

REFERENCE 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.

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

COUNTY NUMBER **(13) A517422**

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

DATE WELL COMPLETED
MM DD YY
09 22 06

Depth of Well
22 200 26
(TO NEAREST FOOT)

11/22/06
O.K. (BB)

PERMIT NO.
FROM "PERMIT TO DRILL WELL"
HO-95-0411

OWNER DeFrancis
STREET OR RFD Daniel Circle Lane TOWN Ellicott City
SUBDIVISION Walnut Grove SECTION _____ LOT 28

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
	FROM	TO	
Top Soil	0	1	
CLAY	1	15	
Sand Stone	15	19	✓
MICKA	19	40	
Sand Stone	40	45	✓
MICKA	45	175	
Sand Stone	175	180	✓
MICKA	180	200	

GROUTING RECORD yes no

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

TYPE OF GROUTING MATERIAL (Circle one)
CEMENT **(CM)** BENTONITE CLAY **(BC)**

NO. OF BAGS 19 NO. OF POUNDS 1800

GALLONS OF WATER 114

DEPTH OF GROUT SEAL (to nearest foot)
from 0 TOP 52 ft. to 27 54 BOTTOM 58 ft.
(enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

(ST) STEEL **(CO)** CONCRETE
(PL) PLASTIC **(OT)** OTHER

MAIN CASING TYPE PL Nominal diameter top (main) casing (nearest inch)! 6 Total depth of main casing (nearest foot) 29

60 61 63 64 66 70

OTHER CASING (if used)

diameter inch depth (feet) from to

A C H C A S I N G

SCREEN RECORD

screen type or open hole (insert appropriate code below)

(ST) STEEL **(BR)** BRASS **(HO)** OPEN HOLE
(PL) PLASTIC **(OT)** OTHER

(C 2) DEPTH (nearest ft.)

1 2
1 HO 27 200

1 2
1 8 9 11 15 17 21
2 23 24 26 30 32 36
3 38 39 41 45 47 51
E S L O T S I Z E 1 _____ 2 _____ 3 _____

DIAMETER OF SCREEN _____ (NEAREST INCH)
56 60
from to

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

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

70 _____ 72 _____ 74 75 76 _____

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3

PUMPING TEST

HOURS PUMPED (nearest hour) 3
8 9

PUMPING RATE (gal. per min.) 15
11 15

METHOD USED TO MEASURE PUMPING RATE Bucket

WATER LEVEL (distance from land surface)

BEFORE PUMPING 15 ft.
17 20

WHEN PUMPING 22 ft.
22 25

TYPE OF PUMP USED (for test)

(A) air **(P)** piston **(T)** turbine
(C) centrifugal **(R)** rotary **(O)** other (describe below)
(J) jet **(S)** submersible

PUMP INSTALLED

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

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. _____ 29

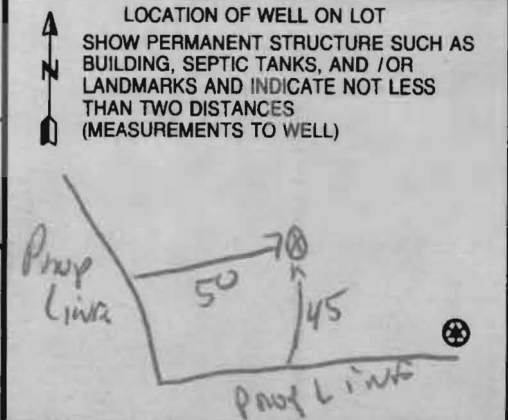
CAPACITY: GALLONS PER MINUTE (to nearest gallon) _____ 31 _____ 35

PUMP HORSE POWER _____ 37 _____ 41

PUMP COLUMN LENGTH (nearest ft.) _____ 43 _____ 47

CASING HEIGHT (circle appropriate box and enter casing height)

(+) above } LAND SURFACE
(-) below } 2 (nearest foot)
49 50 51



NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES NO

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. M 5 D 112
Paul E. Williams
DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)
LIC. NO. 506 D

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

B 1 0936
1 2 3 6

SEQUENCE NO.
(MDE USE ONLY)

