

2915

(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 516063

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

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

DATE WELL COMPLETED
MM DD YY
3 30 06

Depth of Well
285'
(TO NEAREST FOOT)

OK
5/5/06
GAL

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
20-95-0265

OWNER Horton R. D.
STREET OR RFD Hester Glen Way TOWN Clarksville
SUBDIVISION Jurnbury Carova SECTION _____ LOT 22

WELL LOG

Not required for driven wells

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

DESCRIPTION (Use
additional sheets if needed)

FEET

check
if water
bearing

Sand
Gray Mica Rock

FROM TO
0 56
56 285 ✓

GROUTING RECORD

WELL HAS BEEN GROUTED
(Circle Appropriate Box) Y N
TYPE OF GROUTING MATERIAL (Circle one)
CEMENT CM BENTONITE CLAY BC
NO. OF BAGS 13 NO. OF POUNDS 1322
GALLONS OF WATER 78
DEPTH OF GROUT SEAL (to nearest foot)
from 0 ft. to 52 ft.
(enter 0 if from surface)

CASING RECORD

caseing types insert appropriate code below
 ST STEEL CO CONCRETE
 PL PLASTIC OT OTHER
MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) Total depth of main casing (nearest foot)
ST 6 60

OTHER CASING (if used)

diameter depth (feet)
inch from to

SCREEN RECORD

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

DEPTH (nearest ft.)

1 2
Ho 58 285
E A C H S R E E N
1 8 9 11 15 17 21
2 23 24 26 30 32 36
3 38 39 41 45 47 51
SLOT SIZE 1 _____ 2 _____ 3 _____

DIAMETER OF SCREEN (NEAREST INCH)
from _____ to _____

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) (E.R.O.S.) W Q

70 _____ 72 _____
TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3

PUMPING TEST

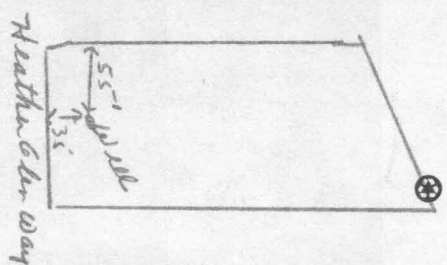
HOURS PUMPED (nearest hour) 3
PUMPING RATE (gal. per min.) 12
METHOD USED TO MEASURE PUMPING RATE Bucket
WATER LEVEL (distance from land surface)
BEFORE PUMPING 27 ft.
WHEN PUMPING 63 ft.
TYPE OF PUMP USED (for test)
 A air P piston T turbine
 C centrifugal R rotary O other (describe below)
 J jet S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO
IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.
TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29 29
CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35
PUMP HORSE POWER 37 41
PUMP COLUMN LENGTH (nearest ft.) 43 47
CASING HEIGHT (circle appropriate box and enter casing height)
 + above } LAND SURFACE
 - below } (nearest foot) 2

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED Y N

CIRCLE APPROPRIATE LETTER
A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
E ELECTRIC LOG OBTAINED
P TEST WELL CONVERTED TO PRODUCTION WELL

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.

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

LIC. NO. 1 D

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

B 1 1484

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

HO-95-0265

523944 please type

Date Received (APA)

01 20 06

OWNER INFORMATION

Horton R. D. 1370 Piccard Drive Rockville Md 20850

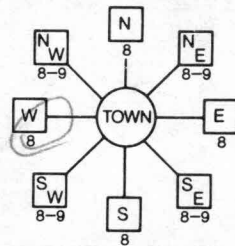
LOCATION OF WELL

Howard County Turnbury Grove Clarksville

DRILLER INFORMATION

Joseph L Mayne M S D 024 5512 Ridge Rd Mt. Airy, Md 21201

DIRECTION OF WELL FROM TOWN (CIRCLE APPROPRIATE BOX)



Heather Glen Way 25 FT DISTANCE FROM ROAD TAX MAP: 34 BLK: 17 PARCEL 77

WELL INFORMATION

APPROX. PUMPING RATE 5 GAL. PER MIN. AVERAGE DAILY QUANTITY NEEDED 500 GAL. PER DAY

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

HOWARD 13 A516063 COUNTY NAME COUNTY NO. STATE SIGNATURE DATE ISSUED 2/24/06 CO SIGNATURE EXP. DATE 2/25/07

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary) CABLE REVerse-ROTary DRive-POINT other

