:09	
Analyst	SN	
Units	pCi/l	pCi/l

Send Report To:

Robert Nixon

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

000513 14

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: No. B: Field Blank Bottle No. 1: HOKW2005 FB No B:

Plant/Site Name: Howard County Health County: Howard

Sample Source: Distilled H₂O Location: lab
(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.:

Date Collected: 9/13/11 carb

Time Collected: a.m. 11:00 p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code: Federal Project:

Field Data: pH Chlorine

Remarks: Field Blank

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
	Gross Alpha	4000	0513	< 3.0	09/15/11	09/16/11
	Gross Beta	4100	0513	< 4.0		4
	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: 09/14/11

Supervisor: [Signature]

•Tel. No.: (410) 767 - 5537 •Fax No.: (410) 333- 5373

Send Report To:

Bert Nixon

Howard County Health Department
Bureau of Environmental Health
7178 Columbia Gateway Drive
Columbia, Maryland 21046

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: HOKW2005 ARE No. B: — Field Blank Bottle No. 1: — No B: —

Plant/Site Name: Willow Pond - Lot 7 County: Howard

Sample Source: Well - Paritwick Drive Location: HO-95-2005
(well no, lab sink, sample tap, etc.)

County: 1 3 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: 9/13/11

Time Collected: — a.m. 1:00 p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code:

Federal Project:

Field Data: — —
pH Chlorine

Remarks: Sample pH preserved < 2.0, well purged prior to sampling

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	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: —

•Tel. No.: (410) 767 - 5537 •Fax No: (410) 333- 5373

Send Report To:

Bert Nixon

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

Howard County Health Department
Bureau of Environmental Health
7178 Columbia Gateway Drive
Columbia, Maryland 21046

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: HOKW 2005 PTLT WS No. B: - Field Blank Bottle No. 1: HOKW 2005 FB No B: -

Plant/Site Name: Willow Pond - Lot 7 County: Howard

Sample Source: Prostwick Dr. - Well Location: H0-95-2005
(well no, lab sink, sample tap, etc.)

County: 1 3 Plant No.

CHECK (one per box)

Drinking Water	<input checked="" type="checkbox"/>
Landfill	<input type="checkbox"/>
Stream	<input type="checkbox"/>
Other	<input type="checkbox"/>

Community	<input type="checkbox"/>
Non-community	<input type="checkbox"/>
Private	<input type="checkbox"/>
Other	<input type="checkbox"/>

Source (raw water)	<input checked="" type="checkbox"/>
Distribution (treated)	<input type="checkbox"/>
MCL	<input type="checkbox"/>

Emergency	<input type="checkbox"/>
Routine	<input checked="" type="checkbox"/>
Recheck	<input type="checkbox"/>
Special	<input type="checkbox"/>

Collector: K. Wolf

Telephone No.: 410.317.2645

Date Collected: 9/13/11

Time Collected: _____ a.m. 1:00 p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code:

Federal Project:

Field Data: _____ pH _____ Chlorine _____

Remarks: Sample pH preserved < 2.0, well purged prior to sampling

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	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				
✓	Long term Gross Alpha					
✓	Long term Gross Beta					

Date Received: ___/___/___

Supervisor: _____

•Tel. No.: (410) 767 - 5537 •Fax No: (410) 333- 5373



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

Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester: Greenfield Homes
 1818 Liberty Road
 Eldersburg, Maryland 21784

S/O Number: 94104-1

Report Date: August 25, 2014

Raw Sample

Property Sampled: 6501 Prestwick Drive, 21029
Sample Location: Pressure Tank Tap
Residual Chlorine: <0.1 mg/L

Building Permit #: B1300070
Sampler ID #: 7483AM
Samples Iced: Yes

County: Howard **Subdivision:** Willow Pond **Lot #:** 7

Date/Time Collected in Field: August 13, 2014 11:07 am
Date/Time Received in Lab: August 13, 2014 1:40 pm

Well Tag #: HO-95-2005
Well Condition: 2-Piece Cap, Satisfactory

Water Treatment/Conditioning: N/A – Raw Sample

PARAMETER	METHOD	MCL/*SMCL	RESULT	COMMENT
Total Coliform	SM 9223B	Absent	Absent	Pass
<i>E. coli</i>	SM 9223B	Absent	Absent	Pass
Nitrate	SM 4500-NO3D	10 mg/L as N	1.5 mg/L as N	Pass
Turbidity	EPA 180.1	10 NTU	2.8 NTU	Pass
pH (Field)	SM 4500-H ⁺ B	*6.5-8.5 Units	6.3 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.