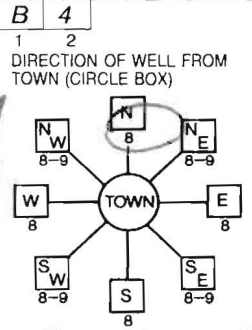
STATE OF MARYLAND
APPLICATION FOR PERMIT TO DRILL WELL
W523734 please type

STATE PERMIT NUMBER
70 HO-95-0411 79
fill in this form completely

Date Received (APA) 11/30/05
8 MM DD YY 13
OWNER INFORMATION
15 Land MKTG Consultants Inc Owner First Name 34
36 3060 Washington RD Street or RFD 55
57 Glenwood MD 21738 Town 70 State 72 Zip 76

B 3 LOCATION OF WELL
8 Howard COUNTY 21
23 Walnut Grove SUBDIVISION 42
SECTION 44 46 LOT 28 48 50
52 CLACKSVILLE NEAREST TOWN 71
MILES FROM TOWN (enter 0 if in town) 2 M I 73 76 77 78

DRILLER INFORMATION
61 Ralph E Mayne M S D 117 Driller's Name 76 License No. 81
Firm Name Ralph E. Mayne Inc
Address 17024 Hardy RD. Mt. Airy MD 21771
Signature [Signature] Date 11-20-05



B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)
11 DANIEL CIRCLE LA. NEAR WHAT ROAD 30
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
34 225 37 DISTANCE FROM ROAD 38 39
ENTER FT OR MI ft
TAX MAP: 28 BLK: 18 PARCEL 74

B 2 WELL INFORMATION
1 2 APPROX. PUMPING RATE 5
(GAL. PER MIN.) 8 12
AVERAGE DAILY QUANTITY NEEDED 500
(GAL. PER DAY) 14 20

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

NOT TO BE FILLED IN BY DRILLER
HEALTH DEPARTMENT APPROVAL
Howard (13) A517422
COUNTY NAME COUNTY NO.
STATE SIGNATURE _____ INSERT S → 41
DATE ISSUED 6/26/2006 Brian Baber 6/26/2007
43 MM DD YY 48 CO SIGNATURE EXP. DATE
NORTH GRID 507 000 EAST GRID 815 000
50 55 57 63

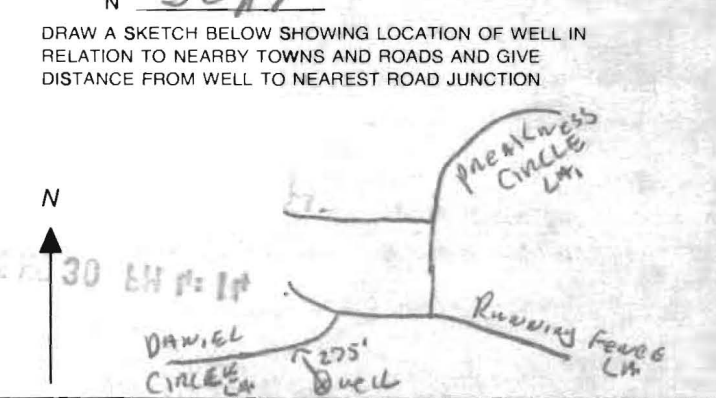
APPROXIMATE DEPTH OF WELL 150' FEET
24 28
APPROXIMATE DIAMETER OF WELL _____ INCH
NEAREST INCH

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 815
N 5097
000
000
Sample taken on 7/25/06

METHOD OF DRILLING (circle one)
BORED (or Augered) JETTED Jetted & DRIVEN
30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
37 CABLE REVerse-ROTary DRive-POINT
other _____

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

Not to be filled in by driller (MDE OR COUNTY USE ONLY)
APPROP. PERMIT NUMBER H 02005 G 006
PERMIT No. HO-95-0411
70 71 72 73 74 75 76 77 78 79



Walnut Grove 28

HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WELL & SEPTIC PROGRAM
TEL: (410)313-1771 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: Joel Isaacs Pkwy Sinc Telephone #: 410 442-5780
Address: 643 E. Wintersville Rd (C) 410 365-1279
Mt. Airy MD 21771

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation:
Name (Print): Joel Isaacs, Sr License# 4524

*A licensed individual must perform the actual installation. Apprentices must be under the supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification. Unlicensed individuals may be reported to the appropriate licensing agency.