REPLACEMENT OR DEEPEINED 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 DEEPEIN AN EXISTING WELL

PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEINED (IF AVAILABLE)

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

APPROP. PERMIT NUMBER HO 2006G 003(01) PERMIT No. HO-95-0265

SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

This well must be tested for radium & VOC's at the yield test

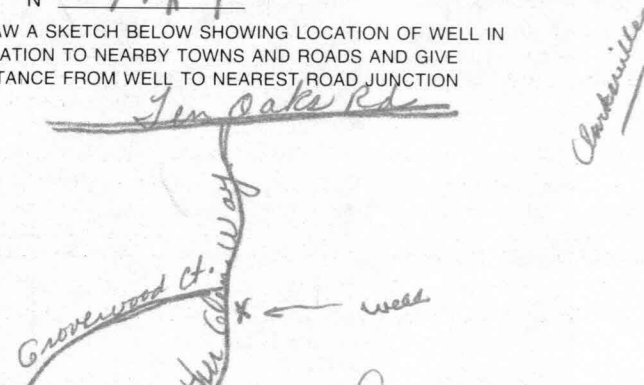
SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER 1. well

WRITE THE BOX NUMBER FROM THE MAP HERE

E 8144 N 4987

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



yield & grout 3/30/06 ~ 15gpm yield radium & VOC sampled GAO

**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: _____ Lot #: 22 Well Tag #: HO - 95 - 0265
Site Address: 6251 Hecker Glen Way

Submersible Pump Data

Make: _____
Model #: _____
Pump Capacity _____ GPM
Well Yield: _____ GPM

Pitless Adapter

Make: _____
Model#: _____
Depth: _____ (36" min)
NSF approved: _____

Well Cap and Electric Conduit

Two piece watertight cap: _____
Screened, vented well cap: _____
Cap secured to casing: _____
Conduit min 18" B.G.: _____
Conduit secured to well cap: _____

Depth of well encountered at time of pump installation: _____ (feet)
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4
Torque arrestors or Cable guards are required - Must circle one
Safety rope, if used, attached to inside of well casing with eye bolt _____

Piping to house

Type: _____
PSI: _____ (160 psi min)
Depth of supply line: _____ (36" min)

House Connection

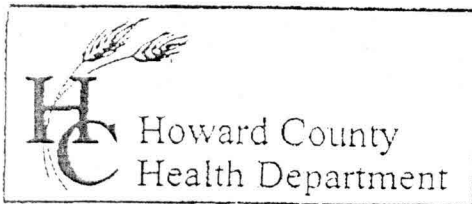
PVC sleeved to undisturbed soil at wall penetration: _____
Approximate length of sleeve: _____
Sleeve caulked and sealed properly: _____

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

Signature of company representative responsible for installation _____ date _____

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

Date Insp. Requested: _____ Date Insp. Approved: 9/12/11 (CW)
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 ✓



3525 H Ellicott Mills Drive, Ellicott City, MD 21043
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

TO ALL INTERESTED PARTIES

When submitting a well permit application for a proposed well for new construction, please indicate one of the following:

- The well site has been staked by Benchmark Engineering
(professional land surveyor or company employing professional land surveyors)
on 12-14-05 (date) and does not require a site inspection.
- The well driller, builder or property owner will call the Health Department to schedule a time to meet in the field to verify the proposed well site location.

This sheet, along with two copies of an acceptable well site plan, must be attached to the green well permit application.

Revised 6/10/03

*.33 Lots for D. R. Horton
Surnbury Grove*



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

Expiration Date – September 30th, 2012

March 30th, 2012

Homeowner
6251 Heather Glen Way
Clarksville, MD 21029

RE: The Preserve at Clarksville, Lot 22
6251 Heather Glen Way
Building Permit: B11001373
Well Permit: HO-95-0265

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 **9/12/2011**. Final approval of the well line connection to the dwelling was granted on **9/12/2011**. The well construction was completed on **3/30/2006**. Water samples were collected on **3/20/2012 & 3/26/2012**.