OK
 DB
 9-3-14

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.



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

Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester:

Greenfield Homes
 1818 Liberty Road
 Eldersburg, Maryland 21784

S/O Number: 94104-1

Report Date: August 25, 2014

Raw Sample

Property Sampled: 6501 Prestwick Drive, 21029
Sample Location: Pressure Tank Tap
Residual Chlorine: <0.1 mg/L

Building Permit #: B1300070
Sampler ID #: 7483AM
Samples Iced: Yes

County: Howard **Subdivision:** Willow Pond **Lot #:** 7

Date/Time Collected in Field: August 13, 2014 11:07 am
Date/Time Received in Lab: August 13, 2014 1:40 pm

Well Tag #: HO-95-2005
Well Condition: 2-Piece Cap, Satisfactory

*OK
DB 9-2-14*

Water Treatment/Conditioning: N/A – Raw Sample

PARAMETER	METHOD	MCL/*SMCL	RESULT	COMMENT
Total Coliform	SM 9223B	Absent	Absent	Pass
<i>E. coli</i>	SM 9223B	Absent	Absent	Pass
Nitrate	SM 4500-NO3D	10 mg/L as N	1.5 mg/L as N	Pass
Turbidity	EPA 180.1	10 NTU	2.8 NTU	Pass
pH (Field)	SM 4500-H ⁺ B	*6.5-8.5 Units	6.3 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.



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

Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester: Greenfield Homes
 1818 Liberty Road
 Eldersburg, Maryland 21784

S/O Number: 94104-2

Report Date: August 25, 2014

Treated Sample

Property Sampled: 6501 Prestwick Drive, 21029
Sample Location: R/O Test Line
Residual Chlorine: <0.1 mg/L

Building Permit #: B1300070
Sampler ID #: 7483AM
Samples Iced: Yes

County: Howard **Subdivision:** Willow Pond **Lot #:** 7

Date/Time Collected in Field: August 13, 2014 11:12 am
Date/Time Received in Lab: August 13, 2014 1:40 pm

Well Tag #: HO-95-2005
Well Condition: 2-Piece Cap, Satisfactory

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

PARAMETER	METHOD	MCL* (pCi/L)	RESULT (pCi/L)	COMMENT
Gross Alpha, Short-Term	EPA 900.0	15	<1.1 ± 0.6	Pass
Gross Beta, Short-Term	EPA 900.0	50	15.0 ± 1.8	Pass
Gross Alpha, Long-Term	EPA 900.0	15	<1.0 ± 0.7	Pass
Gross Beta, Long-Term	EPA 900.0	50	16.8 ± 2.0	Pass
Radium 226	EPA 903.1	5 pCi/L Combined	<0.2 ± 0.1	Pass
Radium 228	EPA Ra-05		<0.8 ± 0.5	

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.

*OK
 DS
 9-3-14*

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



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

Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester:

Greenfield Homes
 1818 Liberty Road
 Eldersburg, Maryland 21784

S/O Number: 94104-2

Report Date: August 25, 2014

Treated Sample

Property Sampled: 6501 Prestwick Drive, 21029
Sample Location: R/O Test Line
Residual Chlorine: <0.1 mg/L

Building Permit #: B1300070
Sampler ID #: 7483AM
Samples Iced: Yes

County: Howard **Subdivision:** Willow Pond **Lot #:** 7

Date/Time Collected in Field: August 13, 2014 11:12 am
Date/Time Received in Lab: August 13, 2014 1:40 pm

Well Tag #: HO-95-2005
Well Condition: 2-Piece Cap, Satisfactory

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

PARAMETER	METHOD	MCL* (pCi/L)	RESULT (pCi/L)	COMMENT
Gross Alpha, Short-Term	EPA 900.0	15	<1.1 ± 0.6	Pass
Gross Beta, Short-Term	EPA 900.0	50	15.0 ± 1.8	Pass
Gross Alpha, Long-Term	EPA 900.0	15	<1.0 ± 0.7	Pass
Gross Beta, Long-Term	EPA 900.0	50	16.8 ± 2.0	Pass
Radium 226	EPA 903.1	5 pCi/L Combined	<0.2 ± 0.1	Pass
Radium 228	EPA Ra-05		<0.8 ± 0.5	

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.