Name of Property Owner: Columbia Builders Telephone #: 410 730-3939
Subdivision: Walnut Grove Lot #: 28 Well Tag #: HO-95-0411
Site Address: 12305 Daniel Circle
Ellzott City md 21042

Submersible Pump Data **Pitless Adapter** **Well Cap and Electric Conduit**
Make: Grundfos Make: Campbell Two piece watertight cap:
Model #: 3/4 hp Model#: 1" Screened, vented well cap:
Pump Capacity 8-10 GPM Depth: 42" (36" min) Cap secured to casing:
Well Yield: 15 GPM NSF/WSC approved: _____ Conduit min 18" B.G.:
Depth of well encountered at time of pump installation: 200 (feet) Conduit secured to well cap:
If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4
Torque arrestors, Cable guards, or other acceptable method used- Must circle one
Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing

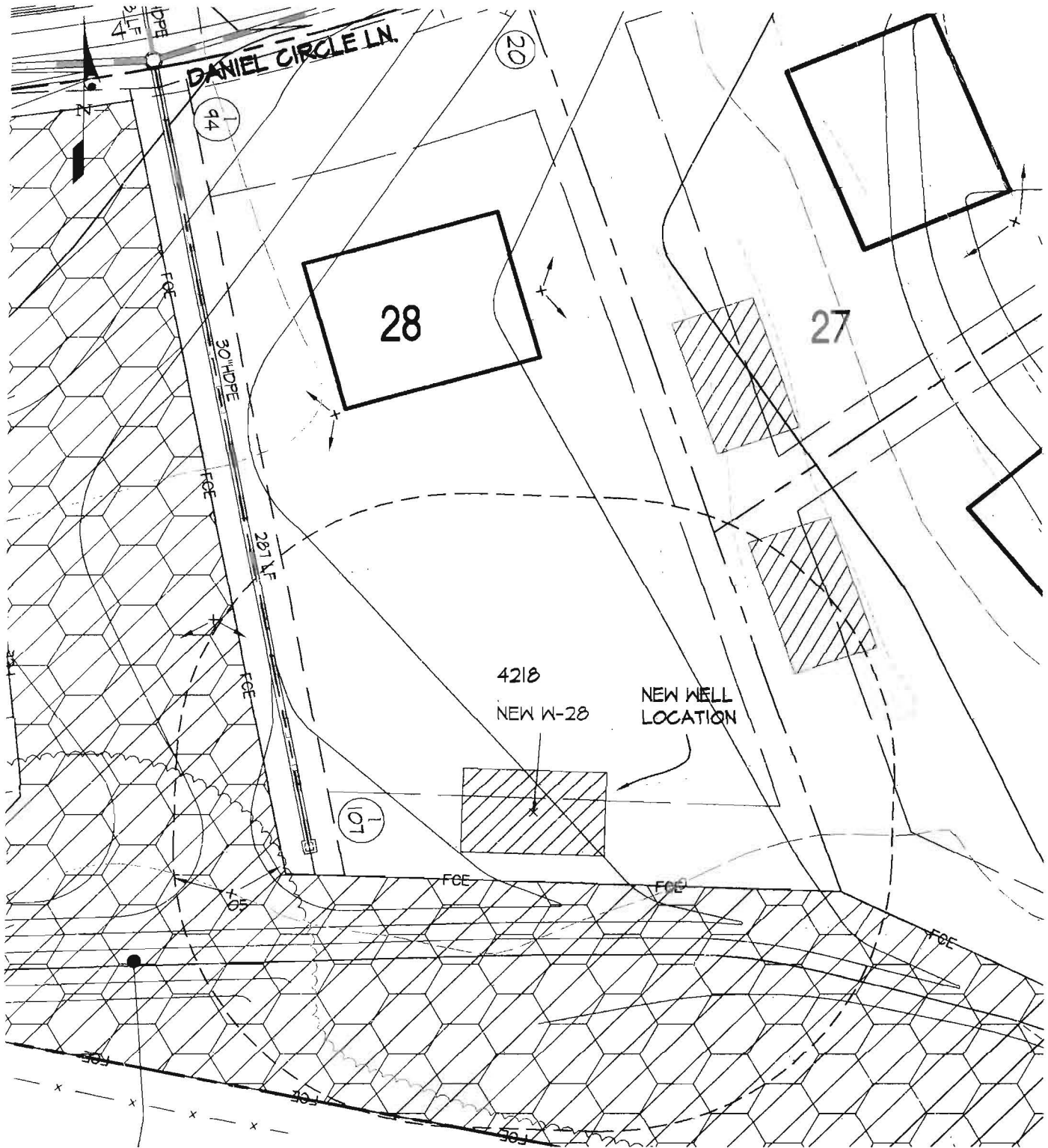
Piping to house **House Connection**
Type: 1" Poly PVC sleeve to undisturbed soil at wall penetration:
PSI: 160 (160 psi min) Length of sleeve(5' minimum from foundation):
Depth of supply line: 42 (36" min) Sleeve sealed properly:

