

C1 7469 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

1 2 3 4 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

COUNTY NUMBER 3 A 522518

ST/CO USE ONLY DATE RECEIVED

DATE WELL COMPLETED 12 17 07 2/5/08

Depth of Well 300 (TO NEAREST FOOT) PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-957352

OWNER Carroll last name first name TOWN Elkridge City

WELL LOG Not required for driven wells

GROUTING RECORD WELL HAS BEEN GROUTED (Circle Appropriate Box) Y N

PUMPING TEST HOURS PUMPED (nearest hour) 3

Table with columns: DESCRIPTION (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Rows include Soft Brown, Hard Gray, Med Hard Tan, etc.

TYPE OF GROUTING MATERIAL (Circle one) CEMENT [X] BENTONITE CLAY []

PUMPING RATE (gal. per min.) 12.5 METHOD USED TO MEASURE PUMPING RATE Trier

CASING RECORD casing types insert appropriate code below [S] [C] [P] [O]

TYPE OF PUMP USED (for test) [A] air [P] piston [T] turbine [C] centrifugal [R] rotary [O] other [J] jet [S] submersible

MAIN CASING TYPE Nominal diameter top (main) casing (nearest inch) 8 Total depth of main casing (nearest foot) 34

PUMP INSTALLED DRILLER INSTALLED PUMP (CIRCLE) (YES OR NO) YES [X] NO []

OTHER CASING (if used) diameter inch depth (feet) from to

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

NUMBER OF UNSUCCESSFUL WELLS: 0

DEPTH (nearest ft.) 300

PUMP COLUMN LENGTH (nearest ft.) 43 47

WELL HYDROFRACTURED [Y] [N]

SCREEN RECORD screen type or open hole [S] [B] [H] [P] [O] [L] [T]

CASING HEIGHT (circle appropriate box and enter casing height) [X] above [] below LAND SURFACE 1 (nearest foot)

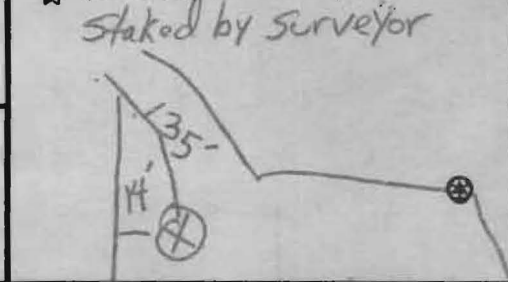
CIRCLE APPROPRIATE LETTER A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED

DEPTH (nearest ft.) 300

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)

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.

DIAMETER OF SCREEN (NEAREST INCH) 56 60



DRILLERS LIC. NO. MW D 304 David Kelly LIC. NO. MW D 564 mat maffitt

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 88

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q 70 72 74 75 76 TELESCOPE CASING LOG INDICATOR OTHER DATA

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

B 1 7079

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 527899 please type

STATE PERMIT NUMBER

40-95-1352 fill in this form completely

Date Received (APA) 11/7/07

OWNER INFORMATION

Carroll Ian 3841 Manor Lane Ellicott City MD 21042

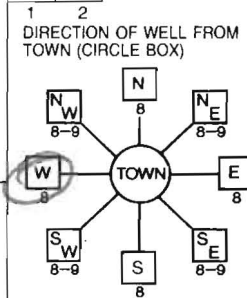
LOCATION OF WELL

Howard Carroll-Ziegler Property Ellicott City

DRILLER INFORMATION

David Kelly Jones Well Drilling, Inc 3700 Rush Rd. Jarr. MD 21084

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



3841 Manor Lane

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)



183 FT DISTANCE FROM ROAD

TAX MAP 29 BLK: PARCEL 130

WELL INFORMATION

APPROX. PUMPING RATE 400 GAL. PER MIN. AVERAGE DAILY QUANTITY NEEDED 400 GAL. PER DAY

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION (circled) 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 A522518 COUNTY NAME COUNTY NO. STATE SIGNATURE DATE ISSUED 11/21/07 CO SIGNATURE EXP. DATE NORTH GRID EAST GRID

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) AIR-ROTARY AIR-PERCUSSION (circled) ROTARY (Hydraulic Rotary) CABLE REVERSE-ROTARY DRIVE-POINT