OK
 gfb
 9-2-14

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



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

Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester:

Greenfield Homes
 1818 Liberty Road
 Eldersburg, Maryland 21784

S/O Number: 94104-1

Report Date: August 25, 2014

Raw Sample

Property Sampled: 6501 Prestwick Drive, 21029
Sample Location: Pressure Tank Tap
Residual Chlorine: <0.1 mg/L

Building Permit #: B1300070
Sampler ID #: 7483AM
Samples Iced: Yes

County: Howard **Subdivision:** Willow Pond **Lot #:** 7

Date/Time Collected in Field: August 13, 2014 11:07 am
Date/Time Received in Lab: August 13, 2014 1:40 pm

Well Tag #: HO-95-2005
Well Condition: 2-Piece Cap, Satisfactory

Water Treatment/Conditioning: N/A – Raw Sample

PARAMETER	METHOD	MCL* (pCi/L)	RESULT (pCi/L)	COMMENT
Gross Alpha, Long-Term	EPA 900.0	15	11.5 ± 2.3	Pass
Gross Beta, Long-Term	EPA 900.0	50	18.8 ± 2.1	Pass
Radium 226	EPA 903.1	5 pCi/L Combined	0.7 ± 0.2	FAIL
Radium 228	EPA Ra-05		4.4 ± 0.8	

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.

*Not
OK
DB*

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



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

Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester:

Greenfield Homes
 1818 Liberty Road
 Eldersburg, Maryland 21784

S/O Number: 94104-1

Report Date: August 25, 2014

Raw Sample

Property Sampled: 6501 Prestwick Drive, 21029
Sample Location: Pressure Tank Tap
Residual Chlorine: <0.1 mg/L

Building Permit #: B1300070
Sampler ID #: 7483AM
Samples Iced: Yes

County: Howard **Subdivision:** Willow Pond **Lot #:** 7

Date/Time Collected in Field: August 13, 2014 11:07 am
Date/Time Received in Lab: August 13, 2014 1:40 pm

Well Tag #: HO-95-2005
Well Condition: 2-Piece Cap, Satisfactory

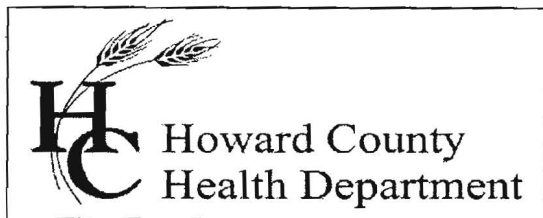
Water Treatment/Conditioning: N/A – Raw Sample

PARAMETER	METHOD	MCL* (pCi/L)	RESULT (pCi/L)	COMMENT
Gross Alpha, Long-Term	EPA 900.0	15	11.5 ± 2.3	Pass
Gross Beta, Long-Term	EPA 900.0	50	18.8 ± 2.1	Pass
Radium 226	EPA 903.1	5 pCi/L Combined	0.7 ± 0.2	FAIL
Radium 228	EPA Ra-05		4.4 ± 0.8	

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.

*NOT
 ok
 as
 9-3-14*

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



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
Main: 410-313-6300 | Fax: 410-313-6303
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org
Facebook: www.facebook.com/hocohealth
Twitter: HowardCoHealthDep

Maura J. Rossman, M.D., Health Officer

INTERIM CERTIFICATE OF POTABILITY
PERMANENT DEVIATION FOR RADIUM
Expiration Date – MARCH 12, 2015

September 12, 2014

Sherman and Debra Canapp
6501 Prestwick Drive
Clarksville, MD 21029

RE: Willow Pond, Lot 7
6501 Prestwick Drive
Building Permit: B13000707
Well Permit: HO-95-2005

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 **9/10/2014**. Final approval of the well line connection to the dwelling was granted on **5/31/2013**. The well construction was completed on **10/4/2010**. Water samples were collected on **8/13/2014**.

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 **10/5/2010**. Results showed a Gross Alpha level of **20.1 ± 3.2 pCi/L** and Gross Beta level of **23.6 ± 2.7 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 **8/13/2014** and indicated a Gross Alpha level of **<1.1 ± 0.7 pCi/L**, a Gross Beta level of **15.0 ± 1.8 pCi/L**, and a Radium 226/228 level of **<1.0 ± 0.6 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.