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 **3/30/2006**. Results showed a Gross Alpha level of **3.8 ± 0.6 pCi/L** and **Gross Beta** level of **7.7 ± 0.7 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-95-0265. 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 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



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:

Amy Ferrer
 Compass Homes
 6206 Heather Glen Way
 Clarksville, Maryland 21029

S/O Number: 84645-1 *Amended*

Report Date: March 29, 2012

Potability Testing

Property Sampled: 6251 Heather Glen Way, 21029
Sample Location: Pressure Tank Tap
Residual Chlorine: <0.1 mg/L

Building Permit #: B11001373
Sampler ID #: 0765AR
Samples Iced: Yes

County: Howard
Map: 34

Subdivision: Preserve at Clarksville
Parcel: 77

Lot #: 22

Date/Time Collected in Field: March 20, 2012 @ 1:45 pm
Date/Time Received in Lab: March 20, 2012 @ 3:35 pm

Well Tag #: HO-95-0265
Well Condition: 2-Piece Cap, Satisfactory

*Results OK
 3-30-12
 HS*

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

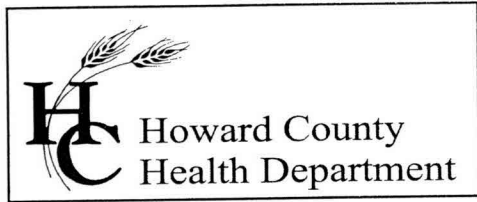
PARAMETER	METHOD	MCL/*SMCL	RESULT	PASS/FAIL
Total Coliform	SM 9223B	Absent	PRESENT	FAIL
<i>E. coli</i>	SM 9223B	Absent	Absent	Pass
Nitrate	SM 4500D	10 mg/L as N	2.3 mg/L as N	Pass
Turbidity	EPA 180.1	10 NTU	24.5 NTU	HIGH
pH	EPA 150.1	*6.5-8.5 Units	6.9 Units	***
Iron	HACH 8008	*0.30 mg/L	4.8 mg/L	HIGH***
Sand		Absent	Absent	Pass

Note: The high turbidity in this water sample is most likely caused by the elevated iron level.

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.



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046
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TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

July 7, 2006

D. R. Horton, Inc.
1370 Picardi Drive
Rockville, Maryland 20850

RE: Water Sample Results
22 Lot 21 Turnbury Grove
HO - 95 - 0265

To Whom this May Concern:

During the recent "yield test" of the well serving the future Lot 21 (located on Heather Glen Way), a sample was collected for volatile organic compounds (VOC's) on March 30, 2006. This testing was performed to establish a baseline evaluation of the well water supply due to known VOC ground water contamination concerns previously documented (during the 1990's and earlier) in properties nearby this development.

Results from this sampling were free of all tested VOC's to the limit of detection for the test method employed. Similar findings were noted for the corresponding Field and Trip Blank samples. With respect to these parameters, the future well water supply is **currently** safe for all uses.

A copy of the VOC test report is enclosed for your records.

If questions should arise, you may contact Stuart Oster of the Well & Septic Program at (410) 313 - 1771 or me at (410) 313 - 1773.

Sincerely,

Bert Nixon, Assistant Director
Bureau of Environmental Health

Enclosure
cc: Lot 21 Turnbury Grove Property File

State of Maryland
 DHMH - Laboratories Administration
 Division of Environmental Chemistry
TRACE ORGANICS SECTION
 201 W. Preston Street, Baltimore, MD 21201
 John M. DeBoy, Dr. P.H., Director

