

C 1 1298

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

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

ST/CO USE ONLY DATE Received MM 05 DD 02 YY 14

DATE WELL COMPLETED MM 10 DD 30 YY 11

Depth of Well 22 450 26 (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HO-95-2107

OWNER 21m Street Development last name first name WELL SITE ADDRESS Long corner Rd TOWN Mt Airy SUBDIVISION Chelsea Knolls SECTION LOT 1a

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 include Soil clay, Brown shale, Blue slate.

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 15 NO. OF POUNDS 1410 GALLONS OF WATER 90 DEPTH OF GROUT SEAL (to nearest foot) from 0 ft. to 42 ft.

CASING RECORD

casings types insert appropriate code below MAIN CASING TYPE PL Nominal diameter top (main) casing (nearest inch)! 60 61 63 64 Total depth of main casing (nearest foot) 42 66 70

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

screen type or open hole insert appropriate code below SCREEN RECORD ST BR HO PL OT

Table with columns: DEPTH (nearest ft.), A, C, H, S, R, E, E, N. Rows include slot size and diameter of screen.

NUMBER OF UNSUCCESSFUL WELLS: WELL HYDROFRACTURED YES Y NO N

CIRCLE APPROPRIATE LETTER 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 M WD 355 DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION) LIC. NO. 1 MSD 0606

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

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 TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3

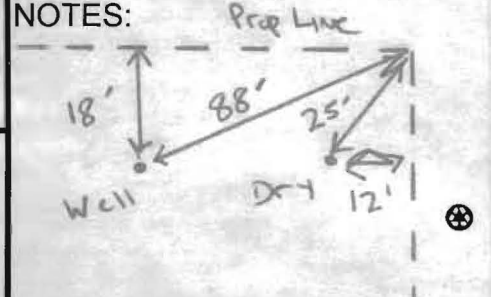
PUMPING TEST

HOURS PUMPED (nearest hour) 6 PUMPING RATE (gal. per min.) 1.5 METHOD USED TO MEASURE PUMPING RATE Submersible WATER LEVEL (distance from land surface) BEFORE PUMPING 52 ft. WHEN PUMPING 195 ft. TYPE OF PUMP USED (for test) S submersible

PUMP INSTALLED

DRILLER INSTALLED PUMP 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 LAND SURFACE 1 (nearest foot)

LATITUDE 39.31634 LONGITUDE 77.15478 (DEFAULT COORD. WGS 84)



B 1 2149

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

40-95-2107 fill in this form completely

please type

Date Received (APA)

OWNER INFORMATION

8 MM DD YY 13
15 Last Name Owner First Name 34
1355 Beverly Rd, Suite 240
36 Street or RFD 55
57 Town VA 70 State 72 Zip 76

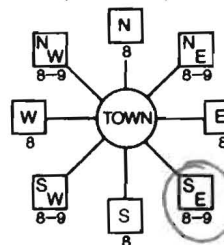
B 3 LOCATION OF WELL

8 COUNTY 21
23 SUBDIVISION
SECTION 44 46 LOT 12 48 50
52 NEAREST TOWN
MILES FROM TOWN (enter 0 if in town) 4 M 73 76 77 78

DRILLER INFORMATION

Driller's Name Michael Barlow M D 355
Firm Name Barlow Well Drilling Service
Address 522 Underwood Ln, Bel Air, MD
Signature Date 3-8-11

B 4 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



11 Long Corner Rd 30
ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)
DISTANCE FROM ROAD 900 FT
ENTER FT OR MI 38 39
TAX MAP: 6 BLK: 22 PARCEL 9

B 2 WELL INFORMATION

APPROX. PUMPING RATE (GAL. PER MIN.) 5
AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 750

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 A 515039
COUNTY NAME COUNTY NO.
STATE SIGNATURE INSERT S
DATE ISSUED 4/22/11
CO SIGNATURE EXP. DATE 4/22/12
NORTH GRID 50 539 000 55 EAST GRID 57 0756 000 63

APPROXIMATE DEPTH OF WELL 250 FEET
APPROXIMATE DIAMETER OF WELL 6 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary)
CABLE REVerse-ROTary DRive-POINT
other

REPLACEMENT OR DEEPEMED 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
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 DEEPEMED AN EXISTING WELL
PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 52

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 7506
N 5309

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



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

APPROP. PERMIT NUMBER 402007-G005 (3)
PERMIT No. 40-95-2107

SPECIAL CONDITIONS SEE WELL SITE PLAN FOR WELL LOCATION

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 #: 12 Well Tag #: HO -95-2107
 Site Address: 18348 ChelseaKnolls Dr.

