

C1 3-178

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT FILL IN THIS FORM COMPLETELY PLEASE TYPE

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

COUNTY NUMBER A 517336

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 18 2008 15 20

Depth of Well 22 230' 26 (TO NEAREST FOOT) 4/28/08 OK (W)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-1554 28 29 30 31 32 33 34 35 36 37

OWNER Warfield Jr last name Kennard first name STREET OR RFD Michele Davie TOWN Dayton SUBDIVISION The Warfields II SECTION LOT 42

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 (Use additional sheets if needed), FEET (FROM, TO), check if water bearing. Rows: Sand (0-45), Gray Mic. Rock (45-220), water 180'.

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) YES Y NO N TYPE OF GROUTING MATERIAL (Circle one) CEMENT CM BENTONITE CLAY BC NO. OF BAGS 13 NO. OF POUNDS 1222 GALLONS OF WATER 78 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 49 ft.

CASING RECORD

ST STEEL CO CONCRETE PL PLASTIC OT OTHER MAIN CASING TYPE ST Nominal diameter top (main) casing (nearest inch) 6 Total depth of main casing (nearest foot) 52

OTHER CASING (if used)

Table with columns: E A C H I N G, diameter inch, depth (feet) from to

SCREEN RECORD

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

DEPTH (nearest ft.)

Table with columns: E A C H S R E E N, 8 9 11 15 17 21 23 24 26 30 32 36 38 39 41 45 47 51. Includes SLOT SIZE 1 2 3 and DIAMETER OF SCREEN 56 60

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 72 74 75 76 TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3

PUMPING TEST

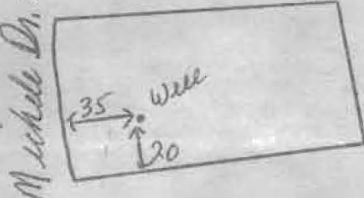
HOURS PUMPED (nearest hour) 3 PUMPING RATE (gal. per min.) 15 METHOD USED TO MEASURE PUMPING RATE Bucket WATER LEVEL (distance from land surface) BEFORE PUMPING 30 ft. WHEN PUMPING 46 ft. TYPE OF PUMP USED (for test) A air P piston T turbine C centrifugal R rotary O other J jet S submersible

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. 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 49 LAND SURFACE - below 2 (nearest foot) 50 51

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)



DRILLERS LIC. NO. 1 M SD 024

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. 1 MS D 027

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

B 1 1052

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 528437 please type

STATE PERMIT NUMBER

HO-95-1554 fill in this form completely

Date Received (APA) 12-28-08

OWNER INFORMATION

Warfield, Jr. Kennard P.O. Box 30 Glenelg Md 21737

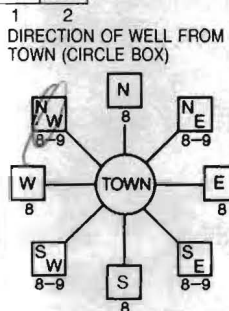
LOCATION OF WELL

Howard The Warfields II SECTION 2 LOT 42 Dayton

DRILLER INFORMATION

Joseph E Mayne M SD 024 Joseph E Mayne Well Drilling 5512 Ridge Rd Mt. Airy Md 2004

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Near What Road Michele Drive

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH WEST EAST SOUTH

DISTANCE FROM ROAD 70 FT

TAX MAP: 21 BLK: 23 PARCEL 114

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 517 336 COUNTY NAME COUNTY NO. STATE SIGNATURE INSERT S DATE ISSUED 2/27/08

APPROXIMATE DEPTH OF WELL 300 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) AIR-ROTary JETTED 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)