Certificate of Analysis - Volatiles

Sample Name: 961480 HOGCTG21330S(A)
 Date Analyzed: 04/13/06

Method: EPA 524.2

<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>	<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>
TRIALOMETHANES				UNREGULATED			
Bromodichloromethane	0.5	na	ND	Dichlorodifluoromethane	0.5	na	ND
Bromoform	0.5	na	ND	Chloromethane	0.5	na	ND
Chloroform	0.5	na	ND	Bromomethane	0.5	na	ND
Dibromochloromethane	0.5	na	ND	Chloroethane	0.5	na	ND
TOTAL THMs	-	80	-	Trichlorofluoromethane	0.5	na	ND
REGULATED				1,1-Dichloroethane	0.5	na	ND
Benzene	0.5	5	ND	1,3-Dichlorobenzene	0.5	na	ND
Carbon Tetrachloride	0.5	5	ND	Dibromomethane	0.5	na	ND
Chlorobenzene	0.5	100	ND	1,1-Dichloropropene	0.5	na	ND
1,4-Dichlorobenzene	0.5	75	ND	trans-1,3-Dichloropropene	0.5	na	ND
1,1-Dichloroethene	0.5	7	ND	1,1,2,2-Tetrachloroethane	0.5	na	ND
1,2-Dichloroethane	0.5	5	ND	1,3-Dichloropropane	0.5	na	ND
1,2-Dichlorobenzene	0.5	600	ND	2,2-Dichloropropane	0.5	na	ND
1,2-Dichloropropane	0.5	5	ND	cis-1,3-Dichloropropene	0.5	na	ND
cis-1,2-Dichloroethene	0.5	70	ND	2-Chlorotoluene	0.5	na	ND
trans-1,2-Dichloroethene	0.5	100	ND	4-Chlorotoluene	0.5	na	ND
Ethylbenzene	0.5	700	ND	Bromobenzene	0.5	na	ND
Styrene	0.5	100	ND	1,3,5-Trimethylbenzene	0.5	na	ND
Tetrachloroethene	0.5	5	ND	1,2,4-Trimethylbenzene	0.5	na	ND
Trichloroethene	0.5	5	ND	1,2,3-Trichlorobenzene	0.5	na	ND
1,1,1-Trichloroethane	0.5	200	ND	n-Propylbenzene	0.5	na	ND
Toluene	0.5	1000	ND	n-Butylbenzene	0.5	na	ND
Vinyl Chloride	0.5	2	ND	Naphthalene	0.5	na	ND
o-Xylene	0.5	na	ND	Hexachlorobutadiene	0.5	na	ND
m+p-Xylene	1.0	na	ND	Isopropylbenzene	0.5	na	ND
Total Xylenes	1.5	10000	ND	1,2,3-Trichloropropane	0.5	na	ND
Methylene Chloride	0.5	5	ND	1,2-Dibromo-3-Chloropropane	0.5	na	ND
1,1,2-Trichloroethane	0.5	5	ND	p-Isopropyltoluene	0.5	na	ND
1,2,4-Trichlorobenzene	0.5	70	ND	tert-Butylbenzene	0.5	na	ND
				sec-Butylbenzene	0.5	na	ND
				Bromochloromethane	0.5	na	ND
				1,1,1,2-Tetrachloroethane	0.5	na	ND
				1,2-Dibromoethane	0.5	na	ND
				Methyl-tert-Butyl Ether (MTBE)	0.5	na	ND
				Ethyl-tert-Butyl Ether (ETBE)	0.5	na	ND
				tert-Amyl Methyl Ether (TAME)	0.5	na	ND

*All results are in parts per billion (ppb)
 ND = Less than the detection limit
 na = not applicable
 e = estimated value

Section Chief: *Richard Miller, Jr.*

Date Approved: *4/17/06*

State of Maryland
 DHMH - Laboratories Administration
 Division of Environmental Chemistry
TRACE ORGANICS SECTION
 201 W. Preston Street, Baltimore, MD 21201
 John M. DeBoy, Dr. P.H., Director

