

C1 3167 SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

COUNTY NUMBER A517336

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 2 27 2008

Depth of Well 22 515 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" Ho-95-1511

OWNER Warfield Jr, Kenneth, STREET OR RFD Michele Dr, TOWN Dayton, SUBDIVISION The Warfield II, SECTION 2, LOT 15

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 (0-20) and Gray Mica Rock (20-515).

GROUTING RECORD

WELL HAS BEEN GROUTED (Y), TYPE OF GROUTING MATERIAL (CM), NO. OF BAGS (8), NO. OF POUNDS (152), GALLONS OF WATER (48), DEPTH OF GROUT SEAL (0-24 ft)

CASING RECORD

MAIN CASING TYPE (ST), Nominal diameter (6), Total depth of main casing (26)

OTHER CASING (if used)

Empty table for other casing details.

SCREEN RECORD

screen type or open hole (ST), BR (BRASS), HO (OPEN HOLE), PL (PLASTIC), OT (OTHER)

C 2 DEPTH (nearest ft.)

Table with columns: T, E, A, C, H, S, C, R, E, E, N and rows for depth intervals (8-11, 15-17, 23-24, 30-32, 38-39, 45-47, 51-55) and slot size.

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

C 3

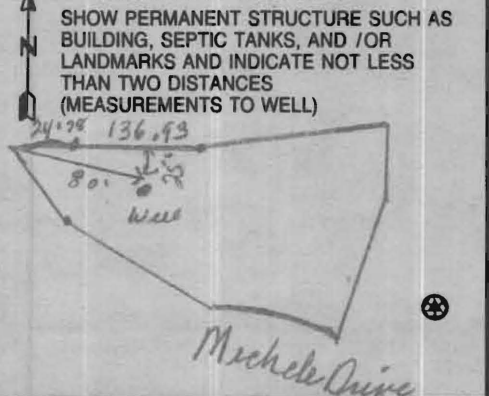
PUMPING TEST

HOURS PUMPED (3), PUMPING RATE (4 gal. per min.), METHOD USED TO MEASURE PUMPING RATE (Bucket), WATER LEVEL (44 ft. before, 295 ft. when pumping), TYPE OF PUMP USED (S - submersible)

PUMP INSTALLED

DRILLER INSTALLED PUMP (NO), TYPE OF PUMP INSTALLED PLACE (S), CAPACITY: GALLONS PER MINUTE (2), PUMP HORSE POWER (2), PUMP COLUMN LENGTH (2), CASING HEIGHT (2)

LOCATION OF WELL ON LOT



B 1 1080

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

527950 please type

HO - 95 - 1511 fill in this form completely

Date Received (APA)

OWNER INFORMATION

8 MM DD YY 13

Warfield Jr. Kennard

P.O. Box 30

Glenely Md. 21737

57 Town 70 State 72 Zip 76

B 3 LOCATION OF WELL

Howard

8 COUNTY 21 The Warfields II

23 SUBDIVISION SECTION 2 LOT 15

52 NEAREST TOWN Dayton

MILES FROM TOWN (enter 0 if in town) 4 M I 73 76 77 78

DRILLER INFORMATION

Joseph L. Mayne M 5 D 024

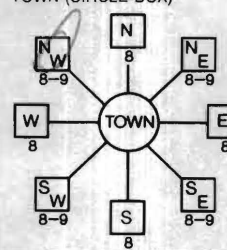
Joseph L. Mayne Well Drilling

5512 Ridge Rd. Mt. Airy, Md. 21771

Signature Date Joseph L. Mayne 12-10-2009

B 4

1 2 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Michele Dr.