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: [Signature] date: 4-6-11

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

Date Insp. Requested: _____ Date Insp. Approved: 4/7/2011 Inspector: [Signature]
Inspection Data: Pitless adapter watertight & 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 not outside of well cap/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



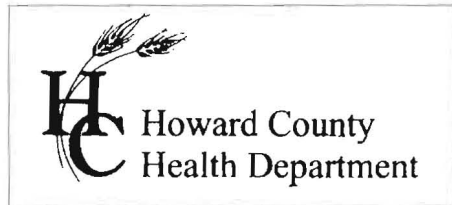
CONCEPTUAL HOUSE BOX	WELL BOX	4022 W-05 WELL SURVEY POINT	LEGEND
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WELL LOCATION EXHIBIT - LOT 28

WALNUT GROVE
 Lots 1 thru 88, Buildable Preservation Parcel "A",
 Non-Buildable Preservation Parcels "B" thru "I" And
 and Non-Buildable Bulk Parcel "J"

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186



7178 Columbia Gateway Dr. • Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

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

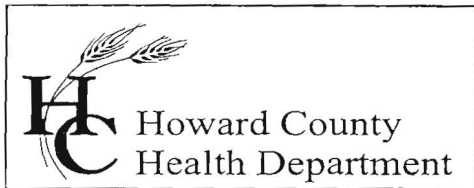
ATTENTION WELL DRILLERS!!!

When submitting a well application for a new or replacement well, please indicate one of the following:

- The well site has been staked by Gutschick, Little & Weber on 11/10/2005
- _____ will call the Health Department for a time to meet in the field to verify a well location.
- Site plan for new well is attached to well permit application.

Please attach this sheet when submitting your green application. This should help improve communication allowing a more timely service for our citizens.

KN



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
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Penny E. Borenstein, M.D., M.P.H., Health Officer

October 16, 2006

Walnut Grove, LLC
10705 Charter Drive
Suite 320
Columbia, Maryland 21044

Daniel C. L.

RE: Walnut Grove Subdivision, Lot 28
Well Tag: HO-95-0411

To Whom It May Concern:

A sample was collected during a yield test on September 25, 2006 and submitted to 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 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 4.0 ± 1.3 picocuries/liter (pCi/L); while the **Gross Beta** level was 4.2 ± 1.0 pCi/L. The **Gross Alpha** result was below its maximum contaminant level (MCL) of 15 pCi/L, while the **Gross Beta** level was below its target value of 50 pCi/L (roughly equivalent to the annual dose rate of 4 millirems/year). At the time of testing and with respect to these parameters, the future well water supply appears safe for all uses. No additional testing for these parameters will be required to secure the future Use & Occupancy. However, other standard (potability) testing will still be necessary.

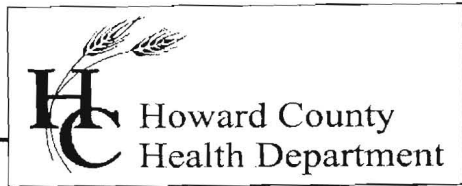
A copy of the test results is enclosed for your information. Please call this office at 410-313-1773 if you have any further questions or concerns.