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)

House Connection

PVC sleeved to undisturbed soil at wall penetration: _____
 Approximate length of sleeve (5 foot minimum): _____

Depth of supply line: _____ (36" min) Sleeve caulked and sealed properly: _____

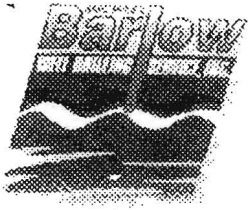
The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

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: 11/6/2015 (PJB)

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 ✓



MICHAEL BARLOW WELL DRILLING & SERVICE, INC.
 522 Underwood Lane Bel Air, Maryland 21014
 (410) 838-6910 Fax (410) 838-3582

WELL YIELD REPORT

Date Test Completed:	February 7, 2012		
Well Depth:	450	feet	
Customer	Elm Street Development	Permit #	HO-95-2107
Road	Long Corner Road	Subdivision	Chelsea Knolls
City	Mt. Airy	Section	
State	Maryland	Lot #	12

Time	Water Level feet	Time to Fill 1-gallon bucket seconds	G P M
8:30 AM	52	4	15 00
8:45 AM	140	4	15 00
9:00 AM	202	6	10 00
9:15 AM	198	42	1 43
9:30 AM	196	42	1 43
9:45 AM	195	40	1 50
10:00 AM	195	40	1 50
10:15 AM	195	40	1 50
10:30 AM	195	40	1 50
10:45 AM	195	40	1 50
11:00 AM	195	40	1 50
11:15 AM	195	40	1 50
11:30 AM	195	40	1 50
11:45 AM	195	40	1 50
12:00 PM	195	40	1 50
12:15 PM	195	40	1 50
12:30 PM	195	40	1 50
12:45 PM	195	40	1 50
1:00 PM	195	40	1 50
1:15 PM	195	40	1 50
1:30 PM	195	40	1 50
1:45 PM	195	40	1 50
2:00 PM	195	40	1 50
2:15 PM	195	40	1 50
2:30 PM	195	40	1 50
2:45 PM	195	40	1 50
3:00 PM	195	40	1 50

This yield test report is for informational purposes only. Please note the yield may increase or decrease over time and the GPM indicated above is not a guarantee.

**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, Pittless 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. 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): Joshua Henricks License# PI0173

***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: Chelsea Knolls LC Telephone #: _____
Subdivision: Chelsea Knolls Lot #: 12 Well Tag #: HO - 95 - 2107
Site Address: 18348 Chelsea Knolls Drive
Mount Airy, MD 21771

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>Grundfos</u>	Make: <u>Boshart</u>	Two piece watertight cap: <u>Yes</u>
Model #: <u>10SQE15-330</u>	Model#: <u>P-100-SS</u>	Screened, vented well cap: <u>Yes</u>
Pump Capacity <u>10</u> GPM	Depth: <u>42"</u> (36" min)	Cap secured to casing: <u>Yes</u>
Well Yield: <u>1.50</u> GPM	NSF/WSC approved: <u>Yes</u>	Conduit min 18" B.G.: <u>Yes</u>
Depth of well encountered at time of pump installation: <u>450</u> (feet)		Conduit secured to well cap: <u>Yes</u>

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*

<u>Piping to house</u>	<u>House Connection</u>
Type: <u>Poly</u>	PVC sleeve to undisturbed soil at wall penetration: <u>Yes</u>
PSI: <u>200</u> (160 psi min)	Length of sleeve(5' minimum from foundation): <u>10'</u>
Depth of supply line: <u>42"</u> (36" min)	Sleeve sealed properly: <u>Yes</u>

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.