Certificate of Analysis - Volatiles

Sample Name: 961480 TB
 Date Analyzed: 04/13/06

Method: EPA 524.2

<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>	<u>Contaminants</u>	<u>DL*</u>	<u>MCL*</u>	<u>Result*</u>
TRihalOMETHANES				UNREGULATED			
Bromodichloromethane	0.5	na	ND	Dichlorodifluoromethane	0.5	na	ND
Bromoform	0.5	na	ND	Chloromethane	0.5	na	ND
Chloroform	0.5	na	ND	Bromomethane	0.5	na	ND
Dibromochloromethane	0.5	na	ND	Chloroethane	0.5	na	ND
TOTAL THMs	-	80	-	Trichlorofluoromethane	0.5	na	ND
REGULATED				1,1-Dichloroethane	0.5	na	ND
Benzene	0.5	5	ND	1,3-Dichlorobenzene	0.5	na	ND
Carbon Tetrachloride	0.5	5	ND	Dibromomethane	0.5	na	ND
Chlorobenzene	0.5	100	ND	1,1-Dichloropropene	0.5	na	ND
1,4-Dichlorobenzene	0.5	75	ND	trans-1,3-Dichloropropene	0.5	na	ND
1,1-Dichloroethene	0.5	7	ND	1,1,2,2-Tetrachloroethane	0.5	na	ND
1,2-Dichloroethane	0.5	5	ND	1,3-Dichloropropane	0.5	na	ND
1,2-Dichlorobenzene	0.5	600	ND	2,2-Dichloropropane	0.5	na	ND
1,2-Dichloropropane	0.5	5	ND	cis-1,3-Dichloropropene	0.5	na	ND
cis-1,2-Dichloroethene	0.5	70	ND	2-Chlorotoluene	0.5	na	ND
trans-1,2-Dichloroethene	0.5	100	ND	4-Chlorotoluene	0.5	na	ND
Ethylbenzene	0.5	700	ND	Bromobenzene	0.5	na	ND
Styrene	0.5	100	ND	1,3,5-Trimethylbenzene	0.5	na	ND
Tetrachloroethene	0.5	5	ND	1,2,4-Trimethylbenzene	0.5	na	ND
Trichloroethene	0.5	5	ND	1,2,3-Trichlorobenzene	0.5	na	ND
1,1,1-Trichloroethane	0.5	200	ND	n-Propylbenzene	0.5	na	ND
Toluene	0.5	1000	ND	n-Butylbenzene	0.5	na	ND
Vinyl Chloride	0.5	2	ND	Naphthalene	0.5	na	ND
o-Xylene	0.5	na	ND	Hexachlorobutadiene	0.5	na	ND
m+p-Xylene	1.0	na	ND	Isopropylbenzene	0.5	na	ND
Total Xylenes	1.5	10000	ND	1,2,3-Trichloropropane	0.5	na	ND
Methylene Chloride	0.5	5	ND	1,2-Dibromo-3-Chloropropane	0.5	na	ND
1,1,2-Trichloroethane	0.5	5	ND	p-Isopropyltoluene	0.5	na	ND
1,2,4-Trichlorobenzene	0.5	70	ND	tert-Butylbenzene	0.5	na	ND
				sec-Butylbenzene	0.5	na	ND
				Bromochloromethane	0.5	na	ND
				1,1,1,2-Tetrachloroethane	0.5	na	ND
				1,2-Dibromoethane	0.5	na	ND
				Methyl-tert-Butyl Ether (MTBE)	0.5	na	ND
				Ethyl-tert-Butyl Ether (ETBE)	0.5	na	ND
				tert-Amyl Methyl Ether (TAME)	0.5	na	ND

*All results are in parts per billion (ppb)
 ND = Less than the detection limit
 na = not applicable
 e = estimated value

Section Chief: Deborah Melendez

Date Approved: 4/17/06



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:

Amy Ferrer
Compass Homes
6206 Heather Glen Way
Clarksville, Maryland 21029

S/O Number: 84711

Report Date: March 27, 2012

Retest #1

Property Sampled: 6251 Heather Glen Way, 21029
Sample Location: Pressure Tank Tap
Residual Chlorine: <0.1 mg/L

Building Permit #: B11001373
Sampler ID #: 0765AR
Samples Iced: Yes

County: Howard
Map: 34

Subdivision: Preserve at Clarksville
Parcel: 77

Map: 22

Date/Time Collected in Field: March 26, 2012 @ 1:10 pm
Date/Time Received in Lab: March 26, 2012 @ 3:45 pm