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

34 290 37 DISTANCE FROM ROAD FT

ENTER FT OR MI 38 39

TAX MAP: 27 BLK: 23 PARCEL 114

B 2 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 A 517336

COUNTY NAME COUNTY NO. STATE SIGNATURE INSERT S

DATE ISSUED 1/18/08

CO SIGNATURE EXP. DATE NORTH GRID 517 000 EAST GRID 0794 000

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

- BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERCussion 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) 41

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

APPROX. PERMIT NUMBER HO 2006G 009

PERMIT No. HO - 95 - 1511

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 7904

N 5107

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



SPECIAL CONDITIONS

NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED

**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: Robert L. Feezer Co., Inc. Telephone #: 410-781-4655
Address: 6321 Barnett Avenue
Sykesville, MD 21784

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer
License # and name of individual responsible for the field installation:
Name (Print): Robert L. Feezer License# 2122

***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: NV Homes Telephone #: 410-379-5956
Subdivision: Warfield Estates II Lot #: 8015 Well Tag #: HO - 95 - 1511
Site Address: 14903 Michele Drive
Glenelg, MD 21737

Submersible Pump Data

Make: Sta-Rite/Berkeley
Model #: _____
Pump Capacity _____ GPM
Well Yield: 4 GPM

Pitless Adapter

Make: Campbell
Model#: PT800
Depth: 42" (36" min)
NSF/WSC approved: Yes

Well Cap and Electric Conduit

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

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, 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 N/A

Piping to house

Type: Poly
PSI: 200 (160 psi min)
Depth of supply line: 42" (36" min)

House Connection

PVC sleeve to undisturbed soil at wall penetration: Yes
Length of sleeve(5' minimum from foundation): 10'
Sleeve sealed properly: Yes

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.

Robert L. Feezer Company signed by Robert L. Feezer
Date: 01/10/2012 January 10, 2012
Signature of company representative responsible for installation date

We have no well information on this lot.

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

Date Insp. Requested: _____ Date Insp. Approved: 4/10/2012 Inspector: BBB
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