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

APPROP. PERMIT NUMBER HO 2006G009 PERMIT No. HO-95-1554

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

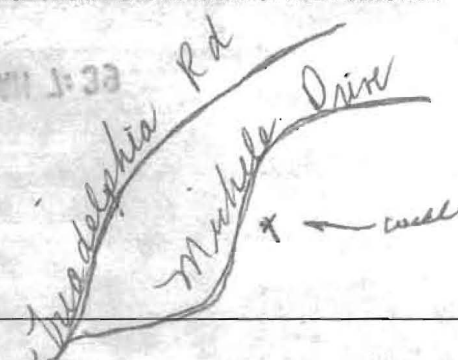
SOURCES OF DRILLING WATER

- well

WRITE THE BOX NUMBER FROM THE MAP HERE

E 7905 N 5185

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 #: 8042 Well Tag #: HO - 95 - 1554
Site Address: 14862 Michele Drive
Glenelg, MD 21737

Submersible Pump Data

Make: Berkeley
Model #: B7P4MS07221
Pump Capacity 7 GPM
Well Yield: 15 GPM

Pitless Adapter

Make: Boshart
Model#: P-100-SS
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

Depth of well encountered at time of pump installation: 220 (feet) Conduit secured to well cap: Yes
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

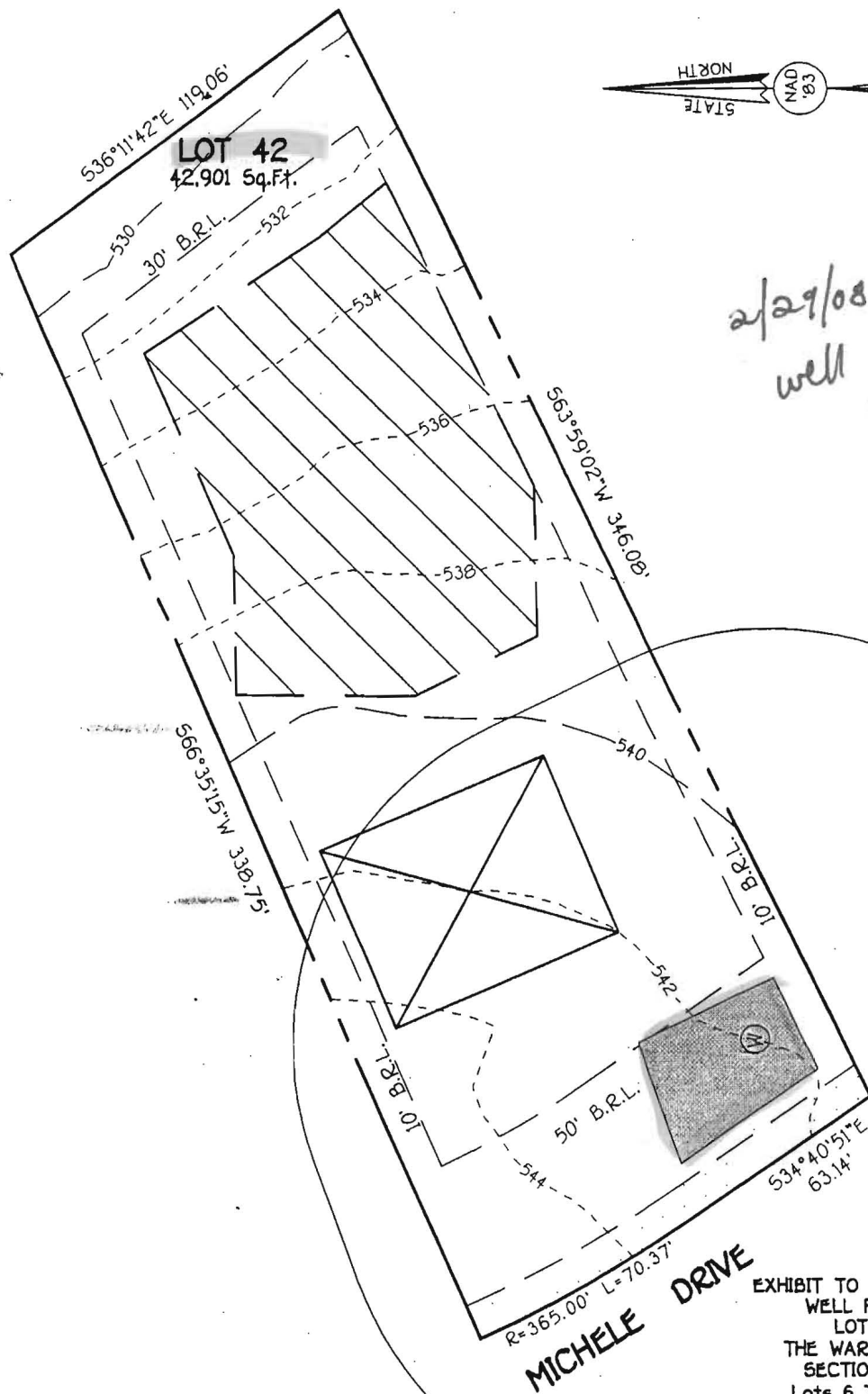
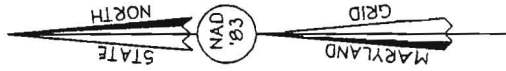
PVC sleeve to undisturbed soil at wall penetration: Yes
Length of sleeve(5' minimum from foundation): 10'
Sleeve sealed properly: Yes