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 DEEPEM AN EXISTING WELL

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

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

APPROP. PERMIT NUMBER G

PERMIT No. 40-95-1352

SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED Primary site: well closest to house

410-490-2069

**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): James S. Gartland III 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: John Carroll Telephone #: 410-490-2069
Subdivision: Carroll-Ziegler Property Lot #: 1 Well Tag #: HO-95-1352
Site Address: 3855 Manor Lane
Ellicott City MD 21042

Submersible Pump Data	Pitless Adapter	Well Cap and Electric Conduit
Make: <u>Grundfos</u>	Make: <u>Campbell</u>	Two piece watertight cap: <input checked="" type="checkbox"/>
Model #: <u>1550F10-220</u>	Model#: <u>PA 800</u>	Screened, vented well cap: <input checked="" type="checkbox"/>
Pump Capacity <u>12</u> GPM	Depth: <u>48"</u> (36" min)	Cap secured to casing: <input checked="" type="checkbox"/>
Well Yield: <u>12.5</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>30</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 X

Piping to house	House Connection
Type: <u>Poly</u>	PVC sleeved to undisturbed soil at wall penetration: <input checked="" type="checkbox"/>
PSI: <u>160</u> (160 psi min)	Approximate length of sleeve: <u>50'</u>
Depth of supply line: <u>48</u> (36" min)	Sleeve caulked and sealed properly: <u>Yes</u>

Sleeved Under footer

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: 6-10-09

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

Date Insp. Requested: _____ Date Insp. Approved: 6/11/09 **(BB)**

Inspection Data: Pitless adapter and water supply line at least 36" below grade	<input checked="" type="checkbox"/>
Two piece cap installed and attached to casing securely	<input checked="" type="checkbox"/>
Elec. conduit extends at least 18" below grade/attached to cap properly	<input checked="" type="checkbox"/>
Safety rope installed inside of well casing	<input checked="" type="checkbox"/>
Correct well tag attached properly and casing 8" above finished grade	<input checked="" type="checkbox"/>
Water supply line sleeved adequately at house connection	<input checked="" type="checkbox"/>
Adequate grout observed below pitless adapter	<input checked="" type="checkbox"/>

UTILITY POLE
BGE 525843

INV. 472.58

CMP

INV. 472.40

N35°58'05"W
235.18'

100'R
3.3% MAX
12'
7 SF
100'R

3.0%

3.0%

PROPOSED WELL
SECONDARY
LOCATION

PROPOSED WELL
PRIMARY LOCATION
TAG # 484

NON-RC
DISCONN.
FILTER S
LONGITUDI
CROSS SL
CONTRIBUTI
FILTER LEN
DISCONNECT

30'R
10'R
11'
50'
30'R
10'R
50'

30'R
10'R
11'
50'

1/2 lot
Well sites OK
staked by
Benchmark
LOT 1
53,387 S.F.

KW

490
GAR. CARROLL RESIDENCE GAR.
FF=490.0
BF=480.0

PATIO 488
GARAGE SLAB=480.0

RETAINING WALL

RETAINING WALL

RAIN RG 1A

381 SF
AREA TO
ADDED

GARDEN

145°28'28"W
120.29'

24 SF SEPTIC
AREA TO BE
ABANDONED

RETAINING WALL

PERC
ELEV. 482.6

PERC
ELEV. 481.8

PROPOSED
SEPTIC RESERVE
AREA
10,056 SF

PERC
ELEV. 478.0

626 SF SEPTIC
AREA TO BE
ADDED

6" PVC

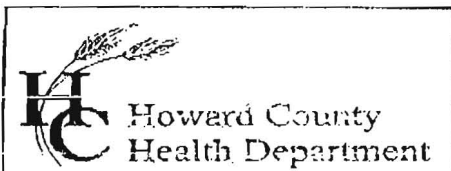
TANK

6" PVC

N09°08'34"W
244'

MA TC
GR INV
GRÖL
EJECT

470
468



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

Penny E. Forenstein, 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:

Well Site Location:

<u>Canaan/Ziegler Prop.</u>	<u>1</u>	<u>3841 Manor Lane</u>
Subdivision/Property Name	Lot#	Road Name

The well site has been staked by Benchmark Engineering, Inc.
 (professional land surveyor or company employing professional land surveyors)
 on 10/31/07 (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 3/11/05



Howard County
Health Department

Bureau of Environmental Health
7178 Gateway Drive Columbia, MD 21046
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
Website: www.hchealth.org

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

November 9, 2010

Homeowner
3855 Manor Lane
Ellicott City, MD 21042

RE: Carroll-Ziegler Property, Lot 1
3855 Manor Lane
BP #: B09000215
Well Tag: HO-95-1352

Dear Sir:

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 02/02/2010. Final approval of the well line connection to the dwelling was approved on 06/11/2009.**

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.