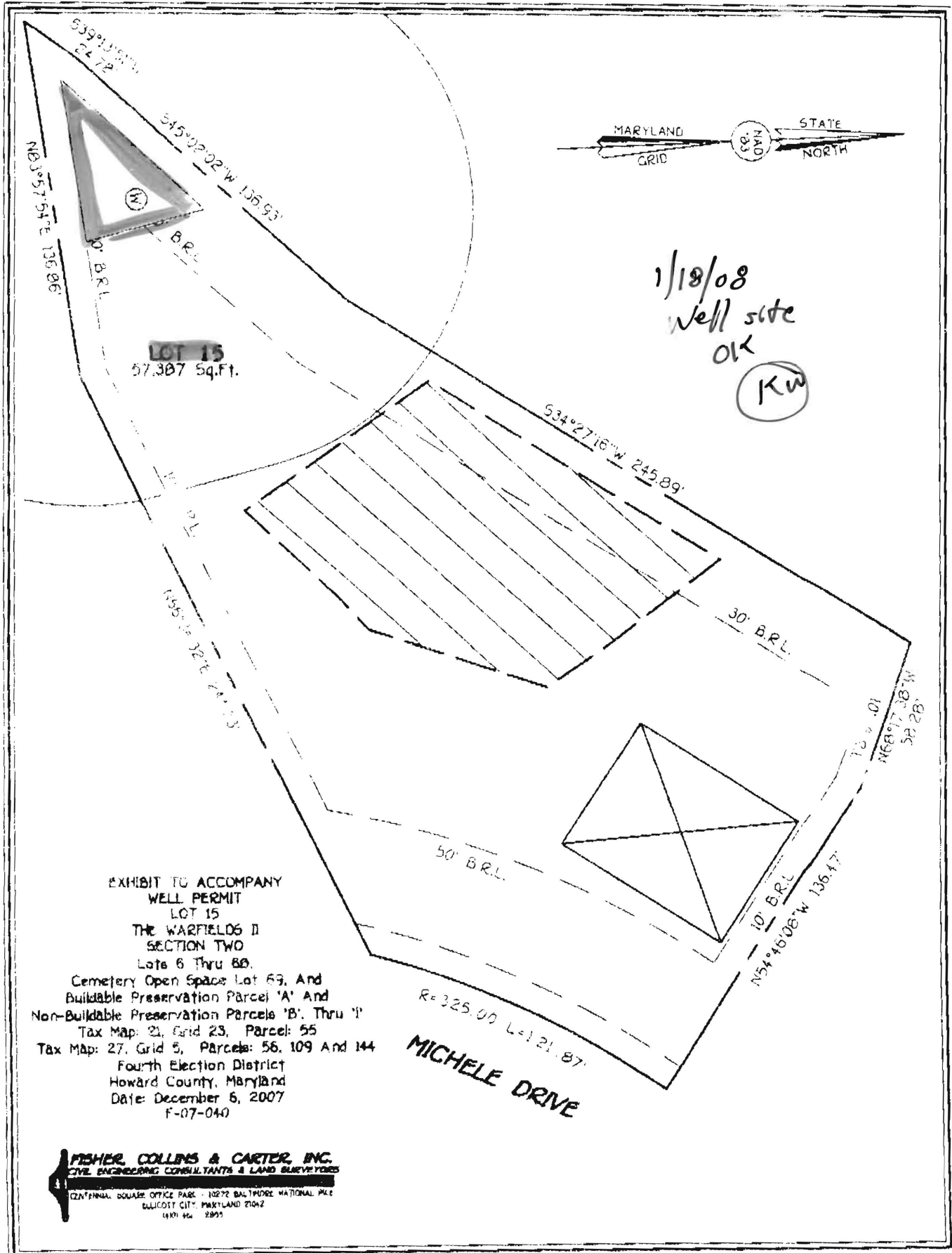


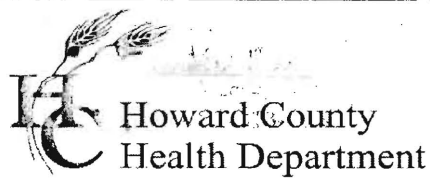
EXHIBIT TO ACCOMPANY
WELL PERMIT
LOT 15
THE WARFIELD II
SECTION TWO
Lots 6 Thru 80.

Cemetery Open Space Lot 69, And
Buildable Preservation Parcel 'A' And
Non-Buildable Preservation Parcel 'B'. Thru 'I'
Tax Map: 21, Grid 23, Parcel: 55
Tax Map: 27, Grid 5, Parcels: 56, 109 And 144
Fourth Election District
Howard County, Maryland
Date: December 6, 2007
F-07-040

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 426-2800

1/18/08
Well site
OK

KW



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
PERMANENT DEVIATION FOR NITRATES

Expiration Date – October 26, 2012

April 26, 2012

Homeowner
14903 Michele Drive
Glenelg, Maryland 21737

RE: Warfield Estates, Lot #15
14903 Michele Drive
Building Permit: B11003666
Well Permit: HO-95-1511

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 4/20/2012. Final approval of the well line connection to the dwelling was granted on 4/10/2012. The well construction was completed on 03/24/2008. Water samples were collected on 04/17/2012, 04/24/2012 and 04/25/2012.

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.

The untreated water sample collected on 04/17/2012 indicated a nitrate level of 17.2 mg/L. This exceeds the maximum contaminant limit of 10 mg/L set forth in COMAR 26.04.04.09. After installation of a nitrate removal device (kitchen tap reverse osmosis system), a post-treatment water sample was collected on 4/25/2012 and indicated a nitrate level of <1.0 mg/L.

This Department will grant a permanent deviation to the Interim Certificate of Potability on condition that the nitrate removal system effectively maintains a nitrate-nitrogen contaminant level of 10 mg/L or less.

Furthermore, it will be necessary for you to comply with the following conditions:

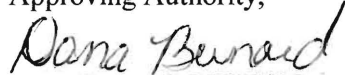
1. The system must be properly operated and maintained continuously in accordance with the service contract for the life of the residence.
2. It is recommended that a Maryland certified water laboratory certified for nitrates analysis perform a yearly nitrate analysis.
3. If you decide to sell or rent 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-95-1511. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will be issued. **Failure to submit an additional sample and obtain a Final Certificate of Potability will result in a Notice of Violation and is punishable as a misdemeanor under the *Annotated Code of Maryland, Environment Article, 9-1311*, subject to a fine of up to \$500 or imprisonment not to exceed three months.**

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

Approving Authority,


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

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



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

Maryland State Certified Laboratory #318

CERTIFICATE OF ANALYSIS

Requester:

Rick Cross
 Robert L. Feezer Company
 6321 Barnett Avenue
 Sykesville, Maryland 21784

S/O Number: 85038

Report Date: April 26, 2012

Property Sampled: 14903 Michele Drive, 21737
Sample Location: R/O Unit
Residual Chlorine: <0.1 mg/L