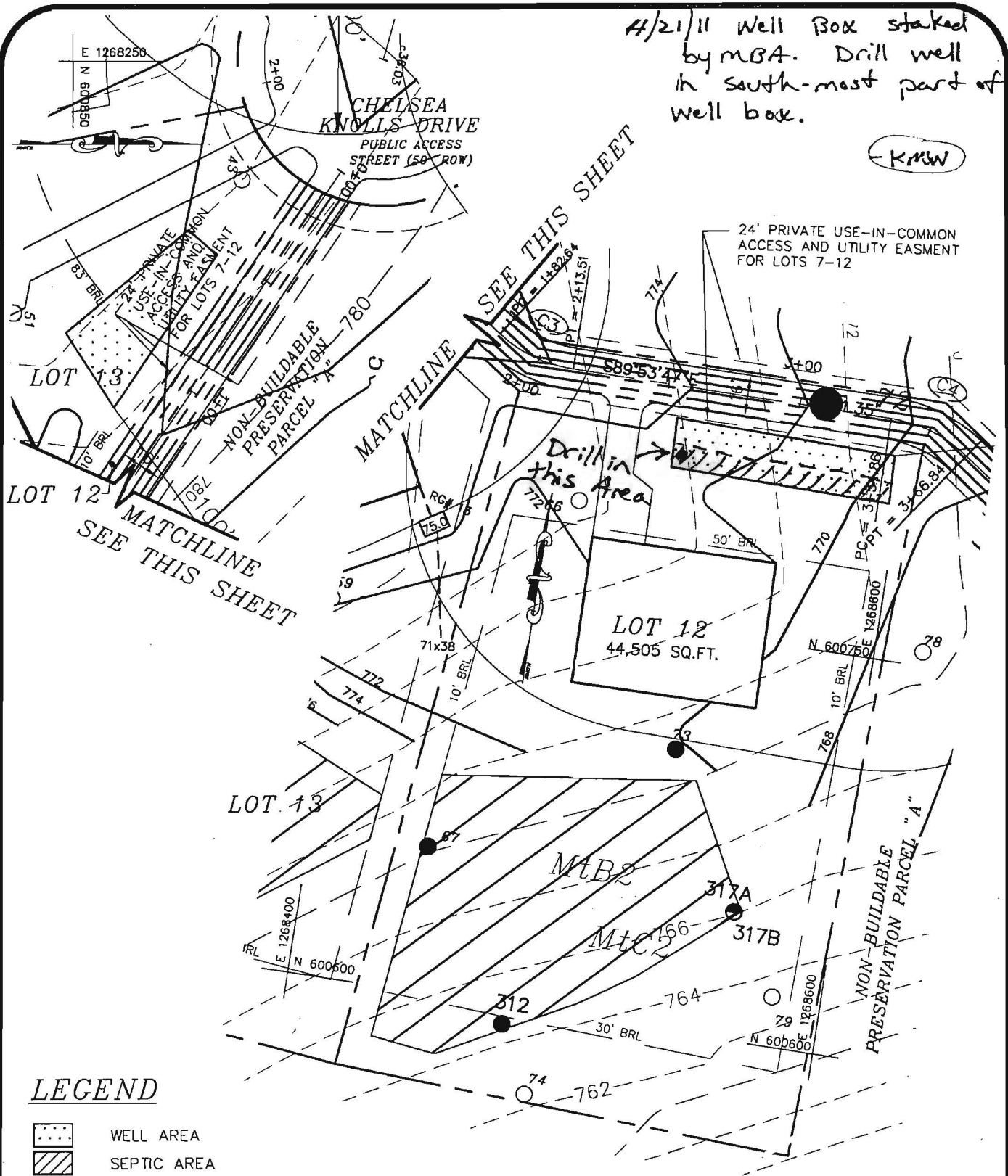
Joshua Henricks October 15, 2014
Signature of company representative responsible for installation date

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



Date Insp. Requested: _____ Date Insp. Approved: _____ Inspector: _____
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 _____

4/21/11 Well Box staked
by MBA. Drill well
in south-most part of
well box.