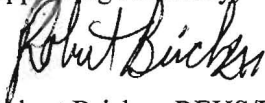
2. It is recommended that a Maryland certified water laboratory certified for radionuclide analysis perform a yearly radionuclide analysis.
3. If you decide to sell or rent your home in the future, you must make any potential buyer/tenant aware of this permanent deviation. **A person who fails to make 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-95-2005. 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.**

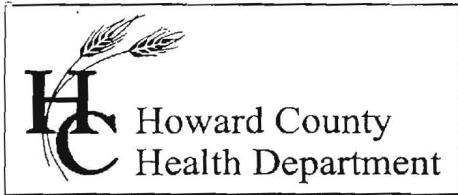
Please contact (410) 313-1773 to schedule a final water sample appointment or contact a Maryland certified water quality laboratory to schedule a water sample. A list of laboratories certified by the state of Maryland may be found at the following website:
<http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf>

Approving Authority,



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

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



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

November 17, 2010

Greenfield Homes, Inc.
6656 Luster Drive
Highland, Maryland 20777

RE: Willow Pond Lot 7
Prestwick Drive
Well Tag: HO - 95 - 2005

To Whom It May Concern:

A sample was collected during a yield test on October 5, 2010 and submitted to the Department of Health & 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. 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 20.1 ± 3.2 picocuries/liter (pCi/L); while the **Gross Beta** level was 23.6 ± 2.7 pCi/L. The **Gross Alpha** result was above 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).

At the time of testing and with respect to these parameters, the future well water supply **does not** appear safe for all uses. Additional testing **for these parameters, plus Radium 226 and Radium 228** will be required to secure the future Use & Occupancy. Given the elevated finding for **Gross Alpha** and somewhat higher than typical finding for **Gross Beta**, installation of a water softener system and / or a reverse osmosis system will likely be necessary. If you elect to install treatment upfront, **only a post short and long term Gross Alpha and Beta, plus a post Radium 226 / 228** will be needed to properly evaluate the effectiveness of the installed treatment. Given that it typically takes up to one month to perform and receive back the **Radium** analyses, plan accordingly. Also note, this is in addition to other standard testing parameters (bacteria, nitrate, turbidity and sand) that will still be required to help secure Use & Occupancy.

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

Enclosure

cc: Barry Glotfelty, MDE Water Mgmt.
Well & Septic property file

Send Report To: Bert Nixon
 Howard Co. Env. Health
 7178 Columbia Gateway
 Columbia, MD 21046 Dr.

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

E000579 8-6 6

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: 952005BB No. B: _____ Field Blank Bottle No. 1: _____ No B: _____

Plant/Site Name: Willow Pond - Lot 7 County: Howard

Sample Source: Prestwick Drive Location: HO-95-2005
(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: Brian Baker

Telephone No.: (410) 313-2643

Date Collected: 10/5/2010
cont.

Time Collected: 10 a.m. _____ p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code: Federal Project:

Field Data: _____
pH Chlorine

Remarks: Sample Collected During Yield Test
Duplicate 10/13/10 @ 19.4 ± 3.5 B 24.0 ± 2.7

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000	0579	20.1 ± 3.2	10/13/10	10/14/10
✓	Gross Beta	4100	0579	23.6 ± 2.7	"	"
	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: 10/06/10

Supervisor: mlc

• Tel. No.: (410) 767 - 5537 • Fax No.: (410) 333 - 5373

Send Report To: Bert Nixon
Howard Co. Env. Health
71-78 Columbia Gateway
Columbia, MD 21046 Dr.

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: 952005BB No. B: _____ Field Blank Bottle No. 1: _____ No B: _____

Plant/Site Name: Willow Pond - Lot 7 County: Howard

Sample Source: Prestwick Drive Location: HO-95-2005
(well no, lab sink, sample tap, etc.)

County: B 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: Brian Baker

Telephone No.: (410) 313-2643

Date Collected: 10/5/2010

Time Collected: 10 a.m. _____ p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code:

Federal Project:

Field Data: _____
pH Chlorine

Remarks: Sample Collected During Yield Test

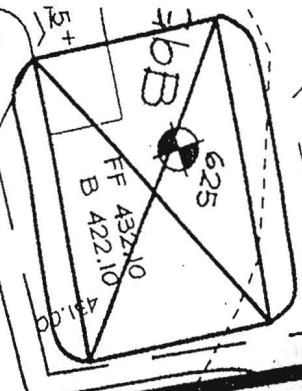
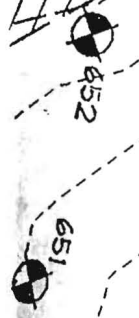
✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Analyzed	Date Reported
✓	Gross Alpha	4000				
✓	Gross Beta	4100				
	Radon-222 Bottle A	4004				
	Radon-222 Bottle B	4004				
	Field Blank #A	4004				
	Field Blank #B	4004				
	Tritium					
	Ra - 226	4020				
	Ra - 228	4030				
	Total Uranium	4006				

*10/5/2010
 Radium Sample
 Collected.
 (BB)*

Date Received: ___/___/___

Supervisor: _____

•Tel. No.: (410) 767 - 5537 •Fax No.: (410) 333- 5373



Maryland

MATCHLINE

9/10/25/0
New Box O.K.