Well Tag #: HO-95-0265
Well Condition: 2-Piece Cap, Satisfactory

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

PARAMETER	METHOD	MCL	RESULT	PASS/FAIL
Total Coliform	SM 9223B	Absent	Absent	Pass
E. coli	SM 9223B	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 - HS
3/28/12

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



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Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester:

Amy Ferrer
 Compass Homes
 6206 Heather Glen Way
 Clarksville, Maryland 21029

S/O Number: 84645-2

Report Date: March 29, 2012

Treated Sample

Property Sampled: 6251 Heather Glen Way, 21029
Sample Location: Reverse Osmosis (R/O) Tap
Residual Chlorine: <0.1 mg/L

Building Permit #: B11001373
Sampler ID #: 0765AR
Samples Iced: Yes

County: Howard
Map: 34

Subdivision: Preserve at Clarksville
Parcel: 77

Lot #: 22

Date/Time Collected in Field: March 20, 2012 @ 1:55 pm
Date/Time Received in Lab: March 20, 2012 @ 3:35 pm

Well Tag #: HO-95-0265
Well Condition: 2-Piece Cap, Satisfactory

Water Treatment/Conditioning: Reverse Osmosis, Sediment Filter

PARAMETER	METHOD	MCL	RESULT	PASS/FAIL
Turbidity	EPA 180.1	10 NTU	<1.0 NTU	Pass

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

MCL: Maximum Contamination Level, an enforceable level established by the EPA



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Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester:

Amy Ferrer
 Compass Homes
 6206 Heather Glen Way
 Clarksville, Maryland 21029

S/O Number: 84645-2

Report Date: April 4, 2012

Property Sampled: 6251 Heather Glen Way, 21029
 Sample Location: Kitchen R/O Tap
 Residual Chlorine: <0.1 mg/L

Building Permit #: B11001373
 Sampler ID #: 0765AR
 Samples Iced: Yes

County: Howard
 Map: 34

Subdivision: Preserve at Clarksville
 Parcel: 77

Lot #: 22

Date/Time Collected in Field: March 20, 2012 @ 1:55 pm
 Date/Time Received in Lab: March 20, 2012 @ 3:35 pm

Well Tag #: HO-95-0265
 Well Condition: 2-Piece Cap, Satisfactory

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

Short Term - Treated

PARAMETER	METHOD	DETECTION LIMIT (pCi/L)	MCL* (pCi/L)	RESULT (pCi/L)	ACCEPTABILITY
Gross Alpha	EPA 900.0	1.4	15	2.8 ± 1.4	Acceptable
Gross Beta	EPA 900.0	2.1	50	4.6 ± 1.5	Acceptable

Long Term - Treated

PARAMETER	METHOD	DETECTION LIMIT (pCi/L)	MCL* (pCi/L)	RESULT (pCi/L)	ACCEPTABILITY
Gross Alpha	EPA 900.0	2.2	15	<2.2 ± 1.7	Acceptable
Gross Beta	EPA 900.0	2.2	50	5.8 ± 1.6	Acceptable



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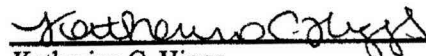
Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

PARAMETER	METHOD	DETECTION LIMIT	MCL*	RESULT	ACCEPTABILITY
Radium 226	EPA 903.1	0.1 pCi/L	5 pCi/L	0.6 ± 0.2 pCi/L	Acceptable
Radium 228	EPA Ra-05	0.7 pCi/L	Combined	<0.7 ± 0.4 pCi/L	

*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.

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
 Manager – Drinking Water Testing



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Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester:

Amy Ferrer
 Compass Homes
 6206 Heather Glen Way
 Clarksville, Maryland 21029

S/O Number: 84645-1

Report Date: April 4, 2012

Property Sampled: 6251 Heather Glen Way, 21029
Sample Location: Pressure Tank Tap
Residual Chlorine: <0.1 mg/L

Building Permit #: B11001373
Sampler ID #: 0765AR
Samples Iced: Yes

County: Howard
Map: 34

Subdivision: Preserve at Clarksville
Parcel: 77

Lot #: 22

Date/Time Collected in Field: March 20, 2012 @ 1:45 pm
Date/Time Received in Lab: March 20, 2012 @ 3:35 pm