(KMSW)



LEGEND

-  WELL AREA
-  SEPTIC AREA

**WELL PERMIT
CHELSEA KNOLLS LOT 12**

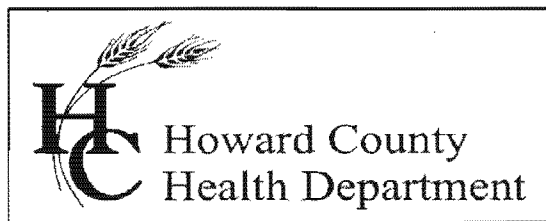
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: 1" = 50' DRAWN BY: MMM DATE: APRIL 2011 PN: 01-009

**MILDENBERG
BOENDER, & ASSOC., INC.**

Engineers Planners Surveyors
6800 Deerpath Road, Suite 150, Elkridge, Maryland 21075
(410) 997-0296 Ball. (410) 997-0298 Fax.

H:\01-009\dwg\Well-Permit\01-009-well.dwg



Bureau of Environmental Health

8930 Stanford Blvd., Columbia, MD 21045
Main: 410-313-2640 | Fax: 410-313-2648
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

Expiration Date – MAY 30th, 2016

November 30, 2015

Homeowner
18348 Chelsea Knolls Drive
Mr. Airy, MD 21771

**RE: Chelsea Knolls, Lot 12
18348 Chelsea Knolls Drive
Building Permit: B15002689
Well Permit: HO-95-2107**

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 **11/20/2015**. Final approval of the well line connection to the dwelling was granted on **11/6/2015**. The well construction was completed on **10/30/2011**. Water samples were collected on **11/24/2015 & 11/25/2015**.

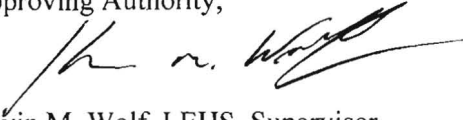
The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking. This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit HO-95-2107. 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 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>

In closing, please refer to our "Homeowner Fact Sheet" which illustrates a better understanding for your Best Available Technology (BAT). You will also find a link to Maryland Department of the Environments website which describes in further detail operation and maintenance of your BAT.

Approving Authority,

A handwritten signature in black ink, appearing to read "Kevin M. Wolf", written over a horizontal line.

Kevin M. Wolf, LEHS, Supervisor
Groundwater Management Section
Well & Septic Program

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

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 #: 104412 Account #: 6488
Reference: Chelsea Knolls Lot 12 Company: Hatfield's Equipment, Inc.
Location: 18348 Chelsea Knolls Drive Requested By: Kenny Hatfield
Mount Airy, MD 21771 Source: Well Water
Date/ Time Collected: 11/24/2015 1015 Site: Powder Room
Date/Time Rec'd: 11/24/2015 1200 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 6.2
Collected By: B. Dutterer 4717BD Well #: HO-95-2107

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	17.8	MPN/ 100 ml	<1.0	SM18 9223	11/25/2015 / 0900 / LLO
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	11/25/2015 / 0900 / LLO
Nitrate	6.70	mg/L	10	601	11/24/2015 / 1215 / CCH
Turbidity	2.27	NTU	<10	SM18 2130B	11/24/2015 / 1400 / JKW
Sand	NS	mg/L	5	Visual/Gravimetric	11/24/2015 / 1400 / JKW

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 on site

Reason for Test : Use & Occupancy
Building Permit # : B15002689

Date Reported: 11/24/2015

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 #: 104461 Account #: 6488
Reference: Chelsea Knolls Lot 12 Company: Hatfield's Equipment, Inc.
Location: 18348 Chelsea Knolls Drive Requested By: Kenny Hatfield
Mount Airy, MD 21771 Source: Well Water
Date/ Time Collected: 11/25/2015 1145 Site: Pressure Tank
Date/Time Rec'd: 11/25/2015 1530 Treatment: Prior to Reverse Osmosis ✓
Chlorine ppm: Free: ND Total: ND pH: 6.0
Collected By: C. Mooshian 7268CM Well #: HO-95-2107

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	11/26/2015 / 1000 / BCD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	11/26/2015 / 1000 / BCD

NOTES

- 1 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 2 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 3 ND:None Detected
- 4 Visual well check: Sealed, vented cap
- 5 pH & Chlorine level tested on site

Reason for Test : Use & Occupancy

Building Permit # : B15002689

Date Reported: 11/30/2015