See General Note No. 52 on Sheet 1.

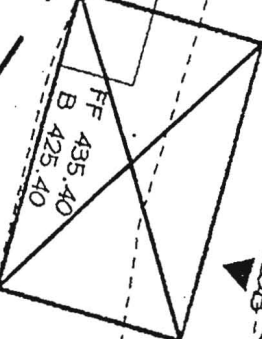
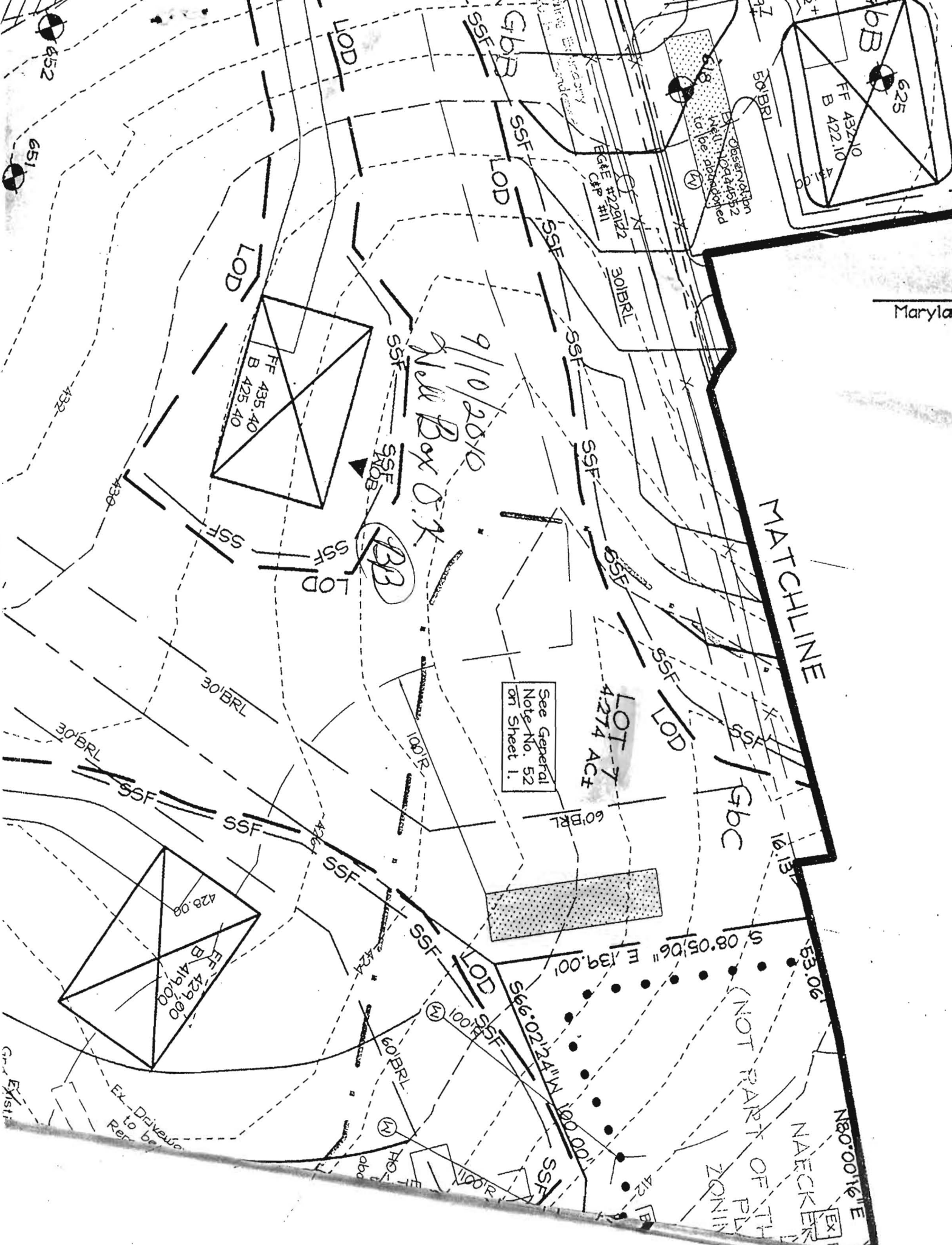
LOT 7
4.274 AC±