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 21000 Highway 11, Sykesville, MD 21784
Tel: (410) 313-1771 Fax: (410) 313-2648 October 18, 2012
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: 1/3/2013 Inspector: BB
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

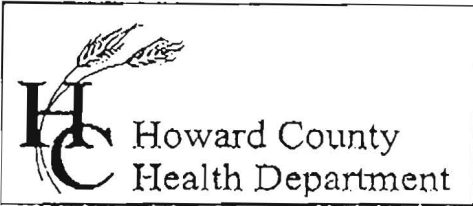


2/29/08
well Box
OK
(KW)

MICHELE DRIVE

EXHIBIT TO ACCOMPANY
WELL PERMIT
LOT 42
THE WARFIELDS II
SECTION TWO
Lots 6 Thru 68,
Cemetery Open Space Lot 69, And
Buildable Preservation Parcel 'A' And
Non-Buildable Preservation Parcels '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



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. 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:

Well Site Location:

<u>The Warfield II</u>	<u>14 Lots</u>	<u>Michelle Dr + Road B</u>
Subdivision/Property Name	Lot#	Road Name

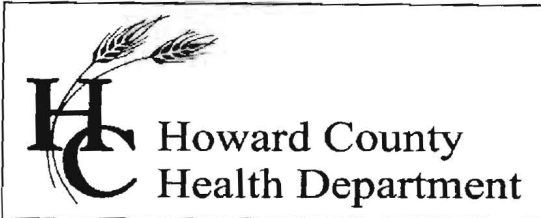
The well site has been staked by Fish Collins & Carter
 (professional land surveyor or company employing professional land surveyors)
 on 12-2007 (date) and does not require a site inspection.

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

Lot 31, 32, 33, 35, 36, 37, 38, 39, 40,
41, 42, 43, 44, 48,



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

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

INTERIM CERTIFICATE OF POTABILITY
PERMANENT DEVIATION FOR NITRATES
Expiration Date – September 22, 2013

March 22, 2013

Homeowner
14862 Michele Dr.
Glenelg, MD 21737

RE: The Warfields II, Lot 42
14862 Michele Dr.
Building Permit: B12003334
Well Permit: HO-95-1554

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 **1/31/2013**. Final approval of the well line connection to the dwelling was granted on **1/3/2013**. The well construction was completed on **3/18/2008**. Water samples were collected on **3/18/2013 & 3/4/2013**.

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 **3/4/2013** indicated a nitrate level of **13.1 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 **3/18/2013** 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.