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.

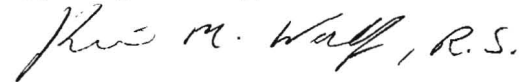
INTERIM CERTIFICATE OF POTABILITY

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-95-1352. 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: 11/05/2010
Date of Well Completion: 12/17/2007

Approving Authority,



Kevin M. Wolf, R. S./R.E.H.S.
Environmental Sanitarian
Well & Septic Program

cc: Building Inspector's Office
Community Hygiene Program
File

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.
 1413 Old Laneytown Rd. Westminster, MD (410) 848-1015 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	77443	Account #:	6549
Reference:	Carroll House	Company:	MD Construction Services, Inc.
Location:	3855 Manor Lane Ellicott City, MD 21042	Requested By:	Stephen Blaes
Date/ Time Collected:	11/5/2010 1040	Source:	Well Water
Date/Time Rec'd:	11/5/2010 1221	Site:	Pressure Tank
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	J.Yeager 6176JY	pH:	5.8
		Well #:	HO-95-1352

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	11/6/2010 / 1000 / BCD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	11/6/2010 / 1000 / BCD
Nitrate	9.61	mg/l.	10	601	11/5/2010 / 1315 / CCH
Turbidity	2.14	NTU	<10	SM18 2130B	11/5/2010 / 1440 / KME
Sand	NS	mg/L	5	Visual/Gravimetric	11/5/2010 / 1440 / KME

May Need to Retest in Near Future

NOTES

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

Reason for Test : Use & Occupancy
 Building Permit # : 09-000215

Date Reported: 11/8/2010



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

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

February 22, 2008

Mr. Ian Carroll
3841 Manor Lane
Ellicott City, Maryland 21042

RE: Carroll Ziegler Property Lot 1
Manor Lane
Well Tag: HO - 95 - 1352

Dear Mr. Carroll:

A sample was collected during a yield test on December 12, 2007 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 14.0 ± 3.0 picocuries/liter (pCi/L); while the **Gross Beta** level was 13.0 ± 2.0 pCi/L. With the margin of error, 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).

Since with margin of error, the **Gross Alpha** finding exceeded its **MCL**, additional testing for **Gross Alpha and Gross Beta** (both short and long term components), plus **Radium** will be necessary prior to occupancy to verify existing levels and assess the need for appropriate treatment. Alternatively, you may install treatment designed to reduce **Gross Alpha, Gross Beta** and **Radium**, plus provide post treated results (**for all 3 parameters**) confirming that levels are in conformance with existing standards. These tests are **in addition to** the standard parameters required for Use & Occupancy.

Additionally, the owners will be required to sign an "AGREEMENT FOR APPROVAL OF AN INDIVIDUAL DRINKING WELL WITH AN ON-SITE TREATMENT SYSTEM" as part of the Use and Occupancy process.

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,

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

Bert Nixon, Director
Bureau of Environmental Health

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

Send Report To:

Bob Niles

State of Maryland
DHMH - Laboratories Administration
Division of Environmental Chemistry
RADIATION LABORATORY

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

201 W. Preston Street, Baltimore, Maryland 21201

John M. DeBoy, Dr. P.H., Director

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: HO-95-1352 No. B: _____ Field Blank Bottle No. A: _____ No. B: _____

Plant/Site Name: Carroll-Ziegler Pap - Lot 1 County: Howard

Sample Source: Manor Ln. Location: HO-95-1352
(well no., lab sink, sample tap, etc.)

County: 1 2 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: 12/17/07

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

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code: Federal Project: Field Data: _____

Remarks: Sample collected @ Yould for pH Chlorine

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	1416	14±3	12/20/07
✓	Gross Beta	4100	1416	13±2	1
	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: 12/18/07

Supervisor: S. Niles

FORM REVISED 02/06
DHMH 4540 02/06

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

~~ORIGINAL~~ - LABORATORY

PROGRAM