Gbc

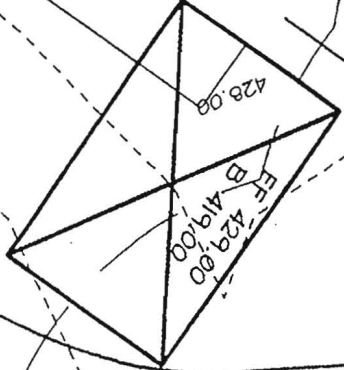
(NOT PART OF PLANNING ZONING)

NAECKER

N80°00'16"E



333



Ex. Driveway to be Ref. Gr. Existing

S. 08°05'06" E. 139.00'

S 96°02'24" N 100.00'

53.06'

60' BRL

100' R

100' R

100' R

412'

412'

412'

412'

412'

412'

412'

412'

412'

412'

Gr. Existing

pipe depth less than two feet) and has been field verified on field run.

- 47. Any changes to a private sewage area shall require a revised perc certification plan.
- 48. If applicable, groundwater appropriations permit shall be obtained prior to plat recordation.
- 49. Public Shared Septic Design Flow Calculation:
3 homes with 4 bedrooms = $4 \times 150 \times 3 = 1,800$ gal/day
- 50. Lot yield is dependent upon nitrogen balance study (if over 5,000gpd then add groundwater mounding and hydrologic balance studies)
- 51. Lot yield and bedroom counts are subject to review by Maryland Department of the Environment, Bureau of Utilities, and the Howard County Health Department when the water and sewer contract plans with the shared sewage disposal system are submitted.
- 52. Maryland Department of the Environment has approved the variance to allow the shared sewage disposal system located on Non-Buildable Pres. Parcel D serving lots 2, 3 and 13 to be located up gradient from the private water supply on lots 2,3,4,6 and 7; allowing the initial sewage disposal area and future repair area for Lot 1 to be located up gradient from the private water supply on Lot 1. This is subject to the following conditions: The wells for Lot 1, 2, 3, 4, 6, and 7 must be constructed using a steel well casing, which must be installed at a minimum depth of 50' below ground surface or 10' into the competent bedrock, whichever is deeper. A low pressure dosing system will be required for the shared sewage disposal system.

SHEET
1 of 14
2 of 14
3 of 14
4 of 14
5 of 14
6 of 14
7 of 14
8 of 14
9 of 14
10 of 14
11 of 14
12 of 14
13 of 14
14 of 14

M
ZE
±
±
.f±
.f±
.f±
.f±
.f±
.f±
.f±

OWNER/

UNCHECKED PROPERTY

FF 430.60
B 420.60

Private Use-In-Common
Access Easement for the
use and benefit of Lots 7
thru 12 width varies.

Temporary Access Drive to
Removed once Emergency Service
Access Drive has been Constructed
Temporary Silt Fence for Temporary
Access Drive for Temporary
Driveway Connection, Remove S.F.
Once Temporary Driveway is
Connected and Reinstall Temporarily
when Temp. Driveway is Removed

Ex. 16' Private Ingress/
Egress Easement for use
by Parcels 252 & 259 per
Plat # 42849 and
L. 487 F. 109

Ex. to be
Relocated

NON-BUILDABLE PARCEL 'E'
5,808 sq ft

NAECKER PROPERTY
LOT 12
(NOT PART OF THIS SUBDIVISION PLAN)
PLAT 4289
ZONING RR-DEO

Location
of Existing
Septic Field

LOT 7
3,579 AC±

Ex. Bldg.
to
Remain

Ex. Well #
HO-95-2005

Ex. Well
Tag #:
HO-73-0726
to be
abandoned

Ex. Well #
HO-95-2004

Ex. Driveway
to be
removed

Septic
Easement
10,600sq ft

FF 435.40
B 425.40

WOB

FF 428.00
B 417.00
MCE #15-32

Type A-2
Earth Dike

NON-BUILDABLE
RESERVATION