Building Permit #: B11003666
Sampler ID #: 0765AR
Samples Iced: Yes

County: Howard
Map: 27

Subdivision: The Warfields
Parcel: 114

Lot #: 15

Date/Time Collected in Field: April 25, 2012 @ 12:05 pm

Date/Time Received in Lab: April 25, 2012 @ 4:00 pm

Well Tag #: HO-95-1511
Well Condition: 2-Piece Cap, Satisfactory

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

OK 4-26-12

PARAMETER	METHOD	MCL	RESULT	PASS/FAIL
Nitrate	SM 4500D	10 mg/L as N	<1.0 mg/L as N	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

Water Testing Laboratories

P.O. Box 712
Stevensville, MD 21666
410-643-7711

of Maryland, Inc.

NV Homes c/o Robert Feezer Co.
6321 Barnett Avenue
Sykesville, MD 21784

Reporting Date: 4/20/2012
Report #: K8256

Submitted Sample Address: Lot 8015
14903 Michele Drive
Glenelg, MD 21737
Submitted Sample Source: Holding tank
Date / Time Collected: 4/17/2012 11:00AM
Sample Type: Drinking Water
Sampler/Company: D. Pitts 4322DP, WTL of MD
Field Record: Chlorine residual: Absent ✓ Clear when drawn
Well #: HO-95-1511 ✓
Permit #: B11003666

*Nitrates high
9w 4/25/12*

Analytical Results

Parameter	Result	Units	Report Limit	MCL	Analytical Method
Total Coliforms	Absent ✓	Coliforms/100 ml	Present/Absent	Present	SM 9223B
<i>E. Coli</i>	Absent ✓	Coliforms/100 ml	Present/Absent	Present	SM 9223B
Nitrates + Nitrites	17.2	mg/L	1.0	10	EPA 353.2
Sand	Absent ✓	P/A	Present/Absent	Present	Visual
Turbidity	ND ✓	NTU	0.5	10	SM 2130B
pH	6.6 ✓	SU	0.1	6.5-8.5 (SMCL)	SM 4500 H ⁺ B

Notes:

- Bacteriological analysis of this sample indicates this water is safe for human consumption.
- MCL is EPA's maximum contaminant level under primary drinking water regulations. SMCL is secondary maximum contaminant level and is the aesthetic quality only. If your result is above any MCL or SMCL, you may want to consider a water treatment system or a new well. Please check your local regulations for any restrictions or additional limits.
- ND - Not Detected.
- Sample received and examined within EPA's recommended holding time
- Analyzed by Lab 214.
- SM - Greenberg, Clesceri and Eaton, *Standard Methods for the Examination of Water and Wastewater*, 21st Ed.

Reported by,

Lacey F.

L. Fishman, Customer Service Representative

Reviewed by:

JNB

Water Testing Laboratories

P.O. Box 712
Stevensville, MD 21666
410-643-7711

of Maryland, Inc.

N V Homes
C/O Robert Feezer Company
6321 Barnett Avenue
Sykesville, Md 21784

Reporting Date: 4/25/2012
Report #: K8291

Submitted Sample Address: Maple Woods
Lot 8015, 14903 Michele Drive
Glenelg, Md 21737
Submitted Sample Source: From blue over flow line going into condensation line to sump pump in cellar
Date / Time Collected: 4/24/2012 11:34 AM
Sampler/Company: D. Pitts 4322DP, WTL of MD
Field Record: Chlorine residual: Absent Clear when drawn
Well #: HO-95-1511 ✓

Nitrates high
Sw 4/25/12

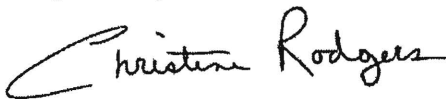
Analytical Results

Parameter	Result	Units	Report Limit	MCL	Analytical Method
Nitrates + Nitrites	14.5	mg/L	1.0	10	EPA 353.2

Notes:

1. MCL is EPA's maximum contaminant level under primary drinking water regulations. SMCL is secondary maximum contaminant level and is the aesthetic quality only. If your result is above any MCL or SMCL, you may want to consider a water treatment system or a new well. Please check your local regulations for any restrictions or additional limits.
2. ND - Not Detected.
3. Sample received and examined within EPA's recommended holding time
4. Analyzed by Lab 214.
5. SM - Greenberg, Clesceri and Eaton, *Standard Methods for the Examination of Water and Wastewater*, 21st Ed.