Well Tag #: HO-95-0265
Well Condition: 2-Piece Cap, Satisfactory

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

Short Term - Raw

PARAMETER	METHOD	DETECTION LIMIT (pCi/L)	MCL* (pCi/L)	RESULT (pCi/L)	ACCEPTABILITY
Gross Alpha	EPA 900.0	1.2	15	9.6 ± 1.9	MODERATE
Gross Beta	EPA 900.0	2.1	50	14.9 ± 1.9	Acceptable

Long Term - Raw

PARAMETER	METHOD	DETECTION LIMIT (pCi/L)	MCL* (pCi/L)	RESULT (pCi/L)	ACCEPTABILITY
Gross Alpha	EPA 900.0	1.2	15	5.0 ± 1.5	MODERATE
Gross Beta	EPA 900.0	1.8	50	14.4 ± 1.7	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.

Katherine C. Higgs
 Manager - Drinking Water Testing



Howard County
Health Department

Bureau of Environmental Health
7173 Columbia Gateway Drive, Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2523 Toll Free 1-866-313-6300
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

May 10, 2006

D.R. Horton
1370 Piccard Drive
Rockville, MD 20850

RE: Turnberry Grove, Lot # 21 22
Well Tag: HO-95-0265

To Whom It May Concern,

A sample was collected from a yield test on March 30, 2006 and submitted, GPL
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 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 3.8 ± 0.6 picocuries per liter
(pCi/L); while the **Gross Beta** level was 7.7 ± 0.7 pCi/L. The **Gross Alpha** result was below
the **maximum contamination level (MCL)** of 15 pCi/L, while the **Gross Beta** was below the
MCL of 50 pCi/L. At the time of testing and with respect to these parameters, your well water
supply is safe for all uses.

A copy of the test results is enclosed for your information. Please call this office at
410-313-1773 if you have any further questions or concerns.

Sincerely,

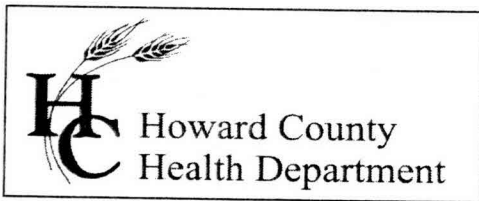
Bert Nixon, Deputy Director
Bureau of Environmental Health

cc: Eric Dougherty, MDE, Water Mgmt., Groundwater

Analytical Summary Report

Client Name:	Howard County Health Department	Client Sample ID:	HOGCTG21330
Sample Date/Time:	03/30/2006	Lab Sample ID:	603231-001-001-1/1
Receipt Date/Time:	03/30/2006	Sample Matrix:	WATER
Prepared Date/Time:		Analytical Method:	ALPHA/BETA BY METHOD 900.0

Isotope	Result	Uncertainty 1σ	MDA	Q
Gross Alpha	3.7736 pCi/L	± 0.6578 pCi/L	1.1937 pCi/L	
Gross Beta	7.7164 pCi/L	± 0.7471 pCi/L	2.0015 pCi/L	



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TDD (410) 313-2323 Toll Free 1-866-313-6300

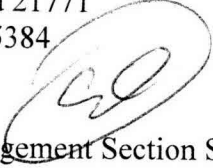
website: www.hchealth.org

Penny E. Borenstein, M.D., M.P.H., Health Officer

February 8, 2006

MEMORANDUM

TO: Joseph L. Mayne Well Drilling
5512 Ridge Road
Mt. Airy, Maryland 21771
Faxed to 301-829-5384

FROM: Stuart Oster, R.S. 
Groundwater Management Section Supervisor
Well and Septic Program

RE: File Number: P-05-013
Title: Turnbery Grove

The Health Department requires that all the wells in this subdivision be tested for radium and V.O.C.'s (Volatile Organic Contaminants). The optimum time to sample would be when the yield test is being completed. When contacting this office about the yield test, please mention that these water test need to be collected. Also, attached is a letter dated November 21, 2005 from Bert Nixon further explaining the radium testing.

Cc: D. R. Horton, Inc.
File