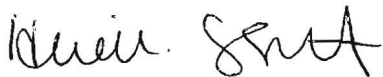
3. If you decide to sell or rent your home in the future, you must make any potential buyer/tenant aware of this permanent deviation. **A person who fails to make this disclosure is subject to the penalties set out in COMAR 26.04.04.12F Enforcement and Environment Article 9-1311, Annotated Code of Maryland.**

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-95-1554. 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,



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:

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

S/O Number: 88495

Report Date: March 19, 2013

Nitrate Retest #1

Property Sampled: 14862 Michele Drive, 21737
Sample Location: Kitchen R/O Tap
Residual Chlorine: <0.1 mg/L

Building Permit #: 12003334
Sampler ID #: 7483AM
Samples Iced: Yes

County: Howard
Map: 27

Subdivision: The Warfields II S2 RSB
Parcel: 114 **Lot #:** 42

Date/Time Collected in Field: March 18, 2013 @ 9:58 am
Date/Time Received in Lab: March 18, 2013 @ 12:26 pm

Well Tag #: HO-95-1554
Well Condition: 2-Piece Cap, 1 Bolt Missing, Cap Tight

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

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.

*Nitrate
 OK 3/20/13 HS*

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



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
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www.hchealth.org
Facebook: www.facebook.com/hocohealth
Twitter: HowardCoHealthDep

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

**REQUEST FOR PERMANENT DEVIATION TO
NITRATE STANDARDS FOR CERTIFICATE OF POTABILITY**

DATE: March 19, 2013 WELL PERMIT # : HO - 95 - 1554

PROPERTY OWNER: Sean Yang

SUBDIVISION & LOT #: Warfields II- lot # 42

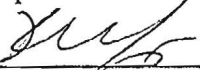
PROPERTY ADDRESS: 14862 Michele Drive

CONDITIONS:

- 1) The well installed under permit # HO -95 - 1554 has been documented to have a nitrate level of 13.1 ppm, which exceeds the MCL of 10 ppm.
- 2) After installation and operation of a nitrate filtration system, water samples collected on 3/18/2013 indicated that the nitrate contamination has been reduced to <1.0 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 - 1554. 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]

 3/20/2013

Prospective Owner's Day Time Phone Number(s)

845-304-7114



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:

S/O Number: 88325

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

Report Date: March 5, 2013

Property Sampled: 14862 Michele Drive, 21737
Sample Location: Pressure Tank Tap
Residual Chlorine: <0.1 mg/L

Building Permit #: 12003334
Sampler ID #: 7483AM
Samples Iced: Yes

County: Howard
Map: 27

Subdivision: The Warfields II S2 RSB
Parcel: 114 **Lot #:** 42

Date/Time Collected in Field: March 4, 2013 @ 12:18 pm
Date/Time Received in Lab: March 4, 2013 @ 2:14 pm

Well Tag #: HO-95-1554
Well Condition: 2-Piece Cap, Satisfactory

Water Treatment/Conditioning: Softener, Neutralizer

*Nitrate
 Fail
 DB 3-6-13*

PARAMETER	METHOD	MCL/*SMCL	RESULT	PASS/FAIL
Total Coliform	SM 9223B	Absent	Absent	Pass ✓
<i>E. coli</i>	SM 9223B	Absent	Absent	Pass ✓
Nitrate	SM 4500D	10 mg/L as N	13.1 mg/L as N	FAIL
Turbidity	EPA 180.1	10 NTU	<1.0 NTU	Pass ✓
pH	EPA 150.1	*6.5-8.5 Units	5.9 Units	***
Sand		Absent	Absent	Pass ✓

The results in this report relate only to those items tested. If any additional information or clarification of this report is required, please contact us. This test report shall not be reproduced except in full without the written approval of Trace Laboratories Inc.

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

MCL: Maximum Contamination Level, an enforceable level established by the EPA
 *SMCL: Secondary Maximum Contamination Level, a level recommended by the EPA
 ***A non-enforceable parameter that may cause cosmetic effects or aesthetic effects (such as taste, color or odor) in drinking water.