Reported by,



C. Rodgers, Customer Service Representative

Reviewed by:



Water Quality Laboratories certified by the Maryland, Delaware, and Virginia State Health Departments
Aardvark Labs is a registered trade name of Water Testing Laboratories of Maryland, Inc.

Water Testing Laboratories

P.O. Box 712
Stevensville, MD 21666
410-643-7711

of Maryland, Inc.

NV Homes c/o Robert Feezer Co.
6321 Barnett Avenue
Sykesville, MD 21784

Reporting Date: 4/20/2012
Report #: K8256

Submitted Sample Address: Lot 8015
14903 Michele Drive
Glenelg, MD 21737
Submitted Sample Source: Holding tank
Date / Time Collected: 4/17/2012 11:00AM
Sample Type: Drinking Water
Sampler/Company: D. Pitts 4322DP, WTL of MD
Field Record: Chlorine residual: Absent Clear when drawn
Well #: HO-95-1511
Permit #: B11003666

Analytical Results

Parameter	Result	Units	Report Limit	MCL	Analytical Method
Total Coliforms	Absent	Coliforms/100 ml	Present/Absent	Present	SM 9223B
<i>E. Coli</i>	Absent	Coliforms/100 ml	Present/Absent	Present	SM 9223B
Nitrates + Nitrites	17.2	mg/L	1.0	10	EPA 353.2
Sand	Absent	P/A	Present/Absent	Present	Visual
Turbidity	ND	NTU	0.5	10	SM 2130B
pH	6.6	SU	0.1	6.5-8.5 (SMCL)	SM 4500 H ⁺ B

Notes:

- Bacteriological analysis of this sample indicates this water is **safe** for human consumption.
- MCL is EPA's maximum contaminant level under primary drinking water regulations. SMCL is secondary maximum contaminant level and is the aesthetic quality only. If your result is above any MCL or SMCL, you may want to consider a water treatment system or a new well. Please check your local regulations for any restrictions or additional limits.
- ND - Not Detected.
- Sample received and examined within EPA's recommended holding time
- Analyzed by Lab 214.
- SM - Greenberg, Clesceri and Eaton, *Standard Methods for the Examination of Water and Wastewater*, 21st Ed.

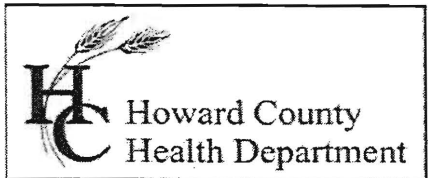
Reported by,

Lacey F.

L. Fishman, Customer Service Representative

Reviewed by:

JNB



Bureau of Environmental Health
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

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

REQUEST FOR PERMANENT DEVIATION TO
NITRATE STANDARDS FOR CERTIFICATE OF POTABILITY

DATE: 4/25/2012 WELL PERMIT #: HO - 95 - 1511

PROPERTY OWNER: Derek + Kathi Estes

SUBDIVISION & LOT #: Warfield Estates ^{lot #} W7-8015

PROPERTY ADDRESS: 14903 Michele Drive
Glenelg, MD 21737

CONDITIONS:

- 1) The well installed under permit # HO - 95 - 1511 has been documented to have a nitrate level of 17 ppm, which exceeds the MCL of 10 ppm.
- 2) After installation and operation of a nitrate filtration system, water samples collected on 4/24/12 indicated that the nitrate contamination has been reduced to ___ ppm at the primary drinking tap.

I hereby request that a Permanent Deviation to COMAR 26.04.04.09 be granted for the well installed under permit HO - 95 - 1511. I am fully aware of the conditions under which this deviation will be granted, and of my responsibilities as the well owner, which include advising any future buyer/ tenant of the installation, condition and maintenance responsibilities of the nitrate removal device.

Prospective Owner's Original Signature(s) [Person(s) that intend to live in the dwelling]

[Signature] _____

Prospective Owner's Day Time Phone Number(s)

410-302-1556 _____