Sincerely,

Bert Nixon

Bert Nixon, Deputy Director
Bureau of Environmental Health

cc: Eric Dougherty, MDE Water Mgmt., Groundwater
✓ Well & Septic property 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 Beilenson, M.D., M.P.H., Health Officer

June 27, 2011
Homeowner
12305 Daniel Circle Lane
Clarksville, MD 21029

RE: Walnut Grove, Lot 28
12305 Daniel Circle Lane
BP #: B10003659
Well Tag: HO-95-0411

Dear Homeowner:

This is to advise you that the septic system for the above referenced property has been installed and inspected. **Final approval of the septic system was granted on 06/16/2011. Final approval of the well line connection to the dwelling was approved on 04/07/2011.**

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. The water sample results were found to be in compliance with COMAR water quality standards.

Gross Alpha and Beta samples were also collected on 09/25/2006. Results showed a Gross Alpha level of **4.0+- 1.3 pCi/L** and **Gross Beta** level of **4.2 +- 1.0 pCi/L**. Future well water supply appears safe for all uses. No additional testing is required.

Enclosed with this certificate, is a copy of the septic permit and the as-built along with important information regarding the use and maintenance of your septic system. Please read through carefully and thoroughly. Any questions regarding your well and/or septic, please call this office for guidance 410-313-1771.

INTERIM CERTIFICATE OF POTABILITY

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-95-0411. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies. Based upon satisfactory investigation and evaluation, the Howard County Health Department as authorized by the Maryland Department of the Environment accepts this well system as required by COMAR 26.04.04.

This certificate may become final upon completion of the second bacteriological test, which is to be taken by the county health department within six months of receipt of this letter. **Please contact (410) 313-1773 to schedule a final water sample appointment. Currently, there is no charge for this final sampling.**

Date of Water Samples: 06/22/2011
Date of Radium Samples: 09/25/2006
Date of Well Completion: 09/22/2006

Approving Authority,

A handwritten signature in cursive script that reads "Brian Baker".

Brian Baker, R.S.
Environmental Sanitarian
Well & Septic Program

cc: Building Inspector's Office
Community Hygiene Program
File

Send Report To: Howard Co
Health

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

Walnut Grove LLC
10705 Charles St
Suite 370
CO. 21044

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: WGR 2B + WGR 411 No. B: _____ Field Blank Bottle No. A: _____ No. B: _____

Plant/Site Name: Walnut Grove LOT 28 County: Howard

Sample Source: Drinking Water Location: HD-95-0411
 (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: WJF Telephone No: 410-313-2645

Date Collected: 9/28/06 Time Collected: 10:45 a.m. _____ p.m.

Nitric Acid Preserved: Yes No Iced: Yes No

Submitters Code: Federal Project: Field Data: _____
 pH _____ Chlorine _____

Remarks: _____

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	<u>609131-102</u>	<u>4.0 ± 1.3</u>	<u>9/28/06</u>
✓	Gross Beta	4100		<u>4.2 ± 1.0</u>	
	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: _____

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #: 80067 Account #: 1550
Reference: Walnut Grove Lot 28 Company: Columbia Builders
Location: 12305 Daniel Circle Lane Requested By: Terry Brownley
Clarksville, MD 21029 Source: Well Water
Date/ Time Collected: 6/22/2011 1300 Site: Pressure Tank
Date/Time Rec'd: 6/22/2011 1410 Treatment: Spin Down Separator**
Chlorine ppm: Free: ND Total: ND pH: 6.8
Collected By: J.Yeager 6176JY Well #: HO-95-0411

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	6/23/2011 / 0900 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	6/23/2011 / 0900 / CCH
Nitrate	8.87	mg/L	10	601	6/22/2011 / 1500 / BCD
Turbidity	1.59	NTU	<10	SM18 2130B	6/22/2011 / 1500 / KME
Sand	NS	mg/L	5	Visual/Gravimetric	6/22/2011 / 1500 / KME

NOTES

- 1 **Sample collected prior to treatment
- 2 mg/L = milligrams per liter (also, parts per million)
- 3 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 4 NS = None Seen (NS indicates less than 5 mg/L)
- 5 NTU = Nephelometric Turbidity Units
- 6 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 7 ND:None Detected
- 8 Visual well check: Sealed, vented cap
- 9 pH and Chlorine level tested on site

Reason for Test : Use & Occupancy
Building Permit # : 10003659

Date Reported: 6/23/2011